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Lived Experiences of African American Females With Breast Cancer Treatment Access

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
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2019

Abstract

Lived Experiences of African American Females 20 to 40 Years of Age With Breast Cancer Treatment Access

by

Tamika C. Smith

AA, Hinds Community College, 2007

BS, Jackson State University, 2010

MHA/Med, University of Phoenix, 2013

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Health Services

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Abstract

Breast cancer (BC) is a significant condition that can result in devastating outcomes without treatment. The purpose of this phenomenological study was to explore barriers to health care disparities among young African American females. The findings of this study may help to address gaps in knowledge, obtain insights in treatments, and comprehend lived experiences with BC. The theoretical framework for this study was Bronfenbrenner's social ecological theory. Data were collected from face-to-face interviews with 10 African American women ages 20 to 40. Data were then transcribed and coded. The findings of the study indicated that women required treatment plans, informative resources enhancing comprehension of procedures, and assurance. The results of this research might motivate health care professionals to promote awareness in preventing delayed diagnosis of BC in African American women between the ages of 20 and 40 years. The findings in this study may increase health care providers' awareness and bring about social change in BC screening implementation.

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Dedication

To my grandmother who left this world from a diagnose of breast cancer, my family, and friends who have continued with me throughout this entire process offering encouragement and support, to the breast cancer survivors, and to the women who volunteered to participate in this study, I gratefully dedicate this work.

Acknowledgments

Special thanks to my colleagues for offering suggestions during the planning stages of this study. Thank you, Dr. Bridges, for your assistance and guidance. Your willingness to be available is greatly appreciated. Also, thanks to Dr. Carvey Patterson for assisting as well. Thank you, Darnechia McGrew, for all of your help and encouragement. To Raven Lowe and Leonard Early, you are truly appreciated. To my Dissertation Committee Chair, Dr. Carmen McDonald, your input and valuable insight helped to make my dissertation a success. I would also like to express my deepest gratitude for my committee member, Dr. Ronald V. Bucci. Thanks for extending your patience, guidance, and informative feedback.

To my parents, Brenda M. Bilbrew-Smith and Richard Smith, thank you for making me the woman I am today. Most importantly, I appreciate your support. To my twin sister Shamika R. Smith Drone and baby sister Daphaney N. Smith, thank you for your continuous support throughout this journey. To my nieces, nephew, and Godson Kaleigh N. Drone, Paisley G. Smith, nephew Dallas J. Smith, and Godson DeCourean Rowsey thank you for giving me your love and encouraging words that inspired me to persevere. To my brother-in-laws, Kenneth Drone and Patrick Smith, I thank you for your encouragement. Lastly, but certainly not least, I would like to thank God for helping me to complete this process and make it a success.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Introduction

The American Cancer Society shows that, historically, Caucasian females have had an increased rate of breast cancer (BC) compared with that of African American women. However, those rates reversed in 2012 (DeSantis et al., 2016). In addition, African American women in rural Mississippi have previously lacked adequate knowledge of breast health (Williams et al., 2016). Between 2002 and 2012, cancer rates among African American women were significantly higher than those of Caucasian women in seven states, primarily in the Southern United States (DeSantis et al., 2016). Although cases of BC declined from 1989 to 2013, decreasing 36% in the United States across nearly all racial groups, ethnic death inequality amid African American and Caucasian females persistently widened. BC fatality rates were also 42% higher in African American females compared with those of Caucasian women (DeSantis et al., 2016). Between 2003 and 2012, death rates declined for all women in the United States, except for African American women where declines were previously prominent in 27 of 30 states (DeSantis et al., 2016). The gap amid death rate disparities between the two races continues to widen.

In this study, I addressed the issue of discovering factors affecting the health care treatment of young African American women aged 20 to 40 years old. The participants have been accurately diagnosed with BC and reside in greater Jackson, Mississippi, and the Jackson Prairie region. The demographic is representative of a more substantial body of African American women who have been diagnosed with BC who continue to experience documented inferior health care treatment compared with that of Caucasian women with BC (DeSantis et.al., 2016; Mayfield-Johnson, et. al, 2016; White-Means et. al, 2016; Wills et. al, 2017; Zahnd et. al, 2017). This region of the country is known as the "cancer belt" of the United States (Wills et al., 2017). Scholarly research has even connected the health care disparity in the Deep South to the lingering vestiges of the Jim Crow law (Krieger et al., 2017).

Research on young African American women, aged 18 to 40 years with BC in the last 5 years at the time of this writing has been minuscule (Froude et al., 2017; Phillips, et. al, 2017). The potential implications for positive change involve (a) the promise of equal BC treatment across all demographics in the field of oncology, and (b) the discovery of issues germane to an understudied segment of women in the population who have BC. The discussion now moves to an overview of Chapter 1 content.

Chapter 1 contains a background discussion and a statement of the problem, and I present my purpose in the study. I then examine the central research questions and analyze theoretical and conceptual frameworks. In addition, I make a statement on how the direction of the study, inquiry questions, approach, and analysis of data informed my goals in this project. I then discuss the study nature and population, as well as data collection, and analysis. Definitions, the scope of the study and research delimitations follow. The delimitations discussion identifies boundaries and other study aspects such as transferability, method limitations, research design and related issues of limited transferability and dependability. I also pay attention to biases influencing the study, study limitations, study significance, and contributions to the field of oncology. I end the Chapter 1 discussion with a summary of main points and then I move on to Chapter 2, the literature review. A background of the research study is now provided.

Background of the Study

BC research for young African American females 20 to 40 years of age are summarized in the following ways. Cancer of the breast is secondary in deaths attributed to cell malignancy in females in the United States (Blanchard et al., 2014). Looking at 25 major cities in the United States, death from this type of cancer was found highest in Memphis Tennessee and Black women were found to be twice as likely to die from cancer of the breast compared with White women (White-Means et al., 2016). Evidence shows that BC is the third leading cause of mortality in Mississippi for Black women (DeSantis et al., 2016; Wilson-Anderson et al., 2013).

In addition, African American women in a rural area of Mississippi were found to lack awareness of breast health (Williams et al., 2016; Wilson-Anderson et al., 2013). The region of the Mississippi Delta is an underserved in the discussion of disparities of cancer treatment between African American women and Caucasian women (Mayfield-Johnson et al., 2016; Paxton et al., 2014; Zahnd et al., 2017). Delta residents also presented higher rates for cervical and colorectal cancer compared with their urban peers (Zahnd et al., 2017). In this study, I address the gap in knowledge and insights in treatment and lived experiences of young African American women aged 20 to 40 years of age in the Jackson Prairie region of Mississippi, specifically Jackson Mississippi. The study is needed because research indicates a disparity in treatment outcomes for the 20 to 40 age range of the BC patient population. This is compared to that of female Caucasian BC patients. Information supporting the problem statement is subsequently provided.

Problem Statement

The identified problem is an existing and significant disparity between African American and Caucasian women concerning death frequencies linked to cancer of the breast (DeSantis et al., 2016). Death rates among African American women in 2015 for example, were 42% higher than those of Caucasian women (DeSantis et al., 2016). In addition, Black women are less likely to receive a treatment a plan containing cancer surgery than White women are (Baquet et al. 2008). DeSantis et al. (2016) showed that cancer rates decreased in all 50 states for White women. This rate held true in only 27 of 30 states for Black women. Such findings point to a need for evidence-based equal delivery of quality cancer care treatment across both races (Baquet et al. 2008; Spector, 2013). Empirical research also reveals illuminating data concerning a significant racial divide related to quality treatment for invasive BC between young Black and White women younger than 40 years (Baquet et al. 2008; Hung et al., 2016; Williams, 2016).

When adjusted for age, Black women, when compared with White women, receive a higher reported diagnosis of region-specific BC presentation, or cancer presented remotely from the breast region (Baquet et al. 2008). Black women falling in this category have a lifespan of approximately 5 years less than that of White women. They also have a higher likelihood of receiving a tumor diagnosis and having a poorer prognosis than that of White women (Baquet et al. 2008). These findings rest on archival research studies (Baquet et al. 2008; Hung et al., 2016). These reports also tend to contain comprehensive information regarding the general population of Black and White women who have BC (Freedman et al. 2016; Hung et al., 2016).

Nonetheless, no prior studies have documented specific barriers to quality health care treatment in the previously identified population. This lack of research substantially contributes to health disparities experienced within the population of the young Black female BC patients, aged 20 to 40 years. This is especially true for those patients residing in the Jackson Mississippi area (Baquet et al. 2008; DeSantis et al., 2016; Williams, 2016). Although previous studies have documented and identified barriers in general, none exist identifying contributing factors to quality health care disparities between Black and White BC patients (Baquet et al. 2008; DeSantis et al., 2016; Hung et al., 2016; Williams, 2016). This is further evidence of the gap in literature regarding research specific to the population of young Black female BC patients, aged 20 to 40 years. The discussion now turns to my purpose in the study.

Purpose of the Study

In this study, I focused on decreasing the gap in knowledge by providing insights directly related to the BC treatment and lived experiences of African American women, 20 to 40 years of age. Researching Black women and their perceptions of barriers to quality health care through a phenomenological approach helps to more effectively decrease the literature gap. The research methodology applied is qualitative. The perceived lived experiences of the participants contribute to effectively identifying areas of health care in need of improvement. The problem statement for the study guides the use of questionnaires, interviews, and focus groups to unearth unique perceptions held. I conducted this study to improve the care of young African American women 20 to 40 years of age who have BC. The research receives focus by following specific research questions.

Research Questions

I conducted this research using the following research questions:

1. What insights can African American women with BC, aged 20 to 40 years provide concerning the quality of breast care treatment they receive?
2. What observations can African American women with BC, aged 20 to 40 years, identify as barriers that prevent or delay quality of breast care treatment?
3. How do African American women with BC, aged 20 to 40 years, view the removal of perceived barriers that prevent or delay quality breast care treatment?

I used these three research questions to form the inquiry structure for the study. The discussion now moves to the theoretical framework, which serves as a model for the study.

Theoretical Foundation

The theory that I used in this study is Bronfenbrenner's social-ecological theory. The approach has gone through several name changes including Ecological Systems Theory, and Bioecological Systems Theory (Paquette & Ryan, 2001). Social-Ecological Theory contains five different environmental designations, and human behavior can change in response to these different environmental exposures. The five environments are (a) Microsystem, (b) Mesosystem, (c) Exosystem, (d) Macrosystem, and (e) Chronosystem (Freedman et al., 2016; Hung et al., 2016). These five environments provide the framework for the generation of research questions in this project. The theoretical approach is used extensively in the field of health care research (Rowley et al., 2015; Schölmerich & Kawachi, 2016). Specifically, the method finds excellent utility in the area of cancer research (Avery et al., 2013; Dickey, 2013; Kluhsman, 2009; Trinh et al. 2016; 2015).

The social ecological model (SEM) is a theory-based agenda for grasping the complex and relational results of an individual involved with environmental forces of influence and the issues that regulate the acquisition of substantive health care services (Sallis, Owen, & Fisher, 2008). Ecological models emphasize the interface between persons, social associations, community, establishments, and social determinants. Supporters see environmental models of health view health conduct as a spinoff of the interface of these planes. The innovator of the environmental model is Bronfenbrenner (1979). McLeroy et al. (1988) gave their ecological tactic which encompasses interaction between individuals, institutional and community dynamics, and public policy.

Investigators endeavoring to comprehend the issues that cause cancer have recognized influences at various echelons, beginning at the biological level and extending to the neighborhood level. This is also acknowledged from and flowed perspective, (see Figure 1; Gehlert et al., 2008). Researchers suggest examining these factors concurrently to assist with detecting inequalities in cancer health care outcomes. An essential element of this model is the addition of public causes of disparities in health care. Social determinants of health (SDOH), defined by the World Health Organization Health Commission on Social Determinants of Health, are those “circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness” (Kaplan & Galea, 2014, p. 90). The work of SDOH is related to life progression, and in time, can influence all facets of an individual's lifecycle. This includes affecting cell evolution, the quest for occupations, dealings with fellow citizens, and even death. Portraying the relations amid SDOH and health consequences is multifaceted. Numerous impressions, such as discrimination, race, communal segregation, and social movement, are problematic to gauge. Yet, these factors are crucial to disclose because the relationships interchange to cognize health outcomes.

Figure 1. Factors at Multiple Levels that Contribute to Cancer Disparities

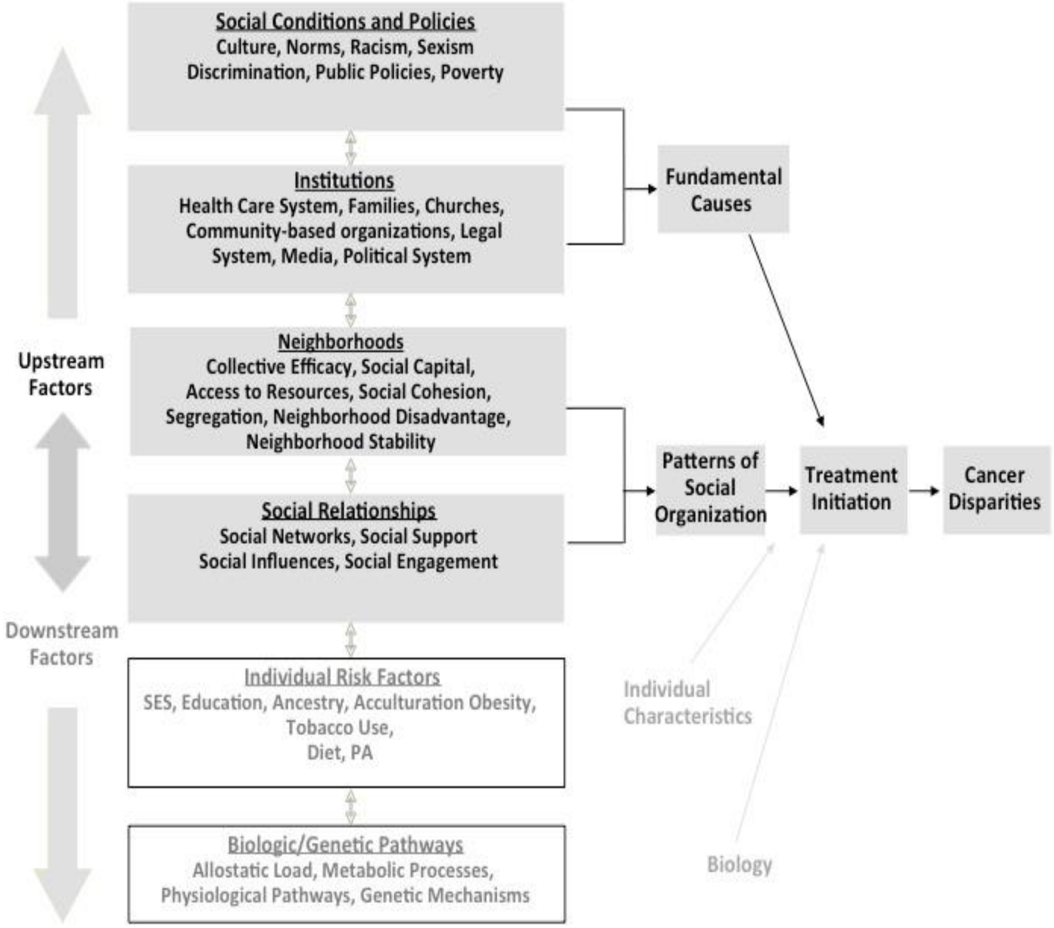


Figure 1. Factors at multiple levels that contribute to cancer disparities. Adapted from "Targeting health disparities A model linking upstream determinants to downstream interventions" by S. Gehlert, D. Sohmer, T. Sacks. C. Mininger, M. McClintock, & O. Olopade, 2008, *Health Affairs*, *27*(2), 339-349.

Identifying these connections presents various questions to social scientists. In addition, research has been completed which links SDOH with mortality and cancer of the breast. Sheppard et al. (2010)

discovered that treatment in 34 African American female BC survivors in the Washington, DC, area occurred. It took place in the context of cultural messages containing themes of hope and faith in God. Discovered side effects of the cancer treatment included loss of hair and nausea. Nonetheless, the perceptions emerging from the study were from a population of African American women. Findings show that many of these women were used for experiments such as guinea pigs. Also, the drug therapies employed by the physicians were experimental (Sheppard et al., 2010). Such subjects declined BC treatment (Sheppard et al., 2010). The nature of the study is now introduced.

Nature of the Study

The nature of the study is a qualitative methodology with a phenomenological research design. The selected approach allows for the exploration, understanding, and clarification of the lived experiences of participants. The sample was composed of African American women in the Jackson Mississippi area with BC between the ages of 20 to 40 years. The study was completed by providing evidence of investigation and an accurate description of the phenomena. Research explorations connect directly to the context provided by Bronfenbrenner’s social ecological theory (Paquette & Ryan, 2001). The primary focus of the study is on perceptions held by subjects in the sample pertaining to barriers with cancer health care treatment. I also identify ways to eliminate these barriers. As such, a phenomenological design concentrates on acquiring meaningful experiences through data collection from the sample. This design renders an evidence-based approach to discover disparities related to the treatment of BC by race (Williams, 2014).

Selecting a phenomenological approach for this study allows the researcher to more thoroughly assess the specific happenings the study participants underwent in their quest for BC health care treatment. The critical phenomenon investigated the beliefs of study participants in depth to properly establish whether there is any relation to disparities in care health treat witnessed in the vast body of research. A qualitative approach was used to collect data from 10 African American female BC patients, 20 to 40 years of age. The data was collected using semi-structured interview questions. I then analyzed the data which served as the leading tool of evaluation in the tradition of the phenomenological approach. The discussion now turns to definitions that characterize the study.

Definitions

This section contains precise definitions of fundamental concepts that I used in this study. Terms having various meanings in other situations receive an explanation in the context of this portion. I include conventional words or phrases that are easily found in a dictionary as well. I reference and support all terms, professional and operational with citations.

Breast cancer: Abnormal cell formations that occur in milk-producing glands called lobules and in the tubes that carry milk to the nipple. This happens primarily in women, but sometimes males are afflicted with the disease as well (NCI, 2013). Individually, BC cells emerge through an X-ray that indicates a tumor and classified as cancerous. It has a stimulus on tumor behavior of growth uncontrollably (Perou et al., n.d.)

Distant breast cancer: Cancer that has metastasized or infiltrated areas beyond the primary site (United States Department of Health and Human Services, 2012).

Health disparities: are factors associated with low health understanding and health information. They differ in health status among groups of individuals that may involve race or ethnicity groups. Sometimes, they may also differ in the case of the rates of disease and death rates (Cutilli et al., 2018).

Localized breast cancer: Cancer confined to the primary site (United States Department of Health and Human Services, 2012).

Regional breast cancer: Cancer that has spread to the regional lymph nodes (United States Department of Health and Human Services, 2012).

The discussion now turns to a review of study project assumptions. Following the assumptions discussion, I analyze the study scope. This is then proceeded by the study scope. Subsequently, I review the study delimitations.

Assumptions

The following aspects of this study are my beliefs that I accepted as real and not requiring proof. My first assumption was that the use of a phenomenological qualitative study design would effectively permit me to evaluate how young African American women perceived their cancer treatment experiences. This study rests heavily upon the uncovering of social reality as experienced by these participants. A concise understanding of events and their effects on decisions relative to the treatment of BC was the primary goal of my investigation (Van Manan, 2014). My second assumption was that the interview narrative provided by study participants would be accurate, exhaustive, and reflective of personal encounters and events. My aim in this project rests on the retrieval of accurate data contributing to the formation of a clear understanding of study participants' experience. My third assumption was that content of data collected would reflect happenings unique to African American women, aged 20 to 40 years, who have BC in the Jackson Mississippi area. Research on this part of the demographic is underdeveloped and sorely needed. Only assumptions critical to the meaningfulness of the study populate this section. The discussion now turns scope of the research project.

Scope and Delimitations

The following aspects illuminate the extent of the research problem and distinguish the study. Assessments reveal evidence contributing to higher BC morbidity rates for African American women compared with Caucasian women. As such, the issue needs further exploring (DeSantis et al., 2016; Krieger et al., 2017; Mayfield-Johnson et al., 2016; Paxton et al., 2014; Zahnd et al., 2017). Young African American women aged 20 to 40 years old were chosen for this analysis due to the scarcity of cancer research conducted pertaining to them and racial dimensions (Baquet et al. 2008; Williams, 2016; & Hung et al., 2016). Situationally located in the Jackson, Mississippi region, no research concentrating on the topic has been conducted. This has been especially true for the last five years in this geographic area. My study is qualitative using questionnaires, interviews, and focus groups. This approach was chosen to understand perceived barriers, stereotypic mindsets, socio-economic statuses, cultures, attitudes, and beliefs held by program participants. Study delimitations follow.

The 10 women, self-identifying as African American, solitarily define the boundaries of this study. The edges of the project exclude women self-identifying as all other racial and ethnic groups. The limits of the project gain supplementary definition by the exclusion of the theoretical frameworks. This explains life through a positive mental outlook. For example, Seligman's positive psychology implies people with a positive outlook will experience positive health and live longer. They also have strong psychological acuity and experience improved favorable prognosis when diagnosed with a life-threatening disease (Seligman, 2008; Underwood & Teresi, 2002). The examination of African American women 20 to 40 years old with BC, and evidence found in the supporting data (DeSantis et al., 2016), leaves open the possibility of people who have a positive outlook but need access to substantive health care services.

Study delimitation includes Zimmerman's (1995) psychological theory. This theory asserts that when people take control of their situation, they are provided with resources that give them control over their circumstances. This in turn provides them with a sense of empowerment. Recorded disparities in health care treatment for African American women suggest this portion of the BC community encounters persistent obstacles when attempting to take control of their situations. This was my primary motivation for this research projects and to try to discover the reasoning (DeSantis, et. al, 2016; Krieger, et. al, 2017; Mayfield-Johnson, et. al, 2016; Paxton et. al, 2014; Zahnd, et. al, 2017). Lastly, the potential for transferability in the study may occur for other racial and ethnic groups who experience disparities in BC treatment. However, others’ experiences may not be as severe as those of African American women (DeSantis, et. al, 2016). I now move from a discussion of study scope and delimitations to an overview of study limitations.

Limitations

The sample size of this study is substantially small, created a limitation of this qualitative study. However, small sample sizes can produce sufficient data that generate, isolate, and organize themes (Creswell, 2013). Use of open-ended questions and in-depth interviews related to the problem statement facilitates the acquisition of detailed information for thematic grouping. Nonetheless, I considered the limitations of the phenomenological design are also taken into consideration. The technique of selective sampling may decrease the ability of findings to be generalized to larger populations. This may not be representative of the entire state of Mississippi or may not be a proper depiction of African American women throughout the United States.

Researcher bias may creep into research analysis. This makes it imperative for the primary investigator to be cognizant of the fact that data collection can be subject to different interpretations. Detailed field notes included reflections regarding personal biases and beliefs concerning disparities experienced by African American women. Such accounts had two columns: one column reserved for verbatim reports, and the other used for my personal opinions and ideas of the researcher regarding interview interactions.

Researcher awareness considers bias infused in the research findings culled from the sample population. This is largely due to the presence of difficulties experienced in the acquisition and provisioning of BC health care services. Furthermore, African American women who choose not to seek BC treatment may elude in this study. These factors concern the aspect of confidence in the retrieval of interview data. Thus, the researcher must presume participant responses are factual and accurate. Having all study participants respond to the same questions makes such self-reporting a reliable source of data collection.

Significance of the Study

This research will fill a gap in understanding the barriers to quality health care treatment as perceived by 20 to 40-year-old African American women with BC (Baquet et al. 2008). The project is unique because few studies have concentrated on identifying the perceptional barriers perceived by African American women this age group (Tejeda et al., 2013). The results of this research will provide valuable insights into the nature of critical thinking, problem identification, and problem-solving skills unique to this demographic. Insights from this research should assist health care and insurance providers, social workers, and practitioners specializing in fields patient navigation programs. With the findings, they should be able to identify and remove presented barriers perceived by African American women this age. A growing awareness is emerging in the field of cancer research among health care professionals concerning the relationship between race, ethnicity, socio-demographics, and delays in BC diagnosis and treatment. This study could make essential contributions to a global knowledge base concerning the equitable treatment of women of all races. This should be regardless of their social perceptions when faced with a diagnosis of BC. The inclusions of this study could advance knowledge in the areas of BC treatment for 20 to 40-year-old African American women. This has the potential to effectively close the gap of disparities for this demographic. The information contained in this research may allow women in this ethnic group and age category to identify tools for detecting and understanding the presence of barriers to BC treatment previously unseen or unknown. Also, discoveries in this research will allow practitioners in oncology to use a framework for appropriate planning, consultation, and guidance in providing expeditious treatment to women of this demographic.

Summary and Transition

According to the American Cancer Society, historically, Caucasian women have had higher rates of BC when compared with those of African American women. However, those rates reversed in 2012 (DeSantis et al., 2016). BC has since been found to be the third-leading cause of death in Mississippi for African American women (DeSantis et al., 2016; Wilson-Anderson et al., 2013). Also, African American women in the rural area of Mississippi were found to lack insights into breast health (Wilson-Anderson et al., 2013; Williams et al., 2016). These women also experience a higher death rate because of BC than Caucasian women do (DeSantis et al., 2016). Death rates among African American women in 2015 were

42% higher than those of Caucasian women (DeSantis et al., 2016). To date, the problem is that no studies document specific barriers to quality health care treatment contributing to disparities experienced by young Black female BC patients in Jackson, Mississippi (Baquet et al. 2008; DeSantis et al., 2016; Williams, 2016). My purpose in this study was to find out the barriers to the quality of BC health care treatment as individually perceived by the sample population. The theory used in this study was Bronfenbrenner's Social-Ecological Theory (Paquette & Ryan, 2001). The nature of the study was qualitative methodology with a phenomenological research design. The selected approach allowed for the examination, comprehension, and clarification of the lived experiences of the specified sample. The project is unique because few studies have focused on perceptional barriers faced by African American women in general (Tejeda et al., 2013). This discussion concludes the Chapter 1 summary. Chapter 2 contains a review of the current literature, in which I establish the relevance of the problem.

Chapter 2: Literature Review

In this research study, I addressed the problem of how existing barriers present themselves to the larger body of African American women with BC and how this contributes to disparities in quality health care treatment. These disparities have been witnessed among 20 to 40-year-old Black female BC patients in Jackson, Mississippi (DeSantis, et. al, 2016; Mayfield-Johnson, et. al, 2016; White-Means, et. al, 2016; Wills, et. al, 2017; Zahnd, et. al, 2017). Uncovering barriers to the quality of BC health care treatment as perceived by young African American women individually constituted my purpose in the study. Investigating African American women and their perceptions of barriers to quality health care, with a phenomenological study approach, allowed me to address the literature gap. I focus on the African American experience within the overarching structure of literature assembled for the study. The conversation contains tailored research pertaining to BC. Specifically, I discuss information on signs and symptoms, risk factors, diagnosis, and screenings are discussed. Data on prognosis, epidemiology, society and culture, and the phenomenological experience is also included. I now turns to the strategies that I used to retrieve literature for this project.

Literature Search Strategy

A general search for literature was conducted using ProQuest, EBSCOhost, SAGE knowledge, and Google Scholar databases. This was followed by a more focused search strategy which evolved using multiple science databases. This included the American Cancer Society, BioMed Central, Center for Disease and Prevention, ProQuest Research Library Science & Technology; and ProQuest Science Journals. The list of search terms and combinations of search terms that I used in this study were BC, BC AND Mississippi, phenomenology AND BC, phenomenology AND BC AND African American women, phenomenology AND BC AND barriers, phenomenology AND BC AND disparities, Bronfenbrenner, AND Social Ecological Theory. The same combination of search terms was used in an iterative fashion across all databases. In general, research was confined to studies conducted within the last five years of the project. However, exceptions were made in cases of germinal studies which provided a foundation for the research problem, questions, purpose, nature, and scope of this study.

Theoretical Foundation

The theoretical frame for this study was inspired by Bronfenbrenner's Social Ecological Theory (Bronfenbrenner, 1979; Matrenec & Spencer, 2012). This theory holds that human development is shaped by a diversity of systems found in the environment. The theory explains why people act differently in a variety of situations. Ecological systems theory encompasses the different vicinities of experience encountered in different settings or systems in the life journey of the individual and how forces within these different localities induce different behaviors from the individual. This theory describes the dynamics occurring within these systems and have been labeled as microsystem, mesosystem, exosystem, macrosystem, and chronosystem.

A *microsystem* is defined as a system that involves the direct interaction of the individual with others. This domain refers to social agents such as friends, family, neighbors, and coworkers. The individual and social agent co-create the communication experience as they interact with each other. For example, the level of trust between BC patients may influence the number of office visitations and consultations that take place. Please see Figure 1 for a graphic representation of the following descriptions. A *mesosystem* is one that encompasses connections and interactions between microsystems in an individual life-world. For example, home dynamics within the family system may be related to the ability of an individual to access quality health care. Exosystems are systems that involve a situation where the individual has a connection to a context and does not actively participate. However, the context plays an active role in the life of the individual. Examples of this occurs at meetings held by a medical team in determining the treatment plan of a BC patient. Nevertheless, the actual culture of a person constitutes the macrosystem setting. This context includes demographic features such as race, standing in social class, ethnicity, or even living in a developing country. An example of this would be a BC patient on minimum wage who must work to support her family and has no medical insurance.

Lastly, *chronosystems* refer to life transitions of the individual. For example, a change in the status of a BC patient from inoperable to operable would signify a shift in health status in the life-world of the individual.

Figure 2. Bronfenbrenner's Ecological Theory

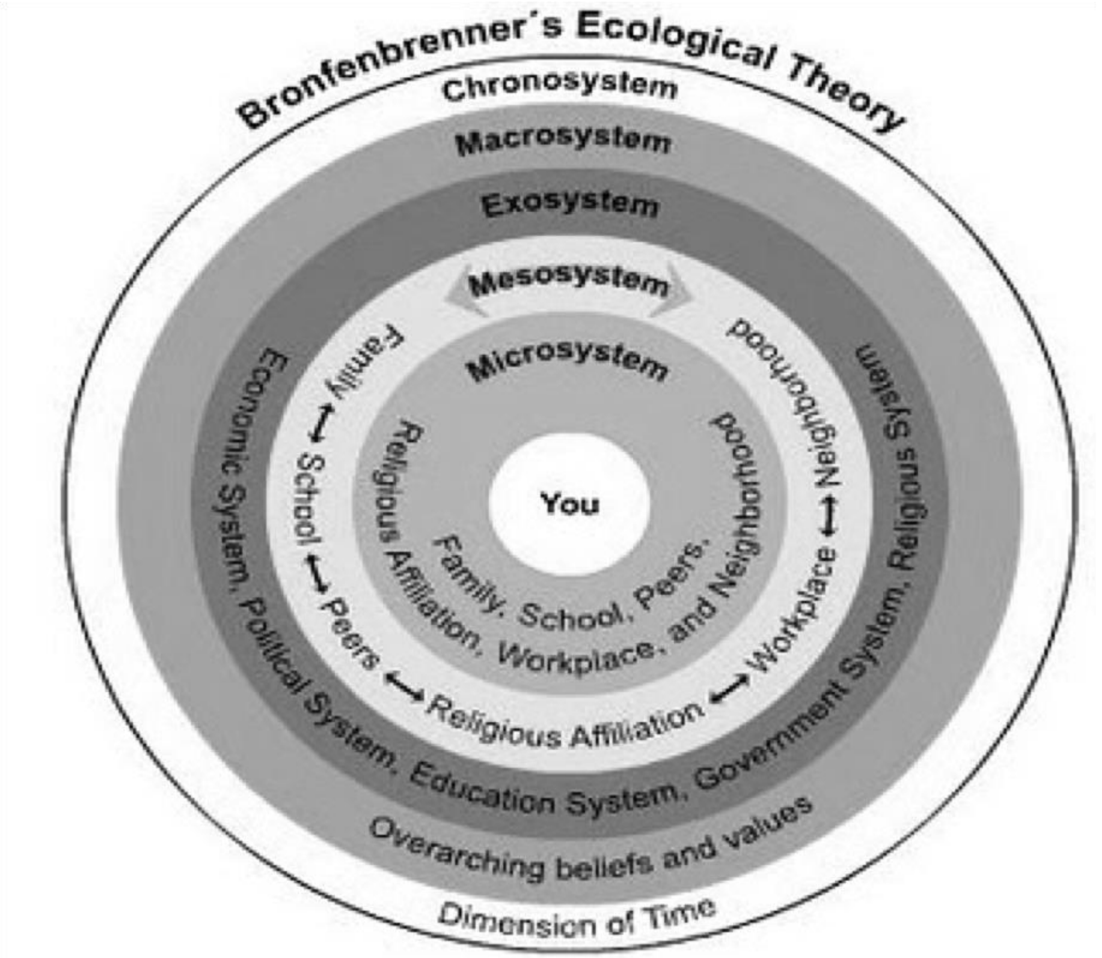


Figure 2. Bronfenbrenner's social ecological Theory. Adapted from "The Ecology of Human Development" by U. Bronfenbrenner, U. (1979). Cambridge, MA Harvard University Press.

Matrenec and Spencer (2012) demonstrated how Bronfenbrenner's social ecological theory can be transformed to work within the context of phenomenology. The selected heuristic research design chosen for this study constitutes its nature. These authors demonstrate how the phenomenological variant of sociological systems theory (PVEST) is used for understanding support systems. Please see Figure 3. The model assumes that coping with difficulties in human experiences is normal and human development progresses based on successful completion of each stage. Individual experiences expose different forces and performs different functions at each stage of the model to reach solutions.

The theory, PVST, asserts that human development is a function of structurally determined socioeconomic phenomenon in society. The theory also states that different people develop differently depending upon their social terrain (Bronfenbrenner, 1979; Matrenec & Spencer, 2012). Human development takes a staged-based approach and is viewed from a dynamic standpoint. The growth of humans also depends heavily upon the interaction of various environmental forces. For example, individuals from privileged ecological backgrounds may have access to several factors of protection termed protective-factors. However, individuals functioning in less privileged ecological settings may not have access to the same protective-factors. The latter may also lack access to comparable resources when exposed to various environmental risks. This interchange equates to the Net Vulnerability surrounding the individual. This notion is captured in stage 1 shown in Figure 3.

The exchange of forces at stage 1, Net Vulnerability, creates a degree of tension within the individual. When this occurs, human development moves to stage 2, shown as Net Stress in Figure 3. Individuals examine the presence and severity of challenges in a critical event and assess the level of support available to navigate challenges. When people implement different actions towards a situation, the process of coping, stage 3, Reacting Coping Processes occurs. People at this stage may employ functional or dysfunctional behaviors to adapt to the situation. Please see Figure 3.

Figure 3. Phenomenological Variant of Ecological Systems Theory (PVEST)

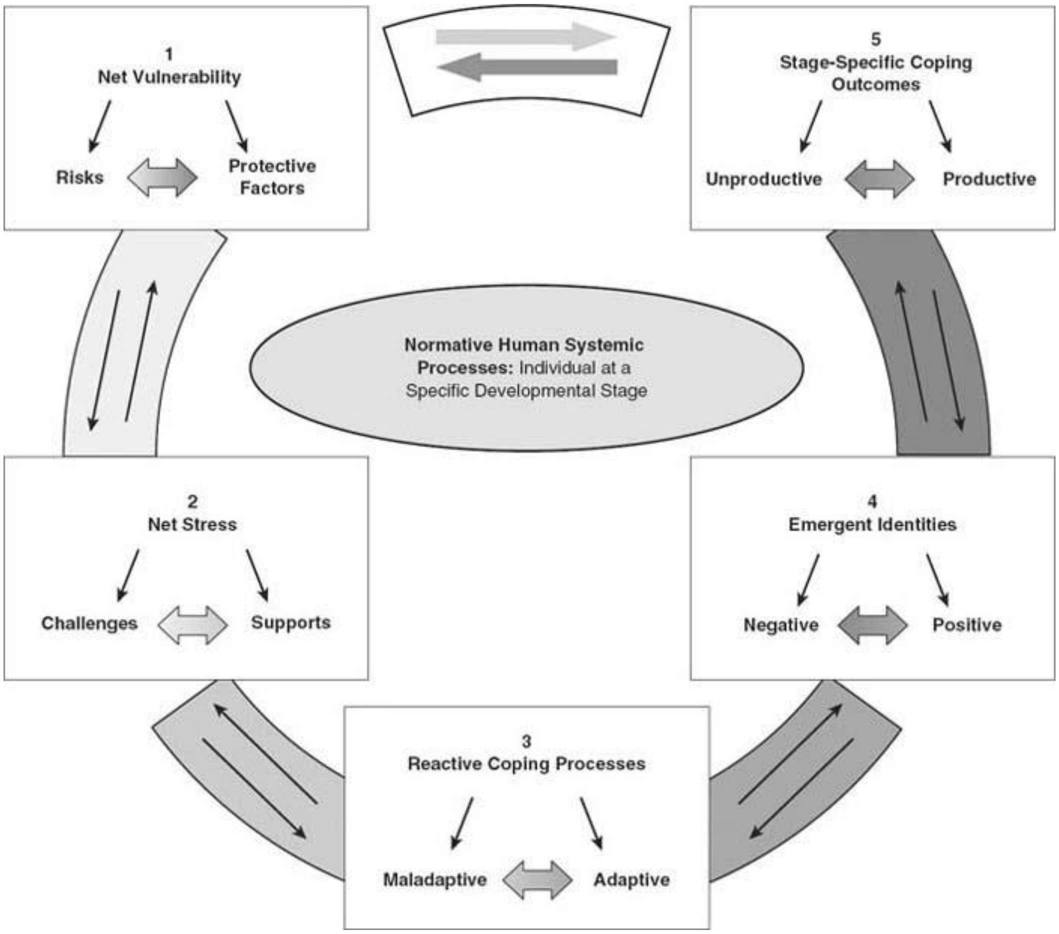


Figure 3. By R. Matrenec, & M. Spencer. (2012). In J. A. Banks (Ed.), *Encyclopedia of diversity in education* (Vol. 1, pp. 1848-1855). Thousand Oaks, CA SAGE Publications, Inc. doi 10.4135/9781452218533.n590

Research indicated that individuals with more resources to help navigate through difficult times may also employ more adequate coping skills than those from less privileged backgrounds. Less privileged individuals must instead develop coping skills as a matter of necessity (Bronfenbrenner, 1979; Matrenec & Spencer, 2012). This aspect is germane to the study since the purpose is to better understand how young African American BC survivors perceive barriers they deem directly connected to their quality of treatment. The research questions are designed to discover how study participants demonstrate skills and abilities to cope with identified barriers.

Equally intriguing is the social ecology surrounding the coping behaviors of the privileged. Despite having access to protective-factors, they might not necessarily know how to be effective with implementing such support systems. These individuals may miss opportunities to develop independent problem-solving skills. Yet, society deems the coping behaviors of the privileged the standard by which marginalized groups are judged (Bronfenbrenner, 1979; Matrenec & Spencer, 2012). This study hopes to discover skills unacknowledged by prevailing social standards that have been instrumental in overcoming ecological, institutionalized barriers. The discussion on stages 4 and 5 of the model continues in the conceptual framework. This transition is necessary because it connects the theoretical framework to the conceptual framework.

Conceptual Framework

Concepts deemed relevant to this study are the interaction of human competence, resiliency, and self-identity. These relationships are not linear and are dependent upon rough-textured social topography which require navigation skills in human experience (Matrenec & Spencer, 2012). Competency is the need propelling a person in demonstrating effectiveness in their environment. The necessity is motivation-based and is driven by personal causation. Personal causation is considered the prerequisite to make an environmental impression (Matrenec & Spencer, 2012). The phenomenon is recursive in nature because satisfaction is gained when a goal is achieved. This increases the probability that behaviors related to competency will continue to be displayed.

This concept is essential because the research questions are designed to discover effective or ineffective coping skills and strategies related to factors of success or failure. This serves as intrinsic and extrinsic sources of motivation or demotivation. Obstacles to the process of competency building can include social pressure, low self-esteem, and racism for example. How the African American woman with BC copes with such variables can influence their level of motivation. It can also have a significant impact on their way of dealing with risk factors. Research questions RQ2 and RQ3 in this study specifically deal with obstacle identification.

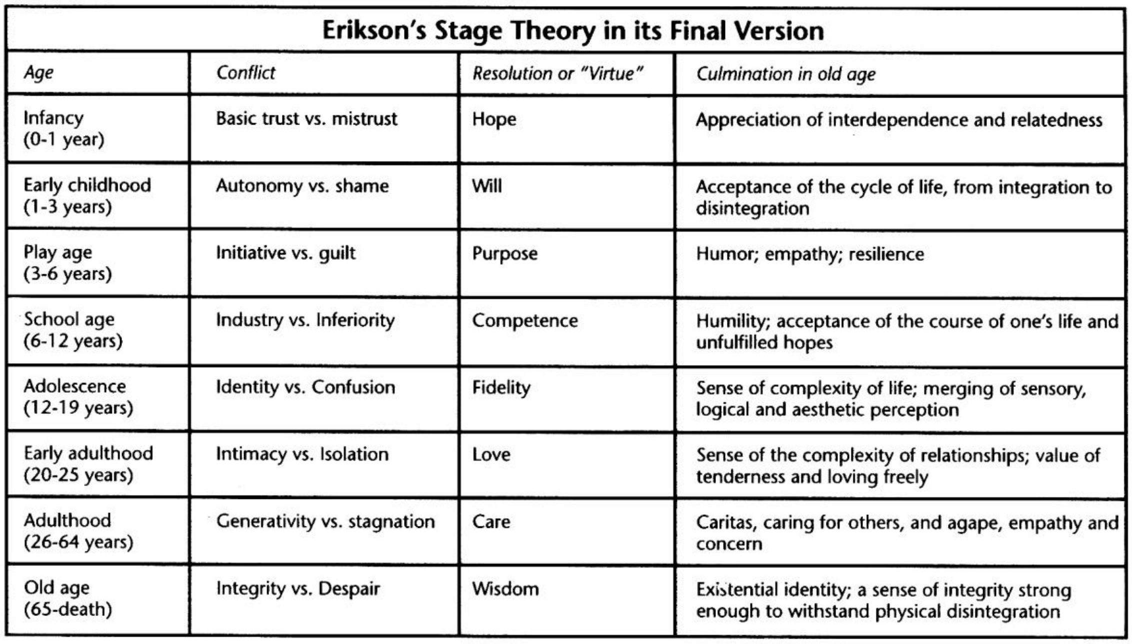
Understanding resiliency requires an awareness that humans are vulnerable and react as well as respond to their vulnerabilities in different ways. Human beings are exposed to risks and use protective measures or factors in their life-world for support. These systems provide a variety of coping mechanisms to deal with vulnerability in lived experiences (Matrenec & Spencer, 2012). These coping mechanisms can be positive or negative. Resiliency, however, represents an ongoing process demonstrated by those who face adversity to exhibit positive outcomes associated with stressful situations (Matrenec & Spencer, 2012). Such individuals demonstrate patterned qualities of self-esteem, effective adaptability to change, and an ability to solve problems in a social context. Research question, RQ3, is focused on understanding capacities for problem-solving in the young African American woman with BC.

This research study asserts that sense of identity is crucial in the dialog on BC care, resiliency, and young African American women. Identity takes the form of self-perceptions occurring within the BC patient as well as understanding of how others perceive the afflicted individual. The concept of identity interfaces with the aspects of competency and resiliency as the latter two components contribute to identity formation (Matrenec & Spencer, 2012. Hence, the process is recursive. Within this paradigm, identity is distinct and changes as the individual interacts and navigates in diverse terrains.

Matrenec & Spencer (2012; Paypervids, 2017) assert even the most vulnerable of individuals find paths to success over the course of time. Such individuals demonstrate extreme resilience in their coping behaviors, and this contributes to a positive formulation of self-identity. This behavioral pattern is viewed as a competency related to the phenomenon of resiliency. Such successes contribute to important psychosocial processes. The psychosocial work of Erik Erickson bears mentioning at this point in the discussion of PVST and identity formulation.

Table 1

Erikson's Stage Theory in its Final Version



Erikson's Stage Theory in its Final Version

Age	*Conflict*	*Resolution or "Virtue"*	*Culmination in old age*
Infancy (0-1 year)	Basic trust vs. mistrust	Hope	Appreciation of interdependence and relatedness
Early childhood (1-3 years)	Autonomy vs. shame	Will	Acceptance of the cycle of life, from integration to disintegration
Play age (3-6 years)	Initiative vs. guilt	Purpose	Humor; empathy; resilience
School age (6-12 years)	Industry vs. Inferiority	Competence	Humility; acceptance of the course of one's life and unfulfilled hopes
Adolescence (12-19 years)	Identity vs. Confusion	Fidelity	Sense of complexity of life; merging of sensory, logical and aesthetic perception
Early adulthood (20-25 years)	Intimacy vs. Isolation	Love	Sense of the complexity of relationships; value of tenderness and loving freely
Adulthood (26-64 years)	Generativity vs. stagnation	Care	Caritas, caring for others, and agape, empathy and concern
Old age (65-death)	Integrity vs. Despair	Wisdom	Existential identity; a sense of integrity strong enough to withstand physical disintegration

Note Adapted from Paypervids (2017).

The work of Erickson posits self-identity formation and development as a life-long process comprised of eight stages (Matrenec & Spencer, 2012; Dunkel & Harbke, 2017 ;). Please see Table 1. As individuals age, new crises emanate from a variety of environmental forces on macro and micro levels. This varies from large cultural influences down to family interactions, respectively (Dunkel & Harbke, 2017). The identity of individuals transforms and adapts to surroundings through personal reassessments because of challenges, achievements, successes, and failures. The acknowledgement of the interplay between environmental forces and the recursive nature of personal reassessments prompted Erickson to create a staged-based psychosocial theory on human development. This staged-based theory is based on the notion that each level of development must be successfully completed before an individual can move to the next level.

This research study focuses on African American women with BC aged 20 to 40. When this age range is plotted within Erickson's framework, study participants fall in the group designations of young adulthood, and early adulthood. Erickson's framework combined with study delimitations suggest the following profile of anticipated study participants. Study participants falling within the category of Stage 5, may be discovering their individuality and self-identity. Coupled with a positive environment, derived from personal explorations, and driven by a stout system of self-belief, successful individuals present a strong self-identity. This often manifests into a feeling of independence and control concerning an announcement of BC. However, those who are unable to develop a dependable system of self-beliefs may experience a sense of confusion surrounding themselves, a BC announcement, and their mortality. Successful completion of this level results in an individual having the virtue of fidelity. Such individuals can abide by social standards and expectations (Dunkel & Harbke, 2017).

Study participants falling into the range of young or early adulthood, Stage 6, may be investigating personal relationships (Dunkel & Harbke, 2017). Study participants engaged in a close relationship may present a secure demeanor. A durable awareness of personal identity is significant in cultivating an intimate relationship. A poor sense of self tends to lead to relationships void of commitment, and the individual is likely to experience depression, loneliness, and isolation. An announcement of BC may trigger a deeper voyage into despair, solitude, and remoteness.

Nevertheless, successful completion of this stage leads to the virtue of love. Participants located in the range of adulthood, Stage 7, continue to focus on enriching their lives and concentrating on occupational and familial goals. Successful individuals in this realm sense that they are contributing to society by being active in the home and community. Unsuccessful individuals may feel unproductive and detached from the world. An announcement of BC may not elicit any kind of reaction at all due experiencing detachment. Yet, developing a meaningful, unified, relationship with a partner, watching a family grow, and having a sense of pride about personal accomplishments distinguishes people in this category. Individuals who are successful at this level reflect the virtue of care. This discussion provides a foundation for a review of stage 4, emergent identities, in the PVST prototype.

The theory of PVST gains relevance at this point in the discussion because one’s sense of identity emerges at stage 4 of the PVST model. Please see Figure3. Emerging identity is a result of how reactive coping mechanisms are used in stage 3, and a negative or positive identity develops because of this coping mechanism use. Stage 5 signifies the outcomes of an emerging identity resulting from the efficacy of how coping skills are used. Human development can progress to a new level of operationality or regress to a previous developmental stage in the cycle. The researcher conceives the PVST as a fluid model and a person can go back and forth between stages, and even freeze or become stuck until an intervention is introduced to move a person forward. Researcher reflection also yields this model can be reconceptualized as a series of decision points on the road to solving problems. The individual makes decisions on what paths to take based on insights and lessons learned in previous stages of development. This means the individual is continuously making assessments which research question RQ1, was designed to examine.

Research literature suggests that the formation of competence, resiliency, and positive identity for young African American women with BC may be more complex given social forces like structural racism and perceived negative labels. These perceptions are personally held by young African American BC patient. (Matrenec & Spencer, 2012). Entertainment and information venues as well as technological advances can subtly promote discrimination-based, negative labels in society concerning Black women. How the young African American woman with BC perceives and identifies with these messages as obstacles can in turn affect competence, building, and resiliency solutions. The purpose of the study was to uncover subtle and perhaps not so subtle nuances that serve as barriers to young African American women with BC in their quest for quality treatment.

Literature Review

Breast Cancer

Akram et al. (2017; Tao et al., 2015; DeSantis et al., 2016), reports that BC persists as a global public health quandary and the disease is the greatest commonplace tumor on earth. Even though awareness of the disease has risen to global consciousness, it is still being diagnosed in its late stages because of negligent self-inspection and absence of clinical examinations of the breast (Akram et al., 2017; DeSantis et al., 2016). The American Cancer Society reports one woman in eight in the United States will receive a cancer diagnosis (Tao et al., 2015; DeSantis et al., 2016). This review addresses the signs and symptoms, risk factors, diagnosis, screening, prognosis, epidemiology, society, and culture surrounding BC. DeSantis et al. (2016), illustrates BC is usually thought of as a single disease. However, manifestations of BC total to 21 different histologic subtypes and approximately four distinct molecular subtypes. These four groups have been linked to certain risk factors. They have also been linked to different biological structures and respond to treatment differently.

Signs and Symptoms

Cancer symptoms amount to abnormal sensations or conditions people notice resulting from cancer. The symptoms may include changes in bowel or bladder habits, a sore that does not heal, unusual bleeding or discharge, thickening or lump in the breast or any part of the body, or indigestion. Other symptoms include difficulty swallowing, obvious changes in a wart or mole, or a nagging cough and hoarseness. These symptoms are not always a sign of disease and may be caused by another condition. Thus, regular check-ups with a doctor are important (Medicinenet, 2016). Examples of cases representative of the array of research surrounding BC sign and symptom identification follows.

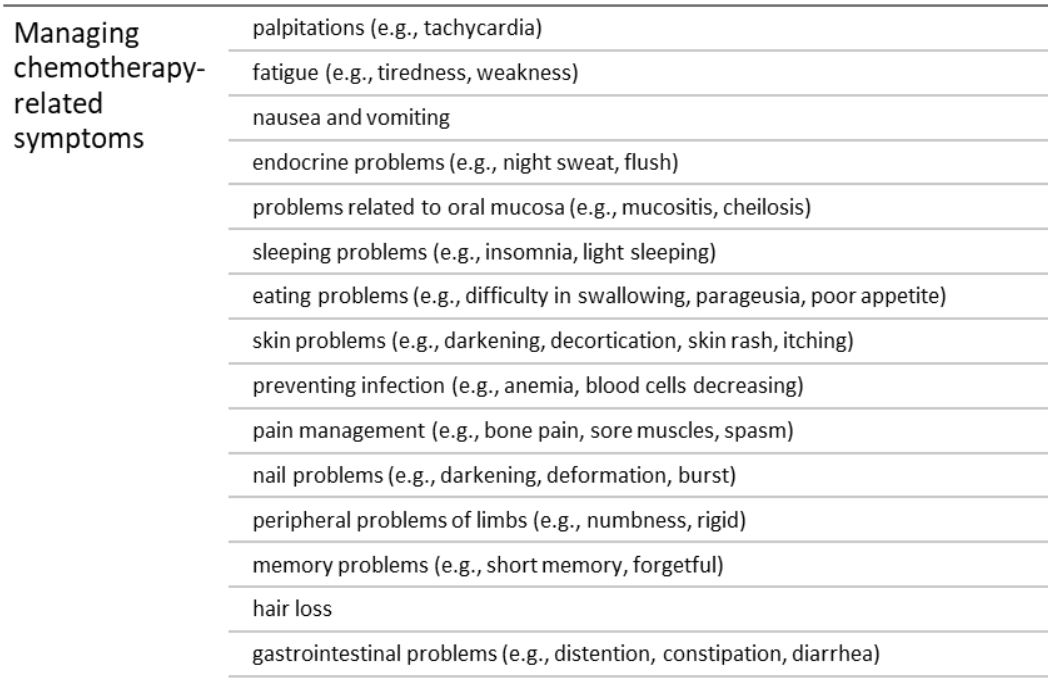
Lima de Carvalho et al. (2016), shows a linkage between BC and physical and psychological signs and symptoms in the country of Brazil. These researchers report BC is second only to lung cancer as the primary cause of cancer death in this country. In 2014, it was believed that 57,120 cases of BC emerged, and an estimated risk of 59.09 cases for every 100,000 females. This study demonstrates how treatment for BC can manifest in emblems of depression. In this study, treatment for BC is described as leading to depression manifested in changes to physical appearance. This significantly affects self-image and can reduce opportunities for social interaction. Hence, a BC diagnosis can trigger a psychological state of depression and can affect quality of life. This is especially true for the elderly. The Geriatric Depression Scale questionnaire and the World Health Organization (WHO) Quality of Life-Brief was applied in the manner of a cross-sectional study with 52 elderlies. A chi-square test was used for comparison and association of logistic regression. Approximately 30.8% of participants had depressive signs and symptoms. For example, from a psychological point of view, perceptions of companionship and familial support was important in terms of adjusting and accepting an announcement of BC. Physiologically speaking, deficiencies in the health care system- especially for low-income patients was important in terms of assessing, reporting, and treating physical health conditions. Other conditions contributing to depression were identified as, and not limited to the process of aging, increased sensitivity to traumatic events, being a woman and elderly, childhood trauma, widowhood and other family losses.

Kliiger & Gorbaty, (2017) report a case of how signs and symptoms of gastrointestinal cancer were traced back to standard screenings for BC. A work-up involving the presence of T2N1 stage II triple positive ductal adenocarcinoma of the left breast led to the discovery of gastrointestinal cancer in a 60-year woman. Imaging for gastrointestinal symptoms rendered a 3.5 cm solitary mass in the pancreas and diffuse thickening of the wall of the stomach. Gastrointestinal lesion biopsies indicated BC metastases to the stomach and pancreas are found to be rare. Routine BC screenings made it possible to introduce timely identification and management of the condition.

Koleck & Conley (2016) investigate the therapeutic conditions purported to lead to the symptom of cognitive dysfunction, experienced by BC survivors. Cognitive dysfunction in BC survivors claimed to involve the direct neurotoxic consequences of chemotherapeutic agents on the brain. Terms such as chemo brain, or chemo fog refer to states of short- and long-term cognitive changes transpiring in women with BC obtaining chemotherapy. Instead, this study links symptom variability in BC survivors to candidate-gene identification. This is done through exploration of multigene expression profiles normally used in the medical settings to classify the biology of cancer cells. The profiles are useful in targeting tumor aggressiveness, prediction, and therapy individualization. Twenty-one genes were extracted to build multigene expression profiles. For this, Koleck & Conley (2016) study and prioritize based on ability to duplicate BAG1, BC L2, BIRC5, CCNB1, CENPA, CMC2, DIAPH3, ERBB2, ESR1, GRB7, MELK, MKI67, MMP11, MYBL2, NDC80, ORC6, PGR, RACGAP1, RFC4, RRM2, and SCUBE2. Five multigene expression profiles emerged, and the following genes were listed in three of the five profiles CCNB1, CENPA, MELK, MYBL2, and ORC6. Ingenuity Pathway Analysis was used to build concise trails from gene sets connected to cancer development and progression. The overlap of gene appearance between profiles points to the importance of identifying gene combination trends in the description of tumor cell biology. These combinations can then be prioritized for evaluation. Study outcomes suggest that symptom variations in BC survivors is related to changes in the biology of cancer cells. These new profiles are useful in connecting the biological characteristics of BC to symptom development in patients and the body of cancer research.

Liang et al. (2015), tested the reliability and validity of the Symptom-Management Self-Efficacy Scale- Breast Cancer (SMSES-BC) as it relates to chemotherapy. These researchers report amid all cancers involving women in Taiwan, BC leads with respect to frequency and is fourth in terms of mortality. Study results indicated a test-retest reliability of .73 (p. <.001) and Cronbach α coefficient of .96 for the total SMSES-BC scale. An examination of this scale proves that managing chemotherapy-related symptoms are also related to factors of problem-solving acquisition, managing emotional disturbances, and managing interpersonal disturbances. The study showed acceptable reliability and validity of the SMSES-BC. These researchers conducted a factor analysis on the tool which teased-out dynamic components identifying symptoms and their management. Fifteen items are provided for review giving a synopsis of symptoms related to BC management. Please see Table 2 for a model of BC symptoms as conceptualized in the present study on young African American BC patients.

Figure 4. Managing chemotherapy-related symptoms



Managing chemotherapy-related symptoms	palpitations (e.g., tachycardia)
	fatigue (e.g., tiredness, weakness)
	nausea and vomiting
	endocrine problems (e.g., night sweat, flush)
	problems related to oral mucosa (e.g., mucositis, cheilosis)
	sleeping problems (e.g., insomnia, light sleeping)
	eating problems (e.g., difficulty in swallowing, parageusia, poor appetite)
	skin problems (e.g., darkening, decortication, skin rash, itching)
	preventing infection (e.g., anemia, blood cells decreasing)
	pain management (e.g., bone pain, sore muscles, spasm)
	nail problems (e.g., darkening, deformation, burst)
	peripheral problems of limbs (e.g., numbness, rigid)
	memory problems (e.g., short memory, forgetful)
	hair loss
	gastrointestinal problems (e.g., distention, constipation, diarrhea)

Figure 4. Adapted from Development and preliminary evaluation of psychometric properties of symptom-management self-efficacy scale for BC related to chemotherapy by S. Liang, W. Wu, C. Kuo, & Y. Lu. (2015). *Asian Nursing Research*, *9*(4), 312-317. doi 10.1016/j.anr.2015.09.001

The study of symptoms related to BC spans many subject areas. This section provided a sampler of topics emanating from the fields of physiology, psychology, sociology, and gene biology. The discussion now turns to risk factors.

Risk Factors

While some people develop cancer, there are some that do not. Difficulty exists in understanding why this is the case. However, research indicates that certain risk factors increase the odds of an individual developing the disease. Risk factors include aging, family history, alcohol and tobacco use, and sunlight exposure. Other risks factors have been identified as radiation ionizing, certain chemicals, and certain viruses and bacteria (MedicineNet, 2018). Senkus et al., (2015) explains that risks for detection of early BC should be done in stages. Please see Tables 3 & 4 for examples. Also, for early BC detection, routine stage procedures are conducted. Please see Figure 5 for algorithm.

Table 2

Breast Cancer Symptoms

Intrinsic subtype	Clinicopathologic surrogate definition	Notes
Luminal A	Luminal A-like ER-positive HER2-negative Ki67 low* PgR high** low-risk molecular signature (if available)	*Ki-67 scores should be interpreted in the light of local laboratory values as an example, if a laboratory has a median Ki-67 score in receptor-positive disease of 20%, values of 30% or above could be considered clearly high; those of 10% or less clearly low, **Suggested cut-off value is 20%; quality assurance programs are essential for laboratories reporting these results.
Luminal B	Luminal B-like (HER2-negative) ER-positive HER2-negative and either Ki67 high or PgR low high-risk molecular signature (if available) Luminal B-like (HER2-positive) ER-positive HER2-positive any Ki67 any PgR	
HER2 overexpression	HER2-positive (non-luminal) HER2-positive ER and PgR absent	
Basal-like	Triple-negative (ductal) ER and PgR absent HER2-negative	There is ~80% overlap between triple-negative and intrinsic basal-like subtype,

but triple-negative also
includes some special
histological types such as
(typical)
medullary and adenoid
cystic carcinoma with low
risks of distant recurrence.

Note. ER = oestrogen receptor; HER2 = human epidermal growth factor 2 receptor; PgR = progesterone receptor. According to the 2015 St Gallen Consensus Conference and also recommended by the ESMO Clinical Practice Guidelines" Adapted from Primary breast cancer ESMO clinical practice guidelines for diagnosis, treatment and follow-up by E. Senkus, S. Kyriakides, S. Ohno, F. Penault-Llorca, P. Poortmans, E. Rutgers, (2015) Lunds universitet. (2015). *Annals of Oncology*, *26 Suppl 5*(suppl 5), v8-30.

Table 2.a

Surrogate definitions of intrinsic subtypes of BC (continued)

TX	Primary tumor cannot be assessed
T0	No evidence of primary tumor
Tis	Carcinoma in situ
Tis	(DCIS) Ductal carcinoma in situ
Tis	(LCIS) Lobular carcinoma in situ
Tis	(Paget's) Paget's disease (Paget disease) of the nipple NOT associated with invasive carcinoma and/or carcinoma in situ (DCIS and/or LCIS) in the underlying breast parenchyma. Carcinomas in the breast parenchyma associated with Paget's disease are categorized based on the size and characteristics of the parenchymal disease, although the presence of Paget's disease should still be noted.
T1	Tumor ≤20 mm in greatest dimension
T1mi	Tumor ≤1 mm in greatest dimension
T1a	Tumor >1 mm but ≤5 mm in greatest dimension
T1b	Tumor >5 mm but ≤10 mm in greatest dimension
T1c	Tumor >10 mm but ≤20 mm in greatest dimension
T2	Tumor >20 mm but ≤50 mm in greatest dimension
T3	Tumor >50 mm in greatest dimension
T4	Tumor of any size with direct extension to the chest wall and/or to the skin (ulceration or skin nodules)e
T4a	Extension to the chest wall, not including only pectoralis muscle adherence/invasion
T4b	Ulceration and/or ipsilateral satellite nodules and/or oedema (including peau d'orange) of the skin, which do not meet the criteria for inflammatory carcinoma
T4c	Both T4a and T4b
T4d	Inflammatory carcinoma
Regional lymph nodes (N) Clinical (cN)g,h,i,j,k	
NX	Regional lymph nodes cannot be assessed (e.g. previously removed)
N0	No regional lymph node metastases

N1	Metastases to movable ipsilateral level I, II axillary lymph node(s)
N2	Metastases in ipsilateral level I, II axillary lymph nodes that are clinically fixed or matted; or in clinically detectedk ipsilateral internal mammary nodes in the absence of clinically evident axillary lymph node metastases
N2a	Metastases in ipsilateral level I, II axillary lymph nodes fixed to one another (matted) or to other structures
N2b	Metastases only in clinically detectedk ipsilateral internal mammary nodes and in the absence of clinically evident level I, II axillary lymph node metastases
N3	Metastases in ipsilateral infraclavicular (level III axillary) lymph node(s) with or without level I, II axillary lymph node involvement; or in clinically detectedk ipsilateral internal mammary lymph node(s) with clinically evident level I, II axillary lymph node metastases; or metastases in ipsilateral supraclavicular lymph node(s) with or without axillary or internal mammary lymph node involvement
N3a	Metastases in ipsilateral infraclavicular lymph node(s)
N3b	Metastases in ipsilateral internal mammary lymph node(s) and axillary lymph node(s)
N3c	Metastases in ipsilateral supraclavicular lymph node(s)
Regional lymph nodes (N)	
Pathological (pN)h,i,j,k	

M0	No clinical or radiographic evidence of distant metastases
cM0(i+)	No clinical or radiographic evidence of distant metastases, but deposits of molecularly or microscopically detected tumor cells in circulating blood, bone marrow or other non-regional nodal tissue that are not >0.2 mm in a patient without symptoms or signs of metastases
M1	Distant detectable metastases as determined by classic clinical and radiographic means and/or histologically proven >0.2 mm

Note According to the 2015 St Gallen Consensus Conference and also recommended by the ESMO Clinical Practice Guidelines. Adapted from Primary breast cancer ESMO clinical practice guidelines for diagnosis, treatment and follow-up by E. Senkus, S. Kyriakides, S. Ohno, F. Penault-Llorca, P. Poortmans, E. Rutgers, (2015) Lunds universitet. (2015). *Annals of Oncology, 26 Suppl 5*(suppl 5), v8-30.

Table 2.b

Surrogate definitions of intrinsic subtypes of BC (continued)

pNX	Regional lymph nodes cannot be assessed (e.g. previously removed or not removed for pathological study)
pN0	No regional lymph node metastasis identified histologically
pN0(i−)	No regional lymph node metastases histologically, negative immunohistochemistry (IHC)
pN0(i+)	Malignant cells in regional lymph node(s) not >0.2 mm [detected by haematoxylin and eosin (H&E) staining or IHC including isolated tumor cell clusters (ITCs)]
pN0(mol−)	No regional lymph node metastases histologically, negative molecular findings (RT-PCR)
pN0(mol+)	Positive molecular findings (RT-PCR), but no regional lymph node metastases detected by histology or IHC
pN1	Micrometastases; or metastases in one to three axillary lymph nodes; and/or in internal mammary nodes with metastases detected by SLNB but not clinically detectedl
pN1mi	Micrometastases (>0.2 mm and/or >200 cells, but none >2.0 mm)
pN1a	Metastases in one to three axillary lymph nodes, at least one metastasis >2.0 mm
pN1b	Metastases in internal mammary nodes with micrometastases or macrometastases detected by SLNB but not clinically detectedl
pN1c	Metastases in one to three axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by SLNB but not clinically detectedl
pN2	Metastases in four to nine axillary lymph nodes; or in clinically detectedk internal mammary lymph nodes in the absence of axillary lymph node metastases
pN2a	Metastases in four to nine axillary lymph nodes (at least one tumor deposit >2.0 mm)
pN2b	Metastases in clinically detectedk internal mammary lymph nodes in the absence of axillary lymph node metastases
pN3	Metastases in ≥10 axillary lymph nodes; or in infraclavicular (level III axillary) lymph nodes; or in clinically detectedk ipsilateral internal mammary lymph nodes in the presence of one or more positive level I, II axillary lymph nodes; or in more than three axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by SLNB but not clinically detectedl; or in ipsilateral supraclavicular lymph nodes
pN3a	Metastases in ≥10 axillary lymph nodes (at least one tumor deposit >2.0 mm); or metastases to the infraclavicular (level III axillary lymph) nodes
pN3b	Metastases in clinically detectedk ipsilateral internal mammary lymph nodes in the presence of one or more positive axillary lymph nodes; or

in more than three axillary lymph nodes and in internal mammary lymph nodes with micrometastases or macrometastases detected by SLNB but not clinically detectedl	
pN3c	Metastases in ipsilateral supraclavicular lymph nodes
Distant metastasis (M)	

Note According to the 2015 St Gallen Consensus Conference and also recommended by the ESMO Clinical Practice Guidelines” Adapted from Primary breast cancer ESMO clinical practice guidelines for diagnosis, treatment and follow-up by E. Senkus, S. Kyriakides, S. Ohno, F. Penault-Llorca, P. Poortmans, E. Rutgers, (2015) Lunds universitet. (2015). *Annals of Oncology, 26 Suppl 5*(suppl 5), v8-30.

Table 2.c

Surrogate definitions of intrinsic subtypes of BC (continued)

aDCIS; LCIS. Post-treatment ypT The use of neoadjuvant therapy does not change the clinical (pre-treatment) stage. Clinical (pre-treatment) T will be defined by clinical and radiographic findings, while y pathological (post-treatment) T will be determined by pathological size and extension. The ypT will be measured as the largest single focus of invasive tumor, with the modifier ‘m’ indicating multiple foci. The measurement of the largest tumor focus should not include areas of fibrosis within the tumor bed.

bThe T classification of the primary tumor is the same regardless of whether it is based on clinical or pathological criteria, or both. Designation should be made with the subscript ‘c’ or ‘p’ modifier to indicate whether the T classification was determined by clinical (physical examination or radiological) or pathological measurements, respectively. In general, pathological determination should take precedence over clinical determination of T size.

cSize should be measured to the nearest millimetre.

dMultiple simultaneous ipsilateral primary carcinomas are defined as infiltrating carcinomas in the same breast, which are grossly or macroscopically distinct and measurable. T stage is based only on the largest tumor. The presence and sizes of the smaller tumor(s) should be recorded using the ‘(m)’ modifier.

eInvasion of the dermis alone does not qualify as T4; dimpling of the skin, nipple retraction or any other skin change except those described under T4b and T4d may occur in T1, T2 or T3 without changing the classification. The chest wall includes ribs, intercostal muscles and serratus anterior muscle, but not the pectoralis muscles.

fInflammatory carcinoma is a clinical–pathological entity characterized by diffuse erythema and oedema (peau d’orange) involving a third or more of the skin of the breast. These skin changes are due to lymphoedema caused by tumor emboli within dermal lymphatics. Although dermal lymphatic involvement supports the diagnosis of inflammatory breast cancer, it is neither necessary nor sufficient, in the absence of classical clinical findings, for the diagnosis of inflammatory breast cancer.

gClassification is based on axillary lymph node dissection with or without SLNB. Classification based solely on SLNB without subsequent axillary lymph node dissection is designated (sn) for ‘sentinel node’, e.g. pN0(sn).

hIsolated tumor cell clusters (ITCs) are defined as small clusters of cells not >0.2 mm, or single tumor cells, or a cluster of <200 cells in a single histological cross section. ITCs may be detected by routine histology or by immunohistochemical (IHC) methods. Nodes containing only ITCs are excluded from the total positive node count for purposes of N classification but should be included in the total number of nodes evaluated.

iPost-treatment yp ‘N’ should be evaluated as for pre-treatment ‘N’. The modifier ‘sn’ is used if a sentinel node evaluation was carried out. If no subscript is attached, it is assumed that the axillary nodal evaluation was by axillary node dissection.

jypN categories are the same as those for pN.

kClinically detected is defined as detected by imaging studies (excluding lymphoscintigraphy) or by clinical examination and having characteristics highly suspicious for malignancy or a presumed pathological macrometastasis based on fine needle aspiration biopsy with cytological examination. Confirmation of clinically detected metastatic disease by fine needle aspiration without excision biopsy is designated with an (f) suffix, e.g. cN3a(f). Excisional biopsy of a lymph node or biopsy of a sentinel node, in the absence of assignment of a pT, is classified as a clinical N, e.g. cN1. Information regarding the confirmation of the nodal status will be designated in site-specific factors as clinical, fine needle aspiration, core biopsy or sentinel lymph node biopsy. Pathological classification (pN) is used for excision or SLNB only in conjunction with a pathological T assignment.

l'Not clinically detected' is defined as not detected by imaging studies (excluding lymphoscintigraphy) or not detected by clinical examination.

From the American Joint Committee on Cancer (AJCC), Chicago, IL, USA. The original source for this material is the AJCC Cancer Staging Handbook, Seventh Edition (2010) published by Springer Science and BusinessMedia LLC, www.springer.com.

SLNB, sentinel lymph node biopsy; RT-PCR, reverse transcription polymerase chain reaction; DCIS, ductal carcinoma in situ; LCIS, called lobular carcinoma in situ.

Note According to the 2015 St Gallen Consensus Conference and also recommended by the ESMO Clinical Practice Guidelines. Adapted from Primary breast cancer ESMO clinical practice guidelines for diagnosis, treatment and follow-up by E. Senkus, S. Kyriakides, S. Ohno, F. Penault-Llorca, P. Poortmans, E. Rutgers, (2015) Lunds universitet. (2015). *Annals of Oncology, 26 Suppl 5*(suppl 5), v8-30.

Table 3

Stage Grouping System for Carcinoma of the Breast

Anatomic stage/prognostic groups		
Stage 0		
Tis	N0	M0
Stage IA		
T1b	N0	M0
Stage IB		
T0	N1mi	M0
T1b	N1mi	M0
Stage IIA		
T0	N1c	M0
T1b	N1c	M0
T2	N0	M0
Stage IIB		
T2	N1	M0
T3	N0	M0
Stage IIIA		
T0	N2	M0
T1b	N2	M0
T2	N2	M0
T3	N1	M0
T3	N2	M0
Stage IIIB		
T4	N0	M0
T4	N1	M0
T4	N2	M0
Stage IIIC		
Any T	N3	M0
Stage IV		
Any T Any N M1		
aAnatomic stage M0 includes M0(i+). The designation pM0 is not valid; any M0 should be clinical. If a patient presents with M1 before neoadjuvant systemic therapy, the stage is considered stage IV and remains stage IV regardless of response to neoadjuvant therapy. Stage designation may be changed if postsurgical imaging studies reveal the presence of distant metastases, provided that the studies are carried out within 4 months of diagnosis in the absence of disease progression and provided that the patient has not received neoadjuvant therapy. Postneoadjuvant assessment is designated with a yc or yp prefix. Of note, no stage group is assigned if there is a complete		

pathological response (pCR) to neoadjuvant therapy, e.g. ypT0ypN0cM0. bT1 includes T1mi. cT0 and T1 tumors with nodal micrometastases only are excluded from stage IIA and are classified stage IB. From . Used with the permission of the American Joint Committee on Cancer (AJCC), Chicago, Illinois. The original source for this material is the AJCC Cancer Staging Handbook, 7th Edition (2010) published by Springer Science and Business Media LLC, www.springer.com.

Note Adapted from Primary breast cancer ESMO clinical practice guidelines for diagnosis, treatment and follow-up by E. Senkus, S. Kyriakides, S. Ohno, F. Penault-Llorca, P. Poortmans, E. Rutgers, (2015) Lunds universitet. (2015). *Annals of Oncology, 26 Suppl 5*(suppl 5), v8-30

Figure 5. Early BC treatment algorithm

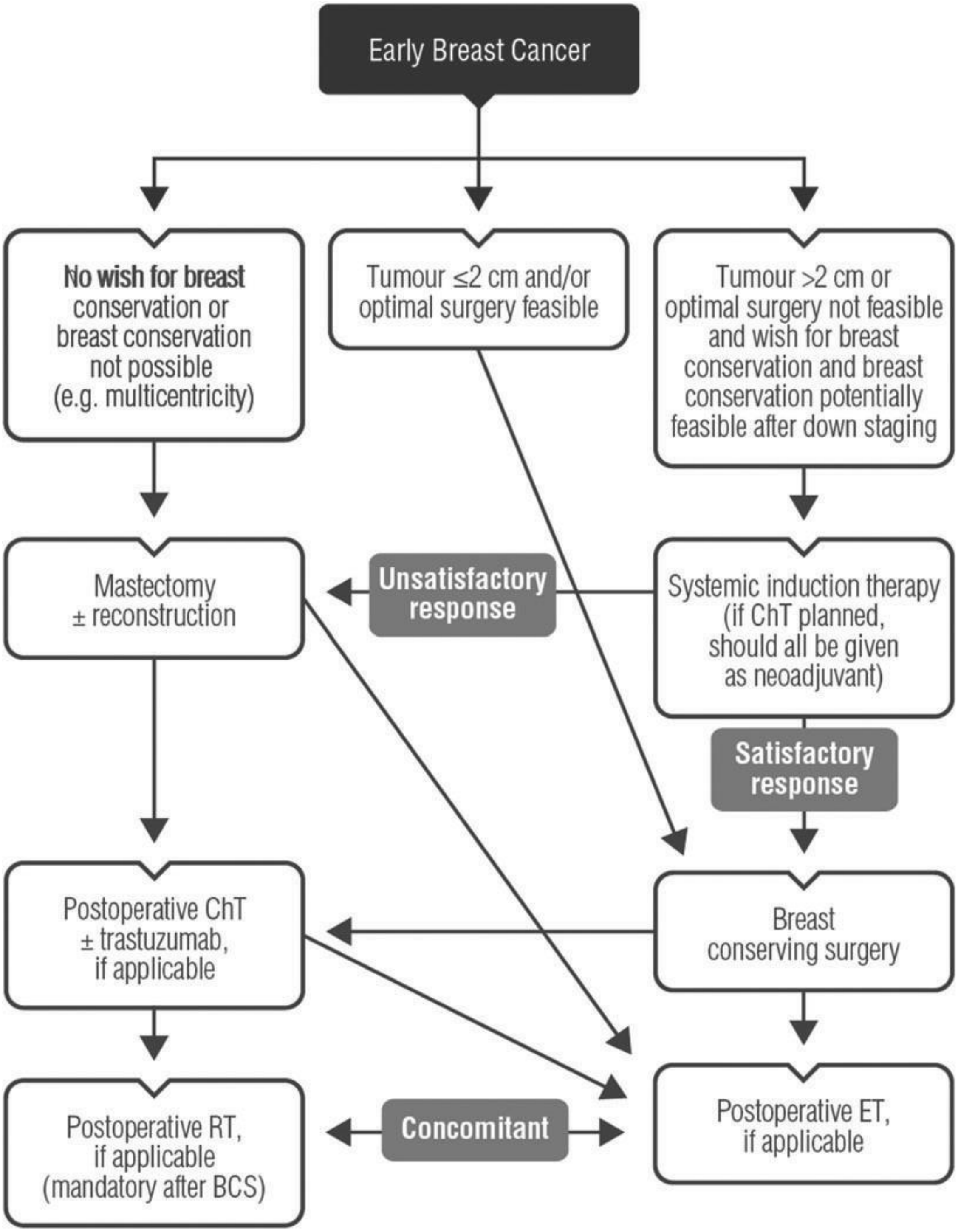


Figure 5. Key Cht, chemotherapy; BC S, breast-conserving surgery; ET, endocrine therapy; RT, Adapted from "Primary breast cancer ESMO clinical practice guidelines for diagnosis, treatment and follow-up Primary breast cancer ESMO clinical practice guidelines for diagnosis, treatment and follow-up by E. Senkus, S. Kyriakides, S. Ohno, F. Penault-Llorca, P. Poortmans, E. Rutgers, (2015) Lunds universitet. (2015). *Annals of Oncology, 26 Suppl 5*(suppl 5), v8-30

Kamińska et al. (2015), explains that BC is the most frequently diagnosed neoplastic disease in women tending to occur around menopause. Neoplastics refer to a tumor or a tumor formation process (MedicineNet, 2016). The announcement of BC prevents some women from engaging in their professional pursuits. This prompts the scientific community to take a multidisciplinary approach to identifying risk factors affiliated with this kind of neoplasm. Risk factors have been examined through the lens of neoplasm that result in two groups appearing to initiate the neoplastic transformation of cells.

The first group in this taxonomy includes intrinsic factors. These factors are inherent elements like one's genetic makeup which is associated with the familial appearance of the neoplastic disease. It is also associated with benign mammary gland tumor appearance while sex, age, and race are also noted. These components are considered independent variables and are out of the control of the individual. The second group of factors are labeled extrinsic. Extrinsic factors include diet, lifestyle, and long-term medical treatment like hormonal contraceptives or replacement. Both of these factors can be regulated to a certain degree. However, the modification of the second set of factors, in term of strategies of prevention, may contribute to deduction in the frequency of BC appearance.

Fan et al. (2014), suggests common themes in the discussion of BC risk factors. They state that these factors have international significance and echo familial themes found in other considerations of risk factors. The emergence of BC in China has now become the most widespread form of cancer among women in China. Newly diagnosed BC occurs at the annual rate of 12.2% and deaths from BC amount to 9.6% of worldwide BC mortality. This rate is steadily increasing due to rising socioeconomic factors and unique reproductive patterns in the country. A relationship between the range of socioeconomic status and access to quality services for numerous subgroups are noted. Internationally, demographic differences between China and other high-income countries are components contributing to BC risk factors. Nationally, access disparities between geographic regions and socioeconomic status conditions within those regions have produced a set of unique outcomes. The onset of BC at a younger age paired with the one-child policy, lower rates of care and screenings for BC. This also substantially affects delays with receiving diagnosis, delays in the discovery of advanced stages of BC, a lack of resources, and general lack of BC awareness in the Chinese experience.

Risk factors researched on BC in 2013 indicated that the probabilities of a U.S. female acquiring the disease stood at 12.3%. This was equivalent to a 1-in-8 lifetime risk for receiving a BC diagnosis (DeSantis, et al, 2013; Rojas & Stuckey, 2016). The lifetime risk of getting BC in the 1970s was 1 in 11. Longer life expectancy and escalations in new BC cases account for the discrepancy (DeSantis et al., 2013). Life-long risk is based on an average woman's probability that she will die of another case before a BC diagnosis. Probabilities of contracting cancer that are related to age are provided over a 10-year period. Please see Table 4.

Table 4

Age-Specific Probabilities of Developing Invasive Female Breast Cancer

IF CURRENT AGE IS	THE PROBABILITY OF DEVELOPING BREAST CANCER IN THE NEXT 10 YEARS	OR 1 IN
20	0.06%	1,732
30	0.44%	228
40	1.45%	69
50	2.31%	43
60	3.49%	29
70	3.84%	26
Lifetime risk	12.39%	8

Note. Adapted from DeSantis, C., Ma, J., Bryan, L., & Jemal, A. (2013).

The table is interpreted in the followed manner. There is a 2.3% chance that a woman of 50 years is not at risk of being diagnosed with BC over the next 10 years. In addition, 1 in 43 women will receive a cancer diagnoses by 60 years of age. Long-term incidence trends have also been inferred for women younger than 50 and for women older than 50 years of age and are termed delay-adjusted rates (DeSantis et al, 2013). A historic rise in BC incidence indicates changes in patterns of reproduction where delayed childbearing and having fewer children are recognized as risk factors. The increased use of mammography screening in the 1980s is also attributed to the increase in incidence rates. The popularity of mammography screening accelerated the diagnosis of BC 1 to 3 years earlier than if mammography screenings were not available or in cases of cancer which is slow to develop or does not cause pain.

Rates stabilized in the early 1990s and slowly increased in the latter part of the 1990s. The rise paralleled increases in mammography screening accompanied by escalating obesity rates and menopausal hormone use (DeSantis et al, 2013). Obesity rates and menopausal hormone use are considered risk factors which increase BC. Nearly a 7% sharp drop in BC rates was observed between 2002 and 2003. This was highly attributed to decreased use of menopausal hormones. A 2002 report published by the Women's Health Initiative is considered the source of motivation for the decrease. The decrease in BC cases happened in the population of White women aged 50 years or older with ER+ disease. This is normally treated with hormone therapy administered after BC surgery, chemotherapy, and radiation are complete. These treatments are designed to block the return of BC by blocking the effects of estrogen. Declines in mammography screenings were also observed during the 2002-2003 time period. This attributed to a decrease in rates as well.

Mammogram reports of women aged 40 and older in the two years prior to 2000, dropped somewhat and then stabilized. Internationally, similar slopes are observed (DeSantis et al, 2013). Since 1985, incidence rates for women younger than 50, and for women older than 50, have also been relatively stable (DeSantis et al, 2013). Occurrences of in situ BC quickly escalated in the 1980s and 1990s and is attributed to the increase in mammography screening reports. This rise was observed in the population of women older and younger than 50 years of age. A greater rise in women 50 years and older was observed (DeSantis et al, 2013). Cases of in situ BC since 1999 remain stable in the group of women aged 50 years and older. However, frequencies persistently increase at a rate of 1.9% for younger women from 1998 to 2010 (DeSantis et al, 2013). Trends in mammography screenings peaked in 2000 and stabilized at a somewhat lower rate. The trends are attributed to the stabilization of BC incidence observed in the population of older women. This phenomenon of stabilization may also be attributed to prevalent screening.

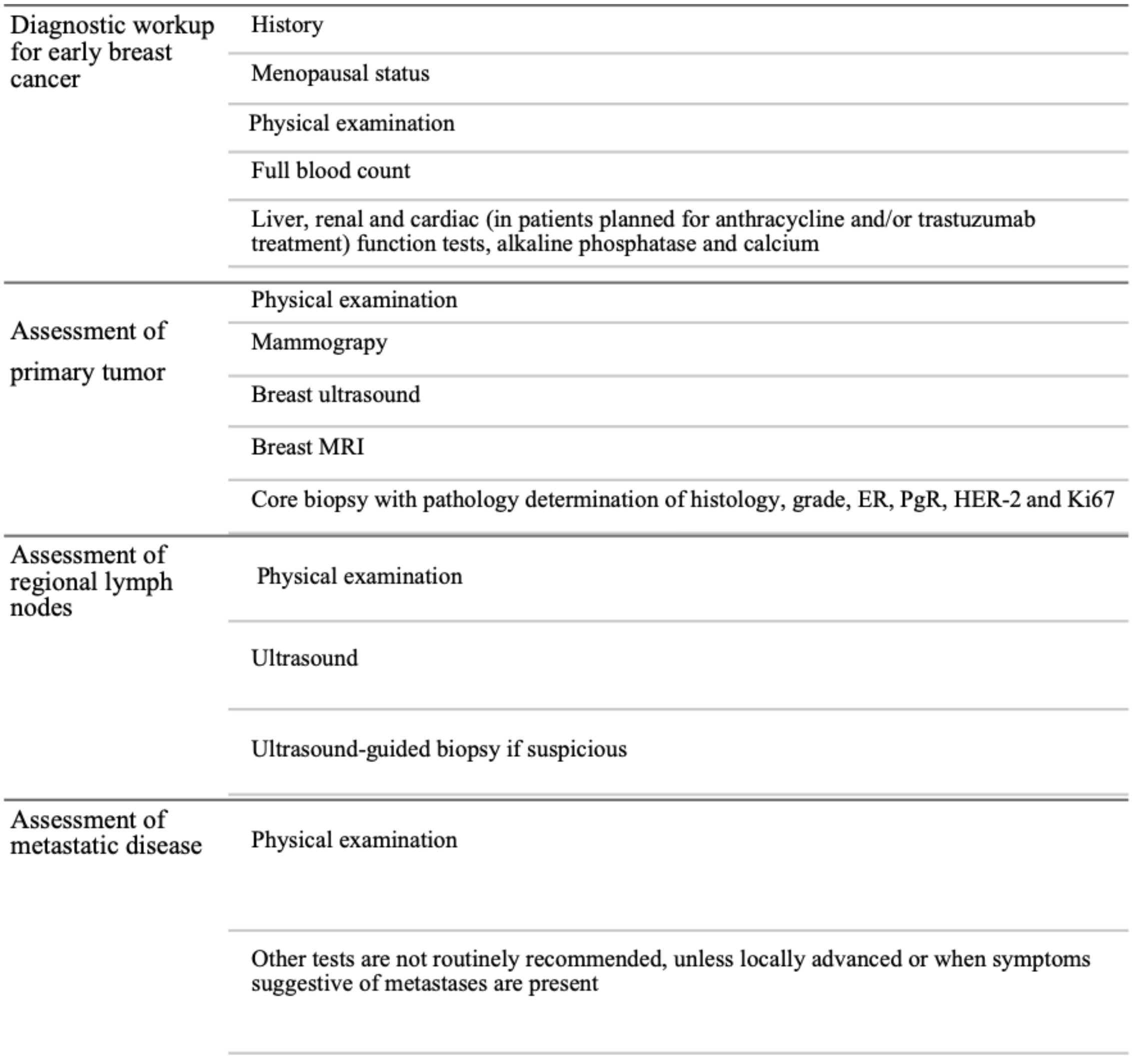
Evidence is growing that risk factors for ER+ and ER- BC are different. Research suggests divergent ER status trends could mirror mounting trends in obesity and variation in patterns of reproduction. Variance in these two factors may be correlated to ER+ versus ER- BC , and HR- BC as studies have shown lower BC risk is linked to higher blood levels of carotenoids (DeSantis et al., 2016). Elevated levels of fruit and vegetable consumption and PA have been connected to lower risk levels of ER- BC appearance (DeSantis et al, 2013; 2016).

The work of Fakkert et al. (2017) indicates salpingo-oophorectomy (RRSO) reduces ovarian cancer risk in BRCA1/2 mutation carriers. Salpino-oophorectpmy is the removal of the fallopian tubes and ovaries (MedicineNet, 2016). Premenopausal RRSO is theorized to amplify bone fracture risk more than natural menopause (Fakkert et al., 2017). Elevated bone turnover markers (BTMs) might forecast risk of fracture. Study conclusions indicate five years after RRSO, BTMs were higher than in an aged-matched control group. Additional studies are suggested to explore the implications of this finding. Rojas and Stuckey (2016) indicated that survival rates are increasing. Between 2005 and 2011, the approximate 5-year rate of survival was 89%. Increased use of widespread screening and advancement in the world of BC are attributed to the improvement. Also, less than 10% is credited to genetic mutation. Environment, reproductive, and modifiable lifestyle factors are normally associated with BC. The discussion now moves to the diagnosis of BC.

Diagnosis

The term diagnosis in this literature review refers to the detection of the features of a disease or some other anomaly by investigation of the symptoms (English Oxford Dictionary, 2018). Senkus et al. (2015), indicated that the diagnosis of BC is founded during medical examination. It is mostly recognized together with imaging and is later verified by pathological evaluation. Please See Table 4. Clinical examination embraces bimanual palpation of the breasts and locoregional lymph nodes. Also, evaluation for distant metastases of the bones, liver, and lungs is embraced. A neurological inspection is solely needed when symptoms are existing. Imaging involves bilateral mammography and ultrasound of the breast and regional lymph nodes. An MRI of the breast is not normally endorsed; however, it would be deliberated in different circumstances of familial embraces. This includes those related to BRCA transfigurations, breast implants, lobular cancers, wariness of multifocality/ multicentricity, particularly in lobular embraces, or huge incongruities amid standard imaging and clinical examination [III, B].

Figure 6. Diagnostic Workup for Early Breast Cancer



Diagnostic workup for early breast cancer	History
	Menopausal status
	Physical examination
	Full blood count
	Liver, renal and cardiac (in patients planned for anthracycline and/or trastuzumab treatment) function tests, alkaline phosphatase and calcium
Assessment of primary tumor	Physical examination
	Mammograpy
	Breast ultrasound
	Breast MRI
	Core biopsy with pathology determination of histology, grade, ER, PgR, HER-2 and Ki67
Assessment of regional lymph nodes	Physical examination
	Ultrasound
	Ultrasound-guided biopsy if suspicious
Assessment of metastatic disease	Physical examination
	Other tests are not routinely recommended, unless locally advanced or when symptoms suggestive of metastases are present

MRI, magnetic resonance imaging; ER, oestrogen receptor; PgR, progesterone receptor; HER2, human epidermal growth factor 2 receptor.

Figure 6. Adapted from Primary breast cancer ESMO clinical practice guidelines for diagnosis, treatment and follow-up by E. Senkus, S. Kyriakides, S. Ohno, F. Penault-Llorca, P. Poortmans, E. Rutgers, (2015) Lunds universitet. (2015). *Annals of Oncology, 26 Suppl 5*(suppl 5), v8-30.

An MRI may also be suggested before neoadjuvant chemotherapy, when assessing the reaction to primary systemic treatment or after the results of conventional imaging are indecisive. This includes when a positive axillary lymph node status is present with an occult primary tumor in the breast [III, A]. Numerous novel methods are being tried for screening and diagnostic imaging. This consists of 3D mammography known as breast tomosynthesis, 3D ultrasound, shear wave elastography, and contrast-enhanced mammography or spectral mammography. None of these are routinely implemented. However, they have the possibility of improving diagnostic correctness. This is particularly true for women with thick breasts.

According to Senkus et al. (2015), separately from imaging, pre-therapy ailment assessment embraces a pathology check of the primary tumor and cytology/histology of the axillary nodes. If association is assumed, additional appraisals are embraced. This refers to acquiring a comprehensive and individual medical record, making familial connections to breast/ovarian and additional cancers, and completing a physical assessment. This also includes knowing the blood count, doing a liver and renal function analyses, and checking alkaline phosphatase and calcium levels. Measuring the menopausal standing of patients is essential. When questions exist, serum oestradiol and follicle-stimulating hormone levels should be assessed. In patients that have planned for (neo) adjuvant treatment with anthracyclines and/or trastuzumab, appraisal of cardiac function with a cardiac ultrasound or a multigated acquisition scan is essential [I, A].

Senkus et al. (2015), also stated that a pathological examination must be grounded on a core needle biopsy and attained by ultrasound or stereotactic guidance if possible. In cases where this is not an option, a core needle biopsy should be done. At a minimum, a fine needle aspiration demonstrating carcinoma ought to be managed prior to treatment administration. When preoperative systemic treatment is intended, a core needle biopsy is compulsory to safeguard a diagnosis of invasive disease and evaluate biomarkers [III, A]. A marker, for example a surgical clip or carbon, ought to be positioned into the tumor at biopsy, to certify surgical resection of the precise site [V, A]. The minimum assessment must include an ultrasound-guided fine needle aspiration or core biopsy of suspicious lymph nodes as a requirement [III, A]. One strategy involving in-patients with clinically and imaging negative axilla, is to conduct a sentinel lymph node biopsy (SLNB) for optimum effectiveness. This would be conducted prior to or after preoperative systemic therapy. However, this is commonly considered controversial [II, C]. Recently published SENTINA and ACOSOG Z1071 investigations showed lower discovery incidences and higher frequencies of false-negatives when SLNB administration occurs following systemic therapy. This occurred when paired with SNLB prior to neoadjuvant chemotherapy. However, if the axilla is negative on an ultrasound and/or positron emission tomography (PET)/computed tomography (CT) scanning before the beginning of systemic therapy, a post-systemic therapy SNLB can be considered [V, B].

Concluding pathological judgement would be completed fitting the World Health Organization (WHO) classification and the tumor–node–metastases (TNM) staging system (Senkus et al., 2015). The medical report should contain the histological type, grade, immunohistochemical (IHC) assessment of oestrogen receptor (ER) status, using a standardized assessment methodology. For example, the Allred or H-score and, for invasive cancer, IHC evaluation of progesterone receptor (PgR), and human epidermal growth factor 2 receptor (HER2) gene expression would be used. Gene amplification status derived from HER2 may be decided exactly from all invasive tumors by means of in situ hybridization. This includes fluorescent, chromogenic or silver, replacing IHC or solely for tumors presenting an ambiguous\ (2+) IHC score [II, B]. The rules for HER2 examining are newly revised by the American Society of Clinical Oncology–College of American Pathologists (ASCO-CAP) group. Of special note is the change in the definition of HER2 positivity by IHC. This is 3+ when more than 10% of the cells, instead of 30%, hold a complete membrane staining, and by in situ hybridization. This can be positive if the number of HER2 gene copies is ≥6 or the ratio HER2/chromosome 17 is ≥2, instead of 2.2. Also, the definition of equivocal cases is more expansive. A case is seen as equivocal after two tests and is eligible for trastuzumab. This should be discussed in multidisciplinary tumor boards [V, B].

Senkus et al. (2015), indicate proliferation markers such as the Ki67 labelling index that can provide more valuable evidence. This is especially true if the assay can be standardized [V, A]. Otherwise, these biological markers can be measured in the conclusive surgical specimen when primary systemic therapy is unplanned. Use of fixation effectively controls core biopsies which delivers safer antigen preservation for IHC. In the instance of negativity of ER/PgR and HER2 in the biopsy specimen, retesting is suggested for them in the surgical specimen to explain putative tumor heterogeneity [III, A]. For the principle of diagnosis, treatment, and decision making, tumors would be grouped into surrogate intrinsic subtypes. These subtypes are defined by routine histology and IHC data [III, A]. (Table 2)

Wang (2017), explains that early-stage cancer discovery has the potential to decrease BC mortality amounts significantly in the future. The utmost fundamental point for best prognosis is to recognize early-stage cancer cells. Numerous breast diagnostic methods, including mammography, magnetic resonance imaging, ultrasound, computerized tomography, positron emission tomography and biopsy are effective tools considered significant to BC detection. Still, these practices have boundaries such as cost, lengthy examinations, and unsuitability for young women. Creating an extremely sensitive and fast early-stage BC diagnostic method is pressing. In current years, researchers have focused on growth of biosensors to spot BC using various biomarkers. In addition to biosensors and biomarkers, microwave imaging procedures attract attention as a hopeful diagnostic device for quick and cost-effective early-stage BC recognition. Major achievements have taken place in breast screening methods, especially microwave imaging, breast biomarkers, and biosensors. This helps with accurately and rapidly diagnosing BC and offers extremely encouraging prospects for the early detection.

Swain et al. (2015), demonstrates conditions in patients with metastatic BC (MBC) positive for human epidermal growth factor receptor 2 (HER2). Survival without progression was significantly enhanced after first-line therapy with pertuzumab, trastuzumab, and docetaxel. This is when compared with placebo, trastuzumab, and docetaxel. Total subsistence was significantly upgraded with pertuzumab in an interim analysis without the median being reached. Final, prespecified, overall, survival end-point for evaluation rendered a median follow-up of 50 months. Patients with MBC who had not received previous chemotherapy or anti-HER2 therapy for their metastatic disease were randomly assigned to receive the pertuzumab combination or the placebo combination. Results showed the median overall survival rate was 56.5 months with a 95% confidence interval [CI], However, 49.3 months was reached in the group receiving the pertuzumab combination compared to 40.8 months, 95% CI. In addition, results showed 35.8 to 48.3 months, in the group receiving the placebo combination with a hazard ratio favoring the pertuzumab group. Respectively, results were 0.68; 95% CI, 0.56 to 0.84; $P<0.001$, a difference of 15.7 months. Median progression-free survival as assessed by investigators improved by 6.3 months in the pertuzumab group with a hazard ratio, 0.68; 95% CI, 0.58 to 0.80. Pertuzumab extended the median duration of response by 7.7 months, as independently assessed. Most adverse events occurred during the administration of docetaxel in the two groups, with long-term cardiac safety maintained. In patients with HER2-positive metastatic BC, the addition of pertuzumab to trastuzumab and docetaxel significantly improved the median overall survival to 56.5 months. It also extended the results of previous analyses showing the efficacy of this drug combination.

Screening

St-Jacques et al. (2013), investigated the influence of distance between women's residences and designated screening centers (DSC) on involvement related in the Quebec BC Screening Program. The purpose of the study was to determine whether distance or variance in proximity to the program, and rural or urban classification influenced program participation. Distance of travel to the nearest center was estimated between 85 sites and 833, 856 women. Data was retrieved from administrative and screening program databases. Analysis took the form of a log-binomial regression model adjusted for age, material- which is quantifiable participation, and social deprivation. Center usage was measured in terms of participant proportions and nearest site. Results indicated participation rates decreased at expanses ≥ 25 km in the suburbs of Montreal and midsize cities. Participation decreased at distances ≥ 15 km in small cities and at expanses ≥ 50 km in rural areas. The proportion of patients who received mammography at the closest DSC decreased with increasing distance. Remoteness influences program involvement and this vacillates according to rural-urban cataloging. Researchers posit various factors that influence the ability of a person to access BC resources.

Studies in the epidemiology of BC infer many socio-economic issues regarding equal access to quality treatment for all women from screening to advanced treatment care (Akram et al., 2017; Tao et al., 2015). Gene research related to inherited BC, BC gene 1 mutations (BRCA1) and BC gene 2 (BRCA2) mutations have been linked to increased risk of inherited breast and ovarian cancer in individuals (HBOC) (Nakamura et al., 2016; Robinson et al., 2015; Silva et al., 2014; Susan G. Komen, 2018). Silva et al. (2014), explains that diseases cause gene mutation in breast and ovarian cancer and additional gene mutations beyond BRCA1/2. To isolate the cause of the disease, 120 Brazilian women who fit the criterion for HBOC underwent comprehensive screening for BRCA1/2, TP53 R337H, CHEK2 100delC. This was followed by copy number variations in 14 additional BC susceptibility genes including PTEN, ATM, NBN, RAD50, RAD51, BRIP1, PALB2, MLH1, MSH2, MSH6, TP53, CDKN2A, CDH1, and CTNNB1. Please see Appendix A for a BC gene glossary.

The research of Marabelli et al. (2016), focuses on the gene responsible for ataxia-telangiectsia syndrome (ATM) and advances ATM. This indicates an intermediate-risk as a BC gene. Many studies have been conducted focusing on the determination of ATM genes in the influence of BC risks (Marabelli et al., 2016). Importantly, cohorts of epidemiology, analysis of segregation, and case studies with control groups infer BC risks in different forms. These arrangements included penetrance, relative risk, standardized incidence ratio, and odds ratio. Marabelli et al. developed an inclusive model, a meta-analysis, which considered both quantitative and qualitative risks. Also, a general model allowed for the integration of different types of cancer risks found in the literature. The meta-analysis identified 19 research initiatives and Marabelli et al. used their model to obtain a consensus estimate of BC penetrance. These researchers estimate that ATM mutation carriers increased from age 50 at 6.02% with 95% credible interval 4.58-7.42% to 32.83% by age 80 with 95% credible interval 24.55-40.43%. These results suggest the older an ATM carrier becomes, the more likely they are to contract BC. Given this information, researchers emphasize how accurate assessment of BC penetration is essential to assist mutation carriers. Subsequently, this also affects medical and lifestyle decisions that can reduce chances of contracting BC.

Capillary sequencing and multiplex ligation-dependent probe amplification (MLPA) were used to detect point mutations and copy number variation (CNVs) and respectively for BRCA1 and BRCA2 (Silva et al., 2014). Capillary sequencing and point mutation were used for genes variants TP53 R337H and CHEK2 1100delC (Silva et al., 2014). Array comparative genomic hybridization (array CGH) was applied in the identification of CNs in the additional 14 genes. An excerpt of study findings shows out of 120 Brazilian women, a positive detection rate amounted to 26%, with BRCA1 pathogenic mutation in 20 cases and BRCA2 mutations detected in 7 cases. Three patients with TP53 R337H mutations were found. One patient was found to have CHEK2 1100delC mutation. Embedded study conclusions indicate a high frequency of BRCA1/2 mutations in the tested population, and a higher appearance of BRCA1 gene at 64.5%. The presence of TP52 R337H variant within these findings suggest all female BC patients who fall within the HBOC criterion and negative for BRCA2 should be examined for TP53 R337H variant. In addition, genomic configurations rendering CNVs in other genes prompting a predisposition to BC in conjunction with the presence of BRCA2 point mutations illustrate complexity in the genetic etiology in with respect to BC families.

Globally, BC awareness, public concentration, and progressions in breast imaging is reversing such trends in screening behaviors as research in the last two decades has led to profound advancements in understanding cancer thus leading to improved treatment regimens (Akram et al., 2017). In terms of malignant diseases, BC is deemed one of the principal reasons of mortality in postmenopausal women, responsible for 23% of all cancer deaths (Akram et al., 2017).

Prognosis

Prognosis is the forecast of the probable outcome or course of a disease; the patient's chance of recovery (Medicinenet, 2016). Senkus et al. (2015) discuss advances in axillary staging. Regional lymph node status continues as one of the powerful predictors of long-term prognosis in BC. Axillary clearance is primarily linked with lymphoedema. This highly influences the upper limb in approximately 25% of females following surgery. Up to another 15% were affected following axillary RT without surgical clearance. Below 10% were affected following SLNB. The incidence of lymphoedema rises significantly to 40% when axillary clearance is combined with RT to the axilla. SLNB, rather than full nodal clearance, is now accepted as the standard of care for axillary staging in early, clinically node-negative BC [II, A]. However, if axillary node involvement is proven on ultrasound-guided biopsy circumstances change. With suitable instructing in the dual radiocolloid/blue dye or indocyanine green fluorescence method, high identification rates rise to over 97%, low false-negative rates and favorable axillary recurrence rates following SLNB are also attainable. SLNB delivers less illness in view of shoulder rigidity and arm puffiness and permits for a decreased hospital stay [I, A] with primary (neoadjuvant) systemic therapy.

In locally advanced and large operable cancers, when mastectomy is obligatory owing to tumor size, primary systemic therapy applied before local treatment can reduce the degree of surgical procedure required [I, A]. In operable cases, the timing of treatment may also be more ideal. Pre- versus postoperative, has no effect on long-term outcomes [II C]. All modalities -chemotherapy, ET and targeted therapy- used in adjuvant treatment might likewise be applied preoperatively. If chemotherapy is employed, it is suggested to give all strategic therapy with no needless disruptions. An example would be offering it without separating it into preoperative and postoperative stages. This can be done regardless of the significance of the tumor response [V, B]. This will amplify the likelihood of attaining a pCR, a proven aspect for an advantageous prognosis. For the similar purpose, in HER2-positive BC, trastuzumab therapy would commence in the neoadjuvant situation, in correlation with the other parts of the chemotherapy regimen, this intensifies the chance of reaching a pCR.

Senkus et al. (2015) also discuss follow-up and long-term implications of BC therapy. In addition to satisfactory local and systemic therapies, epidemiological data focuses in the direction of lifestyle influences taking a consequence on the prognosis of patients with BC.. An example would be steady exercise, which offers physical and mental advantages [II, B] and conceivably decreases the risk of recurrence. Consistent exercise is a comparatively uncomplicated and operative endorsement that would be rendered to all appropriate patients after treatment of BC [II, B]. Weight increase, and obesity probably adversely influence the prognosis of BC. Nutritional advising should be recommended as part of the survivor care for all obese patients [III, B]. The use of hormone replacement therapy increases the risk of recurrence and should be discouraged [I, A].

Patients must have unlimited access to specialized rehabilitation facilities and services, to decrease the physical, psychological, and social sequela of BC treatment (Senkus et al., 2015). The main goals of physiotherapy should include the deterrence and treatment of lymphoedema, securing full range in motion of the arms and shoulders, and deterrence or rectification of postural flaws following mastectomy. No data exists indicating any kind of physiotherapy intensifies the risk of recurrence. When designated, patients should not be blocked admittance to rehabilitation facilities.

Epidemiology

Epidemiology is an area of science devoted to examining frequency of incidence, circulation, and control of a disease (Britannica Academic, 2018). Tao et al. (2015) report BC is most often the type of cancer appearing in women. Considered a major problem in public health, 1,384,155 new cases are estimated worldwide with almost 490, 000 deaths related to the disease (Akram et al., 2017; Tao et al., 2015). Zhong et al. (2014), posits BC is one of the most frequently identified kinds of cancers spanning women of all racial and ethnic groups. It is also the second leading cause of cancer death in the U.S.

About 232,340 new BC cases of an invasive nature and 39,620 deaths were expected in among women in 2013 (DeSantis, et al, 2014). New cases were estimated at 79% and 88% of BC mortality amid women falling in the age group of 50 or older. In 2013, in situ cases, those where cancerous cells are confined to a local area and has not spread to other parts of the body, were estimated at 64,640 (MedicineNet., 2016). This was in addition to invasive breast totals. Please see Table 5.

Table 5
Estimated New Female Breast Cancer Cases and Deaths by Age, United States, 2013

AGE	**IN SITU CASES**	**INVASIVE CASES**	**DEATHS**
<40	1,900	10,980	1,020
<50	15,650	48,910	4,780
50-64	26,770	84,210	11,970
65+	22,220	99,220	22,870
ALL ages	**64,640**	**232,340**	**39,620**

Note Adapted from “Breast Cancer Statistics, 2013” by C. DeSantis, J. Ma, L. Bryan, & A. Jemal. Breast cancer statistics, 2013. *CA A Cancer Journal for Clinicians, 64*(1), 52-62. doi 10.3322/caac.21203

Presentations of BC are varied in pathological profile with slow growth in some cases, showing excellent prognosis, and fast growth. i\In other cases, it took the form of aggressive tumors. For example, inflammatory BC (IBC) is an extremely rare, yet, very aggressive form of BC. Clinical standardization of diagnostic procedures has been challenging internationally (Hirko et al., 2014). To complicate matters, coding procedures for IBC coding definitions found in databases have changed over time (Hirko et al., 2014). Contemporary forecasts and statistical models indicate the appearance of the disease and related rates of death are on the rise world-wide. A statistical forecast from GLOBOCAN in 2012 shows approximately 1.7 million women received a diagnosis of BC, with 522,00 cases ending up in mortality. Additionally, an 8% rise compared to 2008 statistics (Akram et al., 2017; Tao et al., 2015).

Mannan et al. (2016) reports on the connection between breast and ovarian cancers (BOC) in India. These cancer types are the most frequently reported kinds of hereditary cancers leading to mortality in India. Cost-effective interventions for early detection of such cancers is suggested by this research. A total of 141 unrelated patients and families with BOC were examined using the TruSight Cancer panel which tests for 13 genes associated with risk of inherited BOC. Also, multi-gene sequencing was performed using the Illumina MiSeq platform (Mannan et al., 2016). In addition, Strand NGS software was used to detect genetic variations. Out of 141 unrelated patients and families examined for BOC, approximately 51 cases or 36.2% were discovered to have pathogenic mutations which can cause cancer. Of those 51 cases, 19 were found to have novel gene mutations (Mannan et al., 2016). When only BC cases were extracted from the subject pool, the detection rate rose to 52% (Mannan et al., 2016). Cases were stratified by age equal or less than 40 years of age, 40 to 50 years of age; and greater than 50 years of age. Detection rates were 44.4%, 53.4%, and 26.9% respectively. To increase sensitivity to gene mutation detection, researchers suggest the increased use of multi-gene panels as a next-generation methodology compared to sequential testing of individual genes in the detection and identification of patients having a high risk of developing cancer.

In terms of gene research related to inherited BC, BC gene 1 mutations (BRCA1) and BC gene 2 (BRCA2) mutations have been linked to increased risk of breast and ovarian cancer in women (Robinson et al., 2015; Silva et al., 2014; Susan G. Komen, 2018). Research in the Netherlands indicates that mutations in the BRCA1/2 genes predict increased risks of breast and ovarian cancer. They also tend to vary across populations and families (Brohet et al. 2014; Silva et al., 2014; Susan G. Komen, 2018). Data collected from 582 families associated with the BRCA1 and 176 families associated with the BRCA2 gene-type were studied regarding breast and ovarian cancer risks. Findings indicated the average cumulative BC risk by age 70 was 45% for BRCA1 and 27% for BRCA2 mutation carriers.

Nakamura et al. (2016), provide a perspective on the status of HBOC management in Asia. Disparities exist when examining genetic testing services and risk assessment for HBOC in Asia compared to Western developed countries. The disparity between countries truncates necessary observation, medical strategies, and management of cancer in Asia. Fourteen Asian countries were reviewed regarding genetic counseling, testing, and management options (Nakamura et al., 2016). Health care and legal frameworks, cultural issues and economic factors were considered in the study. This investigation revealed that genetic services have been beneficial in only 4,000 BC episodes in 14 Asian countries. Primary barriers take the form of economic issues related to testing costs and nonappearance of policy adoption into systems of national health care advancing the development of genetic services. This study reports barriers that exist in gaining access to training programs, accredited laboratories, and medical professionals. The absence of legal frameworks designed to protect individuals from genetic discrimination as well as a scarcity in public awareness in public awareness add complexity to the international disparity. An agency, called the Asian BRCA Consortium serves as a conduit concerning disparities in genetic services associated with HBOC providing information to policymakers, health care divisions, and researchers in addressing limitations applicable to HBOC management in Asia.

The work of Schlichting et al. (2015) aligns closely with the purpose of this current research study which is the study of BC in young women. BC in young women tends to be more aggressive. Yet, young women are generally not screened for cancer for early detection. This tendency accentuates the need to comprehend and increase awareness in the phenomenon of young onset BC. Study delimitations focus on young onset BC in Egypt compared to similar phenomenon in the United States. Data contained in the Gharbiah cancer registry (GCR) in Egypt is compared to the SEER database in the U.S. Analysis. The analysis encompassed 3,819 cases in the GCR database in contrast to 273,019 cases in the SEER database from 2004-2008. Significant differences were found between the databases in terms of age, tumor grade, hormone receptor status, histology, and stage. When adjusted, GCR cases were approximately 45 times more likely to receive a cancer diagnosis of stage III and 16 more likely to receive at stage IV than SEER cases. Study conclusions implicate the need to increase literacy in early detection and timely therapy in young cases.

Prospective research originating from the country of France implicates the role of cholesterol, particularly high-density lipoprotein cholesterol (HDL-C) in the emergence of carcinogenesis by way of antioxidant and anti-inflammatory attributes (His et al., 2014). However, this study reports inconsistent findings in establishing a link between specific lipid metabolism biomarkers and cancer risks. Establishing linkages between total cholesterol (T-C), HDL-C, low density lipoprotein cholesterol, apolipoproteins A1 (apoA1) and B, and triglycerides and overall breast and prostate cancer risk constitute the objective of this prospective study. A suggestion is advanced that pre-diagnostic serum levels of T-C, HDL-C and ApoA1 are associated with decreased BC risk. The role of cholesterol components in the development of cancer is proposed as cholesterol has already been connected to cardiovascular prevention.

Research, also originating from the country of France, explores the possibility that female urban residents are at an increased risk for developing BC compared to females living in rural areas (Binachon et al., 2014). These researchers hypothesize that most studies based on this topic are ecological in nature and do not consider the idiomatic proclivities or the physiological risk factors of the individual. Investigators used COX proportional hazards regression models on a prospective French E3N cohort of 75, 889 women, aged 38-66 years at recruitment in 1990. This helped to gauge the connection between birth, residence in urban areas, and BC risk. Evaluations of the study population occurred before and after adjustments for known cancer risks were ascertained and stratified on the variable on birth cohort. Between 1990 to 2008 5,145 BC cases were identified. Then, birth area was associated with BC risks before and after adjustments were made for these same risks. Study results in 1990 indicated that living in an urban area was not associated with BC risks. In fact, being born in an urban area correlated weakly with an increase in BC risks. Researchers in this study feel more research needs to be done to investigate the relationship between high exposure to air pollution and other environmental exposure hazards related to BC risks.

Various issues exist regarding the definition and proper documentation of IBC . Hirko et. al (2014) conducted research on IBC involving a review of all female invasive cancer centers. Researchers analyzed a total of 915 medical records in Detroit from 2007 to 2009. The descriptors of erythema, edema, and peau d'orange, which is skin pitted like an orange, was used as a criterion to detect the use of proper coding. Results were also compared to all BC centers using standard Surveillance, Epidemiology, and End Results (SEER) coding terminology employed in the SEER registry. No IBC cases were documented using SEER pathologic coding in the investigated centers. This outcome is significant because substantive patient treatment of IBC is dependent upon accurate documentation of the disease on the pathology report using SEER pathologic coding. Study outcomes indicated a need for consensus on the definition of IBC and its coding across medical centers.

Zhong et al., (2014) investigated the connection between physical activity (PA) and BC mortality in the U.S. The study rendered mixed results. A meta-analysis extracted from all available studies in PubMed and EMBASE up to January 2014. Calculations involved relative-risk (RR) and 95% confidence intervals (CI) employing random-effect models. Dose-response relationship was assessed by restricted cubic-spline model and multivariate-random-effect meta-regression. Sixteen cohort studies involving 42,602 patients fell within study criteria. Results indicated those patients who participated in any amount of PA before a cancer diagnosis had an RR of 0.82, or 95% CI 0.74-0.91 for BC specific mortality when compared with low PA. Those profiles reflecting high PA and moderate PA before diagnosis had a RR of 0.81 or 95% CI 0.72-0.90 and 0.83 or 95% CI 0.73-0.94, respectively. Stratifying by body mass index, <25 vs ≥ 25, or menopausal status, all subclasses obtained an advantage with PA with a robust mortality drop among postmenopausal women than premenopausal women. Study conclusions indicated for both pre and post-diagnosis PA were linked to reduced BC specific and all-cause specific cancer mortality.

The work of Kobayashi et al. (2014), is in accordance with the work of Zhong et al. (2014), regarding the benefits of PA. A case control study approach was used to collect the data of 1,110 incidents of BC where 388 cases were pre-menopausal, and 722 were post-menopausal. Data from this sector was compared with 1,172 controls where 442 were pre-menopausal and 730 were post-menopausal. The data for the cases was extracted from two Canadian sites. Research results showed PA decreases BC risks. However, the most persuasive evidence resides in the moderate to vigorous PA range. The effects of light intensity physical activity (LIPA) remain unknown in this study. An attempt was not successful in using self-reporting to establish an association LIPA and pre- and post- menopausal BC.

Society and Culture

The incidence of BC around the world, according to predictions, will reach 3.2 million new cases each year by 2050 (Tao et al., 2015). The sheer scale of yearly cases implicates a significant effect on international society and raises a flag of urgency in BC prevention and treatment (Akram et al., 2017). Granted, significant gains have been made to enhance early detection and the treatment of BC, Major strides have also been made to truncate its development into a metastatic state (Akram et al., 2017; Tao et al., 2015). Yet, unanswered questions exist regarding the structure and function at the molecular level of aggressive cancer types (Tao et al., 2015). For example, research from the country of Egypt indicates that BC in young women tends to be more aggressive. However, young women are generally not screened for cancer for early detection (Schlichting et al., 2015). Studies in the epidemiology of BC infer that many socio-economic issues exist regarding equal access to quality treatment for all women. This issue is prevalent from screening to advanced treatment care (Tao et al., 2015).

The work of Gutnik et al. (2016) shows how BC affliction is high in low-income nations. Lack of initial recognition contributes to late identification and an increased death rate. This study designates the creation of a training curriculum for Malawi’s first clinical breast exam (CBE) screening initiative. Women from the general population were recruited by local staff and BC advocates as Breast Health Workers (BHWs) for the outreach effort. A four-week training program provided lectures, online modules, role-plays, case study discussions, CBE using simulations and patients, and practice presentations. Ministry of Health trainers provided communication, promotion, and education skills. Survivors of BC shared experiences while clinicians taught BC epidemiology, prevention, detection, and medical care. Clinicians and research staff also instructed participants in research ethics, informed consent, data collection, and professionalism. Training was modified through dynamic trainee response and progress. This feedback system resulted in the addition of subjects like breast reconstruction. Pre-training understanding improved from 49% to 91% correct ($p<0.0001$). Clinician and BHW CBE had 88% concordance (kappa 0.43). The mean rating of BHW instructive discussions was 4.4 (standard deviation 0.7). The women of Malawi effectively completed preparation and established capability to lead CBE training and concordance was high between BHW and clinician CBE. Effective communication is vital to addressing the human dynamics surrounding BC.

In exchange for information concerning cancer, patients and physicians frequently gather different understandings of a patient's diagnosed condition, involvement, and patient's perception of care. This can destructively impact health results and the physician–patient relationship. To determine how cancer patients, understand the physician's information concerning various facets of their cancer treatment, participants completed a semi-structured qualitative interview (Adamson et al., 2018).

Addressing patients' treatment and communication experiences with physicians is essential to providing substantive health care. Conversations were coded and examined using inductive thematic analysis. Ten cancer patients receiving treatment at a regional cancer center in central Illinois were chosen as study participants. Cancer stages I to IV as well four other various categories were embodied. Participants' connections with their physicians, and their information-seeking behaviors, were ordered into 4 overall classes (1) questioners have a widespread mistrust toward their physicians and the information doctors are giving; (2) the undecided concentrates on doctor "fit," often needing time and distance to make choices and process data; (3) cross-checkers are engaged with the substance of their therapy, frequently confirming the treatment plan; and (4) the experience-oriented encounter a gap in their knowledgebase as well as lacking understanding of their physician's viewpoint. This provokes them to regularly seek evidence from other BC survivors (Adamson et al., 2018).

All groups expressed a perceived lack of sufficient exchange of intelligence and the need to secure evidence outside of the physician–patient relationship. This would help to compensate for information gaps and increase patient gratification levels. Participants exhibited different information-seeking behaviors based on how they perceived the role of their physician as information provider. This affected the nature of information preferred and influenced how patients comprehended the material received. This, by extension, influenced an understanding of their wider involvement of cancer care (Adamson et al., 2018).

Health providers' implicit racial bias destructively affects communication and client responses to numerous examination exchanges. Still, its influences on racially discordant oncology exchanges are mostly unidentified. Thus, Penner et al, (2016), inspected whether oncologists’ implicit racial bias has comparable consequences in oncology communications. Research also explored whether oncologists’ implicit bias harmfully affects patients' perceptions of suggested treatments. For example, implicit bias has an effect on the extent of personal certainty and/or anticipated treatment strain. The research initiative predicted that oncologists’ implicit bias would adversely influence communication, patient responses to exchanges, and patient perceptions of suggested therapies.

Study participants were 18 non-Black medical oncologists and 112 Black patients. Oncologists finished a measurement tool on implicit bias before video-recorded therapy conversations with new patients took place. Observers rated oncologists’ communication and recorded interface length of time. Specifically, the quantity of time oncologists spent, and the length of time patients talked was rated. Following interactions, patients completed questions regarding oncologists' patient-centeredness and difficulty remembering contents of the interaction. Questions about distress, trust, and treatment perceptions were also included. As predicted, oncologists advanced in implicit racial bias had shorter interaction times, and patients evaluated these oncologists' interactions as less patient-centered and less helpful. Increases in implicit bias also was resulted with additional patient trouble recalling interaction content.

In addition, oncologists’ implicit bias circuitously predicted less patient sureness in suggested therapies, and they experienced a larger perceived trouble completing them. Though its influence on oncologists' message was evaluated by both patients and observers, their implicit racial bias was destructively linked with oncologists’ communication. Patients' responses to racially discordant oncology exchanges, and patient perceptions of recommended treatments were also connected. Following patient-oncologist interactions, these perceptions could significantly influence patient-treatment decisions. Thus, implicit racial bias is a likely cause of racial treatment disparities and must be addressed in oncology training and practice (Penner et al, 2016). With this discovery, a body of research is gradually giving voice to African American cancer patients who suffered from unacknowledged racial bias during oncology experiences (Penner et al., 2013; Hagiwara et al., 2016).

African American Women and Breast Cancer

Since 1990, African American women have had the poorest implicit bias survival rate of any racial/ethnic group (DeSantis et al., 2014). The disease in the U.S. has been classified by subtype and is distinguished by HR and HER2 statuses. It is also classified by race/ethnicity according to 2012 statistics. African American women were found to have the least proportion of HR+/HER2- BC s and the greatest percentage of HR-/HER2- BC s contrasted to women of other race/ethnicities.

Figure 7. Distribution of Breast Cancer Subtypes by Race/Ethnicity, United States, 2012

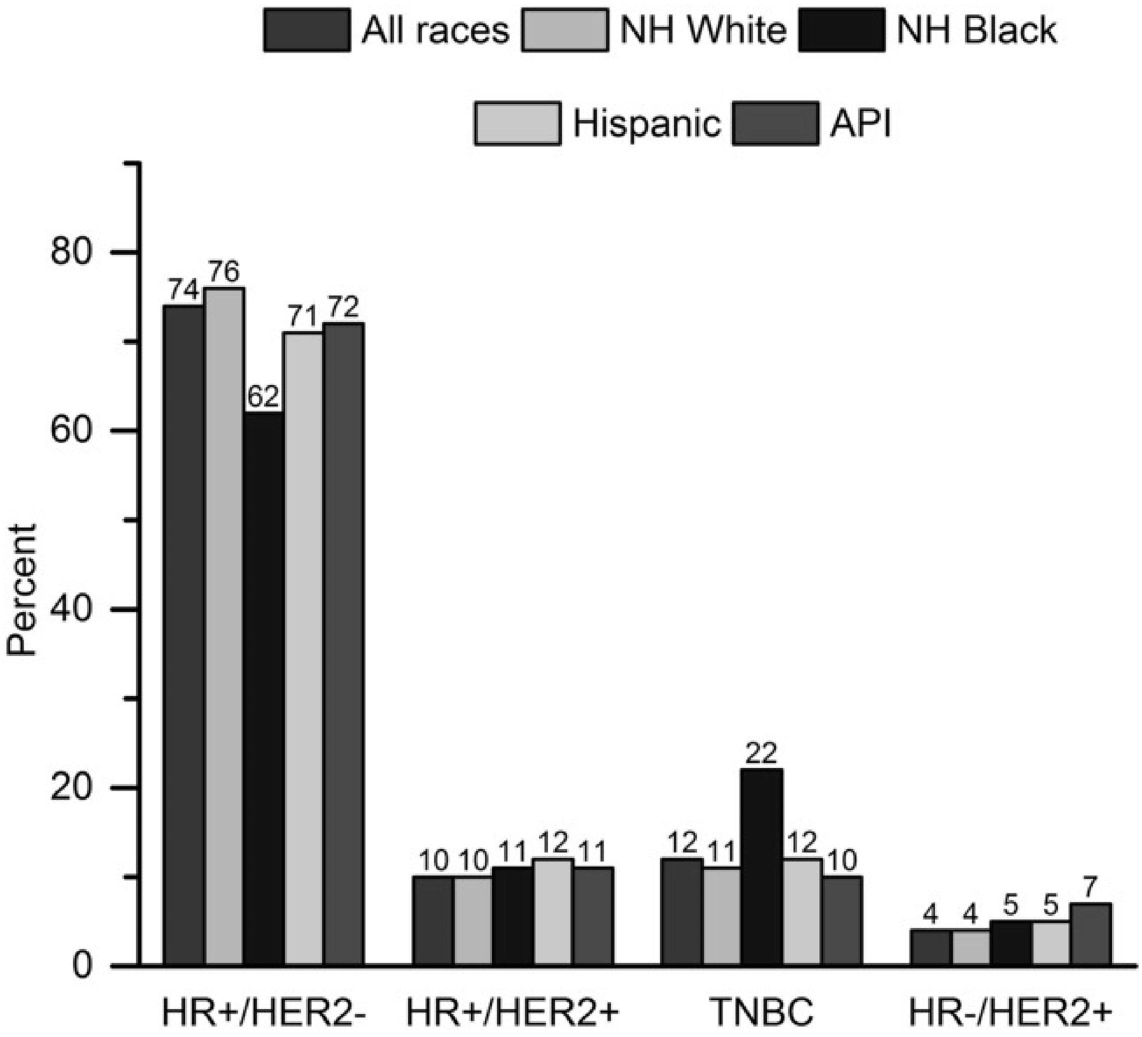


Figure 7 NH indicates non-Hispanic; API, Asian/Pacific Islander; HR, hormone receptor; HER2, human epidermal growth factor receptor 2; TNBC , triple-negative breast cancer. Source North American Association of Central Cancer Registries CiNA Analytic File, 1995 to 2012
. Adapted from Breast Cancer Statistics, 2015 by C. DeSantis, J. Ma, L. Bryan, & A. Jemal. Breast cancer statistics, 2016. *CA A Cancer Journal for Clinicians, 66*(1), 31-42. doi 10.3322/caac.21320.

DeSantis et al. (2016), revealed research regarding risks of death rates among California BC patients filtered by tumor subtype and cancer stage at point of diagnosis. The greatest discrepancies emerged at stage II and III HR+/HER2-BC s with a 31%-39% increase for Blacks in risk of death than Whites. Research also indicated that Black patients were more prone to present with lymph node metastases of small breast tumors (≤2.0 cm) from 2004 to 2011. However, the rates of White patients were 24% versus 18% respectively. Risk factors including poverty, lower levels of educational attainment, and a lack of health insurance, were also associated with lower BC survival rates because of limited access to care.

In addition, during 2008 to 2012, which is the most recent data available at the time of this dissertation project, inclusive BC incidence rates rose amid Black females at 0.4% and Asian/Pacific women at 1.5% in terms of yearly rates (DeSantis et al., 2016). Rates did not change significantly for White, Hispanic or Native American/Alaskan BC patients. Incident rates for BC converged between White and lack BC cases in 9 SEER areas. This means rates rose in the African American community while rates remained the same in the White community. Rate increases in the Black populace are attributed to increases in ER+ BC s. The trend, in part, parallels increasing rates for Black women where obesity is considered a risk factor. The obesity rate in African American females rose 39% in 1999 to 2002, and to 49% in 2003 to 2006 and to 58% in 2009 to 2012 (DeSantis et al., 2016). Also, obesity is considered a risk factor for postmenopausal BC and a high body mass index has been associated with risk of ER+ BC in Black women with an odds ratio, 1.31; 95% CI, 1.02-1.67 for body mass index $\geq$35kg/m2 vs <25 kg/m2 (DeSantis et al., 2016).

One challenge is the detection of metaplastic BC (MBC) (Schroeder, et al, 2018). This disease is an atypical BC subtype depicted by an aggressive medical course. Metaplastic BC is normally triple negative (TN), although hormone receptor (HR) positive and human epidermal growth receptor 2 (HER2) positive cases do occur. Earlier research studies expressed similar outcomes for MBC about HR status. Less is known about outcomes for HER2 positive MBC . Surveillance, Epidemiology, and End Results Program statistics were tapped to identify women diagnosed from 2010-2014 with MBC or invasive ductal carcinoma (IDC).

The MBC trial encompassed 1,516 women. Relative to females with IDC, women with MBC were likely to be elderly (63 vs. 61 years), Black (16.0% vs. 11.1%), and displayed with stage III disease (15.6% vs. 10.8%). HER2 positive and HER2 negative/HR positive MBC tumors represented 5.2% and 23.0% of cases. For MBC overall, 3-year overall survival (OS) was greatest for women with HER2 positive MBC (91.8%), relative to women with TN (75.4%) and HER2 negative/HR positive MBC (77.1%). This difference was more pronounced for stage III MBC , for which 3-year OS was 92.9%, 47.1%, and 42.2% for women with HER2 positive, TN, and HER2 negative/HR positive MBC , respectively. This population-based research of females with MBC , HER2 but not HR status, was linked with better survival. Existence was analogous between HER2 positive MBC and HER2 positive IDC. This indicates HER2 positive MBC is receptive to HER2-directed treatment.

Signs and Symptoms

A diagnosis of BC can trigger a series of physiological, emotional, and psychological signs and symptoms in Black women with BC. Jones et al. (2014), investigated databases in search of January 1991 to February 2013 research. The studies found were in the English language, derived from developed countries in the search for barriers to early presentation, and contained diagnoses of symptomatic BC among Black women across cultures and countries. Cochrane and PRISMA guidance were used to identify studies that rendered distinct findings according to ethnic group and gender. Findings were integrated by thematic analysis. The presence of quantitative studies disabled the ability to conduct a meta-analysis in data collection.

Barriers to treatment delays include but are not limited to poor symptom and risk factor knowledge and an embarrassment disclosing symptoms to health care professionals (Jones et al., 2014). Research uncovers trends in the U.S. among African American females contributing to delays in treatment of symptomatic BC compared to White females. This study suggests strategies in raising awareness in Black women in symptom recognition, interpretation of risks, and addressing fears regarding the consequences of BC. A sense of fatalism, fear, embarrassment, lack of trust in health services, lower education, and limited knowledge about BC symptoms significantly contributes to delays in seeking professional help (Jones et al., 2014). When women have a symptomatic presentation, a change in the breast is observed, and usually women present symptomatically to their doctor (Jones et al., 2014).

This research found a low awareness of cancer symptoms and personal risk amid African American women. Black women lacked the necessary knowledge and information on recognition of non-lump symptoms and underestimated the significance of symptoms. Confusion existed over whether pain was a symptom of BC or not. Some Black women believed the pain was not a symptom of BC. Findings also indicate African American women tend to tolerate or ignore symptoms, until severe, before seeking medical help. Investigations also indicated that Black women with BC only present when additional symptoms developed. Also, findings prove that some African American women delay presentation if the lump is not bothering them. Other African American women believed their symptoms were caused by stress.

Research also showed that Black women, unaware of BC symptoms, lacked the confidence to check their breasts (Jones et al., 2014). Reports noted in this study from the United Kingdom (UK) indicated Black women were less likely to report breast checking but were confident they would notice a change in their breasts. Also, barriers to symptomatic presentation were perceived equally between White and Black females. Yet, Black females are less likely to report, stating they had too many things to worry about and could not make the time. However, trends in research coming from the U.S. reported Black women with BC and familial commitments would find the time to visit their doctor, despite family care responsibilities. Other African American women without BC, and having childcare, work, and partnership duties stated they would be less likely to go than those without these responsibilities for questionable BC symptoms.

Themes regarding partnership status emerged in the research (Jones et al., 2014). Regarding Black and African American women, with or without BC, absence of a supportive partner, abandonment by a partner, physical appearance, and its effects on a relationship was arose as a topic of concern. Fear of abandonment may delay the seeking of help and this theme arose in discussions with both Black and White women. Alterations in physical appearance and partner attractiveness lay at the root of the fear.

Insufficient evidence exists whether Black and African American women are more likely than White women to delay treatment because of a partner.

A constellation of norms, values, and beliefs revolve around the Black women with a diagnosis of BC (Jones et al., 2014). Reluctance to communicate is tempered by a socialized taboo or stigma about cancer in the Black experience as research indicates the word cancer is whispered in quiet corners (Jones et al., 2014). A diagnosis of cancer may remain undisclosed to friends and family. When a diagnosis is known among family, shorter presentations to physical tend to occur. However, it is unclear if the phenomenon of disclosure affects the decision to seek help and degree of openness to discuss BC. Most Black women demonstrated efficacy in their decision to disclose (Jones et al., 2014). In contrast, a fear of cancer delayed the decision to seek help for some Black women.

Religiosity was not seen as an obstacle to seeking help by some Black women with symptomatic BC (Jones et al., 2014). Trends in the literature suggest age and ethnic group affiliation may predict religious intervention. Themes suggesting religious belief affects the perception of an outcome of cancer instead of treatment. This religious orientation may also include an acceptance on the finality of life on earth (Jones et al., 2014). A belief that cancer is preordained- or the belief of fatalism- may influence delayed presentation was present in one study. However, this remains open to further investigation. Yeager et al., (2016) shows that Africans American from lower-incomes with advanced cancer acquire stability through spirituality while continuing to meet daily responsibilities. Hamilton et al., (2016) indicated that African American cancer survivors sang religious songs to gain comfort from symptoms of depression, weakness, feeling low or sad, to endure medical procedures. Religious songs also provided a foundation of courage when worried or anxious. The songs dealt with personal instruction, thankfulness, tribute, memory of ancestry, consultation with God, and the afterlife.

Sheppard et al., (2013) measured the level of depressive symptomatology in Black women with BC compared to those without BC. The study involved a review of demographic, psychosocial, and medical components related to depression. African American women with BC stated significant levels of depression (m=11.5, SD=5.0) than women without BC (m=3.9, SD=3.8) (p<0.001). Increased cancer stage (beta=91) and higher age (beta=11) were linked to depression in BC patients. In a comparison group, ego strength and tangible support were inversely related with depressive symptoms. Research suggests Black women with more advanced disease could require holistic approaches to teaching them about appropriate health care. Research suggest depression is many times underrecognized and undertreated in Black BC patients. Health care practitioners need to understand the factors leading to the symptom of depression and incorporate interventions to daily care routines. This would help to effectively address the psychosocial needs in the spirit of improving patients' quality of life.

Risk Factors

Risks can be understood in terms of interpreting incident frequencies among population subgroups. Some ethic groups reflect a higher BC risk than others. The long-term incident rate of BC from 2006 to 2010 vary significantly by race/ethnicity (DeSantis et al, 2013). The rate of BC incidence during this time-period was highest in non-Hispanic White women, which was 127.3 per 100,000 women. Rates during this time was lowest for Asian Americans/Pacific Islanders, which was 84.7 cases per 100,000 females. Incident rates of BC for African American women during this period rose slightly 0.2% per year. Incidence rates for BC pertaining to Hispanic women decreased 0.6% during this time. Rates in this area did not experience much fluctuation for non-Hispanic Whites, Asian/American/Pacific Islanders, or American Indians/Alaskan Natives (DeSantis et al, 2014).

A review of data taken from 2008-2010 indicates that while the incidence rates is somewhat lower in Black women compared to White women, the death rate is 42% higher in African American women. Rates for BC incidence between White and African American women are converging as the statistics were adjusted for delays in case reporting. Non-Hispanic White women have the highest BC rates in general in most age groups. Significant to this study on young African American women, De Santis et al. found higher BC rates were higher among young African American women less than 40 years (2014). In contrast, similar rates for BC for White and African American women aged 30 to 49 years were observed. Incidence rates between White and African American women aged 50 to 59 years, BC rates have lately come together.

During 2006 to 2010 amid non-Hispanic White women and African American females who fall within the age margins of 30 to 49 years and African American females and aged 60 to 69 years BC rates increased. Yet, frequencies for Hispanic women aged 30 to 49 years and 50 to 59 years decreased (DeSantis et al. 2014). Convergence of BC incidents between White and African American women are expected to occur if BC rates in the African American female community continue to rise at current rates.

BC incidents, explored by ER status, is also known and segregated according to age-specific and race-specific trends. ER status is the ability of a cancer cell to grow in response to hormones (WebMD, 2018). In all groups White females possess the greatest frequencies of ER+ BC. African American women have the highest levels of ER- BC (DeSantis et al, 2014). Suggestions are proffered for racial variation in pervasiveness of risk factors by ER status. For instance, reproductive history and obesity have a strong proclivity for ER+ BC. Lower socioeconomic status is commonly affiliated with increased risk of ER- BC (DeSantis et al, 2014). Genetic differences are also supported with comparative studies of Black women with BC in Africa (DeSantis et al, 2014). However, incidence rates of ER+ status also occurs in the African American female community. For example, during 2006 to 2010, incident rates for this status increase for African American women in every age group. Excluded from this rise is African American women age 70 and older. Apropos to this study, faster increases of ER+ status were observed in younger African American women 30 to 49 years of age (DeSantis et al, 2014).

Binachon et al. (2014), assert that obesity occurs more often in Black than White women. It is also diagnosed with ER- and triple negative (TN) BC. Data from four large data bases, extracted from the AMBER Consortium were sorted by the following hormone receptor statuses ER+, ER-, and TN, known as ER-, PR-, and HER2-, and pathology as qualifiers for the study. A total of 2104 ER+ cases, 1070 ER- cases, including 491 TN cases, and 12,060 controls demarked the study. A ratio of odds (OR) and 95%

CI were calculated with logistic regression using risk factors for BC as a variable. Findings representative of postmenopausal women indicate a higher body mass index (BMI) associated with increased risk of ER+ cancer. Results indicate high young adult BMI was connected to decreased premenopausal ER+ cancer and all subtypes of postmenopausal cancer. High recent waist-to-hip ratio with increased risk of premenopausal ER+ tumors, and all tumor subtypes combined in postmenopausal women (OR 1.26; 95% CI 1.02-1.56). The study concluded general and central obesity fluctuates by menopausal status and hormone receptor subtype in AA women. Study findings also infer adiposity is related to different mechanisms associated with TN and ER+ BCs.

Park & Kang (2013) examined the racial differences in inflammatory cytokine levels, interleukin [IL]-6 and interferon-gamma [IFN-y] and BC risk factors in healthy White and Black females. The aim of the study- to examine differences in relationships of inflammatory cytokine levels with BC risk factors between these two groups, also to see if race acts as an independent variable in determining IL-6 and IFN-y. A cross-sectional and correlational descriptive design involved a community of 113 healthy women of whom 65 were Caucasians and 48 were African Americans. They were recruited from areas surrounding a state university hospital in the southeastern part of the U.S. Participants were of 20 years of age and older and not pregnant.

BC risk factors include age, age at menarche, age at first live birth, family history of BC, breast biopsy, breastfeeding history and duration, BMI, and PA were identified in the study (Park & Kang, 2013). Significant racial differences were noted in IL-6 and IFN-y levels between White and Black women in the study. When controlling for extraneous effects, racial background presented a significant predictor for IL-6 and IFN-y. Racial diversity in inflammatory cytokines and BC risk factor suggest partial evidence for racial disparities. Additional studies in this relationship and in biobehavioral research in racial disparities in BC can contribute to nursing practice in targeting race-specific modifications of lifestyle. This study also suggests knowledge of behavioral factors to reduce BC may informs the reduction of health disparity between White and Black women.

Wieder, Shafiq, & Adam, (2016) indicate that solely being African American is a risk factor and renders a poor prognostic indicator for survival from BC. This study drew correlations between localized presentation of BC and race. Data extracted from the SEER database from 1973 to 2011 from patients with a diagnosis of breast adenocarcinoma were analyzed by variables of race, age, stage I, II, or III, grade 1, 2, or 3 estrogen receptor or progesterone receptor positive or negative, marital status as single, married, separated, divorced or widowed, and BC site as lateral right or left. COX Proportional Hazards determined hazard ratios among the variables for survival. A Chi square test determined variable interdependence of variables. Age, stage, ER and PR status and marital status were significantly co-varied. The research project was based on research showing that younger-age, later stage, higher grade, ER and / or PR negative tumor staining, and single marital status provide an unfavorably prognosis to patients with localized BC.

Diagnosis

Black et al. (2014), show racial discrepancies occur in various facets of BC. Sentinel lymph node biopsy (SLNB) was established to trade axillary lymph node dissection (ALND) for staging early BC to lessen impediments. Racial differences in the use of SLNB stay partly categorized, and their consequence on lymphedema risk is unknown. Racial disparities in SLNB practice was investigated among patients with pathologically node-negative BC. Observations were conducted throughout the phase when SLNB became the preferred method for axillary staging. Other factors were studied such as how observed differences affect lymphedema risk. A retrospective inquiry was conducted using the SEER-Medicare-linked database from 2002 through 2007 to detect cases of incident, nonmetastatic, pathologically node-negative BC in women aged 66 years or older. Sentinel lymph node biopsy use and 5-year cumulative incidence of lymphedema by race was explored. Of 31 274 females found, 1767 (5.6%) were Black, 27 856 (89.1%) were White, and 1651 (5.3%) were of other or unknown race. Sentinel lymph node biopsy was completed in 73.7% of Caucasian patients and 62.4% of African American patients ($P < .001$). The use of SLNB increased by year for both Black and White patients

(P < .001); however, a rigid inequality of roughly 12 percentage points in SLNB use persisted into 2007. In adjusted breakdown, Black patients were significantly less prone than White patients to experience SLNB (odds ratio, 0.67; 95% CI, 0.60-0.75; P < .001). Generally, the 5-year growing lymphedema risk was 8.2% in Whites and 12.3% in Blacks (hazard ratio [HR], 1.43; 95% CI, 1.23-1.67; P < .001). When stratified by type of axillary surgery, 5-year lymphedema risk was 6.8% in Whites undergoing SLNB (HR, 1 [reference]), 8.8% in Blacks undergoing SLNB (HR, 1.28; 95% CI, 1.02-1.60; P = .03), 12.2% in Whites undergoing ALND (1.79; 1.63-1.96; P < .001), and 18.0% in Blacks undergoing ALND (2.76; 2.25-3.39; P < .001). While SLNB use raised in both Black and White patients with pathologically node-negative BC from 2002 through 2007, the rates of SLNB remained lower in Black than White patients during this total period by around 12 percentage points. This cultural difference in SLNB use contributed to racial inequalities in lymphedema risk. Enhancements in the distribution of new methods are required to evade disparities in BC care and patient results, particularly in disadvantaged factions.

Lamb et al., (2018) indicate while noteworthy advancement has been generated in refining BC survival, disproportions still exist among racial, ethnic, and underserved divides. The objective of Lamb et al., was to quantify racial differences in the setting of BC care, probing the consequences of recurrence and death in Memphis, Tennessee. Patients with a biopsy-proven diagnosis of BC from January 1, 2002, through December 31, 2012, were acquired from the tumor registry. African American patients were more prone to have advanced (II, III, or IV) clinical stage of BC at diagnosis contrasted with White patients. Black BC patients had twice the odds of BC reoccurrence (95% confidence interval 1.4, 3.0) after adjusting for race and clinical stage. Black BC patients were 1.5 times more expected to die (95% confidence interval 1.2, 1.8), after adjusting for race; age at diagnosis; clinical stage; ER, PR, HER2 status; and recurrence. Black women with stages 0, I, II, and III BC all had a statistically significant lengthier median time from diagnosis to surgery than White women. Black patients were more liable to have advanced clinical stages of BC cancer at diagnosis compared to White patients citywide in Memphis. Black BC patients have higher odds of recurrence and mortality when compared with White

BC patients, after adjusting for appropriate demographic and clinical attributes. Additional effort is required to advance, assess, and distribute practices to decrease imbalances in timeliness of care for BC patients.

Passmore et al. (2017), state that Black females are more apt than other women to be diagnosed with BC in younger years with a late stage diagnosis and die from BC. Irregular screening and follow-up, in terms of evidence is observed. Prior investigation on psychosocial factors influencing decisions to screen reveals barriers of fear, fatalistic perceptions of cancer, imprecise perceptions of risk, and correlations with stigma. Qualitative research with, mainly, insured Black women (*n* = 26), health navigators (*n* = 6), and community stakeholders (*n* = 24) shows mutually positive and negative aspects influence decision making. Females in the project trust in the worth of early detection and are inspired to screen in reply to reassurance from health providers. However, they also describe several influences that contribute to their decisions to defer or dismiss screening. These include (1) perceptions that the health society itself is confused about the need for screening, (2) perceptions that White women are the precedence populace for BC, (3) familial responsibilities exclude self-care and support secrecy, and (4) dread of diagnosis. Participants state not sensing inclusiveness in national-level health promotion campaigns. This research urges a more nuanced approach in distributing health care information to women about the risks of BC.

Screening

Screening, in this research context refers to the population of Black women who do not have BC. Robinson et al. (2015), researched the relationship between mammography screening, risk of having hereditary cancer syndrome, prophylactic surgery, and underserved populations. A medically underserved area (MUA) and medically underserved population (MUP) is described as areas and people lacking access to primary care services (Health Resources & Services Administration, 2018). Examples of underserved communities would be and not limited to an entire country, a collection of adjacent counties, or a group of civil divisions (Health Resources & Services Administration, 2018). Examples of the people residing in an area labeled as underserved would be and not limited to the homeless, low-income, Medicaid-eligible, Native American, or migrant workers (Health Resources & Services Administration, 2018). Despite screening, BRCA mutation discoveries and prophylactic surgery rates were low in underserved populations evaluated in the study. The study concluded that screening for high risk individuals did not reduce cancer incidence.

Mayfield-Johnson et al. (2016), contribute to mounting evidence pertaining to a relationship between patient navigation and improved BC screening rates. Yet, a scarcity of efficacy studies concerning patient navigation and of its effect among African American older adult women exists. A study was launched to assess the result of patient navigation on screening mammography among Black female Medicare beneficiaries in Baltimore, MD area. A Cancer Prevention and Treatment Demonstration (CPTD), multi-site study was conducted which took form of a randomized controlled trial. The investigation was conducted from April 2006 through December 2010 and transpired simultaneously in a community-based and clinical settings. The CPTD Screening Trial registered 1905 community-dwelling Black female Medicare beneficiaries reflecting ≥65years of age and living in Baltimore, MD. Contributors came from health clinics, community centers, health fairs, mailings using Medicare rosters, and phone calls.

Participants were randomized in two ways. One group of participants were exposed to printed educational materials on cancer screening. This was the control group. The second group of participants were exposed to printed educational materials and patient navigation services designed to assist contributors in overcoming barriers to cancer screening. This collective was termed the intervention group. The study documented self-reported receipts of mammography screening within 2 years of study end. The median participant follow-up period was 17.8 months. In weighted multivariable logistic regression analyses, females in the intervention group reflected appreciably elevated odds of being current on mammography screening at the end of the follow-up phase contrasted to women in the control group with an odds ratio [OR] 2.26, 95% confidence interval [CI]1.59–3.22. The result of the intervention was robust among women who were not current with mammography screening at enrollment with an OR 3.63, 95% CI 2.09–6.38. This research shows patient navigation behaviors among urban Black female Medicare beneficiaries increased self-reported mammography utilization. The results suggest that patient navigation for mammography screening should focus on women who are not up to date on their screening.

Patel K. et al. (2014), show demographic and lifestyle factors influence decisions and obstacles to being screened for BC in low-income African American females in three urban Tennessee cities. The Meharry Community Networks Program (CNP) conducted a needs assessment, which included a 123-item community survey. The instrument captured demographic characteristics, health care access and use, and screening practices for various cancers in low-income African Americans. For this study, only African American females 40 years and older ($n = 334$) were selected from the Meharry CNP community survey database. Several predictors of BC screening were discovered such as marital status and having health insurance ($P < .05$). Associations between obstacles to screening and geographic region such as transportation and not having enough information about screenings ($P < .05$) were also uncovered. Educational interventions intended at improving BC knowledge and screening rates should integrate data about barriers and forecasters to screening.

Best et al. (2015), explain attempts have been made to raise BC screening (BCS) among Black women, inequalities in BC mortality continue. Culturally bordered health communication may deliver a beneficial approach to deal with this issue. Spirituality signifies an important feature of Black culture and is also recognized as a likely barricade to BCS amid this populace. Instead of looking at spirituality as an encumbrance, the chance to cultivate positive communications that draw on the shielding attributes of spirituality amid this population are investigated. The purposes of Best et al., were to engage a group of Black women to ascertain vital spiritual essentials involved in health communication information, and to then cultivate a spiritually framed BCS missive in response to research data collected. Three nominal group meetings were led with 15 Black women. Outcomes exposed three significant spiritual fundamentals that can be merged into BCS health communications (a) the body as a temple; (b) going to the doctor does not make you faithless; and (c) God did not give us the spirit of fear. These foundations were employed to draft a spiritually inspired BCS message. Then, 20 head-on semi-structured interviews were led to help confirm the spiritually framed BCS message for implementation in a future study on culturally appropriate health communication.

Karcher et al. (2014) assert that although Black women in the U.S. have a lower rate of BC when contrasted to White women, African American females younger than 40 essentially have an elevated incidence rate. Moreover, Black women are more likely to expire from BC at every age when compared with that of White women. Racial disparities in BC death frequencies are particularly significant in Maryland, which positions fifth in the country for BC transience, and in Baltimore City, which has the second uppermost yearly mortality rate for Black women in Maryland. To attend to this difference in care, Med-IQ, a qualified provider of continuing medical education (CME), cooperated with Sisters Network Baltimore Metropolitan, Affiliate Chapter of Sisters Network® Inc., and the lone national African American BC survivorship group. Through their efforts, they attempted to support their community-based educational outreach strategy. The shared undertaking was to involve at-risk Black women, their families, community groups, health care specialists, and health centers. The primary focus was on growing awareness, responding to anxieties that mark appropriate maintenance and diagnosis, and inspiring women to attain steady mammograms. Intervention approaches encompassed (1) a “Survivor Stories” video, (2) patient outreach involving neighborhood walks and an instructive luncheon, and (3) a community outreach campaign sending direct mailings to local commerce, neighborhood groups, and health care specialists. Reliable and renowned civic resources were offered as channels to endorse the initiative, producing attainment of wider and further effective outcomes. Because of this patient-friendly strategy, two (2) of the women who went for screening were diagnosed with BC and received treatment.

Prognosis

This section provides information on the probable course or outcome of BC for African American women. Terunuma et al. (2014), demonstrate how the metabolic profiling of cancer cells has lately been recognized as a capable device for the advancement of treatments. It has also proven effective for the documentation of cancer biomarkers. These researchers characterized the metabolomic profile of human breast tumors and exposed inherent metabolite signatures in these growths. This was done through an untargeted discovery approach and validation of key metabolites. The oncometabolite 2-hydroxyglutarate (2HG) gathered at high levels in a subgroup of tumors and human BC cell lines. An association was found between amplified 2HG levels and MYC pathway activation in BC. The study further validated this relationship using MYC overexpression and knockdown in human mammary epithelial and BC cells. Additional exams exposed globally escalated DNA methylation in 2HG-high tumors and acknowledged a tumor subtype with high tissue 2HG. Also recognized was a distinct DNA methylation design linked with poor prognosis that happened with higher frequency in African-American patients. Tumors of this subtype had a stem cell-like transcriptional signature and tended to overexpress glutaminase, indicative of a functional relationship between glutamine and 2HG metabolism in BC. Hence, 13C-labeled glutamine was combined into 2HG in cells with abnormal 2HG accumulation, whereas pharmacologic and siRNA-mediated glutaminase inhibition reduced 2HG levels. Findings implicate 2HG as a candidate BC oncometabolite associated with MYC activation and poor prognosis.

Wu et al. (2017), examined the connection of vitamin D3 levels with BC risk and progression in African-Americans and Hispanics. A total of 237 African-American (Cases = 119, Control = 118) and 423 Hispanic women (Cases = 124, Control = 299) participated in the investigation. Blood specimens were gathered simultaneously with BC screening and before cancer treatment for an average of 4 weeks per case. The serum 25-hydroxyvitamin D (25(OH)D3) was calculated at a Quest-Diagnostics facility. The outcomes indicated that 69.2% of African-Americans and 37.8% of Hispanics had 25(OH)D3 levels below 20 ng/mL. The 25(OH)D3 level below 20 ng/mL was significantly linked with BC in both

African-Americans (OR = 2.5, 95% CI = 1.3-4.8) and Hispanics (OR = 1.9, 95% CI = 1.1-3.0). Yet, the predicted prospects of BC in African-Americans were significantly greater than in Hispanics (< 0.001). The 25(OH)D3 below 20 ng/mL was significantly connected with triple negative BC (TNBC) in African-Americans (OR = 5.4, = 0.02, 95% CI = 1.4-15), but not in Hispanics in our cohort of participants. Levels of 25(OH)D3 below 26 ng/mL predicts a reduction in disease-free survival, but it is not the sole predictor. This data illustrates an association between 25(OH)D3 levels and the risk of BC. Further studies on the relationship between 25(OH)D3 level and BC risk are necessary.

Short term survival rates for African American female typify the Black experience when captured and compared to other racial/ethnic profiles (DeSantis et al, 2013). Please see Table 4. With respect to Table 4, cause-specific survival rates are the probably of a person not dying of BC within a specified number of years after diagnosis (DeSantis et al., 2014). Also, examination of this table indicates that during 2006 to 2010, the average annual female BC death rate was highest in African Americans. This equated to 30.8 deaths per 100 females, compared to Asian Americans/Pacific Islanders at 11.5 per 100 women. The advanced mortality percentage among African Americans, considering a lower incident rate then non-Hispanic Whites, is attributed to late stage disease development at point of diagnosis and poorer stage-specific survival. In concert to a 5-year specific survival, 5-year relative survival for regional stage BC is plotted at 74% in African American females compared to 86% in White women (DeSantis, et al, 2013).

Table 6

Rates and Trends in Incidence and Mortality and Cause-Specific Survival for Female BC by Race/Ethnicity

	INCIDENCE		**MORTALITY**		**5-YEAR CAUSE-SPECIFIC SURVIVAL**
RACE/ETNICITY	**RATE 2006-2010**	**AAPCa 2006-2010**	**RATE 2006-2010**	**AAPCa 2001-2010**	**Rate 2003-2009**
Non-Hispanic	127.3	0.1b	22.7	-1.8c	88.6

African American	118.4	0,2c	30.8	-1.6c	78.9
Asian American/Pacific Islander	84.7	0.0	11.5	-1.0c	91.1
American Indian/Alaska Native	90.3	-0.3	15.5	-0.4	85.4
Hispanic/Latina	91.1	-0.6c	14.8	-1.7c	87.0
AAPCa indicates average annual percent change. AAPCb indicates is for White women and is not exclusive of Hispanic ethnicity. AAPCc is significantly different from zero (p,.o5).					

Note. Adapted from Breast Cancer Statistics, 2013 by C. DeSantis, J. Ma, L. Bryan, & A. Jemal. Breast cancer statistics, 2013. *CA A Cancer Journal for Clinicians, 64*(1), 52-62. doi 10.3322/caac.21203

Roughly 231,840 original incidents of IBC and 40,290 BC mortalities were anticipated to transpire amid U.S. women in 2015. BC frequency rates amplified concerning non-Hispanic Black (Black) and Asian/Pacific Islander women and were stable among non-Hispanic White (White), Hispanic, and American Indian/Alaska Native women from 2008 to 2012 (DeSantis et al., 2014).

Epidemiology

Epidemiology is the study of populations to determine the frequency and distribution of diseases, and then to measure the risks of those diseases (Medicine.net, 2016). Research literature captures variants by state in oncology areas of mammography screening prevalence, BC incidence, mortality rates, BC proportions diagnosed in situ in regional and distant stages (DeSantis et al., 2014). An example is provided in Table 5. The table can be interpreted in the follow manner. In 2012, the incidence of current mammography screening surrounded by the former year with non-Hispanic White women aged 40 and older ranged from 48% in Wyoming to 72% in Massachusetts.

Table 7

State Variation in Female Breast Cancer Incidence and Mortality Rates (b) and Mammography Usage by Race

	Non-Hispanic White			African American		
	Recent Mammogram 2012	Incidence 2006-2010	Mortality 2006-2010	Recent Mammogram	Incidence 2006-2010	Mortality 2006-2010

						2012				
	AGE 40+	**% IN SITUd**	**% REGIONAL/ DISTANTd**	**INVASIVE OVERALL RATE**	**OVERALL RATE**	**AGE 40+**	**% IN SITUd**	**% REGIONAL/ DISTANTd**	**INVASIVE OVERALL RATE**	**OVERALL RATE**
State										
AL	58	18.6	37.2	117.9	21.0	64	18.3	46.3	121.2	31.5
AK	53	22.6	33.8	130.7	25.2	a	a	a	147.5	a
AZ	56	18.9	32.9	117.1	21.5	a	17.9	42.8	95.7	27.7
AR	50	17.7	37.3	109.6	22.3	49	18.8	53.2	100.8	32.9
CA	60	18.7	33.4	140.6	24.7	70	18.4	43.1	120.7	31.8
CT	55	19.6	33.3	127.9	20.2	a	18.2	46.5	121.5	23.3
DE	66	23.2	31.6	126.9	23.3	73	23.3	36.9	126.7	23.4
DC	57	20.8	35.5	160.5	22.6	66	18.6	44.2	133.6	34.7
FL	60	18.8	32.8	119.7	21.5	60	19.4	46.5	105.4	29.1
GA	61	20.0	34.2	124.0	21.9	65	19.7	45.5	120.9	29.6
HI	60	19.2	29.8	130.4	19.9	a	a	a	128.5	a
ID	50	16.6	36.1	121.6	22.3	a	a	a	a	a
IL	58	20.2	34.9	131.5	23.2	59	21.0	45.5	123.4	33.4
IN	53	18.5	34.0	118.1	23.6	52	20.5	42.8	117.6	31.6
IA	62	18.6	33.5	124.6	21.6	a	22.7	44.4	114.0	28.3
KS	60	16.8	34.7	123.1	22.3	60	17.2	48.1	124.0	28.1
KY	57	16.8	35.0	121.5	22.7	68	19.1	41.8	129.4	32.9
LA	59	17.3	35.7	119.9	22.7	64	16.1	46.2	124.6	33.8
ME	66	21.8	32.0	127.3	20.8	a	a	a	a	a
MD	64	20.6	33.7	131.3	22.8	72	20.5	42.9	125.7	31.7
MA	72	25.2	29.7	137.9	21.8	70	27.7	38.5	97.7	23.2
MI	59	21.6	32.5	118.7	22.8	60	22.7	42.7	119.4	34.3
MN	64	a	a	a	21.1	54	a	a	a	21.9
MS	52	16.6	36.9	112.3	20.8	53	15.6	48.4	117.3	33.4
MO	58	17.7	35.6	121.5	23.7	71	19.2	47.4	130.9	32.4

MT	51	19.1	34.5	123.5	20.0	a	a	a	a	a
NE	55	18.3	33.6	123.7	20.0	56	19.0	42.2	122.8	27.5
NV	52	16.3	34.8	120.6	24.9	a	17.1	43.4	103.7	26.6
NH	65	21.9	31.1	133.1	21.5	a	a	a	107.3	a
NJ	60	23.5	33.7	139.4	26.2	67	20.3	44.3	117.1	30.9
NM	50	15.6	32.1	122.9	22.4	a	a	43.0	83.4	a
NY	62	24.4	32.3	138.4	22.9	66	22.0	43.2	109.0	25.8
NC	62	18.9	34.0	127.2	21.9	63	18.4	43.3	123.0	29.9
ND	59	16.7	36.8	122.9	21.1	a	a	a	a	a
OH	60	18.4	35.1	119.2	24.2	64	19.7	43.3	116.2	31.6
OK	53	16.5	35.4	120.0	24.0	60	17.2	46.0	129.4	34.7
OR	54	19.3	32.4	130.2	22.3	a	17.5	50.0	106.7	22.0
PA	60	20.5	34.3	126.5	23.4	65	21.5	43.5	127.8	32.1
RI	68	21.1	31.5	137.3	21.5	a	18.3	41.0	104.0	19.7
SC	53	18.6	34.3	124.0	21.3	59	18.1	45.4	118.5	29.8
SD	62	19.9	36.5	119.0	20.7	a	a	a	a	a
TN	57	18.3	35.3	118.9	21.8	53	16.5	45.1	122.7	35.4
TX	55	17.5	32.9	124.6	22.0	61	18.1	43.6	117.2	33.5
UT	51	17.8	38.4	113.7	22.8	a	a	a	96.7	a
VT	62	23.7	29.0	133.2	20.7	a	a	a	a	a
VA	64	21.4	32.6	126.8	22.8	65	21.9	41.5	127.3	33.2
WA	57	21.0	33.0	134.8	22.7	65	22.4	41.4	116.4	24.5
WV	58	16.8	34.1	110.7	22.2	a	17.9	42.4	105.7	25.8
WI	63	20.4	34.1	110.7	22.2	a	24.6	48.9	116.5	29.1
WY	48	16.3	36.3	113.2	21.4	a	a	a	a	a
U.S. tot	**59**	**19.8**	**33.7**	**127.3**	**22.7**	**64**	**19.7**	**44.4**	**118.4**	**30.8**
Range	**48-72**	**15.6-25.2**	**29.0-38.4**	**109.6-160.5**	**19.9-26.2**	**49-73**	**15.6-27.7**	**36.9-53.2**	**83.4-147.5**	**19.7-35.4**

a Statistics were not shown for mammography if estimates were based on fewer than 50 respondents and for incidence and mortality rates based on 25 or fewer cases of death.

b All rates are per 100,000 females and age-adjusted to 2000 U.S. standard population.

c Recent mammogram is defined as having had a mammogram within the past year.

d The denominators for percent in situ include all breast cancers. The denominators for percent regional/distant include only invasive breast cancers.
e Mortality data for White women in these states are not exclusive of Hispanic ethnicity.
f The incidence rate for White women in Massachusetts is not exclusive of Hispanic ethnicity.

Note State Variation in Female Breast Cancer Incidence and Mortality Rates (b) and Mammography Usage by Race. Adapted from Breast Cancer Statistics, 2013 by C. DeSantis, J. Ma, L. Bryan, & A. Jemal. Breast cancer statistics, 2013. *CA A Cancer Journal for Clinicians, 64*(1), 52-62. doi 10.3322/caac.21203.

Approximately 32 states had data sufficient to evaluate the incidence of mammography screening within the past year in African American women 40 years of age and older. Results ranged from 49% in Arkansas to 73% in Delaware. BC frequency percentages also fluctuated from 83.4 cases per 100,000 women in New Mexico to 147.5 cases per 100,000 females in Alaska amid African American women (DeSantis et al., 2014). Incidence rates represent screening intensity in addition to disease occurrence. Recording of in situ BC, which designates mammography usage, varied from 15.6% in New Mexico to 25.2% with non-Hispanic White women and from 15.6% in Mississippi to 27.7% in Massachusetts amid African American women.

The quantity of regional/distant stage cancers fluctuated from 29.0% in Vermont to 38.4% in Utah among non-Hispanic White women and from 36.9% in Delaware to 53.2% in Arkansas among African American women. A relationship between mammography screening rates in 2010 and BC stage at diagnosis during 2006 through 2010. Mammography screening prevalence at the level of state activity was correlated with in situ diagnoses ($r = 0.47$; + = .006), late-stage data was unavailable. While African American women were found to have similar mammography screening rates to non-Hispanic White women, the former were more likely to receive screening diagnosis of regional and distant stage. This discrepancy is suspected to come from quality differences in mammography screening practice and delayed follow-up for abnormal mammography findings (DeSantis et al., 2014).

Recommendations from the U.S. Preventative Service prompts the medical community to conduct a genetics risk assessment on all women to spot mutations affiliated with BRCA1/2 gene (Robinson et al., 2015). The testing identifies gene indicators for hereditary and ovarian cancer (HBOC) syndrome (Nakamura et al., 2016; Silva et al., 2014). Robinson et al. (2015) reports test data following a diagnosis of HBOC is difficult to ascertain, particularly in diverse populations. In addition, the medical community is lacking vital information regarding genetic screening in high-risk underserved women. By extension, a need to know exists among practitioners if screening in such communities reduces the incidence of cancer. A study was conducted to address this concern and data from 61, 924 underserved women was collected for evaluation (Robinson et al., 2015).

Study procedures spanned 21 months and research involved chart reviews at two safety net hospitals delimiting data collection to family histories clustering to HBOC syndrome (Robinson et al., 2015). A safety net hospital provider arranges and provide substantive health care and associated health care services to uninsured individuals. This includes those of Medicaid and individuals originating from vulnerable communities. Safety net providers also includes those organizations who are mandated or have a mission to offer access to medical services irrespective of patient ability to pay. Patients come from groups who are uninsured, on Medicaid, and represent a vulnerable population (U.S. Department of Health and Human Services, 2013).

According to the American Journal of Managed Care (AJMC, 2006), vulnerable populations include the economically disadvantaged, racial and ethnic minorities, the uninsured, low-income children, the elderly, the homeless, those with human immunodeficiency virus (HIV), and those with other chronic health conditions, including severe mental illness. It may also include rural residents, who often encounter barriers to accessing health care services. The vulnerability of these individuals is enhanced by race, ethnicity, age, sex, and factors such as income, insurance coverage (or lack thereof), and absence of a usual source of care. Their health and health care problems intersect with social factors, including housing, poverty, and inadequate education (AJMC, para. 2).

Robinson et al. (2015), observed the long-term effects of cancer via a computer model structured for the investigation. Assessment variables included initial mutation detection and achievement of prophylactic surgeries in BRCA1/2 mutation carriers. Findings show that screening for high-risk individuals did not reduce cancer incident (Robinson et al., 2015). The importance of constructing computer models which consider diverse populations cannot be over emphasized. For example, the University of Wisconsin BC Epidemiology Simulation Model (UWBC S), also referred to as Model W, is a discrete-event microsimulation prototype using a systems engineering approach to imitate BC epidemiology in the U.S. in a chronological manner. This demography-based reproduction simulates the lifetimes of different women through 4 main model mechanisms BC natural history, detection, treatment, and mortality. The mockup is adjusted to Surveillance, Epidemiology, and End Results (SEER) BC incidence and mortality data from 1975 to 2010, and cross-validated beside statistics from the Wisconsin cancer reporting system. The UWBC S has been recently restructured to note diversity in BC detection, therapy, and survival by molecular subtypes which is defined by ER/HER2 status. The update also reflects the recent gains in screening and treatment. It also considers a range of BC risk factors, including breast density, race, body-mass-index, and the use of postmenopausal hormone therapy (Alagoz et al., 2018).

From 2001 to 2010, BC percentages death rates decreased yearly 1.8% in non-Hispanic Whites, 1.7% in Hispanics/Latinas, 1.6% in African Americans, and 1.0% in Asian Americans/Pacific Islanders, but was stable in American Indians/Alaskan Natives (DeSantis et al., 2014). Research illustrates the arresting discrepancy in long-term BC mortality trends between African American and White women started in the early 1980s (DeSantis et al., 2014). A combination of influences causing the chasm include differences in stage diagnosis, corpulence, other comorbidities, tumor features, access, treatment compliance, and treatment response (DeSantis et al., 2014). African American women, in 2010, endured a 41% higher mortality rate than White women (DeSantis et al., 2014).

Society and Culture

Matrenec & Spencer (2012) illustrate how human identity is formed in terms of competence, resiliency, and cultural relationships. This is part of the process of human development. These researchers posit true culture can best be understood in natural, uncontrolled relationships between the human being and social context. Culture serves as the lens through which human actions transpire and is observed, without this context human experience cannot exist. Poverty, less education, and lack of health insurance are associated in lower BC survival (DeSantis et al., 2014). Patients who live in lower income areas also experience a lower 5-year survival rate compared to those living in higher-income areas at every stage of diagnosis (DeSantis et al., 2014). These concepts are salient to this study because the problem statement in this research project examines the study of African American women and their access to quality health care treatment, within the broader social context of Caucasian women and their access to quality health care treatment. Research literature around BC suggests racial disparities in cancer mortality are prompted by diversity in socioeconomic status (DeSantis et al, 2014).

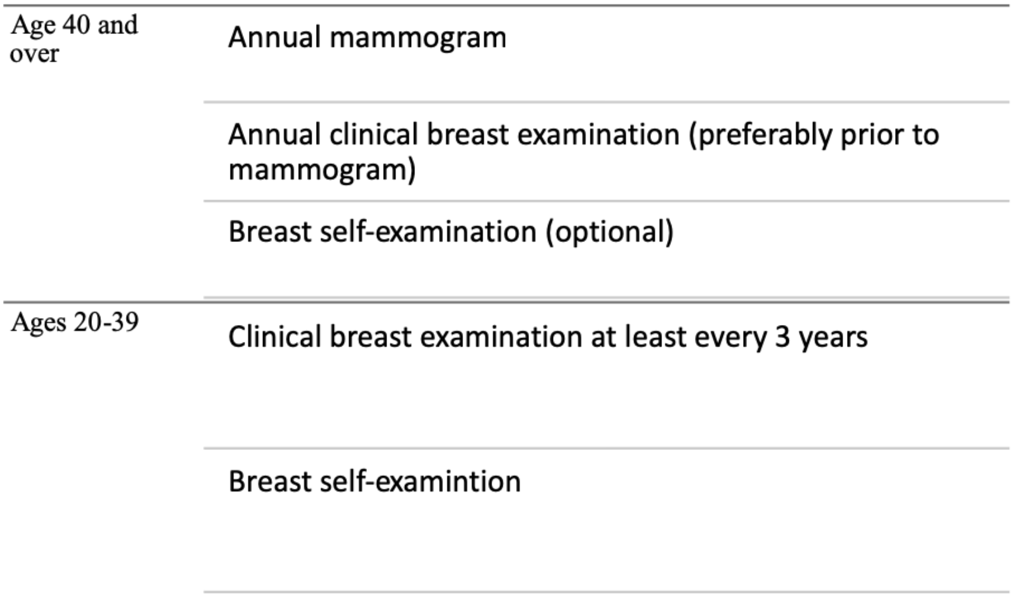
BC is the second foremost source of cancer linked deaths amid women aged 40-55 in the U.S. and presently touches more than one in 10 females globally (Yedjou et al., 2017). BC is similarly one of the greatest diagnosed malignances in women both in affluent and impoverished countries. The mortality frequency from BC has diminished in current times because of amplified focus on timely recognition and extra beneficial therapies in the White populace. Even though mortality percentages have diminished in several ethnic peoples, the general cancer frequency among African American and Hispanic populaces persistently grows. Similarities and differences in BC morbidity and mortality rates prevail between African American and White women in the U.S. (Yedjou et al., 2017).

An exploration of articles in periodicals with a principal concentration on minority wellbeing, and authors who had published research on racial/ethnic discrepancy related to BC patients was conducted. A systematic exploration of innovative research transpired using MEDLINE, PUBMED and Google Scholar databases. Findings indicated racial/ethnic disparities in BC can be credited to a great quantity of scientific and non-scientific risk factors embracing lack of medical insurance, barriers to early discovery and screening, increased advanced stage of illness at diagnosis among the underserved, and unequal access to improvements in cancer treatment. Many African American women have frequent unidentified or un-staged BCs than White women. These risk factors may elucidate the dissimilarities in BC treatment and survival rate between African American and White women. New approaches and methods are needed to encourage BC inhibition, advance survival frequency, decrease BC mortality, and eventually enrich the health outcomes of racial/ethnic minorities (Yedjou et al., 2017).

The Black Women's Health Study is an on-going prospective study containing a cohort of 46,734 individuals, aged 21-69 baselined in 1995 (Nomura et al., 2016). One study purpose arising out of this population involved the evaluation of whether time spent sitting at work or watching television was associated with BC risk among African American women. Questionnaire statistics were used to approximate sitting time. Entire occasions expended sedentary at employment and viewing television, separately and commingled, at baseline and modernized amid follow-up during 1995–2001 and BC occurrence where $n = 2,041$ incident cases during 1995–2013 was appraised using proportional hazards regression. Higher total time spent sitting at baseline (≥10 vs. <5 h/day, HR 1.27, 95 % CI 1.06, 1.53) and updated through follow-up (≥10 vs. <5 h/day, HR 1.38, 95 % CI 1.14, 1.66) was linked to an increased BC risk. Associations were stronger for hormone receptor-negative tumors (≥10 vs. <5 h/day, HR 1.70, 95 % CI 1.12, 2.55) compared to hormone receptor-positive tumors (≥10 vs. <5 h/day, HR 1.16, 95 % CI 0.88, 1.52), but tests for heterogeneity were not statistically significant (p heterogeneity = 0.31). Positive links between total time spent sitting and BC incidence did not differ by PA level or body composition measurements. Study results suggest high sedentary time may increase risk for BC among African American women (Nomura et al., 2016).

Many African American women cope with BC via holy and sacred practices. Forty-seven African American women who had finished therapy for BC partook in in-depth discussions about their encounters. Most of the women revealed using both private and public religious and spiritual procedures to cope with BC analysis and therapy. The main themes that arose in terms of the sorts of spiritual and sacred practices included (1) appearance at sacred services, (2) solace through devotions of others, and (3) inspiration through investigating Biblical scriptures. These behaviors aided women trust in the Lord during the numerous trials of cancer from diagnosis through survivorship. While this investigation is empirical, the conclusions illustrate how African American women with BC use sacred and divine exercises to cope with their diagnosis and treatment. For clinicians, the discoveries offer a comprehension of spiritual and religious requirements in diverse people and the significance of referring clients onto spiritual and religious sources and backing. (Lynn, Yoo, & Levine, 2014).

Not all population segments have benefited from the 34% drop in BC death rates since 1990 (DeSantis et al., 2014). However, recommended screening guidelines are suggested to encourage patients 40 years and older to have an annual mammography. Please see Table 5



Age 40 and over	Annual mammogram
	Annual clinical breast examination (preferably prior to mammogram)
	Breast self-examination (optional)
Ages 20-39	Clinical breast examination at least every 3 years
	Breast self-examintion

Table 6 American Cancer Society Guidelines for the Early Detection of Breast Cancer in Average Risk, Asymptomatic Women. Adapted from “Breast Cancer Statistics, 2013” by C. DeSantis, J. Ma, L. Bryan, & A. Jemal. Breast cancer statistics, 2013. *CA A Cancer Journal for Clinicians, 64*(1), 52-62. doi 10.3322/caac.21203

Clinicians are encouraged to follow these recommendations. Clinical methodologies should include patient care practices, which include annual mammograms, consistent follow-ups of abnormal results, prompt diagnosis, and high-quality delivery of treatment. Essential to improved BC outcomes, patients identified as high risk of BC are offered appropriate screening and follow-up (DeSantis et al., 2014; 2016).

Summary and Conclusions

The major themes in the literature can be summarized in terms of search strategies used, the theoretical and conceptual foundations of the study, and the literature review. Themes emergent in the search strategy surrounded research on the general field of BC and touch upon the lived experience of Black women on international, national, and regional magnitudes. Research from the fields of phenomenology and Social Ecology theory inform the theoretical and conceptual frameworks of the study. The lived experiences of young Black women with BC are contextualized from a general overview of BC which includes descriptions of sign and symptoms, risk factors, diagnosis, screening, prognosis, epidemiology, and society and culture. Once the general overview was given, the lived experiences of the Black women are examined using the same set of factors.

What is known in the field of oncology is that BC is quickly spreading all over the world and that it is a function of industrialization. While rates of BC are rising, research is rendering interventions extending survival rates through medical advances for some, but not all racial groups and ethnicities. Socioeconomic and regional factors influence access and quality of services. Historically, disparities exist between Black and White women in terms of BC screening and treatment. Screening discrepancies appear to be closing between Black and White women, but Black women still have the poorest prognosis of survival compared to all other demographics. BC rates appear to be rising for young Black women. Relatively little research exists regarding the lived experiences of young Black women who contract BC. This present study fills the gap of BC literature pertaining to young African American BC patients and their experiences with the disease. The study will extend knowledge in the disciplines of oncology, sociology, physiology, and psychology. This study addresses the gap in the literature by using Social Ecological Theory with a qualitative methodology and phenomenological design. The approach is addressed in detail in chapter 3, which follows.

Chapter 3: Research Method

My purpose in this qualitative phenomenological case study, as stated in Chapter 1 is to address a gap in knowledge and insights in treatment and the lived experiences of African American women, 20 to 40 years of age in Jackson Mississippi. The major sections of Chapter 3 begin with a discussion on research design and rationale; role of the researcher; methodology; researcher developed instruments; procedures for pilot study; procedures for recruitment; participation and data collection, data analysis plan, issues of trustworthiness, ethical procedures, and chapter summary. The discussion now turns to Research Design and Rationale. Restates the research problem – more here

Research Design and Rationale

In this section I cover the three research questions, which define this qualitative phenomenological study, as well as the theoretical and conceptual frameworks, which provide the context for inquiry. The section concludes with a discussion of the research design and rationale for its use. The exact research questions, as described in chapter 1 are as follows:

RQ1 What insights can African American women with BC, aged 20 to 40 years provide concerning the quality of breast care treatment they receive?

RQ2 What observations can African American women with BC, aged 20 to 40 years, identify as barriers which prevent or delay quality of breast care treatment?

RQ3 How do African American women with BC, aged 20 to 40 years, view the removal of perceived barriers which prevent or delay quality of breast care treatment?

This investigation traverses theoretical and conceptual frameworks and these notions are identified and defined in the following manner. The first theoretical framework informing this study is Bronfenbrenner’s Social Ecological Theory (Bronfenbrenner, 1979; Matrenec & Spencer, 2012). This stage-based theory posits the development of human beings is shaped by a variety of environmental forces. The second theoretical framework, the PVEST, a modified version of Bronfenbrenner’s Social

Ecological Theory (Bronfenbrenner, 1979; Matrenec & Spencer, 2012), clusters to this BC study and the original Social Ecological Theory is tempered by phenomenological influences. The theory of PVEST extends the ecological notion by advocating the development of human beings is also staged based and structurally determined by socioeconomic. Three concepts inform this theory competence: the need to demonstrate effective in life; resiliency, the aspect that human beings act and react to experiences according to their degree of vulnerability to environmental forces; and self-identity, where the identity of the individual is seen as viscous and changes according to personal reassessments in response to challenges, successes and failures in life. Erickson's psychosocial work on the development of self-identity influences this part of the conceptual framework which infers self-identity formation is a life-long process (Dunkel & Harbke, 2017; Matrenec & Spencer, 2012).

Interpretive phenomenologists seize the data acquired from people and scrutinize it with a psychological and sociological lens to uncover the covert motive prompting an answer. For this investigation, I used the descriptive or transcendental phenomenology is used to ascertain access to BC resources as experienced by young African American women 20 to 40 years of age.

This investigation was grounded on the descriptive, phenomenological technique created by Giorgi whose notions were inspired by the principles formed by Husserl and Merleau-Ponty (Applebaum, 2009). Giorgi's phenomenological exploration process comprises five central phases: (a) depicting the event being studied, (b) comprehending the entire meaning of the occurrence, (c) defining lived experience in terms of meaning units (d) converting raw information into psychological meaning, and (e) rendering the general framework of the event (2009). Qualitative inquiry does not focus on statistics, but focuses on philosophical and psychological experiences, both necessitating the thinking and expression of the notions being offered. My purpose of this study was to find out the barriers to the quality of BC health care treatment as individually perceived by young African American women, 20 to 40 years of age. In addition, I wanted to determine whether attitudes such as self-capacity, self-efficacy, and self-determination, and optimistic attitude, emerge for the investigation of resulting thematic patterns.

Role of the Researcher

Braun and Clark (2013) asserted that investigators must be familiarized to the mindfulness of study regarding RQs and evaluating results so specific talents are vital, such as the following:

- Being able to express interest and understand the process and meaning of the phenomenon.
- Having a critical and analytical approach to life and knowledge.
- Being able to step outside and into another culture of experiences.
- Being able to listen and view carefully what is being said.
- Reflecting on one’s own role as a researcher.
- Having good interpersonal skills, the ability to be pleasant, warm, and sincere to establish a trusting relationship with the participant. The goal is to make the participant comfortable and more responsive to the questions.
- Having an excellent understanding of the qualitative approaches (p. 10).

The proficiencies a qualitative investigator cultivates are implemented in various fields as well. These competences permit the researcher understand participant trials and real-life experiences (Braun & Clark, 2013).

Considering the preceding discourse, the attributes brought to the table by the investigator in this study follow. The role of the researcher can be explained in this BC study as an observer. The researcher will collect data primarily through transcripts derived primarily from recorded face-to-face interviews and audio tapes. I had no personal or professional relationships with the participants. Specifically, there were no supervisory relationships involving power are void in this project. Likewise, there was not a relationship of an instructional nature involving power.

Methodology

The population sampled in this study is 10 African American female BC patients, 20 to 40 years of age in the central Mississippi region. The sampling strategy used for this study is purposeful, and criterion-based sampling. The justification in using criteria sampling strategy is parameters selected by the researchers are provided to precisely target cases for investigation (Purposeful sampling, 2013). These criteria may arise from quantitative research, for instance, statistics from standardized questionnaires, and constitute the foundation for the selection of information rich cases for focused study.

The criterion on which participants are selected in this study is

1. Women ages 20 to 40;
2. Women who self-identify as African-American;
3. Women who communicate effectively in English, able to read, write, and comprehend English;
4. Women who have received navigation services subsequent to a BC mammogram;
5. Women who are willing to share their experiences in acquiring access to BC services;
6. Women who currently engage in a post-treatment BC follow-up regime;
7. Willing and able to give informed consent. Participation acceptance is achieved when the candidate successfully meets all criteria in an initial screening interview and an informed consent form is signed.

A quantity of 10 selected cases are planned for the study. The number of contributors designated for the inquiry is small because the aim of this study is not to generalize to a greater population, but to gather intensive evidence that could add information and meaning to the arena of public health (Creswell, 2007). The rationale for selecting 10 participants is based on phenomenological research which has no established guidelines for the quantity of research contributors (Patton, 2002); and, Creswell (2013) postulated the idyllic research participant amount in a phenomenological examination is approximately 5 and 25. To appreciate the features of the phenomenon being examined, the sample size should be great enough. Yet, there is no set sum for a sample volume. Reid et al. (2005), concluded that the population size in understood when the investigator accumulated sufficient ample information from the study members to address the research questions. Methodologists who focused in qualitative research advanced that this kind of research can be performed with a little sample size and advise 5 to 25 participants; others asserted 3 to 10 was sufficient (Creswell, 2013; Patton, 2002; Reid et al., 2005). The required sample size to comprehend lived experiences of young African American women with BC who have navigated the health care system in central Mississippi is 10.

In this qualitative phenomenological case study, the researcher will be the instrument. This means that the researcher will play the role of data collection and interpretation in the interviewing and an audio tape recording process. Semi-structured interviews will be conducted to draw comprehensive replies from the members. Semi-structured conferences promote a situation for additional conversations amid the investigator and the contributor to attain a greater comprehension of the event under examination (Mojtahed et al., 2014). The semi-structured interview sanctions the investigator to ask additional specified follow-up questions regarding numerous aspects on a subject (Mojtahed et al., 2014). The interview will be a part of an observation approach which also notes body language and facial countenances as the contributors reply to questions. Audio recordings of the session will be employed to obtain the details of the answers correctly, and only documented with the permission of the participant. All interviews will be transcribed verbatim by the researcher and all personal proof of identity and private data will be deleted from all the transcripts (Hohl, 2014). Instruments developed for this research project are based on the literature review found in Chapter 2 and the assumption that participants will divulge their true experiences in obtaining access to BC support services.

Content validity will be established in the following manner. The validity of inquiry outcome is a crucial matter for each qualitative study (Wang & Lien, 2013). In qualitative investigation, validity is founded on the credibility of the findings culled from a study. Data accuracy is vital. Validity signifies how properly the investigator depicts the phenomenon (Morse, 2015). The aim of the researcher is to catch the lived experiences of the person and symbolize them precisely (Ihantola et al., 2011). The examiner’s objective is to create trust and confidence in the study findings. The investigator is accountable for the research consequences since it is the examiner who gathered, evaluated, and portrayed the information, (Morse, 2015). Qualitative scientists aim to stage trustworthiness with four essentials (a) dependability, (b) credibility, (c) transferability, and (d) confirmability (Guzys et al., 2015).

The approaches for preserving validity are protracted meeting, constant watching, comprehensive description of information, illuminating examiner bias, and member checking (Morse, 2015). While the hunt for validity outspreads the amount of stages in a study, it is an imperative feature in an ethical investigation (Wang & Lien, 2013).

Pilot Study

A pilot study will be performed with one known volunteer participant. The rationale of the pilot study is to ensure that discussion questions will deliver material that will address the research questions. The pilot study will be done in the identical setting and according to the same procedure as that of the primary investigation contributor conferences. Dispensing a pilot study helps to eradicate technical or preparation and administration complications that might happen in the primary interview process. The pilot study provides the chance to rehearse audio-recording, and researcher interview techniques. These techniques include creating respectable like-mindedness with a skilled self-introduction to the research contributors, describing the informed consent process, and opening and closing procedures for a semi-structured interview. The information gathered in the pilot study is not incorporated in the ultimate data analysis process for this project.

Procedures for Recruitment, Participation, and Data Collection

Participant selection is based on the following procedures. Dalbye, Calais, and Berg (2011) advised research contact with study participants cannot transpire until preceding consent, and a process is in place reaping trust and admittance to a population and its people. This investigation necessitates the involvement of human subjects, before any collection of data. The researcher will present a request to conduct inquiry to the Institutional Review Board (IRB) at Walden University. The IRB examines the submission and investigation procedure to protect human subjects from mistreatment and to certify that all ethical criteria are satisfied, and the study complies with U.S. federal guidelines for compliance.

To prepare the IRB application the researcher will submit introduction letters Appendix B to BC establishments in the central region of Mississippi. A total of 10 letters will be sent. This letter gives individual and scholastic ambitions, the foundation of the investigation, and an invitation to ask assistance from the membership to engage in a qualitative investigation. The introduction letter also includes the name, certifications, and endorsements of the Committee Chair. The packet will include the consent form Appendix C, and a letter of cooperation Appendix D. This letter recants the intent of an organization to support this research project and would allow the investigator to enroll organizational membership for possible research inclusion. This letter must be signed by organizational directors and sent on organizational letterhead either to the researcher or to the IRB.

When the IRB application is accepted from Walden University, individual meetings with the appropriate personnel of planned research sites will be arranged to review recruitment procedures and address any remaining questions. A flyer, Appendix E, was created as the enlistment instrument. The researcher will request the flyer be placed in the company newsletter and put in the public areas of the office. The flyer contains a summary of the examination and the standards required for participants, as well as contact name, number, and email of the researcher.

Purposeful and criterion sampling techniques will be used to recognize the women for this research. Criterion sampling will be used once possible participants are pinpointed and chosen. The researcher will conduct a selection process over the telephone with every potential candidate and cover researcher background, and reasons why the candidate wishes to participate in the study. Study participants are advised at this point, and if accepted, during the primary interview that involvement in this project was voluntary and the choice to opt out at any time is available should they wish to do so. If at the end of the initial interview, the candidate meets study criteria and there is an ability and willingness to participate in the study, the researcher will collect a short demographic history and end the call with a time most convenient to conduct the primary interview. If at the end of the call the candidate does not meet the study requirements or is unable or unwilling to participate, the researcher will thank the individual for their time and terminate the call.

Women inducted into the study will also receive researcher contact information if subsequent questions arise or if these are a need to reschedule the interview. Actual study details will be provided at the primary interview session, which includes details of the interview process, how the data is collected, stored, and destroyed. The semi-structured interview method used in this study will be explained to each participant. Interview questions are developed as a guide to keep the discussion focused, maintaining a conversational tone (Appendix B). Study participants are permitted to divulge as much or as little as their confidence allows.

A 2x3 BC toll-free helpline card (Appendix C), bottle of water and a box of tissue will be given at the interview. These items are presented for the unlikely occasion the participant may experience psychological distress created by the sensitivity of the interview. The toll-free number will be linked to a private therapist available to deliver basic support pending a time when the participant can access a primary care or mental health provider.

Based on the tentative projection of 10 study participants, the anticipated number of data collection sessions is, but not limited to, 20. The first session is devoted for initial data collection, the second session devoted towards member checking where the study participant verifies the accuracy of the interview session transcript derived from the first interview session. Each interview session is anticipated to last approximately 45 minutes to an hour. If recruitment results in too few participants, the researcher will use a variety of strategies to generate new subjects including snowballing, contacting various BC support organizations, working with pastors of various religious groups, and posting solicitations at the university. To close the session participants will be asked again if questions remain concerning the consent form, information use, data collection, and data storage. To guard participant privacy all individuals will be provided a pseudonym. All research materials will be stored in a locked file in the home office of the researcher. All materials will be destroyed after five years.

Data Analysis Plan

An inquiry strategy was applied to recognize and harness the most suitable method for data analysis (Reiter et al., 2011). The research subjects will describe lived experiences throughout the interview session. The researcher will document responses to interview questions, gather, and evaluate the data. The aim is to acquire precise outcomes from the collected information. Strategies for a qualitative phenomenological research design are provided (Braun & Clarke, 2013) and listed in Figure 8.

Figure 8. Strategies for a qualitative research design

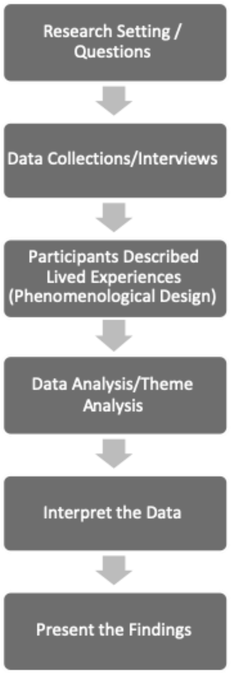
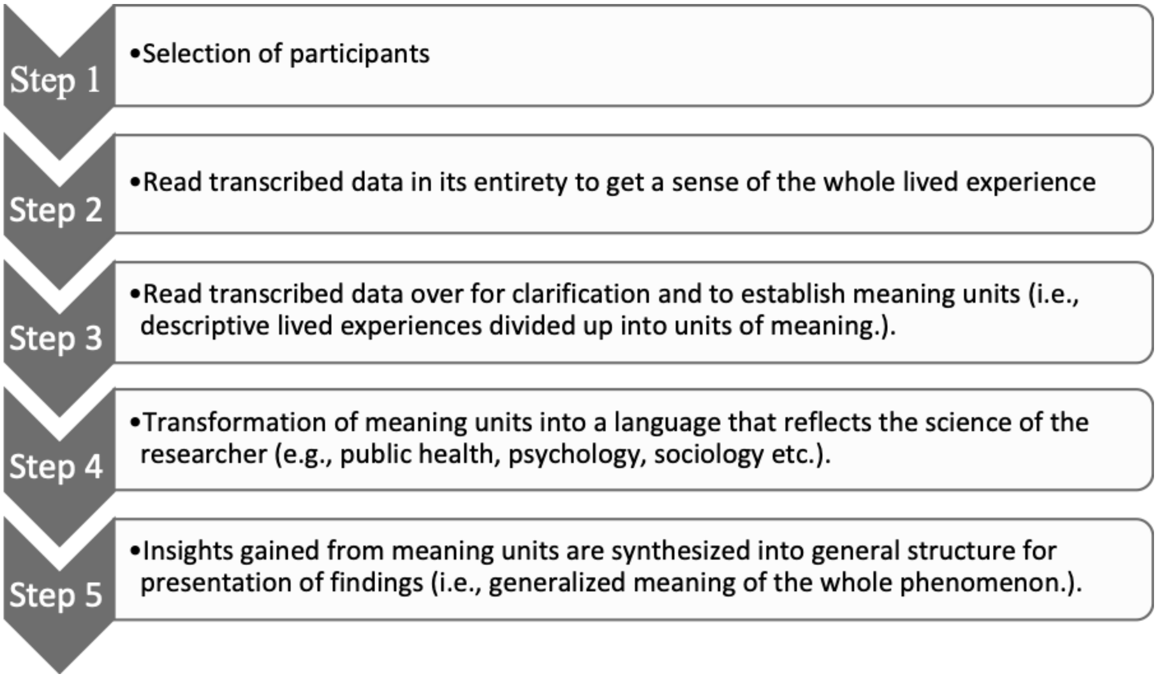


Figure 8. Adapted from Successful qualitative research A practical guide for beginners by V., Clarke, & V. Swanson, 2013, Thousand Oaks, CA Sage.

Figure 9 below demonstrates Giorgi's research methods used and provides a closer look at the process of deriving meaning from the data gathered in this study.

Figure 9. Giorgi's Phenomenological Research Method



Step 1 •Selection of participants

Step 2 •Read transcribed data in its entirety to get a sense of the whole lived experience

Step 3 •Read transcribed data over for clarification and to establish meaning units (i.e., descriptive lived experiences divided up into units of meaning.).

Step 4 •Transformation of meaning units into a language that reflects the science of the researcher (e.g., public health, psychology, sociology etc.).

Step 5 •Insights gained from meaning units are synthesized into general structure for presentation of findings (i.e., generalized meaning of the whole phenomenon.).

Figure 9. Adapted from Phenomenology An exploration by D. M., Wojnar, & K. M. Swanson, 2007, *Journal of Holistic Nursing, 25*(3), 172-180. doi 10.1177/0898010106295172

In terms of data administration, Microsoft Word and Excel software will be used to record, code, and evaluate the discussion data. The unprocessed information concerning each contributor's attributes and characteristics from the recruitment procedure will be united with every participant's discussion answers and moved into Excel spreadsheets for qualitative scrutiny. Once the data is inserted on the spreadsheet, a coding process will be invoked. This method allows the data to be coded and sorted for each member's replies from the discussion. The data will be organized by age, and other demographics, and then scrutinized according to an open and selective coding process, which is a procedure to (a) recognize what was needed, (b) decide the borders of occurrences, and (c) assemble the information into a solitary case (Braun & Clarke, 2013).

Specific data will be designated that cluster to the specific thematic phenomenon and will be appropriately appraised as relevant information to answer the RQs. All selected data will be coded, which enables total analysis of each feature of the results. During this process, the codes will be identified and labeled as a data feature. The codes will be noted on hard copies for categorizing and stored in a file location. The information will also be entered onto an Excel worksheet for code documentation, data analysis, and to summarize hard copy file locations. Braun and Clark (2013) assert that documenting code names and underscoring the text as hard copy are vital and the best methodical and detailed tactic for data scrutiny. Once the information is coded, classified, and synopsized, member checking can occur transpire with the participants. This approach will allow the contributors to confirm data in hard copy form was taken correctly. Also, the approach permits the participants to make necessary changes during member checking.

Coded data for each RQ will be collected, and organized for each question on the Excel spreadsheet, sectioned by RQ, for analysis. Coding refinement continues as the entry is placed on the spreadsheet. This will provide specific coded details related to the research question. One approach to verify trustworthiness is the practice of discrepant case analysis. Throughout the analysis of the information for themes and patterns, the investigator will be aware of data which falls outside of the main study findings. Discrepant cases are discoveries that challenge the foremost themes of the research. Counting discrepant cases contributes credibility to research, thus amplifying validity (Creswell, 2009).

Issues of Trustworthiness

Credibility

The validity of investigation results is an important subject for all qualitative inquiry (Wang & Lien, 2013). Validity is built on the credibility of the findings found in qualitative research. The accuracy of data is imperative in qualitative research. Validity exhibits how justly the investigator signifies the phenomenon (Morse, 2015). The scientist’s goal is to secure the lived experience of the person and characterize them truthfully (Ihantola et al., 2011).

Transferability

In qualitative research, the means in which study results can be transferred to an alternative context is defined as transferability (Morse, 2015). Transferability can deliver chances to compare numerous studies, which deliver an improved comprehending of the phenomenon (Hitchock & Newman, 2013). Transferability in qualitative inquiry is also known as external validity (Morse, 2015). In the transferability segment, the examination can be attuned to a precise context. The investigator provides thorough information, so reviewers can appreciate the research and assess the conclusions. Additional scientists may deliver additional results for the research (Morse, 2015). Transferability is facilitated by precise researcher documentation of subject statements and experiences central to the study.

Dependability

Dependability is connected to constancy of results, as investigators from every additional situation should be able to obtain the identical research outcome if an original inquiry transpires with the equivalent research subjects (Creswell, 2009). Suitable approaches to create dependability includes application of audit trails and triangulation. The study motivation is to evaluate research accuracy and assess if results, interpretations, and deductions are in concert with collected data.

Confirmability

Confirmability designates the extent to which the findings of the study are verifiable (Highfield & Bisman, 2012). As fluctuations happen in the research, the investigator records and portrays variation. The investigator authenticates the variations in the research throughout the confirmability procedure, which are studied and corroborated by others. The examiner also leads an audit to examine the collection of data and information analysis methods. Audits are employed to authorize the exactness of the study. As part of this research, an all-inclusive audit trail of design material, findings, and investigator documentation will be upheld to apprehend all stages in the study procedure from beginning to end (Highfield & Bisman, 2012).

Ethical Procedures

Institutional Review Board approval will be obtained from Walden University. The study participants are young African American women with BC who have the privilege either or not to be participate in the study. There are negligible jeopardies allied with contributing to this research. The interview questions are considered personal or private. The researcher will ensure the namelessness of the contributors who may opt out any time. All participants will fill out an individual consent form which insures confidentiality. Sample replicas of the form for consent to audiotape and confidentiality statement are in Appendix C. Any identifying information of the participants will be removed from transcripts before data validation. All research materials such as transcripts, files and audiotapes will be securely preserved in a protected safe in a home office and will be destroyed after five years. Only the investigator will have admittance to investigation material.

Summary

The main points of the chapter are more insights, observations, and views are needed from young African American women with BC concerning barriers to BC services in central Mississippi. The research aim will be accomplished using qualitative phenomenology. Many forms of phenomenology exist, and the descriptive phenomenological approach was chosen to retrieve direct, uninterpreted lived experiences of these women. For this approach to work, the researcher must have the ability to step into the world of another and listen and look carefully at the described experience. Approximately 10 participants will be selected through purposeful and criterion sampling, should more participants be needed, snowball sampling will be employed as well. The investigator will use a researcher developed interview questionnaire and audio record the session. A pilot study will be performed to test and refine the interview form and process. Procedures for recruitment, participation, and data collection will be initiated once approval is received from Walden IRB. Recruitment will be conducted at various BC organizations in central Mississippi. Data analysis will occur on the level of derived themes embedded in provided interview accounts. Coding will be administered using Microsoft Excel Software. This research study is conducted within the framework of trustworthiness and the researcher will ensure that the account embraces credibility, transferability, dependability, and confirmability. Ethical procedures as mandated by the Belmont Report is honored in this research. The discussion now turns to chapter 4.

Chapter 4: Results

Introduction

My purpose in this qualitative phenomenological case study was to examine the lived experiences of African American female BC survivors before, during, and after treatment. I conducted in-depth interviews with 10 African American female BC survivors between the ages of 20 and 40 in Jackson, Mississippi, to examine their perceptions of the quality of health care treatment received as a result of their diagnoses. I addressed the research gap on specific barriers to receiving high-quality health care treatment for young Black female BC patients. Chapter 4 will provide an overview of the recruitment and participant selection processes, the setting of the study, the data collection and analysis processes, and the themes that emerged through qualitative data analysis.

Participant Recruitment and Selection

Study recruitment occurred during the months of February and March 2019. Recruitment flyers see Appendix E were posted in various locations of The University of Mississippi Medical Center. I also shared the flyer via email and social media platforms such as Facebook. Potential candidates for the study responded to the recruitment flyer by text, email, and social media. Eligibility criteria for this study included participants who

1. Women ages 20 to 40 who have been diagnosed with BC
2. Self-identify as African American;
3. Can read, write, and comprehend English;
4. Have received navigation services after receiving a BC mammogram;
5. Are willing to share their experiences in acquiring access to BC services;
6. Currently engaged in a post-treatment BC follow-up regime; and
7. Are willing and able to give informed consent.

Potential participants were asked to complete an initial screening interview see Appendix A via phone or email to determine eligibility for the study. Candidates who successfully met all criteria and signed an informed consent form Appendix A was selected to participate in the study.

Instrumentation

I used a demographic questionnaire to obtain background information on each of the 10 participants Appendix A. The questionnaire included nine questions in reference to the background of each participant that included their initials, age, gender, race, marital status, BC survivor status, employment status, and highest education level. The participants were also asked if they were willing to share their experiences with me.

Interviews were utilized to unearth the unique perceptions of young African American female BC survivors. The interview protocol included 17 questions designed to help answer the three research questions guiding this study

1. What insights can African American women with BC; aged 20 to 40 years provide concerning the quality of breast care treatment, they receive?
2. What observations can African American women with BC, aged 20 to 40 years, identify as barriers that prevent or delay quality of breast care treatment?
3. How do African American women with BC, aged 20 to 40 years, view the removal of perceived barriers that prevent or delay quality of breast care treatment?

Pilot Study

Before I began to conduct interviews with the 10 recruited participants, I conducted a pilot study to determine the validity of the interview protocol and the effectiveness of the approach. A 40-year-old African American female BC survivor in Jackson, Mississippi volunteered to participate in the pilot study. I interviewed the volunteer 2 weeks prior to primary data collection with the 10 recruited participants to allow time for possible updates to the interview protocol.

Before the interview, I provided the pilot study participant with a copy of the informed consent form to review. I also emailed the pilot study participant to confirm the time and location of the interview. After meeting the participant at the interview location, I ensured that public place had a room with a door that open and closed for the privacy of the participant. I also confirmed that the participant did not have any questions regarding the process. The participant signed the informed consent form and we began the interview. When asked whether the participant wished to have the opportunity to review the interview transcript and/or the results of the study, the participant then stated, I wish to receive both. The participant then provided contact information.

After initiating the audio recording at the start of the interview, I read the interview questions to the participant and composed analytic notes as the participant responded. The participant answered each interview question in a precise manner suitable to the objective of the respective question. The participant did not ask any clarifying questions during the interview. The interview lasted approximately 40 minutes. Once all interview questions were asked, I thanked the participant for her time and cooperation.

The pilot study was implemented effectively. I obtained more insights into the study through the pilot interview process, I administered an appropriate amount of time to set up the audio recording equipment and obtain informed consent. The interview location was adequate for providing the necessary confidentiality of participant responses and allowing the privacy necessary for the participant to disclose perceptions of her experiences. I was able to confirm that the recording device effectively recorded the interview data so that transcriptions could be completed with confidence. The interview questions provided sufficiently detailed answers to address the three research questions. The interview protocol was not updated as a result of the pilot study.

Data Collection

During the months of February and March 2019, I conducted face-to-face interviews with 10 African American female BC survivors. The interviews lasted approximately 30-45 minutes. All participants were eager to provide insight into their health care experiences before, during, and after BC treatment. Having all participants respond to the same questions made such self-reporting a reliable source of data collection. All interviews were audio-recorded for transcription and easy reference during the data analysis process. I created detailed analytic notes during each interview to include reflections on each participant’s experience, personal biases that may have influenced data analysis, and beliefs about observed similarities and disparities between participants.

Study Setting

Interviews were scheduled at a suitable time for each of the participants. I conducted 10 interviews in a private room because it was a known and convenient location for participants. Permission to use the area was secured via a Letter of Cooperation with the medical center Appendix D. I ensured that at no time the participants would be pressured to complete the interview. Prior to the start of each interview, I provided each participant with a copy of the informed consent form, which explained the purpose of the study as well as any potential risks and benefits of participation, and participants signed the form. I asked if each participant had any questions before the interview and explained that the interview would be terminated if the participant no longer wants to proceed. No disturbances occurred during the interviews.

Data Analysis

I transcribed the audio-recorded interviews by conducted an in-depth analysis of the interview transcript for each participant into a Microsoft Word document from NVivo 12. To maintain protection of each participant confidentiality, each participant was given a pseudo name. The case studies began with WJ and ended with MJ, which is discussed in the precise segment of the interviews conducted. In adherence compliance to Phenomenological Case Study, this approach was conducted to analyze the data collected from interviews with each participant focus on their personal experiences. I specifically reviewed each transcript multiple times to identify themes emerged from the data. As I read each transcript, advance comprehension was recorded and noted in personal notes to obtain a reflection of the participant's personal experiences. After all, notes were written, connections were made among the main themes. There was a comparison made amongst the transcripts and the results. The participants' quotes from the transcripts supported the findings in answering the research questions of this study. The Emerging themes were supported by expository domination to relate to the data generated from each participant. To confirm the subsistence of a connection of each participant, there was a comparison of the main themes to the actual transcribed words that they articulated. Implementing a phenomenon approach, The emerging themes were provided to reflect on each participant experience. The codes were noted on hard copies of each transcript and stored in a file location. I used the qualitative research software NVivo 12 to organize and categorize transcriptions and analytic notes.

Issue of Trustworthiness

Member-checking was used as a strategy to ensure trustworthiness. I asked open-ended questions during interviews to gain a more in-depth impression of participants’ life experiences. Once transcripts and analytic notes were coded, classified, and synopsized, the participants had an opportunity to review what they presented. I conducted member-checking to ensure that all participants comprehended, acknowledged, and documented all statements. This approach allowed participants to confirm that the interview data was accurate and transcribed appropriately according to their clarification. Additionally, this approach permitted the participants to make necessary changes to any content that may have been unclear or misinterpreted. The interview questions are considered personal or private. I ensured the anonymity of the participants who were able to opt out at any time. All participants filled out an individual consent form, which ensured confidentiality. Sample replicas of the form for consent to audiotape and confidentiality statement are in Appendix C. Any identifying information of the participants was removed from transcripts before data validation. All research materials such as transcripts, files, and audiotapes were securely preserved in a protected safe in researcher home office and will be destroyed after five years. Also, any electronic files will be stored on my password- protected computer and backed up on a password protected the hard drive and this information will be deleted and trashed after five years. Only I will have admittance to investigation material.

Additionally, I used triangulation as a strategy to ensure trustworthiness. During the interviews, the researcher was able to take notes about observations outside of the verbal interview responses. I was able to take notes about key points made by each participant and observation outside of the verbal interview responses on their interview questionnaire. The data from the interview transcripts were triangulated with my notes to reinforce the themes observed throughout the study.

Evidence of Credibility, Transferability, Dependability, and Confirmability

Credibility

It is imperative to maintain the accuracy of data throughout the qualitative research. Validity exhibits how justly the investigator signified the phenomenon (Morse, 2015). Validity was established to reinforce the credibility of the findings produced in the study. My goal was to secure the lived experiences of each participant and characterize them truthfully. This was done by persistently comparing the descriptions of the data manufactured in the transcripts by categorizing the main themes that were used to analyze the thoughts of the descriptions and responses of experiences of the participants.

Transferability

To ensure transferability, researchers provide thorough information so that subsequent reviewers can appreciate the research and assess the conclusions. As expected, additional scientists may deliver additional results for the research (Morse, 2015). Transferability is facilitated by precise documentation of subject statements and experiences central to the study. In the present study, the researcher described and documented study participants’ statements as they aligned with the research questions.

Transferability was examined by attuned to a precise context from the participants. I provided thorough information, so reviewers can appreciate the research and assess the conclusions.

Dependability

To ensure dependability, I evaluated research accuracy by interpreting and making deductions of the results that were in concert with the data that was collected. I also applied the strategies of audit trails and triangulation. I used a voice-activated digital recorder device to capture verbatim participant responses to the questions outlined in the interview protocol. The use of a voice recorder produced a dependable source for generated data.

The study motivation is to evaluate research accuracy and assess if results, interpretations, and deductions were in concert with collected data.

Confirmability

To ensure confirmability, I recorded and portrayed a variety of data review from each participant. I authenticated the variations in the research to gain clarity of barriers faced by the perspectives of each participant. I also conducted an audit of the various data sources to examine the data collection and analysis methods. Audits were employed to authorize the exactness of the study. All-inclusive audit trail of research instruments and procedures was created to ensure that all stages of the study procedure from beginning to the end to ensure that all design materials, findings, procedures were properly implemented (Highfield & Bisman, 2012). My goal was to secure the lived experience of the participants and characterize the data truthfully (Ihantola et al., 2011).

Ethical Procedures

The research design and methods outlined in Chapter 3 were followed throughout the data collection and data analysis processes. Permission for human subject research was established through the Walden University IRB process and granted on February 13, 2019 (02-13-19-0561826). Participants who met the eligibility requirements and signed the consent form were the only individuals allowed to participate in the study. Identical semi-structured interview protocols were used for all 10 interviews.

The data were analyzed by the researcher, who served as the primary tool of analysis in the tradition of the phenomenological approach. I filed each participant's transcripts and notes according to the participant's number and initials in a secure file location.

The study participants were young African American women with BC who were able to withdraw from the study at any time. Due to the nature of the study and the subject matter of interest, the data obtained through the interview questions were considered personal and private. I ensured the anonymity of the participants by using their assigned participant number and initials as a pseudonym. All participants signed an informed consent form, which ensures confidentiality. Any identifying information obtained from the participants was removed from transcripts before data validation. All research materials such as transcripts, notes, and audiotapes were securely preserved in a protected safe in a home office and will be destroyed five years after the defense of the final dissertation. I ensured that I only had access to the data from the study.

Participant Demographics

All 10 participants in the study were African American women between the ages of 25 to 40 who were previously diagnosed with BC. To protect the identities of study participants, all participants were referenced by their initials and an assigned participant number. An overview of participant demographics is presented in Table A.

Table 9

Participant Demographics

Participant	Age at diagnosis (years)	Marital status	Employment status	Educational level
WJ	40	Single	Employed	High school diploma
DS	20	Single	Employed	Associate degree
CT	39	Single	Employed	Associate degree
SH	36	Married	Employed	High school diploma
DP	35	Single	Employed	Bachelor’s degree
FD	37	Single	Employed	Associate degree
CB	32	Single	Employed	Bachelor’s degree
PS	40	Married	Retired	Associate degree

CR	28	Single	Employed	Master’s degree
MJ	34	Single	Employed	Bachelor’s Degree

Of the 10 participants, one was diagnosed with Stage III (Aggressive) BC, which instantly spread throughout her body. In the study, seven participants reported that they were cancer-free for five to eight years as of their interview date. One participant had been cancer-free for 23 years; another participant was declared cancer-free two weeks prior to the interview. Also, 8 of the 10 participants earned a college degree; four participants earned an Associate degree and three participants earned a bachelor’s degree. Furthermore, one participant earned a master’s degree. There were only two participants who had a high school diploma. All 10 participants lived in Jackson, Mississippi, and were between the ages of 20 to 40 when officially diagnosed with BC.

Participant 1

WJ was diagnosed with BC at the age of 40. WJ express that she was not aware of the resources that would have been useful to her until she was diagnosed. WJ said, "She referred to her OB/GYN for referrals as well as Google for helpful resources from the American Cancer Society." WJ expressed that an oncologist was the appropriate physician to establish a treatment. She said, "I was previously diagnosed with diabetes, high blood pressure, and obesity." "I was told by my physician that I had to follow a healthier diet and lose weight because these ailments could affect the treatment process."

WJ expressed that, “Having health insurance, having to perform BC screenings and being required to attend required follow-ups could be challenging for BC patients.” WJ said, “She was able to obtain health insurance through her employer; however, a large amount was deducted from her paycheck because of her low income….” “I also had Medicaid insurance but acknowledged that it was not available to everyone”. WJ said, “I felt embarrassed to go through the process of chemotherapy and losing her hair; nonetheless, I continued my treatment because I knew it would save my life and improve my health.” WJ said, “Most women would not want to be labeled as sick or in need of someone to take care of them, not me, I am blessed." "WJ said, "The care that was provided to me was excellent and I was glad that my physicians were informative."

Participant 2

DS was diagnosed with BC at the age of 20. She was able to obtain brochures and pamphlets about BC detection and treatment from her physician's office. DS said, "As an African American woman, I believe that initial BC screenings should be done by the age of 30 if there is a family history of breast cancer." DS said, "The most challenging aspect of the BC screening process is the possibility of obtaining a positive diagnosis of breast cancer."

DS said, "Health insurance was affordable for my BC treatment because I had insurance through my place of employment." DS said, "The quality of care I received was incredible."

DS said, "My health condition did not determine the level of care she received." "I was able to pair my employer's coverage with Medicaid to pay for my BC treatment." "I felt that some individuals were treated differently because of their perceived ability to cover their medical expenses." "I did not see any discrimination against patients because of their race or ethnicity."

Participant 3

CT was diagnosed with BC when she was 39 years old. CT said, "My awareness of useful resources about BC screening alerted me to perform a checkup". "Feeling pain and embarrassment were the most challenging aspects of my BC journey." "I feel that Medicaid should be used as a health insurance type that is applicable to BC treatment." "I feel that Caucasian women received better treatment planning because African American women are perceived to lack finances to cover their health care costs." "A lack of education about BC can delay treatment." "I received excellent care during my treatment." "I feel that I needed additional health coverage." "I believed that providers should be compassionate and provide their patients with hope before, during and after treatment."

Participant 4

SH was 36 years old when diagnosed with BC. SH said, “I obtained information about BC diagnoses and treatment from an online Google search, which I believed was the best source for up-to-date information.” “High blood pressure is one of the pre-existing conditions that affected my treatment plan.” “Not having insurances or the appropriate amount of encouragement from a support network were shared as the most challenging aspects to receiving BC care.”

SH said, “Health insurance coverage through my employer and, for me, it made my BC treatment more affordable.” “Medicaid and Medicare are the best types of health insurance to ensure that treatment costs are covered.” “I experienced hair loss and emotional changes during treatment, which played major roles in my mood.” SH said, “Caucasian women received access to better sources of information than African American women did”. SH said, “Health care providers should provide more resources to assist with the costs of treatment.” “The facility should also provide encouragement and hope to ensure patients that they will receive the highest quality of care.”

Participant 5

DP is a single African American woman who was diagnosed with BC when she was 35. DP said, “Free BC screening was available at the Jackson Medical Mall in my community.” “Receiving my diagnosis was one of the most challenging aspects of my BC screening.” “Health insurance made my breast care treatment more affordable.” “My health conditions did not determine the level of care I received.” “I recommend obtaining insurance that covered the entire BC treatment process, citing private insurance providers such as Blue Cross Blue Shields or Cigna as appropriate options for BC treatment.” DP said, “Ethnicity was not a barrier to receiving BC treatment.” “I received high-quality care throughout the course of my treatment.” DP said, “Health care providers should be more knowledgeable about new medications that may improve BC treatment.” DP said, “Health care facilities should provide BC patients with education, passion, and supportive care during their difficult time.”

Participant 6

FD was 37 years old when she was diagnosed with Stage III (aggressive) BC. She was able to obtain pamphlets and educational resources about BC at the medical center. FD said, "My history of high blood pressure affected her treatment." "The most challenging aspect for me was lack of health care coverage." "FD said, "Women should begin yearly checkups and mammograms at age 35, especially if there is a family history of BC or if she is African-American."

FD elaborated on her experiences with health insurance. FD said, "When I was diagnosed in 1996, I had to obtain a terminal insurance policy that was intended for terminally ill patients who needed 30 days of treatment or less." FD said, "My health condition determined the type of care that I received because established programs would pay most of my medical cost." FD said, "Throughout my journey, I received four strong dosages of chemotherapy." "To ensure adequate coverage for breast care treatment, I would recommend Affordable Health care Act insurance companies, such as Humana or Ambetter because they provide good coverage for testing" FD said, I do not view my ethnicity group as a barrier to receiving BC treatment because women should feel more comfortable taking charge of their care despite their ethnic differences."

FD did not experience a delay in her breast removal process due to her socioeconomic status. She wanted to obtain breast reconstructive surgery but did not have insurance coverage for pre-existing conditions. Because she did not have full insurance coverage, FD did not have an optimal treatment experience. FD recommends that BC patients secure primary and secondary insurance coverage. She also recommends that BC patients maintain regular visits with their physician. Finally, FD believes that health care facilities should provide their patients with hope.

Participant 7

CB was diagnosed with BC when she was 32 years old. CB said, “I could go to hospitals such as Baptist Health System, University of Mississippi, and St. Dominic Hospital to receive BC screening and set up a follow-up appointment.” CB said, “African American women should receive a formal screening for BC when there is a noticed abnormality in the breast.” CB said, “A heightened awareness of useful resources urges participants to get screened.” CB said, “Obesity, lack of exercise, poor diet, alcohol consumption and smoking as factors that may affect the success of BC treatment.” “Waiting on the screening results can be the most challenging aspect of the screening process.”

CB said, “Health insurance for BC treatment was affordable.” CB said, “A patient’s health condition should not determine the type of care received.” CB said, “Breast cancer patients should obtain a low-deductible health insurance policy that caters to in-network providers.” CB said, “From my experience, Cigna and Aetna were effective health insurance for BC treatment.” “Although, low-income African American women have a lower chance of receiving the appropriate level of BC treatment.” CB said, “Ethnicity as a barrier to receiving BC treatment.”

CB said, “I received the best care with knowledgeable providers who offered a wonderful bedside manner.” “Socioeconomic status could delay the breast treatment/removal process.” CB said, “Health insurance with affordable copayments and lower deductibles should be obligatory for BC treatment.” “Providers should continue to increase their knowledge of various breast care treatments.” CB said, “Established and reputable providers should not reject patients because of their insurance coverage.” “All health care staff within the facility -- from the front desk to the providers -- should be polite and courteous.” “CB said, “Staff behavior and facility cleanliness served as major factors that ensured her return to the facility. “

Participant 8

PS was diagnosed with BC at the age of 40. PS said, "Patients should obtain available brochures and other resources on BC screening from their physician." PS said, "Stress and self-care affect the success of BC treatment. The pressure of screening was one of the most challenging aspects throughout the process." PS said, "Health insurance for breast care treatment was affordable." "Health condition determined the type of care received." PS said, "In-network coverage (also known as PTO) is ideal so that breast care treatment is covered." "Surrounding myself with positive individuals and not thinking about my health condition influenced her treatment process." PS said I did not experience any discrimination due to my ethnicity." "Health care staff at the facility that I was treated promoted positivity and my physicians could sense patient negativity."

PS said, “My treatment process was magnificent, and my health providers had positive attitudes and excellent bedside manner, both of which were major factors that ensured that I would revisit the facility for subsequent follow-up care.” PS said, “I do not feel that socioeconomic status delayed my breast removal process.” “Patients should obtain specialty coverage to ensure that the cost of breast removal and treatment is covered.”

Participant 9

CR was diagnosed with BC when she was 28 years old. CR said, “Transportation services and counseling support groups were important factors to obtaining access to BC screening in the community.” CR said, “A Nurse Navigator is important throughout the treatment process to ensure that the guidance is in place.” “Women who are pregnant or taking birth control may receive alternative BC treatment plans.” CR said, “The fear of the unknown was a challenging aspect of my diagnosis and treatment journey.”

CR said, “I received top-of-the-line treatment, as a member of the Armed Forces.” “Health insurance did reduce my BC treatment costs as much as I hoped.” “My military health insurance policy covered 80% of my BC treatment costs while 20% of treatment costs were paid out of pocket.” “Despite the high cost of care, patients should obtain insurance because limited coverage is better than no coverage.” “CR said, “Health condition should not determine the type of care she received.” “I received 33 rounds of radiation.” CR said, “Health care providers should evaluate and modify treatment plans when necessary to ensure that their patients are fully covered.”

Participant 10

MJ was 34 years old when she was diagnosed with BC. MJ said, "I obtained brochures and pamphlets about BC screening within her community." MJ said, "Pregnancy is one risk of treatment in breast cancer." The most challenging aspect of the screening process was the fear of knowing my prognosis." MJ said, "I do not consider my health insurance to be affordable because it did not fully cover major illnesses such as breast cancer." "My health condition did not influence the type of care I received." MJ said, "I feel that primary and secondary insurance should be generated to cover treatment costs." "However, insurance with PTO was most appropriate for BC treatment because I lack coverage due to not having PTO coverage." MJ said, "Socioeconomic status can influence BC treatment process because lower-income patients could possibly feel forced to continue with daily routines while receiving treatment." MJ said, "I received excellent treatment throughout BC treatment journey." MJ said, "I did not experience any discrimination while receiving BC treatment." "Health care providers should be passionate, considerate, and understanding to ensure that patients revisit the facility for treatment and follow-up care."

Emerging Themes

I organized the interview results by The Main themes to better explore participants' overall perceptions of health care treatment. Participant quotes provide justification for the 10 thematic concepts identified during the data analysis process. Although all 10 women share the experience of surviving BC, their personal reflections on their experiences and suggestions for future BC patients were different based on their age of diagnosis and their socioeconomic backgrounds. The themes that emerged from the data included the availability of resources, communication with health care providers, perception of transformations, acceptance of relationship defects, socioeconomic status, ethnic diversity, delay of cancer removal, health care coverage, modifications to treatment plans, and factors that promote follow-up visits to health care facilities.

Theme 1: Availability of Resources

Several of the participants felt that they did not receive appropriate information from their doctors prior to diagnosis. Participant 1 was not aware of resources until she was diagnosed. She also used the Google online search engine to find information on BC care. Participant 7 was able to obtain resources from well-known health care facilities in the area.

Participant 5 noted that free screenings were available at a local mall; however, Participants 2 and 3 suggested that there should be more resources available throughout the community. Further, Participant 2 suggested that there should be appropriate access to resources in the community that informs women about the warning signs of BC.

Participant 1 (WJ)

"*I wasn't always aware of the resources until I was diagnosed." "I didn't think to research any type of cancer."*

"I work in a hospital and have seen several women at that age, with no family history and were diagnosed with breast cancer"

Participant 2(DS)

"The idea of obtaining a positive confirmation of having cancer is very effective"

"If one doesn't know anything about BC signs, then they are less prone to getting checked or seeking out to resources."

"If one doesn't have a family history of breast cancer, screening should take place as early as 30 years of age."

Participant 4(SH)

"I would google sources in relation to BC because there were really any helpful sources out there."

Participant 5(DP)

"Within the community, there has been free screening at the Jackson Medical Mall in regard to the resources that are available within the community in reference to breast cancer."

Participant 6(FD)

"*There Pamphlets and awareness in the center to educate."*

Participant 7(CB)

"Known hospitals such as Baptist Health Systems, University of Mississippi, and St Dominic Hospital that offers to screen for breast cancer. Potential patients should set up an appointment through a local office."

"As an African American woman, the appropriate time to screen for BC is at the notice of abnormalities in breasts."

"Waiting on the final results can be the most challenging aspect within the screening of breast cancer."

Participant 9 (CR)

"Transportation services and counseling (Support Groups)"

"I had a Nurse Navigator to guide me along the entire path of treatment to answer any type of questions due to the side effects of treatments and any sort of input."

Participant 10(MJ)

"There should be brochures or pamphlets available to patients."

Theme 2: Communication amongst Health Care Providers

Many of the participants in the study expressed that their health care providers did not provide them with adequate information about BC at diagnosis. One of the participants was diagnosed with Stage III (aggressive) BC but could not obtain information on treatment options because of her lack of insurance coverage. Several of the participants expressed the importance of effective communication between providers and patients throughout the health care planning process. Participant 3 noted that health care providers should make counseling available to patients to promote their mental stability throughout the process. Most participants also recommended that BC patients should immediately visit an oncologist to receive the most up-to-date resources and treatment options for their stage of BC.

Participant 7(CB)

“Health care providers should be more on top of medications that are prescribed to patients”

Participant 5(DP)

“Health care providers should be more on top of medications that are prescribed to patients”.

Participant 3(CT)

“Health care providers should make research available for patients, be more on top of medications that are prescribed, and they should be able to provide care to patients no matter the salary.”

Theme 3: Perception of Body Changes

BC patients must endure multiple medical procedures to treat their critical illness. Several of the participants indicated that they had to make sense of their changing bodies. Many of the participants in the study reported that losing their breasts and hair represented a loss of their female identity. Participant 6 underwent 33 rounds of radiation, which caused her to experience both hair loss and breast removal. Several of the participants also experienced severe exhaustion during and after chemotherapy treatment. To counteract the effects of treatment on their bodies, several of the participants began to exercise, maintained healthier diets, attended religious services, and participated in other activities that encouraged a healthier lifestyle during and after treatment.

Participant 2(DS)

"Hair loss and loss of appetite are effective."

Participant 3 (CT)

“Pain and feeling embarrassed”

Participant 4(SH)

“Hair loss due to chemo and emotional changes because of sickness.”

Participant 8(PS)

"Stress and taking care of yourself are some factors that affect the risks of treatment of breast cancer."

Theme 4: Accepting Relationship Defects

People diagnosed with severe illnesses tend to seek family and friends for support. Many of the participants experienced a loss of support from family and friends; this loss made them feel as if they were alone. Participant _9 (CR) _ expressed that although she had friendships of 10 years or more when she was diagnosed with BC, she did not have anyone by her side throughout her treatment. The lack of support crushed her spirit. Several other participants expressed that encouragement from family and friends would have inspired them during this difficult period in their lives.

Participant 3(CT)

“I wish that I was more educated and had more support from family as well as more insurance coverage.”

Theme 5: Socio-Economic Status

Participants believed their health condition did not affect the quality of care they received. However, they believed socioeconomic status had a larger impact on how they were treated before, during, and after treatment. Participant 2 sensed low-income individuals were treated differently because of the stereotype that they might not be able to cover their medical expenses. Participant 3 sensed that Caucasian women received more attentive treatment plans than Black women because they lack finances. Participant 6 shared special programs were available to pay the treatment costs for low-income patients. All of the participants mentioned that they continue to fulfill their daily duties such as work and school despite feeling weak and unmotivated during and after treatment. Participant 6, a hairdresser, expressed she did not have the energy to go to work and style her clients’ hair, but she needed to work to provide for her family.

Participant 1(WJ) and Participant 2 (DS)

"It was difficult for me to accept not having an adequate amount of support that I needed to get me through this process."

Participant 5(DP)

"There isn't socio-economic status effectiveness."

Theme 6 Ethnic Diversity or Stereotype

Participants stated that they did not experience discrimination because of their race; everyone receiving treatment was battling for their lives. Participant 2 did not believe that she experienced discrimination because all of the women who were being treated by her doctor received the same amount of treatment. Participant 3 believed that Caucasian women received better treatment planning because of their socioeconomic status, not their race.

Participant 8(PS)

“African American women who are in poverty have a lower chance of receiving the appropriate level of BC treatment.”

Participant 5(DP)

“There isn’t an ethnic diverse or stereotype.”

Participant 2 (DS)

“There weren’t an ethnic diversity or stereotype because any race can become diagnosed with BC and we are all fighting for our lives.”

Participant 1 (WJ), Participant 3 (CT), and Participant 4 (SH)

“I feel that when you are Caucasian, some physicians place more attention on treatment planning than African American because of lack of finances.”

"There is an ethnic diverse or stereotype because White women have a better source of information than Black women."

Theme 7 Socioeconomic Delay on Removal Process

Socioeconomic status was viewed as more of a hindrance to receiving quality care than ethnicity. Some participants felt that their socioeconomic status delayed the cancer removal process because of the lack of resources available to them prior to treatment. Participant 9 said that she "took it upon herself to read and feed herself with knowledge" about BC and possible treatment options. Additionally, the participants expressed that the ability to pay for treatment and associated costs influenced how soon treatment was sought. Participant 2 mentioned that prior health conditions, a poor living environment, and lack of transportation impacts compliance with treatment. Participant 1 cited her prior diagnoses of diabetes, obesity, and high blood pressure as impacts on her ability to receive treatment.

Participant 3 (CT)

"Yes, because of the lack of education for African American women and most importantly the fact of dealing with the emotional stress of the situation."

Participant 9(CR)

"Not for me because I do a lot of reading and researching, but if others don't, it could be."

Participant 4 (MT)

"If I have no other choice, I will do this to save my life."

Theme 8 Health Care Coverage

All of the participants expressed the importance of health care coverage for obtaining BC treatment. Most participants received health care coverage through their employers. Participant 1 was able to obtain health insurance through her job at a local hospital. However, the cost of health care premiums was significantly high and severely impacted her take-home pay. Participant 9 expressed that some insurances are better than none. All of the participants felt that primary and secondary insurance coverage should be obtained to cover most of their health care expenses. A few participants supplement their primary insurance plans with Medicare or Medicaid. Participant 6 shared about her experiences with terminal care insurance. Several participants expressed that BC patients should obtain an insurance policy with PTO to cover out-of-network expenses.

Participant 9 (CR)

"Ensure that you have coverage. Some are better than none."

“It is beneficial to have Primary and Secondary Coverage.”

"My insurer paid 80% and 20% of the medical costs were left unpaid."

Both Participant 8 (PS) and Participant 10 (MJ)

"I recommend that patients obtain insurance coverage that has PTO (Insurance that has coverage outside of network)."

Participant 6(FD)

“The insurance that I now have is better than what I had when diagnosed in 1996 because it is now for Terminal care illness and I required 30 days of treatments.”

“I suggest Obama Care, Humana, and Ambetter (Anything that wasn’t covered by insurer came out of personal pocket).

“I required Reconstructive surgery but could not receive it because I did not have Preexistence Coverage.”

Participant 4 (SH)

“Not having insurance is effective.”

“Medicaid or Medicare is best if you do not have private insurance.”

Participant 5(DP)

“Not having insurance is effective.”

“I had Blue Cross and Blue shields of Mississippi through my place of employment.”

"Medicaid or Medicare is best if you do not have private insurance."

Theme 9 Modifications to Screening and Treatment Plans

The participants shared some suggested modifications to health care providers' approaches to BC screening and treatment plans. Most of the participants recommended early screenings for BC, particularly for women who have a family history of BC. Participants 1, 4, and 9 recommended that doctors should encourage women to undergo early screening at age 25. Most of the other participants recommended getting early screenings between the ages of 30-40. All of the women felt treatment plans should be generated in collaboration with all of a patient's providers so that all stakeholders would be informed of the patient's health status and necessary next steps.

Participant 7 (CB)

"During my time of treatment, I received the best care with knowledgeable providers who offer a wonderful bedside manner. "

"Providers should continue to increase their knowledge of various breast care treatments."

"Providers should not reject patients just because they may not have the appropriate insurance."

Both Participant 9(CR) Participant 8 (PS)

"Health care Providers should modify the treatment plan process. Whether cancer or not, patient desire medical care that is affordable."

Participant 4 (SH)

"Health care providers should be more informative and make resources available to funding in reference to treatment."

Theme 10 Main Factors to Ensure Revisit of Health Care Facility

The participants agreed that health care providers' soft skills were most impactful to ensuring patients' return to their care. All participants believed that health care providers should provide understanding, hope, compassion, reassurance, positivity and, most importantly, guidance throughout their BC journey. Participant 9 felt that health care providers to BC patients should be honest, understanding, hopeful and reassuring for their patient; “this will give them the desire to return knowing that they are in the best of hands for care”. Participant 10 said that compassion and understanding are major factors of the patient-provider relationship and that patient would always remember how the staff made them feel.

Participant 5 (DP)

“Health care providers should provide clear education, be passionate, and caring through this difficult time.”

Participant 9 (CR)

“Health care providers should provide understanding, hope, reassurance, and most importantly should be genuine.”

Participant 8 (PS)

"Health care staff within the facility should be polite and courteous from the front desk to the providers. This serves as major factors that will ensure that the patient revisits the facility. Cleanliness of the facility is important as well."

Participant 10 (MJ)

“Health care staff within the facility should be Passionate, Considerate, and most importantly understanding.”

Summary

The purpose of this qualitative phenomenological case study was to examine the health care experiences of African American female BC survivors in Jackson, Mississippi. This chapter presented the findings from in-depth interviews with 10 African American female BC survivors diagnosed at ages 20 to 40 regarding their perceptions the quality of health care received before, during, and after treatment. Several participants reported that they obtained resources by researching individually or through their physician. All of the participants reported that they felt that initial BC screenings should occur between the ages of 25-40 regardless of family history. Several participants preferred to report to their OB/GYN for treatment and later obtain a referral to an oncologist; host of the participants performed self-breast examinations prior to visiting their physician. Most of the participants stated that a lack of health care coverage, fear of the unknown, and accepting their BC diagnosis were challenging aspects of the BC treatment process.

Participants reported that having insurance coverage is important because it can improve the affordability of breast care treatment. Some participants were able to obtain coverage through their place of employment. Several of the participants believed that their BC diagnosis did not determine the type of care they received. Participants stressed the importance of primary and secondary insurance to cover the high cost of BC treatment. Additionally, all of the participants suggested that coverage with PTO was preferred for BC patients because of the reduced cost for in-network providers. Three participants believed that discrimination was a barrier to receiving access to BC resources and treatment, citing that African American women are assumed to have difficulty paying for treatment; the other seven participants did not experience discrimination related to their diagnosis or treatment because all BC patients received treatment to save their lives.

The participants did not experience a delay in their breast treatment/removal process. All participants believed that primary and secondary insurance should be obligatory for breast care treatment. The participants also reported that they believed that treatment plans should be modified by health care providers based on patients’ responses to treatment so that changes can be made when necessary. All participants discussed the importance of compassion, understanding, hope, reassurance, and teamwork among health care staff and others. This helped to ensure that patients continued to receive the care they need. The study now turns to chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

My purpose in this study was to address the gap in knowledge and receive insights into the treatment and the lived experiences of African American women, 20 to 40 years of age in Jackson Mississippi. The nature of the study was a qualitative methodology with a phenomenological research design. This approach was chosen because it has allowed the researcher to explore, understand, and explain the lived experiences of 10 African American women in the Jackson, Mississippi area with BC between the ages of 20 to 40 years of age.

This qualitative phenomenological case study was conducted to obtain information from African American women in the rural area of Mississippi. There has been a serious BC epidemic amongst African America women between the ages of 20 to 40 years of age. The finding and the results collected and evaluated from the study proved there was a shortage of information available to African American women between the ages of 20 to 40 years. Results also showed that African American Women between the ages of 20 to 40 years of age must be educated and made aware of their options for breast care treatment. Research shows that education on treatments will help to decrease the effect of barriers.

The problem indicated that there had not been studies previously documented on specific barriers to quality health care treatment, which contribute to health disparities experienced within the population of the young female BC patients, aged 20 to 40 years, in the Jackson Mississippi area (Baquet et al. 2008; DeSantis et al., 2016; Williams, 2016). Although studies have been documented and identified as barriers in general, there has been a lack of contribution to quality health care disparities between Black and White BC patients (Baquet et al.2008; DeSantis et al., 2016; Hung et al., 2016; Williams, 2016). A gap in the literature indicated an existence regarding research related to barriers to quality health care specific to the population of young Black female BC patients, aged 20 to 40 years. In this study, I addressed the issue of discovering factors affecting the health care treatment of young African American women, aged 20 to 40 years of age who have BC and reside in greater Jackson Mississippi, the Jackson Prairie region. The demographics of the participants that have participated in this study illustrated substantial body from their experiences; findings documented inferior health care treatment when compared with Caucasian women who had undergone BC treatment.

The nature of the study remained as a qualitative methodology with a phenomenological research design. The selected approach allowed for the exploration, understanding, and explanation of the lived experience of African American women in the Jackson Mississippi area with BC between the ages of 20 to 40. This was done by providing evidence of the investigation and description of phenomena. Research connects to the context provided by Bronfenbrenner's Social Ecological Theory (Paquette & Ryan, 2001). The focus of the study is on the perceptions held by study subjects on barriers to cancer health care treatment and barrier elimination. A phenomenological design allowed for the data collection of meaningful experiences from the study participants. This design renders an evidence-based approach to discover disparities related to the treatment of BC (Williams, 2014).

Selecting a phenomenological approach for this study allowed the researcher to explore the lived experiences of study participants in their quest for BC health care treatment. The critical phenomenon researched in this study is the perception of study perceptions, and if perceived experiences had any relation to disparities in care health treat witnessed in the vast body of research, a qualitative approach was used to collect data from 10 African American female BC patients, 20 to 40 years of age. The data were collected using semi-structured interview questions. I analyzed the data as the primary tool of assessment in the tradition of the phenomenological approach.

The sample size of 10 is small and makes it one limitation of this qualitative study. However, small sample sizes can produce sufficient data to generate, isolate, and organize themes (Creswell, 2013). Use of open-ended questions and in-depth interviews related to the problem statement facilitates the acquisition of detailed information for thematic grouping. The limitations of the phenomenological design are a consideration. The technique of purposive sampling may have decreased the generalizability of findings to larger populations as the research project occurs in the Jackson Mississippi area and may not be representative of the entire state of Mississippi or African American women throughout the United States. Detailed field notes included reflections regarding personal bias and beliefs concerning disparities experienced by African American women.

My awareness considers bias infused in the research findings culled from the sample population because of difficulties experienced in the acquisition and provisioning of BC health care services. In addition, African American women who choose not to seek BC treatment may elude this study, but unfortunately, all participants received BC treatment. These factors concerned the aspect of confidence in the retrieval of interview data, and the researcher only presumes participant responses are true and accurate. Having all study participants respond to the same questions made such self-reporting a reliable source of data collection.

The participants were young African American women that have experienced BC who had the privilege or not to participate in this study. There were negligible jeopardies allied with contributing to this research. The interview questions were considered personal or private. I ensured the namelessness of the contributors who may opt out any time. All participants filled out an individual consent form, which insured confidentiality. Sample replicas of the form for consent to audiotape and confidentiality statement are in Appendix C. Any identifying information of the participants has been removed from transcripts. Data were validated. All research materials such as transcripts, files, and audiotapes are securely preserved in a protected safe in a home office and will remain until destroyed after five years. Only I will have admittance to research material.

Chapter 5 begin with a review of the Problem Statement, Purpose statement, Methodology, Study Limitations, and Ethical Dimensions. The major sections of Chapter 5 begin with a discussion on an analysis of findings based on the alignment of Bronfenbrenner’s Social Ecological Theory, Limitations of the study, Recommendation for further research, Implications of findings, and Conclusion.

Summary of Findings

The key findings from this study suggest that engaging patients in health care decision-making development, which involves health care providers an opportunity of acknowledging, valuing the lived experiences of the patients, and furthermost prominently evaluation throughout the process of breast care treatment. The Research Question is as followed

1. **What insights of African American women with BC, aged 20 to 40 years provide concerning the quality of breast care treatment they receive?**

Insights concerning the quality of BC treatment at future appointments emphasize when to schedule appointments with Oncologist and create awareness of education. Although participants recognize the importance of BC screening, additional information about screening was not sufficient in promoting breast care treatment.

Results from the data reveal that all of the participants indicated brochures, pamphlets, were all forms of guidance. All participants had a basic understanding of the necessity of peer support and the importance of knowing what had been presented to them. All participants sensed the beneficial resources and the assembly to prominent influence was needed in order to survive the actual diagnosis of BC. These women believed that after the initial shock of diagnosis subsided, an action plan was needed to ensure survival; in some instances that meant mentally, physically, emotionally, and more of changing their lifestyle of pushing their bodies. Participant 9(CR) reported that she researched and read the information in relation to breast care on her own. Participant 6(FD) reported that she was able to receive pamphlets and brochures in relation to BC at the medical center that she received care. Lacking sufficient sources that involve knowledge about screening could lead to a delay in standard checkups from physicians. What was obtained in knowledge from the responses from the participants was the source of information that was provided to them. The participants appeared to become more willing to gain an education in reference to breast care than medical providers.

2. **What observations can African American women with BC, aged 20 to 40 years, identify as barriers, which prevent or delay quality of breast care treatment?**

Observation described by the participants was the fact of having to accept the fact of knowing about diagnosis, stress, high blood pressure, and other health condition may prevent or delay breast care treatment. Participant 8 (PS) reported that she surrounded herself with positive individuals and the fact of not thinking about her health condition influenced her treatment process. Participant 10(MJ) reported that pregnancy is one risk of treatment that may cause a delay in treatment because of the side effect in relation to the health of the baby. Participant 5(DP) reported that her health condition did not determine the level of care that she received. Most women said that not having insurance could be a burden. In addition, the fact that some insurance covers 80% and the remaining of 20% were left for the patient to pay is a burden is what Participant 9 CR reported.

3. **How do African American women with BC, aged 20 to 40 years, view the removal of perceived barriers, which prevent or delay quality of breast care treatment?**

While viewing the removal of perceived barriers by the participants, most stated that the importance of establishing Primary and Secondary insurance policy are important factors that should require throughout treatment for complete coverage. Additionally, a policy that has P.T.O. should be required because it covers major illness and will cover insurances outside of their network.

As I reflect on the interviews, the perception of life and death articulated through the participants. I think the faith in God and the love for their family, had the ability to compose a part in coping, establish growth, and knowing that everything will be fine.

In terms of modifications, the research findings demonstrate deficiencies of informative resources of breast health can become negative. Furthermore, several of the women interviewed during the study noted, inadequate health insurance coverage can become affirmative as to barriers, which may prevent or delay quality of breast care treatment. Additionally, examining these factors of the theory help to detect inequalities in BC health care outcomes.

The findings of the study are suitable for the literature review. The findings showed a focus of women 20 to 40 years of age who have been diagnosed with BC.

Research indicates individuals that have more resources to navigate rough patches in life may not have the adequate coping skills and abilities compared to individuals from less privileged backgrounds who must develop coping skills as a matter of necessity (Bronfenbrenner, 1979; Matrenec & Spencer, 2012). This aspect is germane to this study because the purpose of the study is to understand how young African American women with BC perceive barriers to quality health care treatment, and the research questions are designed to discover how study participants demonstrate skills and abilities to cope with identified barriers.

Equally intriguing is that the social ecology surrounding the coping behavior of the privileged, who may have protective-factors. Studies show that they might not necessarily know how to be effective with implementing such support systems. Such individuals may miss opportunities to develop independent problem-solving skills. Yet society deems the coping behavior of the privileged as a standard to which marginalized groups are judged (Bronfenbrenner, 1979; Matrenec & Spencer, 2012).

Previous research had not essentially been attempted to study such a young demographic of BC, as BC has been shown to be most diagnosed in older women. The findings added to the research already available. The criterion on which participants are selected in this study is Women ages 20 to 40

- Women who self-identify as African-American;
- Women who communicate effectively in English, able to read, write, and comprehend English

- Women who have received navigation services subsequent to a BC mammogram
- Women who are willing to share their experiences in acquiring access to BC services
- Women who currently engage in a post-treatment BC follow-up regime
- Willing and able to give informed consent. Participation acceptance is achieved when the candidate successfully meets all criteria in an initial screening interview and an informed consent form is signed.

A quantity of 10 selected cases is planned for the study. The number of contributors designated for the inquiry is small because the aim of this study is not to generalize to a greater population but to gather intensive evidence that could add information and meaning to the arena of public health (Creswell, 2007). The rationale for selecting 10 participants is based on phenomenological research which has no established guidelines for the number of research contributors (Patton, 2002); and, Creswell (2013) postulated the idyllic research participant amount in a phenomenological examination is approximately 5 and 25. To provide an appreciation of the characteristics in the phenomenon being examined, the sample size should be great enough. However, there is no set sum for a sample volume. Reid et al. (2005) concluded that the population size is understood when the investigator accumulated sample information from the study members to address the research questions. Methodologists who focused in qualitative research advanced that this kind of research can be performed with a little sample size and advise 5 to 25 participants; others asserted 3 to 10 was sufficient (Creswell, 2013; Patton, 2002; Reid et al., 2005). The required sample size to comprehend the lived experiences of young African American women with BC who have navigated the health care system in central Mississippi is 10. The discussion now turns to the Interpretation of the Findings.

Interpretation of the Findings

The significant findings from this study suggest that engaging patients in their health care decision-making by providing patients with an adequate amount of resources of BC. Women require informative feedback about the treatment of BC in reference to the side effects from treatment and their potential impact on daily routines, and the availability of patient support services to comfort them throughout this process. A suggestion from the women in the study is to turn to their OBGYN for reliable sources. Additionally, partner with Oncologist because it is desirable for receiving proper treatment as well as a plan throughout the breast care treatment process. 1 participant had a nurse Navigator and she suggests that this would be an excellent form of guidance throughout breast care treatment. In developing, the adequate amount of support services acknowledges the perspective of patients and most importantly respect of making a cognizant judgment of receiving care. Additionally, the results of this study showed a focus on women who previously diagnosed with BC and these women utilized their experiences by providing their perception of their lived experiences to provide insights on the access of treatment provided to them. There should be questions available for patients to ask their health care provider, such as, "Do you have questions concerning the care that you will receive through the process of breast care treatment?" This helps to enhance training and communication between the provider and the patient.

What makes this study different from others is that it solely focused on the perception of African American women between 20 to 40 years of age. Previous research had not been endeavored to study such as young demographic within BC, as the illness is frequently diagnosed in older women. The second significant finding involves health care providers' opportunity of acknowledging and valuing the lived experiences of the patients. Results from my study indicated that a lack of coverage plays a major factor. Additionally, living a consistent life daily could be a burden if a patient is exhausted from treatment. If not provided with the appropriate sources, patients should obtain knowledge on their own by reading and researching and constantly exploring education in relation to BC. Therefore, it is important to engage primary care physicians, nurses, and other health care providers with treatment for breast care treatment so that patient can become informed of further conclusion to treatment.

Additionally, Primary and Secondary health insurance can ensure that all treatment and procedures are covered. Insurance that contains P.T.O is important because it has the ability to cover outside of network medical expenses. Additionally, health care providers should modify treatment plan properly in a form that it is affordable so that the major expenses are covered, and patients incinerate the adequate number of criteria in relation to their treatment plan.

Finally, furthermost prominent evaluation throughout the process of breast care treatment. Results from my study indicated there was not a race seen because individuals were in the exact place of fighting for their life. Physicians noticed negativity in attitudes, and this discourages them in wanting to provide care. Sometimes the ethnic diverse did play a role in health care treatment process because Caucasian women actually have more access to treatment because they sometimes have had more expenses toward their health care. One reason is that they may have more jobs available, which may allow them to experience more funding. Another reason is their heritage of funding; they are able to pay for treatment desired for the illness. Additionally, Participants reported that individuals should desire to take charge when symptoms are experienced, proceed and obtain care.

Lastly, health care providers should provide honesty, understanding, hope, and reassurance towards their patients to give them the desire to return knowing that they are in the best of hands for care. being passionate, considerate, and understanding because there are major factors that the patients will always remember and will carry for the rest of their life. The findings from my study will improve the research previously available specifically in this approach. Based on the information provided from all of the participants, negativity was formed on the ethnic diverse or stereotype as barriers in receiving BC treatment. The participants expressed that Caucasian women have more access to treatment because they offered more resources in reference to BC due to their financial access. The findings are appropriate for this study literature review because it showed a focus on women diagnosed with BC. With proper measurement and proper use of sampling, all participants existed in the same area, criteria were justified, and all of the exact questions remained answered according to the participants. All participants manipulated a sense of feeling alone because of not initially have the support desired throughout the process from family and friends.

The findings from this study complement current literature, According to Senkus et al. (2015) findings indicate the diagnosis of BC is founded on medical examination together with imaging and verified by pathological evaluation. Please See Table 4. Clinical examination embraces bimanual palpation of the breasts and locoregional lymph nodes and evaluation for distant metastases of the bones, liver, and lungs. A neurological inspection is sorely needed when symptoms are existing. Imaging involves bilateral mammography and ultrasound of the breast and regional lymph nodes.

Research previously indicated that an MRI may also be suggested before neoadjuvant chemotherapy when assessing the reaction to primary systemic treatment or after the results of conventional imaging are indecisive, as a positive axillary lymph node status with an occult primary tumor in the breast [III, A]. Numerous novel methods are being tried for screening and diagnostic imaging, like 3D mammography known as breast tomosynthesis, 3D ultrasound, shear wave elastography and contrast-enhanced mammography/spectral mammography. None of these is routinely implemented but has the possibility to improve diagnostic correctness, particularly in women with thick breasts. In current years, researchers have focused on the growth of biosensors to spot BC using various biomarkers. In addition to biosensors and biomarkers, microwave-imaging procedures attract attention as a hopeful diagnostic device for quick and cost-effective early-stage BC recognition. Achievements in breast screening methods, especially microwave imaging, breast biomarkers, and biosensors for rapidly diagnosing BC representing encouraging prospects for early detection of BC . My findings illustrated that patients should go to their OBGYN to refer to radiology examination to confirm cancer and later consume treatment from an Oncologist.

Barriers that may prevent or delay the quality of breast care treatment as follows by research indicates that Effective communication is vital to addressing the human dynamics surrounding BC . In exchange for information concerning cancer, patients and physicians frequently comprehend a patient's involvement and condition in a different way. This can destructively influence health results and the physician-patient association. To discover how cancer patients' understandings of the physician's part as information contributor affect the message connected with the physician and their inquiry concerning various facets of their cancer treatment study participants completed a semi-structured qualitative interview (Adamson et al., 2018).

Previous research shows that barriers to the symptomatic presentation were perceived equally between White and Black females. Despite this, Black females are less likely to report, stating they had too many things to worry about and could not make the time. However, trends in research coming from the U.S. reported Black women with BC and familial commitments would find the time to visit their doctor, despite family care responsibilities. Other African American women without BC , and having childcare, work, and partnership duties stated they would be less likely to go than those without these responsibilities for questionable BC symptoms.

Addressing patient treatment experience and communication with their physician is the key to providing substantive health care. Conversations were coded and examined using an inductive thematic analysis. The findings of my study are suitable for the literature review because it focuses solely on African American women in the age range of 20 to 40 who have been diagnosed with BC and how their perception affects the treatment access of BC. Studies show that there has not been previous research done on BC in the demographic area of young African American women. Previous research showed that specifically older women with BC had evidence. To explore more detailed answers in relation to these answers. The study could specifically be in other areas of the United States with the usage of the same criteria of the participants as well as effective methodology.

Previous research indicated that addressing patient treatment experience and communication with their physician is key to providing substantive health care. Lack of enough exchange of intelligence and they want to secure evidence external to the physician-patient affiliation to compensate for information gaps. Participants exhibited different information-seeking behaviors based on how they perceived the role of their physician as information giver. This affected the nature of information desired and how patients comprehended the material received; this by extension influenced an understanding of their wider involvement and cancer care (Adamson et al., 2018).

This study remains important because of its significance, and meaning of findings to administrators, employees, researchers, and the community desires to promote equal treatment of BC treatment across all demographics in the field of oncology; 2.) the discovery of issues germane to an understudied segment of women in the population who have BC.

Limitations of the Study

The delimitations for this study were as follows Access to treatment in African American females diagnosed with BC between the ages of 20 to 40 with survivorship in mind based upon the time of participation in the study. All participants self-identified as African American women. The researcher was in the rural area of Jackson, MS.

The research qualitative phenomenological study remained on specific delimitations. Firstly, the participants were African American, which limited the research's applicability only to this specific ethnic group of women. Secondly, the study was concerning BC, which required the findings simplified to other classifications of cancers. Thirdly, it is obvious that the researcher desirably used NVivo 12 software program even though other software options were available; this software was most suitable for study. If another option of software expended, the results of the findings would consider a different form of examination.

Obtaining the appropriate number of participants for this study was not an issue because 10 participants were relatively small but appropriate for the study. The place and sound for the interview for the study were appropriate for the methodologies. The findings were useful in forms that would most likely be similar for participants in the same age assembly, ethnic group, or any classifications of cancer. Therefore, the findings in relation to this study could be specifically generalized outside of the detailed framework of the study because of its delimitations. Individually, one concern of limitation was the dissimilarities in behaviors in the participants. Uncertainty, the outcome of the study could possibly change if there may have been differences with participants with dissimilarities in personalities if the study followed the equivalent methodology and researcher designs. This study now turns to the recommendations.

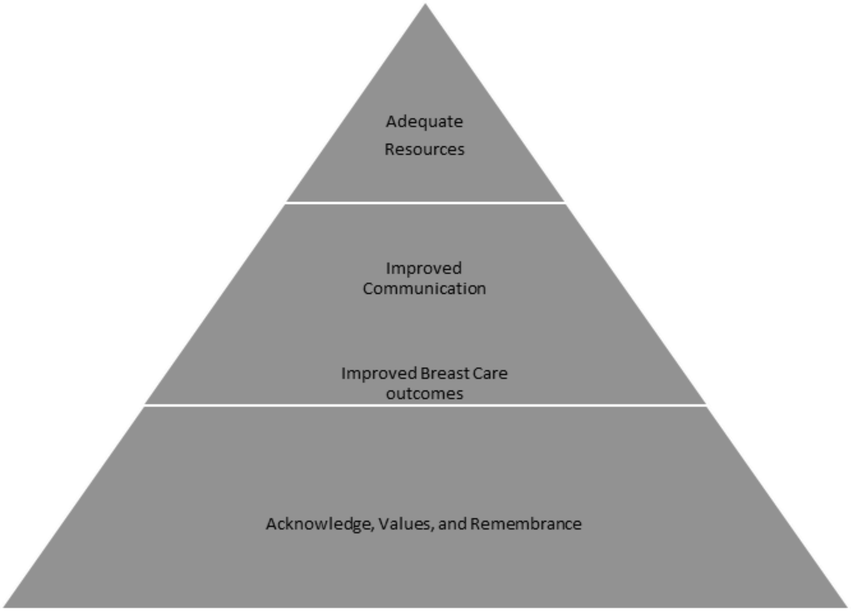


Figure 10 Model of Patient Care.

Recommendations

Potential recommendations would be to conduct the exact study with the same delimitation, methodology, and research design in other areas of Mississippi. This would provide verification of the reliability of the findings and close the gap in research regarding African American women that have been diagnosing with BC and how the breast care that has been provided to them affects their survivorship. Repeating the study with the use of females, more participants, and conducting interviews to obtain their perspective of BC access to treatment provided. The study could also diverge to demographic groups such as, additional ethnic groups of various ages, backgrounds, and maybe in the United States to determine how the present study contains a general exploration of the topic More specific, future investigations would provide more data in relation to health care policy changes are effective.

Additionally, a quantitative study could also be conducted to determine how often women should schedule breast examinations with their physician. If not, the reasons for not scheduling should be provided. This would become a highpoint level of breast care education in women health. The study now turns to the Implications of Findings.

Implications of Findings

The findings of the study were generally aligned with the literature on the topic. These results shed light on recently diagnosed individuals and their families can direct access resources in forms of pamphlets, brochures, or any resources that are available for screening of BC. This will provide assistance through the experience of traumatized patients becoming diagnosed and actually accepting the fact. This will also give the individuals around them some sort of guidance on the significance of the direction of the appropriate steps to take in the process of being diagnosed. The health care providers should provide the patients with the direction of the organizations that are available to them. The main issue that participants expressed is health care providers are not providing them with an adequate amount of information, which characterized in the study. Physicians should be informative to the patient throughout the entire process of treatment. The participants exposed that informative support was desired amongst health care providers because to some this is new, while others have obtained some information regarding their diagnosis through their own research.

Additionally, the participants exposed that the adequate amount of health care coverage and policy such as primary and secondary plays major factors in the barriers of prevention or delay to the quality of breast care treatment. Furthermore, several of the participants express an insurance policy with

P.T.O. obtained to cover outside of network policies of breast care treatment. The findings presented reveals information that will help recently diagnosed individuals with a suitable direction through the health care system that will allow them to obtain entry of resources in forms, while also allowing them to proceed with the further steps that are needed in their health care treatment. Findings from this study might increase health care providers understanding and awareness of the importance of patient's personal experiences that affect the breast care treatment received. The reality in the presentence of the data of the findings can be used to help the potential African American BC patients challenge the fear of this illness in preparation. In addition, potential patients may benefit from the advancement of inadequate resources that may include hospital settings, outpatient facilities, and other cancer treatment centers. All of the participants in this study reported the need for adequate resources and improved communication. This would help to establish improved breast care outcomes, especially pertaining to African American women. The study now turns to Theory and Research.

Theory and Research

This study is based on the phenomena treatment provided by physicians to BC patients in lived experiences. The only way to determine if this could be true was to rely on the personal experiences of sampling. In this study, the conclusion was that the treatment provided to the participants throughout the process alignment with other studies found in the theoretical frameworks.

In this qualitative phenomenological case study, the researcher was the instrument. Semi-structured interviews remain conducted to draw comprehensive replies from the members. Semi-structured conferences promoted a situation for additional conversations amid the investigator and the contributor to attaining a greater comprehension of the event under examination (Mojtahed et al., 2014). The semi-structured interview sanctions the investigator to ask additional specified follow-up questions regarding numerous aspects on a subject (Mojtahed et al., 2014). The interview was a part of an observation approach, which also to notes body language and facial countenances as the contributors reply to questions. Audio recordings of the session were employed to obtain the details of the answers correctly and only documented with the permission of the participant. I ensured that I did not demonstrate personal proof of identity transcribed by the participants. All interviews are verbatim and private data remained deleted from all the transcripts (Hohl, 2014).

When provided with resources that give them control over their circumstance, this gives them a sense of empowerment. Recorded disparities in health care treatment for African American women suggests this portion of the BC community encounters obstacles to take control of their situation and this research project wants to find out why (DeSantis, et. al, 2016; Krieger, et. al, 2017; Mayfield-Johnson, et. al, 2016; Paxton et. al, 2014; Zahnd, et. al, 2017). The potential for transferability in the study may occur for other racial and ethnic groups who experience disparities in BC treatment. However, their experiences are not as severe as those of African American women (DeSantis, et. al, 2016).

The application of Bronfenbrenner's Social- Ecological Theory consumed in this study. Social-Ecological Theory contains five different environmental designations, and human behavior can change in response to these different environmental exposures. The five environments are 1.) Microsystem, 2.) Mesosystem, 3.) Exosystem, 4.) Macrosystem, and 5.) Chronosystem (Freedman et al. 2016; Hung et al., 2016). These five environments provide the framework for the generation of research questions in this project. The theoretical approach used extensively in the field of health care research (Rowley et al., 2015; Schölmerich & Kawachi, 2016). In specific, the method finds excellent utility in the area of cancer research (Avery et al., 2013; Dickey, 2013; Kluhsman, 2009; Trinh et al. 2016; 2015).

The theory related to this study was chosen because it placed emphasis on the interaction between persons, social associations, community, establishments, and social determinants. These factors are all influential on the experiences of others. Additionally, the application to Bronfenbrenner's theory to the results is insightful and postulates how patient education is key. An essential element of Bronfenbrenner's Social-Ecological Theory is the addition of public causes of disparities in health care. Social determinants of health (SOH), is related to life progression and over of a period can influence all facets of an individual's lifecycle from cell evolution to the quest for occupations. This also expands to dealings with fellow citizens and death as well. Portraying the relations amid SDOH and health consequences is multifaceted. Numerous impressions, like discrimination, race, communal segregation, and social movement are problematic to gauge. Despite this, it is crucial to disclose because these relationships help significantly to understand health outcomes. The study now turns to the Summary and Conclusion.

Summary and Conclusion

This qualitative phenomenological case study considered to address a gap in knowledge and insights in treatment and the lived experiences of African American women, 20 to 40 years of age in Jackson Mississippi. My desire was to explore the lived experiences of African American women 20 to 40 years of age who endured BC treatment while undergoing barriers. The present study can offer the following conclusions. The significance of BC treatment access was justified in a few cases but can also have prominent negative outcomes.

The results in this study's target population illustrate enlightenment; this allows this phenomenon to advance dialogues in reference to breast health in primary care settings. The study demonstrates that women deserve sufficient treatment plans and informative resources to increase comprehension of the procedures that took place. As shown in this study, participants reported that proper health insurance is necessary for treatment. Patients should obtain a primary and secondary insurance policy. Additionally, a policy that has P.T.O., which covers major illness and will cover insurances outside of the network, should also be obtained. The results of the study highlight the significance of change that is vital. The participants hope to share their lived experiences to improve the outcomes of future BC patients' access to treatment. This is specifically true for African American women between the ages of 20 and 40.

Furthermore, the findings should help organizations and individuals dedicate a promotion of awareness in preventing delayed diagnosis, specifically on the breast care that is provided to African American women between the ages of 20 and 40.

In conclusion, because of the findings of this study, health care providers should now become more aware of the perceptions of young female African American patients with BC. There should also be an implementation of strategies to improve treatment plans. The focus of the survivorship is essential to their quality of breast care awareness, health insurance coverage, and major factors of assurance of patient satisfaction.

References

Adamson, M, Choi, K., Notaro, S., & Cotoc, C. (2018). The doctor-patient relationship and information-seeking behavior Four orientations to cancer communication. *Journal of Palliative Care.* Vol 33, Issue 2, pp. 79 – 87.

Akram, M., Iqbal, M., Daniyal, M., & Khan, A. U. (2017). Awareness and current knowledge of breast cancer. *Biological Research, 50*(1), 33. doi:10.1186/s40659-017-0140-9

Alagoz, O., Ergun, M. A., Cevik, M., Sprague, B. L., Fryback, D. G., Gangnon, R. E., ... & Trentham-Dietz, A. (2018). The University of Wisconsin BC epidemiology simulation model an update. *Medical Decision Making*, *38*(1_suppl), 99S-111S. doi:10.1177/0272989X17711927

Applebaum, M. H. (2011). Amedeo Giorgi and psychology as a human science. *NeuroQuantology, 9*(3), 518-525. Retrieved from http //www.academia.edu/924136/Amedeo_Giorgi_and_Psychology_as_a_ Human Science

Avery, K. N., L., Donovan, J. L., Horwood, J., & Lane, J. A. (2013). Behavior theory for dietary interventions for cancer prevention A systematic review of utilization and effectiveness in creating behavior change. *Cancer Causes & Control, 24*(3), 409-20. doi:http //dx.doi.org.contentproxy.phoenix.edu/10.1007/s10552-012-9995-9

Azzopard, J., Walsh, D., Chong, C., & Taylor, C. (2014, Jan/Feb). Surgical Treatment for Women with Breast Cancer in Relation to Socioeconomic and Insurance Status. *Breast Cancer,* 3-8.

Baquet, C. R., Mishra, S. I., Commiskey, P., Ellison, G. L., & DeShields, M. (2008). Breast cancer epidemiology in Blacks and Whites Disparities in incidence, mortality, survival rates and histology. *Journal of the National Medical Association, 100*(5), 480-489. doi:10.1016/S0027-9684(15)31294-3.

Bandera, E. V., Chandran, U., Hong, C. C., Troester, M. A., Bethea, T. N., Adams-Campbell, L. L., ... & Palmer, J. R. (2015). Obesity, body fat distribution, and risk of BC subtypes in African American women participating in the AMBER Consortium. *Breast Cancer Research and Treatment, 150*(3), 655-666. doi:10.1007/s10549-015-3353-z

Best, A. L., Spencer, M., Hall, I. J., Friedman, D. B., & Billings, D. (2015). Developing spiritually framed BC screening messages in consultation with African American women. *Health Communication, 30*(3), 290-300. doi:10.1080/10410236.2013.845063

Binachon, B., Dossus, L., Aurélie M. N. Danjou, Clavel-Chapelon, F., & Fervers, B. (2014). Life in urban areas and BC risk in the French E3N cohort. *European Journal of Epidemiology, 29*(10), 743-751. doi:10.1007/s10654-014-9942-z

Bisman, J. E., & Highfield, C. (2012). The road less travelled An overview and example of constructivist research in accounting. *Australasian Accounting, Business and Finance Journal, 6*(5), 3-22.

Black, D. M., Jiang, J., Kuerer, H. M., Buchholz, T. A., & Smith, B. D. (2014). Racial disparities in adoption of axillary sentinel lymph node biopsy and lymphedema risk in women with breast cancer. *JAMA Surgery, 149*(8), 788-796. doi:10.1001/jamasurg.2014.23

Blanchard, Z., Mullins, N., Ellipeddi, P., Lage, J. M., McKinney, S., El-Etriby, R., ... & ElShamy, W. M. (2014). Geminin overexpression promotes imatinib sensitive breast cancer a novel treatment approach for aggressive breast cancers, including a subset of triple negative. *PLoS One*, *9*(4). doi: http //dx.doi.org.contentproxy.phoenix.edu/10.1371/journal.pone.0095663

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Thousand Oaks, CA Sage.

Britannica Academic (2018). *Epidemiology*. Retrieved from https //academic-eb-com.contentproxy.phoenix.edu/levels/collegiate/search/dictionary?query=Epidemiology

Brohet, R. M., Velthuizen, M. E., Hogervorst, F. B., Meijers-Heijboer, H. E., Seynaeve, C., Collée, M. J., ... & García, E. G. (2014). Breast and ovarian cancer risks in a large series of clinically ascertained families with a high proportion of BRCA1 and BRCA2 Dutch founder mutations. *Journal of Medical Genetics*, *51*(2), 98-107. doi: 10.1136/jmedgenet-2013-101974

Creswell, J. (2013). *Qualitative Inquiry & Research Design: Choosing among five approaches* (3rd ed.). Thousand Oaks Sage.

Cutilli, C. C., Simko, L. C., Colbert, A. M., & Bennett, L. M, (2018). Health literacy, health disparities, and sources of health information in U.S. older adults. *Orthopedic Nursing, 37*(1), 54-65. doi:10.1097/NOR.0000000000000418

Dalbye, R., Calais, E., & Berg, M. (2011). Mothers' experiences of skin-to-skin care of healthy full-term newborns–a phenomenology study. *Sexual & Reproductive Health Care, 2*(3), 107-111. doi:10.1016/j.srhc.2011.03.003

DeSantis, C., Ma, J., Bryan, L., & Jemal, A. (2014). Breast cancer statistics, 2013. *CA A Cancer Journal for Clinicians, 64*(1), 52-62. doi:10.3322/caac.21203

DeSantis, C. E., Fedewa, S. A., Goding Sauer, A., Kramer, J. L., Smith, R. A., & Jemal, A. (2016). Breast cancer statistics, 2015 Convergence of incidence rates between Black and White women. *CA A Cancer Journal for Clinicians, 66*(1), 31-42. doi:10.3322/caac.21320.

Dickey, S. L. (2013). Association Between Intrapersonal, Interpersonal and Community Factors and Prostate Cancer Screening Among African American Men. (Order No. 3612405). Available from ProQuest Dissertations & Theses Global Health & Medicine. (1506972764). Retrieved from https //search-proquest-com.contentproxy.phoenix.edu/docview/1506972764?accountid=35812

Dunkel, C., & Harbke, C. (2017). A Review of Measures of Erikson's Stages of Psychosocial Development Evidence for a General Factor. *Journal Of Adult Development, 24*(1), 58-76. doi: 10.1007/s10804-016-9247-4

Ekwueme, Donatus U., PhD, MS, Hung, Mei-Chuan, PhD, MS, RN, Ekwueme, Rim, Sun Hee, PhD, MPH, & White, Arica, PhD, MPH. (2016). Racial/ethnicity disparities in invasive BC among younger and older women An analysis using multiple measures of population health. *Cancer Epidemiology, 45,* 112-118. doi 10.1016/j.canep.2016.10.013.

English Oxford Dictionary. (2018). *Definition of prognosis*. Retrieved from https //en.oxforddictionaries.com/definition/diagnosis

Fakkert, I. E., Van Der Veer, E., Abma, E. M., Lefrandt, J. D., Wolffenbuttel, B. H., Oosterwijk, J. C., ... & Mourits, M. J. (2017). Elevated bone turnover markers after risk-reducing salpingo-oophorectomy in women at increased risk for breast and ovarian cancer. *PloS one*, *12*(1), e0169673. doi:10.1371/journal.pone.0169673

Fan, L., MD, Strasser-Weippl, K., MD, Li, J., MD, St Louis, J., BA, Finkelstein, D. M., Prof, Yu, K., MD, . . . Goss, P. E., Prof. (2014). Breast cancer in china. *Lancet Oncology, the*, *15*(7), e279-e289. doi:10.1016/S1470-2045(13)70567-9

Freedman, A. R., Viswanath, K., Vaz-luis, I., & Keating, L. N. (2016, 2 158). *Learning from social medical: Utilizing advanced data extraction techniques to understand barriers to BC treatment*. Retrieved from Breast Cancer Research and Treatment http //dx.doi.org/10.1007/s10549-016-3872.

Froude, C., Rigazio-DiGilio, S., Donorfio, L., & Bellizzi, K. (2017). Contextualizing the young adult female BC experience Developmental, psychosocial, and interpersonal influences. *The Qualitative Report*, *22*(6), 1488-1510. Retrieved from https //search-proquest-com.contentproxy.phoenix.edu/docview/1922376721?accountid=35812

Gehlert, S., Sohmer, D., Sacks, T., Mininger, C., McClintock, M., & Olopade, O. (2008). Targeting health disparities: A model linking upstream determinants to downstream interventions. *Health Affairs*, *27*(2), 339-349.

Gehlert, S. & Bolinger, S. (2012). Theories of health behavior. In S. Gehlert & T. Browne (Eds.), *Handbook of Health Social Work* (2nd Eds.) (pp. 125-140). Hoboken, NJ John Wiley and Sons, Inc.

Giorgi, A. (2009). *The descriptive phenomenological method in psychology: A modified Husserlian approach*. Pittsburgh, PA Duquesne University Press.

Giorgi, A., Aanstoos, C., Fischer, W. F., & Wertz, F. J. (1985). *Phenomenology and psychological research.* Pittsburgh, PA Duquesne University Press.

Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2008). *Health behavior and health education theory, research, and practice*. pp. 465-485, 4th Edition, San Francisco, California Jossey- Bass.

Gutnik, L., Moses, A., Stanley, C., Tembo, T., Lee, C., & Gopal, S. (2016). From community laywomen to breast health workers A pilot training model to implement clinical breast exam screening in Malawi. *PloS one, 11*(3), e0151389. doi:10.1371/journal.pone.0151389

Guzys, D., Dickson-Swift, V., Kenny, A., & Threlkeld, G. (2015). Gadamerian philosophical hermeneutics as a useful methodological framework for the Delphi technique. *International Journal of Qualitative Studies on Health and Well-being, 10.* doi:10.3402/qhw.v10.26291

Hagiwara, N., Dovidio, J. F., Eggly, S., & Penner, L. A. (2016). The effects of racial attitudes on affect and engagement in racially discordant medical interactions between non-Black physicians and Black patients. *Group Processes & Intergroup Relations, 19*(4), 509-527. doi:10.1177/1368430216641306

Hamilton, J. B., Worthy, V. C., Kurtz, M. J., Cudjoe, J., & Johnstone, P. A. (2016). Using Religious songs as an integrative and complementary therapy for the management of psychological symptoms among African American cancer survivors. *Cancer Nursing, 39*(6), 488-494. doi:10.1097/NCC.0000000000000335

Hitchcock, J., & Newman, I. (2013). Applying an interactive quantitative-qualitative frame How identifying common intent can enhance inquiry. *Human Resource Development Review, 12*(1), 36-52.

Hirko, K. A., Soliman, A. S., Banerjee, M., Ruterbusch, J., Harford, J. B., Merajver, S. D., & Schwartz, K. (2014). A comparison of criteria to identify inflammatory BC cases from medical records and the surveillance, epidemiology and end results data base, 2007–2009. *The Breast Journal, 20*(2), 185-191. doi:10.1111/tbj.12234

His, M., Zelek, L., Deschasaux, M., Pouchieu, C., Kesse-Guyot, E., Hercberg, S., ... & Touvier, M. (2014). Prospective associations between serum biomarkers of lipid metabolism and overall, breast and prostate cancer risk. *European Journal of Epidemiology*, *29*(2), 119-132. doi:10.1007/s10654-014-9884-5

Hohl, S., Gonzalez, D., Carosso, E., Ibarra, G., & Thompson, B. (2014). “I did it for us and I would do it again”. Perspectives of rural Latinos on providing biospecimens for research. *American Journal of Public Health, 104*, 911-916. doi 10.2105/AJPH.2013.301726

Ihantola, E. M., & Kihn, L. A. (2011). Threats to validity and reliability in mixed methods accounting research. *Qualitative Research in Accounting & Management*, *8*(1), 39-58. doi:10.1108/11766091111124694

Jones, C. E., Maben, J., Jack, R. H., Davies, E. A., Forbes, L. J., Lucas, G., & Ream, E. (2014). A systematic review of barriers to early presentation and diagnosis with BC among Black women. *BMJ Open*, *4*(2), e004076. doi:10.1136/bmjopen-2013-004076

Kadivar, H., Goff, B. A., Phillips, W. R., Andrilla, C. H. A., Berg, A. O., & Baldwin, L. M. (2012). Non-recommended breast and colorectal cancer screening for young women A vignette-based survey. *American Journal of Preventive Medicine*, *43*(3), 231-239. doi:10.1016/j.amepre.2012.05.022

Kamińska, M., Ciszewski, T., Łopacka-Szatan, K., Miotła, P., & Starosławska, E. (2015). Breast cancer risk factors. *Przeglad Menopauzalny = Menopause Review, 14*(3), 196-202. doi:10.5114/pm.2015.54346

Kaplan, G.A., & Galea, S. (2014). *Bridging complexity science and the social determinants of health*. Policy and Complex Systems, 1(2), 88-109.

Karcher, R., Fitzpatrick, D. C., Leonard, D. J., & Weber, S. (2014). A community-based collaborative approach to improve BC screening in underserved African American women. *Journal of Cancer Education*, *29*(3), 482-487. doi:10.1007/s13187-014-0608-z

Kliiger, J., & Gorbaty, M. (2017). Metastasis to the pancreas and stomach from a BC primary A case report. *Journal of Community Hospital Internal Medicine Perspectives*, *7*(4), 234-237. doi:10.1080/20009666.2017.1369379

Klemens, E. A., Olsen-Deeter, L., Hsu, C., Bouton, E. M., Djenic, B., Winton, M. L., & Komenaka, K. L. (2015). Factors which affect the use of lumpectomy and mastectomy in an underinsured, safety net hospital population. *The American Journal of Surgery*, 985-991.

Kluhsman, B. C. (2009). *Where science and communities meet A comparative case study of strategies to increase cancer screening among rural residents* (Order No. 3360854). Available from ProQuest Dissertations & Theses Global Health & Medicine; Public Health Database. (305102453). Retrieved from https //search-proquest-com.contentproxy.phoenix.edu/docview/305102453?accountid=35812.

Kobayashi, L. C., Janssen, I., Richardson, H., Lai, A. S., Spinelli, J. J., & Aronson, K. J. (2014). A case–control study of lifetime light intensity physical activity and BC risk. *Cancer Causes & Control, 25*(1), 133-140. doi:10.1007/s10552-013-0312-z

Koleck, T. A., & Conley, Y. P. (2016). Identification and prioritization of candidate genes for symptom variability in BC survivors based on disease characteristics at the cellular level. *Breast Cancer (Dove Medical Press), 8,* 29-37. doi:10.2147/BC TT.S88434

Krieger, N., Jahn, J. L., & Waterman, P. D. (2017). Jim Crow and estrogen-receptor-negative breast cancer U.S.-born Black and White non-Hispanic women, 1992–2012. *Cancer Causes & Control, 28*(1), 49-59. doi:http //dx.doi.org.contentproxy.phoenix.edu/10.1007/s10552-016-0834-2

Lamb, E. P., Pritchard, F. E., Nouer, S. S., Tolley, E. A., Boyd, B. S., Davidson, J. T., ... & Fleming, M. D. (2018). Understanding Disparities in Breast Cancer Care in Memphis, Tennessee. *The American Surgeon*, *84*(5), 620-627.

Lewis, P. E., Sheng, M., Rhodes, M. M., Jackson, K. E., & Schover, L R. (2012). Psychosocial Concerns of Young African American Breast Cancer Survivors. *Journal of Psychosocial Oncology*, *30*(2), 168–184. http //doi.org/10.1080/07347332.2011.651259.

Lima de Carvalho, Nathacha Adriela, do Livramento Fortes Figueiredo, Maria, Plácido de Brito Vieira, Chrystiany, Carvalho e Silva Sales, Jaqueline, Barros Araújo Luz, Maria Helena, Tolstenko Nogueira, L., . . . Ferreira de Souza Monteiro, Claudete. (2016). Quality of life and depressive signs and symptoms of the elderly women with breast cancer. *International Archives of Medicine,* doi:10.3823/2055

Lin, R., & Plevritis, S. (2012). Comparing the benefits of screening for BC and lung cancer using a novel natural history model. *Cancer Causes & Control, 23*(1), 175- 185. doi:10.1007/s10552-011-9866-9

Liang, S., Wu, W., Kuo, C., & Lu, Y. (2015). Development and preliminary evaluation of psychometric properties of symptom-management self-efficacy scale for BC related to chemotherapy. *Asian Nursing Research, 9*(4), 312-317. doi 10.1016/j.anr.2015.09.001

Lynn, B., Yoo, G. J., & Levine, E. G. (2014). Trust in the Lord Religious and Spiritual Practices of African American Breast Cancer Survivors. *Journal of Religion and Health*, *53*(6), 1706-1716. doi:10.1007/s10943-013-9750-x

Marshall, J. K., Mbah, O. M., Ford, J. G., Phelan-Emrick, D., Ahmed, S., Bone, L., ... & Brown, Q. (2016). Effect of patient navigation on BC screening among African American Medicare beneficiaries a randomized controlled trial. *Journal of General Internal Medicine*, *31*(1), 68-76. doi:10.1007/s11606-015-3484-2

Mayfield-Johnson, S., Fastring, D., Fortune, M., & White-Johnson, F. (2016). Addressing BC health disparities in the Mississippi delta through an innovative partnership for education, detection, and screening. *Journal of Community Health*, *41*(3), 494-501. doi:http //dx.doi.org.contentproxy.phoenix.edu/10.1007/s10900-015-0121-2

Mannan, A. U., Singh, J., Lakshmikeshava, R., Thota, N., Singh, S., Sowmya, T. S., ... & Chandrasekar, A. (2016). Detection of high frequency of mutations in a breast and/or ovarian cancer cohort implications of embracing a multi-gene panel in molecular diagnosis in India. *Journal of Human Genetics, 61*(6), 515. doi:http //dx.doi.org.contentproxy.phoenix.edu/10.1038/jhg.2016.4

Matrenec, R. & Spencer, M. (2012). Resiliency, identity, and competence. In J. A. Banks (Ed.), *Encyclopedia of diversity in education* (Vol. 1, pp. 1848-1855). Thousand Oaks, CA SAGE Publications, Inc. doi:10.4135/9781452218533.n590

Marabelli, M., Cheng, S., & Parmigiani, G. (2016). Penetrance of ATM gene mutations in breast cancer A Meta-Analysis of different measures of risk. *Genetic Epidemiology, 40*(5), 425-431. doi:10.1002/gepi.21971

MedicineNet. (2016a). *Medical definition of in situ*. Retrieved from https //www.medicinenet.com/search/mni/risk%20factors

MedicineNet. (2018b). *Medical definition of cancer risk factors*. Retrieved from https //www.medicinenet.com/search/mni/risk%20factors

Medicinenet. (2016c). *Medical definition of cancer symptoms*. Retrieved from https //www.medicinenet.com/script/main/art.asp?articlekey=2615

Medicinenet. (2016d). *Medical definition of prognosis*. Retrieved from https //www.medicinenet.com/script/main/art.asp?articlekey=5061

Medicinenet. (2016e). *Medical definition of salpingo-oophorectomy*. Retrieved from https //www.medicinenet.com/script/main/art.asp?articlekey=5407

Medicinenet. (2016f). *Medical definition of neoplastic*. Retrieved from https //www.medicinenet.com/search/mni/risk%20factors

Mojtahed, R., Nunes, M. B., Martins, J. T., & Peng, A. (2014). Equipping the constructivist researcher The combined use of semi structured interviews and decision-making maps. *Electronic Journal of Business Research Methods, 12*(2), 87-95. Retrieved from Proquest.

Mollica M, Newman SD. Journal of Transcult Nursing. 2014 Transition from patient to survivor in African American BC survivors CT; 25(4) 334-40. Epub 2014 Mar 4.

Morse, J. (2015). Critical analysis for determining rigor in qualitative inquiry. *Qualitative Health Research, 25*(9), 1212-1222.

National Institutes of Health, National Cancer Institute. (2013). *Breast cancer*. Retrieved from http //www.cancer.gov/cancertopics/types/breast

Nakamura, S., Kwong, A., Kim, S. W., Iau, P., Patmasiriwat, P., Dofitas, R., ... & Rashid, M. U. (2016). Current status of the management of hereditary breast and ovarian cancer in Asia first report by the Asian BRCA consortium. *Public Health Genomics*, *19*(1), 53-60. doi:10.1159/000441714

Nolan, T. S., Frank, J., Gisiger-Camata, S., & Meneses, K. (2018). An integrative review of psychosocial concerns among young African American BC survivors. *Cancer Nursing*, 1. doi:10.1097/NCC.0000000000000477.

Nomura, S. J., Dash, C., Rosenberg, L., Palmer, J., & Adams-Campbell, L. L. (2016). Sedentary time and BC incidence in African American women. *Cancer Causes & Control*, *27*(10), 1239-1252. doi:10.1007/s10552-016-0803-9

Passmore, S. R., Williams-Parry, K. F., Casper, E., & Thomas, S. B. (2017). Message received African American women and BC screening. *Health Promotion Practice, 18*(5), 726-733. doi:10.1177/1524839917696714

Patel, K., Kanu, M., Liu, J., Bond, B., Brown, E., Williams, E., ... & Hargreaves, M. (2014). Factors influencing BC screening in low-income African Americans in Tennessee. *Journal of Community Health, 39*(5), 943-950. doi:10.1007/s10900-014-9834-x

Paypervids. (2017). *Erikson's stage theory in its final version*. Retrieved from https //www.paypervids.com/eriksons-8-stages-psychosocial-development/

Park, N. J., & Kang, D. H. (2013, September). Inflammatory cytokine levels and BC risk factors racial differences of healthy Caucasian and African American women. In *Oncology Nursing Forum, 40*(5), 490-500. doi:10.1188/13.ONF.40-05AP

Paxton, R. J., Nayak, P., Taylor, W. C., Chang, S., Courneya, K. S., Schover, L., ... & Jones, L. A. (2014). African-American BC survivors' preferences for various types of physical activity interventions a Sisters Network Inc. web-based survey. *Journal of Cancer Survivorship, 8*(1), 31-38. doi:http //dx.doi.org.contentproxy.phoenix.edu/10.1007/s11764-013-0307-5

Penner, L. A., Gaertner, S., Dovidio, J. F., Hagiwara, N., Porcerelli, J., Markova, T., & Albrecht, T. L. (2013). A social psychological approach to improving the outcomes of racially discordant medical interactions. *Journal of General Internal Medicine, 28*(9), 1143-1149. doi:10.1007/s11606-013-2339-y

Penner, L. A., Dovidio, J. F., Gonzalez, R., Albrecht, T. L., Chapman, R., Foster, T., . . . Eggly, S. (2016). The effects of oncologist implicit racial bias in racially discordant oncology interactions. *Journal of Clinical Oncology Official Journal of the American Society of Clinical Oncology, 34*(24), 2874-2880. doi:10.1200/JCO.2015.66.3658

Perou, C., Dennison, J. B., Shahmoradgoli, M., Mills, G. B., Liu, W., Ju, Z., & ... Brown, R. E. (n.d).

Phillips, C. R., Haase, J. E., Broome, M. E., Carpenter, J. S., & Frankel, R. M. (2017). Connecting with health care providers at diagnosis Adolescent/young adult cancer survivors' perspectives. *International Journal of Qualitative Studies on Health and Well-being, 12*(1), 1-10. doi:10.1080/17482631.2017.1325699

Purposeful sampling. (2013). In Emmel, N. *Sampling and choosing cases in qualitative research: A realist approach* (pp. 33-44). London SAGE Publications Ltd. doi 10.4135/9781473913882

Reid, W., & Turbide, J. (2011). Board/staff relationships in a growth crisis Implications for nonprofit governance. *Nonprofit and Voluntary Sector Quarterly,* 1-18. doi:10.1177/0899764011398296

Robinson, L. S., Hendrix, A., Xie, X. J., Yan, J., Pirzadeh-Miller, S., Pritzlaff, M., ... & Ross, T. S. (2015). Prediction of cancer prevention from mammogram screening to identification of BRCA1/2 mutation carriers in underserved populations. *EBioMedicine, 2*(11), 1827-1833. doi:10.1016/j.ebiom.2015.10.022

Rojas, K., & Stuckey, A. (2016). Breast cancer epidemiology and risk factors. *Clinical Obstetrics and Gynecology, 59*(4), 651-672. doi:10.1097/GRF.0000000000000239

Robinson, W. R., Nichols, H. B., Tse, C. K., Olshan, A. F., & Troester, M. A. (2016). Associations of Premenopausal Hysterectomy and Oophorectomy With Breast Cancer Among Black and White Women The Carolina Breast Cancer Study, 1993–2001. *American Journal of Epidemiology, 184*(5), 388-399.

Rowley, K., Doyle, J., Johnston, L., Reilly, R., McCarthy, L., Marika, M., . . . Cargo, M. (2015). Strengths and limitations of a tool for monitoring and evaluating first peoples' health promotion from an ecological perspective. *BMC Public Health, 15*(1), 1215. doi:10.1186/s12889-015-2550-3.

Schlichting, J. A., Soliman, A. S., Schairer, C., Harford, J. B., Hablas, A., Ramadan, M., ... & Merajver, S. D. (2015). Breast cancer by age at diagnosis in the Gharbiah, Egypt, population-based registry compared to the United States surveillance, epidemiology, and end results program, 2004–2008. *BioMed Research International, 2015*, 1-9. doi:10.1155/2015/381574

Sheppard, V.B., Williams, K.P., Harrison, T.M., Jennings, Y., Lucas, W., Stephen, J., Robinson, D., Mandelblatt, J. & Taylor, K.L., (2010). Development of decision-support intervention for Black women with breast cancer. *Psychooncology*, 19, 62-70.

Schölmerich, V. L. N., & Kawachi, I. (2016). Translating the socio-ecological perspective into multilevel interventions Gaps between theory and practice. *Health Education & Behavior*, *43*(1), 17-20. doi:10.1177/1090198115605309.

Schroeder, M. C., Rastogi, P., Geyer, C. E., Miller, L. D., & Thomas, A. (2018). Early and locally advanced metaplastic breast cancer Presentation and survival by receptor status in surveillance, epidemiology, and end results (SEER) 2010–2014. *The Oncologist*, *23*(4), 481-488. doi:10.1634/theoncologist.2017-0398

Senkus, E., Kyriakides, S., Ohno, S., Penault-Llorca, F., Poortmans, P., Rutgers, E., ... & Cardoso, F. (2015). Primary breast cancer ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Annals of oncology*, *26*(suppl_5), v8-v30.Sheppard, V. B., Adams, I. F., Lamdan, R., & Taylor, K. L. (2011). The role of patient–provider communication for Black women making decisions about BC treatment. *Psycho-Oncology*, *20*(12), 1309-1316.

Sheppard, V. B., Llanos, A. A., Hurtado-de-Mendoza, A., Taylor, T. R., & Adams-Campbell, L. L. (2013). Correlates of depressive symptomatology in African American BC patients. *Journal of Cancer Survivorship*, *7*(3), 292-299. doi:10.1007/s11764-013-0273-y

Silva, F. C., Lisboa, B. C., Figueiredo, M. C., Torrezan, G. T., Santos, É. M., Krepischi, A. C., ... & Carraro, D. M. (2014). Hereditary breast and ovarian cancer assessment of point mutations and copy number variations in Brazilian patients. *BMC Medical Genetics*, *15*(1), 55. doi:10.1186/1471-2350-15-55

Spector, D., Battaglini, C., & Groff, D. (2013, September). Perceived exercise barriers and facilitators among ethnically diverse BC survivors. In *Oncology Nursing Forum*, 472-480.

Sterba, K. R., Burris, J. L., Heiney, S. P., Ruppel, M. B., Ford, M. E., & Zapka, J. (2014). We both just trusted and leaned on the Lord a qualitative study of religiousness and spirituality among African American BC survivors and their caregivers. *Quality of Life Research*, *23*(7), 1909-1920.

St-Jacques, S., Philibert, M. D., Langlois, A., Daigle, J. M., Pelletier, É., Major, D., & Brisson, J. (2013). Geographic access to mammography screening centre and participation of women in the Quebec Breast Cancer Screening Programme. *Journal of Epidemiology and Community Health (1979-), 67*(10), 861-867. doi 10.1136/jech-2013-202614

Swain, S. M., Baselga, J., Kim, S. B., Ro, J., Semiglazov, V., Campone, M., ... & Clark, E. (2015). Pertuzumab, trastuzumab, and docetaxel in HER2-positive metastatic breast cancer. *New England Journal of Medicine*, *372*(8), 724-734. doi:10.1056/NEJMoa1413513

Takahashi, M. (2014). Psychosocial distress among young BC survivors implications for health care providers. *Breast Cancer*, *21*(6), 664-669.Epub 2013 Dec 7.

Tao, Z., Shi, A., Lu, C., Song, T., Zhang, Z., & Zhao, J. (2015). Breast cancer Epidemiology and etiology. *Cell Biochemistry and Biophysics*, *72*(2), 333-338. doi:10.1007/s12013-014-0459-

Tejeda, S., Darnell, J. S., Cho, Y. I., Stolley, M. R., Markossian, T. W., & Calhoun, E. A. (2013). Patient barriers to follow-up care for breast and cervical cancer abnormalities. *Journal of Women's Health*, *22*(6), 57-517. doi:10.1089/jwh.2012.3590.

Trinh, L., Larsen, K., Faulkner, G. E., Plotnikoff, R. C., Rhodes, R. E., North, S., & Courneya, K. S. (2016;2015;). Social-ecological correlates of physical activity in kidney cancer survivors. *Journal of Cancer Survivorship, 10*(1), 164-175. doi:10.1007/s11764-015-0462-y.

Terunuma, A., Putluri, N., Mishra, P., Mathé, E. A., Dorsey, T. H., Yi, M., ... & Stevenson, H. S. (2014). MYC-driven accumulation of 2-hydroxyglutarate is associated with BC prognosis. *The Journal of Clinical Investigation*, *124*(1), 398-412. doi:10.1172/JCI71180

U.S. Department of Health and Human Services. (2016). *Office of the Assistant Secretary for Planning and Evaluation. Environmental scan to identify the major research questions and metrics for monitoring the effects of the affordable care act on safety net hospitals. C. Definition of safety net hospitals.* Retrieved from https //aspe.hhs.gov/report/environmental-scan-identify-major-research-questions-and-metrics-monitoring-effects-affordable-care-act-safety-net-hospitals/c-definition-safety-net-hospitals

U.S. Department of Health and Human Services, National Institutes of Health, &National Cancer Institute. (2012). *SEERS stat fact sheets Breast*. Retrieved from http //seer.cancer.gov/statfacts/html/breast.html

U.S. National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1978). *The Belmont report Ethical principles and guidelines for the protection of human subjects of research Appendix*. Washington, DC Author.

Van Manen, M. (2014) *Phenomenology of Practice Meaning-giving Methods in Phenomenological Research and Writing*. California Left Coast Press

Wang, T., & Lien, Y. B. (2013). The power of using video data. *Quality and Quantity, 47*, 2933-2941. doi 10.1007/s11135-012-9717-0

Wang, L. (2017). Early diagnosis of breast cancer. *Sensors (Basel, Switzerland), 17*(7), 1572. doi:10.3390/s17071572

Waters, D. (2017). *Phenomenlogy Research*. Retrieved from capilanou.ca https //www.capilanou.ca/psychology/student-resources/research-guidelines/Phenomenological-Research-Guidelines/

WebMD. (2018). *Types of breast cancer*. Retrieved from https //www.webmd.com/breast-cancer/guide/breast-cancer-types-er-positive-her2-positive#1

White-Means, S., Rice, M., Dapremont, J., Davis, B., & Martin, J. (2016). African American Women Surviving BC mortality against the highest odds. *International Journal of Environmental Research and Public Health, 13*(1), 1-15. doi:http //dx.doi.org.contentproxy.phoenix.edu/10.3390/ijerph13010006

Wieder, R., Shafiq, B., & Adam, N. (2016). African American race is an independent risk factor in survival from initially diagnosed localized breast cancer. *Journal of Cancer*, *7*(12), 1587-1598. doi:10.7150/jca.16012

Williams, D. (2014). *A narrative inquiry of BC screening policy recommendations for Black women* (Order No. 3644257). Available from ProQuest Dissertations & Theses Global. (1624880361). Retrieved from https //search-proquest-com.contentproxy.phoenix.edu/docview/1624880361?accountid=35812.

Williams, F., Jeanetta, S., & James, A. S. (2016). Geographical location and stage of BC diagnosis A systematic review of the literature. *Journal of health Care for the Poor and Underserved*, *27*(3), 1357-1383.Retrieved from https //search-proquest-com.contentproxy.phoenix.edu/docview/1813882399?accountid=35812

Wills, M. J., Whitman, M. V., & English, T. M. (2017). Travel Distance to Cancer Treatment Facilities in the Deep South. *Journal of Health Care Management*, *62*(1), 30-43. Retrieved from https //search-proquest-com.contentproxy.phoenix.edu/docview/1937372844?accountid=35812

Wilson-Anderson, K., Williams, P. R., Beacham, T., & McDonald, N. (2013). Breast health teaching in predominantly African American rural Mississippi Delta. *ABNF Journal*, *24*(1).

Wojnar, D. M., & Swanson, K. M. (2007). Phenomenology An exploration. *Journal of Holistic Nursing, 25*(3), 172-180. doi:10.1177/0898010106295172

Woodruff, S. L. (2018). *Identifying the newly insurable Medicaid coverage gap population under the affordable care act who they are and where they live.*

Wu, Y., Sarkissyan, M., Clayton, S., Chlebowski, R., & Vadgama, J. V. (2017). Association of vitamin D3 level with BC risk and prognosis in African-American and Hispanic women. *Cancers*, *9*(10), 144.

Yaghjuan, L., Wolin, K., Chang, S., & Golditz, G. (2014). Racial disparities in healthy behaviors and cancer screening among BC survivors and women without cancer National Health Interview Survey 2005. Cancer causes and control, 605-614.

Yeager, K. A., Bauer-Wu, S., DiIorio, C., Quest, T. E., Sterk, C. E., & Vena, C. (2016). Managing One's Symptoms A Qualitative Study of Low-Income African Americans with Advanced Cancer. *Cancer nursing*, *39*(4), 303.

Yedjou, C. G., Tchounwou, P. B., Payton, M., Miele, L., Fonseca, D. D., Lowe, L., & Alo, R. A. (2017). Assessing the racial and ethnic disparities in BC mortality in the United States. *International Journal of Environmental Research and Public Health, 14*(5), 486. doi:10.3390/ijerph14050486

Zahnd, W. E., M.S., Jenkins, Wiley D, PhD. M.P.H., & Mueller-Luckey, G. S. (2017). Cancer mortality in the Mississippi Delta region Descriptive epidemiology and needed future research and interventions. *Journal of Health Care for the Poor and Underserved, 28*(1), 315-328. Retrieved from https //search-proquest-com.contentproxy.phoenix.edu/docview/1874616081?accountid =35812

Zhong, S., Jiang, T., Ma, T., Zhang, X., Tang, J., Chen, W., ... & Zhao, J. (2014).Association between physical activity and mortality in breast cancer A meta-analysis of cohort studies. *European Journal of Epidemiology, 29*(6), 391-404. doi:10.1007/s10654-014-991

Appendix A: Demographic Questionnaire

1. Initials _________________ (will remain confidential for the study).
2. Are you in the age range of 20 to 40? ______
3. Gender Male__ Female__
4. Race ________
5. What is your marital status?
6. Are you a BC Survivor Yes __ No __
7. Are you willing to share you lived experiences of Breast Cancer Yes___ No __
8. Are you currently employed Yes No
9. What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.

Appendix B: Interview Questions

Research Question #1 What insights can African American women with breast cancer, 20 to 40 years provide concerning the quality of BC treatment they received?

Interview Questions

1. What resources are available for screening in the community for BC and how would you go by obtaining it?
2. When do you as an African American woman think it is an appropriate time to screen for breast cancer?
3. How does your awareness level affect your useful resources of screening?
4. What type of physician do you suggest being in the age range of 20 to 40 do think you should receive breast care treatment from?
5. What are some factors that affects the risks of treatment of breast cancer?
6. In regard to BC screening, what is the most challenging aspect?

Research Question #2 What observations can African American women with breast cancer, aged 20 to 40 years, identify as barriers which prevent or delay quality of breast care treatment?

Interview Questions

1. From your experience, do you feel that your health insurance is affordable for breast care treatment?
2. Does your health condition determine the type care that you receive?
3. What type of insurance from your experiences, should you obtain, or policy should you obtain to ensure that you are covered for BC treatment?
4. What type of health insurance from your experience is applicable for BC treatment?
5. How your socio-economic status would influence your BC treatment process?
6. Do you see an ethnic diverse or stereo type as barriers in receiving BC treatment?

Research Question #3 How do African American women with breast cancer, aged 20 to 40 years, view the removal of perceived barriers which prevent or delay quality of breast care treatment?

Interview Questions

1. Will your socio-economic status delay your breast care treatment removal process?
2. What type of health insurance coverage from your experience do you feel is obligatory in breast care removal treatment?
3. What modifications do you personally sense that health care providers should generate to improve breast care treatment?
4. How would you describe the quality of care that has been provided to you throughout your breast care treatment process?
5. What are the major factors that are important in a health care facility to ensure that the patient revisit the facility for treat

Appendix C: Enlistment Flyer

Announcement

Research Study

By

Tamika C. Smith

Candidate for Doctor of Philosophy Health-Health Services

Announcement

Title of Study

Lived Experiences of African American Females 20 to 40 Years of Age Breast Cancer Treatment Access

Criteria for Participants

- African American women in the Jackson Mississippi area with BC or a BC survivor.
- African American women must be between the ages of 20 to 40, and willing to share their lived experiences about being a BC survivor and BC treatment access.
- Exclude participants that are not African American Females under the age of 20 and are above the age of 40 that has not had Breast Cancer.

If you are interested in participating in this research study, Contact Tamika C. Smith at Phone (601)564-5664 or email ctsmith87@yahoo.com (For Walden University Dissertation IRB Approval # 02-13-19-0561826)