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Stay Beautiful -- Stay Alive: Assessing the Receptivity of African American Beauty Salon Owners to the Integration of Breast Cancer Intervention Programs into Salon Operations

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STAY BEAUTIFUL- STAY ALIVE: ASSESSING THE RECEPTIVITY OF AFRICAN
AMERICAN BEAUTY SALON OWNERS TO THE INTEGRATION OF BREAST
CANCER INTERVENTION PROGRAMS INTO SALON OPERATIONS

by

Funmi Apantaku Onayemi

Dissertation

Submitted to the Faculty of

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the Degree of

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in

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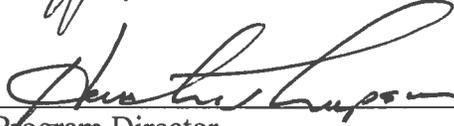
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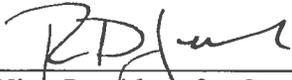
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I dedicate this work to my husband, Funmi Onayemi, my brother, Dr. Frank Apantaku, my sons, Yinka and Temi Onayemi and my sisters Jeannie R. Gibson and Olubisi Idowu.

They are the cornerstones of my life and the wind beneath my wings.

ABSTRACT

by

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The lower incidence rate of breast cancer in African American women is dwarfed by the excessive number of deaths due to late diagnosis and treatment. Lack of screening, socio-economic factors, fatalistic beliefs and inequality of care are major contributing factors. Studies have suggested that those who had more knowledge about breast cancer are more likely to have reduced fatalistic attitudes and engage in screening behaviors. This study investigated beauty salons as sustainable and viable venues to reach women with health intervention programs because they fit the prescriptions of the principles of adult learning. In a mixed-method, descriptive study involving 115 salon owners, the study concluded that salon owners are moderately interested in integrating breast cancer education in their salon operations.

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CHAPTER 1

INTRODUCTION

The world has coined Chicago, “the windy city.” The “wind” of breast cancer that blows on African American women in Chicago is unequally deadly. The gap in breast cancer mortality rate between African American and Caucasian women in the city has widened disturbingly in the past two decades and has overtaken the gap between the two groups nationally and in New York city in particular (Metropolitan Chicago Breast Cancer Task Force, 2010). The highest death rates for African American women are presented in Kentucky, Illinois and Indiana (American Cancer Society [ACS], 2009). African American women are dying from this disease more than twice as much as Caucasian women while Caucasian women have had improved survival rates due to advancement in breast cancer detection and treatments (Hirschman, Whitman, & Ansell, 2007). In the early 1980s African American women in Chicago fared slightly better. Breast cancer death rate for African American women was approximately the same as that of Caucasian women in that period (ACS). The rise in death rate among African American women began in the years 2001 through 2005 when African American women had a jump of 37% higher death rate than Caucasian women despite 10% lower incidence rate (ACS). Presently, the lower incidence rate among African American women is dwarfed by the excessive number of deaths due to late diagnosis and treatment.

Lack of screening, late diagnosis and inequality of care are major contributing factors to this disparity. “Cultural and psychosocial reactions such as fear, distrusts, fatalism and other “historic rooted” factors are major determinants,” (Guidry, Mathews-Juarez, &

Copeland, 2003, p. 318). Mistrusts from historical events still resurface in health system issues of today manifesting as less information, empathy and attention for ethnic minority patients by their healthcare providers (Scharff, Mathews, Jackson, & Hoffsuemmer, 2010). Glanz, Resch, Leman, and Rimer (1996) found that health providers do not recommend mammography screening to African American women as often as they do to Caucasian women. Hand et al. (1991) reported that late stage breast cancer detection is associated with urban hospitals because of the high number of uninsured and under-insured patients. The investigators' report echoed the findings of Whitman et al. (1991) on patterns of breast and cervical cancer screening in three urban health clinics in Chicago. Whitman et al. wrote that despite attending public clinics, African American women did not receive appropriate cancer screening as recommended by the American Cancer Society (2009).

The knowledge level of individuals regarding breast cancer impacts their desire to get mammography (Price, Desmond, Stenker, Smith & Steward, 1992). In a study to increase cancer awareness among African Americans, Morgan, Fogel, Tyler and Jones (2010), reported that participants who had more knowledge about the disease, were more likely to engage in screening behaviors and they had reduced fatalistic attitudes about the disease. However, for older women, early detection is complicated by their fear of mammography screening and the embarrassment of having their breasts checked (Forte, 1995). Raucher et al. (2010) wrote that African American women have held on to the belief that breast lump needed to be checked only if it was painful or was growing. Glanz et al. (1996) also found that African American women perceive breast symptoms as prerequisites to mammography screening. Mandelblatt, Andrews, Kerner, Zauber, and Burnett (1991)

recommended that cancer control initiatives be particularly directed to disadvantaged African American women who use public hospitals as their mode of healthcare.

The aforementioned findings by researchers beckon consistency and sustainability of health education and promotion. The World Health Organization (2011) defined health promotion as the process of enabling people to increase control over their health and its determinants, and thereby improve their health. The World Development Report (1993) recognized that education increases opportunities especially for women to seek and access information that would aid in the better allotment of their resources to change the overall lifestyle of their households and have crucial impact on their health.

The statement by the World Development Report mirrors Linnan and Ferguson (2007) findings that despite the fact that African American women have suffered and continue to suffer disproportionately on many fronts, they are still the glue that holds their families together and they are the best carriers of health information to their families. Reaching African American women with health information and education, with regularity, can impact the overall outcome of their health and that of their households. The principles of adult learning suggest that learning associated with social relationships where adults feel valued as contributors to the welfare of the community under the tutelage of a formal authority, are strong motivators for participation and transfer of knowledge (Lieb, 1991). Beauty salons fit the mode of these motivators. Beauty salons can be viable venues to reach African American women with health promotion and education. Apart from the church and the workplace, African American women patronize beauty salons frequently and in large numbers. “The beauty salon is a small world in which information is given and shared on a daily basis,” (Brown, 2001, p. 136). Linnan and Ferguson (2007) engaged African

American women in breast cancer education in beauty salons of North Carolina where they observed that African American women were relaxed and trusting. Gimlin (1996) noted that beauticians imagine themselves as their clients' self-sacrificing, devoted friends who fill the same purpose as therapists. Hart and Bowen (2004) studied barbershops that are similar in settings to beauty shops with offerings of similar social experiences, and they wrote, "traditionally, it has been a place ...to hang out and of key importance in reaching underserved and vulnerable populations" (p. 271).

After reviewing the works of Brown (2001), Cangemi (2008), Delgado (1998), Forte (1995), Gimlin (1996), Hart and Bowen (2004), Solomon et al (2004), Smith et al (2003), Linnan and Ferguson (2007), all of these researchers seeking to do their investigations in these venues, it is surmised that investigators continue to approach beauty salons haphazardly and with uncertainty. A more in-depth understanding of how public health practices can be integrated into trust building and social/community context of the beauty salon could have implications for community outreach efforts in controlling a myriad of chronic diseases that afflict women of all races. As the world faces insurmountable health issues and as the healthcare systems become deluged by avoidable illnesses and deaths, beauty salons could become steady intervention sites to reach women with live-saving information

Statement of the Problem

The lethality of breast cancer is more pronounced for African American women living in Chicago (Metropolitan Chicago Breast Cancer Task Force, 2010). Mortality differential between African American women and Caucasian women in Chicago is worse than the national average and almost thrice that of New York City, due in part to late diagnosis and treatment (Hirschman, Whitman, & Ansell, 2007). Public health interventions

directed at this inequity have been inconsistent and ineffective because they lack retention and transference. Although beauty salons have been explored as public health intervention venues by a handful of researchers to address female health issues such as breast cancer, those explorations have not had the depth of support from beauty salon owners to anchor public health strategies (Brown, 2001; Cangemi, 2008; Delgado, 1998; Forte, 1995; Gimlin, 1996; Hart & Bowen, 2004; Linnan & Ferguson, 2007; Solomon et al, 2004; Smith et al., 2003).

Purpose Statement

The purpose of this investigation was to conduct an in-depth study of the receptivity of African American beauty salon owners to the integration of consistent breast cancer educational programs in their salon operations in order to control the high mortality rate of breast cancer among African American women of Chicago. The findings of this study could have implications for the construction of a pipeline of health interventions to control a myriad of diseases that afflict women of all races through the beauty industry. Beauty salons have been important to women for centuries; weaving health intervention into this setting could yield significant progress in public health strategies. Secondly, the study could give insights to outreach efforts to men in barber shops since barber shops are similar to beauty salons in their offerings of relaxed, trusting, and social atmosphere.

Background

Breast cancer is a prominent world health issue. The National Cancer Institute (1996), the nations' foremost institution on cancer research, estimated that 207,090 women in the United States will be diagnosed with breast cancer in 2010 and 39,840 of these women will die. In the year 2009, 19,540 African American women would have presented

new cases of breast and 6,020 African American women would have died (ACS, 2009). Despite the nation's aggressive campaign to defeat cancer since the National Cancer Act of 1971, currently, one in four deaths in the United States is due to cancer (Jemal, Siegel, Ward, & Xu, 2008). Two decades ago, the director of the National Cancer Institute predicted that over 40% of people in the United States will develop cancer; over 20% will die from cancer and that the yearly cost to the nation will be over \$100 billion (National Cancer Institute, 1996). The national cost of cancer care in 2010 was estimated at \$124.57 billion while the total cost of cancer care in the year 2020 is projected at \$173 billion (Mariotto, Yabroff, Shao, Feuer, & Brown, 2010). The National Cancer Institute director's report has been particularly sobering for African Americans. African Americans have a 30% higher death rate from all cancers combined than Caucasians (Ghafoor, Jemal, & Cokkinides, 2002). In African American women, breast cancer is the most commonly diagnosed cancer and the second leading cause of cancer death surpassed only by lung cancer (ACS, 2009). In 2010, breast cancer cost the nation \$16.50 billion which was the highest estimated cost of all cancer sites in that year (Mariotto et al., 2010). Snapshots of the National Cancer Institute revealed that the incidence of breast cancer is highest in Caucasians, but African Americans have higher mortality rate than any other racial or ethnic group in the United States. The National Cancer Institute declared that the gap in mortality between African Americans and Whites is wider today than it was in the early 1990s (NCI, 2010).

The wide mortality gap between African American and Caucasian women is not news. For decades, African Americans have consistently been underprivileged even in cancer survivorship. African Americans comprise 12.9% of the United States population (U. S.

Census Bureau, 2011) with the poorest health indicators of any population group (Manley, 1998). While African American women have a lower incidence of breast cancer than Caucasian women, those with breast cancer are more likely to die from the disease or present with more advanced stages of disease (Champion & Menon, 1997). Patients with metastatic breast cancer have a relatively poor prognosis, and even effective therapies may add only months of life (Dignam, 2002).

Investigators have strongly linked high breast cancer mortality among African Americans to the underutilization of breast cancer screening programs despite the fact that screening mammography for early detection of breast cancer has been shown to be an effective prerequisite for reducing mortality (Caplan, Wells, & Haynes, 1992). African American women have benefited less from advances made in early detection and treatment (Baquet, Mishra, Commiskey, Elison, & DeShields, 2008). Ferrans et al. (2006) found that cultural beliefs have ingrained implications for how African Americans view their responsiveness to cancer prevention and control. Rauscher et al. (2010) reported that delays in diagnosis were linked to misconceptions such as pressing on breast lumps would cause lumps to become cancerous. With misconceived and fatalistic notions about breast cancer, news of over two million breast cancer survivors who are currently living well in the United States could be an encourager of early detection practices among African American women (Metropolitan Chicago Breast Cancer Task Force, 2010).

Race and socio-economic factors are strongly associated with high breast cancer mortality in African American women. Stating that socioeconomic status is poorly understood, Baquet et al (2008) defined socio-economic status as,

...reflect income, poverty level, education, geography of residence, population density, occupation, and occupational category, access to and utilization of healthcare, diet, age at bearing children, physical activity, compliance/adherence to patterns of preventive care and treatment, and other determinants of cancer etiology, early detection and treatment, and survivorship.(p. 487).

The World Health Organization (2011) also stated that,

The social determinants of health are the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illnesses.

These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics.

Researchers have argued that nothing in the biological make-up of African Americans unequally predisposes them to cancer. Bradley, Given and Roberts (2002) found that after adjusting for socioeconomic factors, there was no association between being African American and unfavorable breast cancer outcomes and that low socioeconomic status and not race, was associated with late-stage breast cancer, types of treatment received and mortality rates. Bonner (1998) concurred that when controlled for socio-economic status, the apparent contrast between African Americans and Caucasians in cancer morbidity and mortality are greatly reduced and sometimes eliminated and that equality of care equalizes cancer incidence and outcomes. Wilkinson (2006) concluded that socioeconomic factors are strongly associated with health; that stresses induced by social circumstances chronically suppress individual's resistance to various diseases. The investigators elaborated that individual's social circumstance accumulate over a lifetime to contribute to one's health status beginning from childhood to adulthood; these social circumstance accumulation set

up a sequence of poor development which leads to physiological damage and premature death. Lack of insurance is a stress of socio-economy that manifests as lack of access to state-of-the-art health care. In a study of working women with insurance coverage by Friedman et al. (2002), women with inadequate insurance sought preventive health services less than those with adequate insurance. Bibb (2001) argued that even with adequate insurance, African American women still delay seeking mammography services. In the author's study of African American women in the Naval Service, many African American women are being diagnosed with breast cancer at ages younger than 40. The American Cancer Society recommends annual mammography screening for average-risk women beginning at age 40 (ACS, 2009). The incidence of breast cancer is higher among African American women who are younger than 40 when compared to Caucasian women who are younger than 40 (ACS, 2009). When African American women present at younger ages, the disease is more aggressive, lending itself to poor prognosis (Dignam, 2002). Based on these aforementioned reports, a segment of high-risk African American women are being missed for mammography screening, hence a potential for late detection of breast cancer and a strong indicator for late diagnosis and untimely death.

The odds are stacked against African American women in breast cancer early diagnosis and treatment. In summary, African American women are afraid, they are poor, they lack adequate health insurance, their physicians neglect to recommend mammography screening, and some of them are afflicted before the age of 40. How can a nation mitigate these barriers to breast cancer control in order to bring wellness to the African American community? One can posit that some of these barriers can be minimized by consistent education and information in a community setting. With adequate knowledge about breast

cancer, and accurate information about where, when and how to get screened, one can deduce that women would fear the disease less, seek means of getting screened regularly, and be more prone to ask their physicians for screening recommendations. Ongoing attempts have been made by many institutions and organizations to spread early detection messages to African American women. Most of these programs have operated on the cyclical governmental and organizational grants which limit the duration of community engagement to the period of grant award.

The National Cancer Institute sponsored National Black Leadership Initiative on Cancer (NBLIC), “focused on outreach to the black community through public education, to increase awareness of cancer and cancer risks, improve health behaviors, and break down barriers to prevention, early detection, and state-of-the-art treatment,” (Sullivan, Jackson, Sheats, & Smith, 1998. p. 3). Through the NBLIC, a large-scale beauty salon project was launched in Chicago where 103 beauty salons participated in a breast cancer information program (Smith et al., 2003). At the time of its inception, there were no prior studies of how to approach the beauty salons neither were there clear expectations of the intervention. The breast cancer campaign was cited as a best practice and replicated in other communities around the country. The project was a one-time per site breast cancer campaign to women. In the 12 years following the study in Chicago, there were no returns to the salons by the investigators, no follow-up on the program and no calls for further action. The laxities in follow-up were due in large part to inadequate funding for the project. Just as the NBLIC program, so had been numerous other programs from many cancer control organizations. With such investment in breast cancer control, why have there been improvements for

Caucasian women and an insurmountable deterioration for African American women who reside in the city of Chicago?

Researchers of various studies addressing the poor breast cancer outcomes in African American women have suggested that health promotion and education to these women be consistent and culturally appropriate. Other researchers have reported that an increase in knowledge alone without focus on beliefs and behaviors would not facilitate change. Social marketers and public health interventionists have strongly stated that, “Brief social marketing campaigns cannot be expected to result in substantial cognitive and/or behavior changes,” (Lefebvre, & Flora, 1988). The Health Belief Model suggests that an individual’s readiness to change is dependent upon their perceived vulnerability to disease, severity of health condition, benefits of behavior change, and barriers to controlling the health condition. (Strecher & Rosenstock, 1997). The high mortality of breast cancer in African American women of Chicago warrants established permanence of venues through which steady stream of education and information will be delivered in trusting interactions and environments. Such an establishment would be groundbreaking in yielding change in the behavior of African American women toward breast cancer and early detection practices. The feasibility of establishing African American beauty salons as public health intervention sites is the focus of this investigation.

James (2008) wrote,

...black women throughout the ages have been connected to one another by many things, the most obvious and prominent of which is hair ...our story of hair goes back before civilization, before the modern world recognized its beauty and its brilliance (p. ix).

Historically, African Americans have had success in the beauty industry. The floodgate of participation in this industry was encouraged by the financial windfall of Madam C.J. Walker, the first African American female millionaire who made her fortune in this field (Due, 2001). In the years of segregation, the beauty enterprise was economically secure and fertile for African Americans because no other group could care for the African American hair like African Americans could. Today, beauty salons continue to be one of the bedrocks of African American female entrepreneurship. Beauty salons vary in sizes from small salons with one stylist to big salons with tens of stylists. Salon owners are men and women whose hair care establishments have afforded them influential status in the community of their service. As community gatekeepers, their buy-in to any program becomes instrumental in the success of infiltrating the community with the idea. These entrepreneurs' decisions to embrace a program are usually void of bureaucracy because most salons are singularly-owned. The owners are sole decision makers of daily operations in their shops. The stings of their combined strengths have been felt socially, politically and economically.

Attempts to reach African American women in beauty salons have their roots in the findings of earlier researchers. Linnan et al (2005) observed that clients visit salons in minority communities at least once every eight weeks. The duration of their visit range from 30 minutes to many hours per visit where they share advice, support and empathy (Delgado 1998). Solomon et al. (2004) observed 10 hair salons and concluded that African American women are loyal to their salon of choice and they linger for considerable amount of time in the salon. Linnan et al (2005) also noted that when salon owners, their employees and clients share the same ethnicity, the trust levels in their relationships are higher. Forte

(1995) stated that older African American women have developed a strong oral culture in the hair salon using this setting to network and exchange information.

Research Questions

The study drew on the salon owners responses to the following questions:

1. To what extent would beauty salon owners integrate breast cancer intervention programs in their salon operations?
2. What would motivate salon owners to integrate breast cancer intervention programs in their salon operations?
3. What would discourage salon owners from integrating breast cancer intervention programs in their salon operations?
4. How frequently would salon owners allow health intervention programs to be presented in their salons?
5. What agent of implementation of breast cancer intervention would salon owners prefer, given the choices of hair stylists, lay educators, health educators or nurses?

Description of Terms

African American: pertaining to or characteristic of Americans of African ancestry (Princeton University Wordnet, 2011).

Caucasian: A non-scientific term ...used to describe light-skinned people from Europe and, originally, from western Asia and North Africa as well. The term became synonymous with "white" (American Anthropological Association, 2011).

Cancer: A general term for more than 100 diseases in which malignant (cancerous) cells develop. Some exist quietly within the body for years without causing a problem. Others are

aggressive, rapidly forming tumors that may invade and destroy surrounding tissue and travel through the lymph system or bloodstream to distant areas of the body, (Imaginis, 2006).

Detection: Finding disease. Early detection means that the disease is found at an early stage, before it has grown large or spread to other sites. (Many forms of cancer can develop to an advanced stage without causing symptoms, (Imaginis, 2006)

Incidence: The number of instances of illness commencing during a given period in a specified population (Cancerlynx).

Mammogram/mammography: An x-ray of the breast; used to screen for or investigate breast abnormalities and breast cancer, particularly those which are too small to be felt by physical examination. Mammograms are made using a special x-ray machine designed specifically for this purpose. Screening mammography is used for early detection of breast cancer in women without any breast symptoms. Diagnostic mammography is used to help characterize suspicious breast masses or determine the cause of other breast symptoms (Imaginis, 2006).

Risk factor: an aspect of personal behavior or lifestyle, an environmental exposure, or an inborn or inherited characteristic which on the basis of epidemiologic evidence is known to be associated with health related condition(s) (Cancerlynx).

Screening: The search for disease, such as cancer, in people without symptoms. Screening may refer to coordinated programs in large populations. The principal screening measure for breast cancer is mammography (Imaginis, 2006).

Significance of Study

The researcher of this study aimed at laying a health promotion and education foundation in the African American beauty salons as one of public health intervention

means to close the breast cancer disparity gap between African American women and Caucasian women in the city of Chicago. Although beauty salons have been explored as public health intervention venues by a handful of researchers to address female health issues such as breast cancer, those explorations have not had the depth, consistency and permanence of support from beauty salon owners to anchor public health strategies (Brown, 2004; Cangemi, 2008; Delgado, 1998; Forte, 1995; Gimlin, 1996; Hart & Bowen, 2004; Linnan & Ferguson, 2007; Solomon et al, 2004; Smith et al., 2003). The impermanence of these interventions could be due to the fact that no in-depth investigation had been done about the receptiveness of salon owners to these intervention possibilities. African American women regularly patronize beauty salons where the trust and social atmosphere could minimize their resistance to health interventions and allow the permeation of information that could save their lives. Bonner, 1998; Dignam, 2001; Whitman, 2003; and many other investigators have written that when African American women and Caucasian women are on leveled field in regards to breast cancer, their outcomes are virtually the same. To level this field, a steady stream of breast cancer intervention strategies in beauty salons to address some of the key barriers to breast cancer control, could resonate and transfer into lifestyle changes. The principles of adult learning suggest that adults learn in a social environment where they are comfortable, relaxed and trusting (Lieb, 1991). The beauty salon is such a place. Understanding what would anchor public health interventions in the beauty industry and the factors that motivate, support and sustain this anchorage will be a foundation for future gains in health promotion strategies for controlling a myriad of diseases that afflict women of all races. Beauty is important to women and has been important to women from time immemorial; weaving health intervention into these settings could yield significant progress

in public. Secondly, the study could give insights to outreach efforts to men in barber shops since barber shops are similar to beauty salons in administration and their offerings of relaxed, trusting, and social atmosphere (Hart & Bowen, 2004).

Process to Accomplish

The research study was a mixed-method descriptive investigation which was conducted in African American beauty salons located on the south and west sides of Chicago with predominant African American population. The researcher proceeded as such:

Phase 1:

The researcher conducted an exploratory interview with 10 African American salon owners who were recruited from a beauty school on the south side of Chicago. The participants recruited were interviewed on the feasibility of long term breast cancer educational series in their beauty salons. The key points of the interviews were motivators, barriers, frequency of presentations and agent of implementation of breast cancer education in the shops. The interviews were tape recorded and fully transcribed. The findings of the interviews served as the framework for the development of the questionnaire used in the quantitative study.

Phase II:

Based on the results of the interviews which were intended to assure good content validity, the researcher developed a scale which captured what was reported in the interview questions. The investigator ranked items by percent endorsed. Once the questionnaire was developed, the researcher pilot-tested the 5 point Lickert scale questionnaire with another set of 10 beauty salon owners recruited from a beauty school and beauty shops. The responses to the questionnaire allowed the researcher to focus on clarity and content in

finalizing the development of the questionnaire. The first part of the questionnaire sought answers to the research questions; the second part of the questionnaire gathered demographic information. The research questions:

1. To what extent would African American beauty salon owners integrate breast cancer intervention programs in their salon operations?
2. What would motivate African American beauty salon owners to integrate breast cancer intervention programs in their salon operations?
3. What would be the barriers to integrating breast cancer intervention programs in African American beauty salon operations?
4. At what frequency would African American salon owners allow breast cancer intervention programs in their salons?
5. What agent of implementation of breast cancer intervention programs would African American beauty salon owners prefer when given the choices of hair stylists, lay educators, health educators, and nurses?

Phase III:

Following the finalization of the research questionnaire, the researcher proceeded with the recruitment of study participants. The researcher obtained a map of the city of Chicago with distinctions of community areas and boundaries. With the acquisition of the map and for the purposes of this study, the researcher selected community areas from the west and south sides of Chicago.

The researcher contacted InfoUSA, Inc. and inquired about the number of beauty salons in the aforementioned community areas. InfoUSA (2011) provides customized postal and email lists to businesses of all sizes. Answers to this inquiry prompted the investigator to

purchase contact information to 315 beauty salons which represented the total number of beauty salons in the targeted community areas. The city of Chicago had approximately 2,716 beauty salons at the time of this study according to sales representative of InfoUSA.

The investigator sent letters to 315 beauty salon owners. The letters introduced the researcher, the research study and also invited the 315 beauty salon owners to participate in the study. Within five to eight days of sending the letters, the investigator called the salon owners and verified their receipts of the letters. The investigator reiterated the content of the letter and made appointments for meetings with the salon owners. Each salon owner was advised that the purpose of the meeting was to administer the research questionnaire. Appointment dates were established and confirmed. Most appointments were made for Tuesdays, Wednesdays and Thursdays because those were days of the week when salons were opened and they were not as busy as other days of the week. For appointments that were more than two weeks in advance, the researcher sent reminder letters and called to reconfirm before the appointment date. The rationale for administering the survey instrument in person as opposed to using mail-in process was to increase completion and a high return of the questionnaires.

During the visits, the investigator gave the subjects full disclosure of the study and then asked for their consent. The researcher advised them of their rights to decline participation or to withdraw from participation at will. The number of salon owners who chose to participate became the sample size for this study. The first part of the questionnaire captured some demographic information such as gender, education, age range, range of years of salon ownership, race, range of salon size, range of number of stylists, personal experience with breast cancer, exposure to breast cancer information, etc. There were no

personal identifiers on the questionnaire or on any of the documents the participants had received. The second part of the questionnaire was specific to the research questions.

At each salon, the researcher gave the salon owner the questionnaire and an unmarked manila envelope. The salon owner was informed that once the questionnaire had been completely filled, he/she should put the survey in an unmarked manila envelope as supplied by the investigator, seal the envelope and insert the sealed envelope into the researcher's "ballot-box" to ensure anonymity. Once the instructions were given and understood, the researcher stepped aside until notified of the completion of the survey and the insertion of the survey in the ballot-box. This process was repeated in all of the beauty salons.

After the completion and collection of all forms from all participants, the researcher entered and cleaned the data using Microsoft Excel program. The data were analyzed using Special Package for the Social Sciences (SPSS).

CHAPTER II

REVIEW OF LITERATURE

Introduction

Cancer burden in the United States is expected to increase substantially over the next several decades because of the increasing size of the population and the growing proportion of older persons (National Institutes of Health, 2002). Breast cancer was the most fatal form of cancer among all women in the United States in the early 1940s through 1980s causing 40,534 deaths in 1986 alone (Kessler, Feuer, & Brown, 1991). Approximately 57 million women aged 35 and older populated the United States in 1985, the number is projected to increase to 91 million by the year 2025 (Morbidity Mortality Weekly Report [MMWR], 1984). The National Cancer Institute estimated that 230,480 new cases of cancer that forms in the tissues of the breast will arise among women in 2011 and 39,520 women will die in the same year from the disease (<http://www.cancer.gov/cancertopics>). Breast cancer continues to be the most costly cancer for women in the United States; in 1984, American women died an average of 19.3 years earlier than expected due to breast cancer (Horn & Sondik, 1989). In 1900, a woman's life expectancy was 47.3 years; by 1989, a woman's life expectancy had increased to 75.3; and today, a woman could

expect to live up to age 84 if she surpassed the age of 65 (Borysenko, 1996). Haenszel (1950) described life-year-lost as the total number of years lost through the failures of individuals to reach average life expectancy. Mettlin (1988) warned that the tendency of breast cancer to afflict women at younger ages, combined with its high frequency, will cause breast cancer to continue to exceed all other cancers in significance because of the high number of premature deaths. Nearly 26% of all years-of-potential-life-lost (YPLL) will be due to breast cancer alone and YPLL will be 13% higher among black women than white women (MMWR).

Chapter II is a review of past literature on the excessive breast cancer mortality rates in African American women with abridged foci on reasons for racial disparity; early detection practices; role of religious and cultural beliefs; intervention strategies; the nation's obligation to control breast cancer; and why beauty salons are suitable breast cancer intervention sites.

Breast Cancer in African American Women

Higher breast cancer mortality rates have persisted in African American women for decades (Lacey et al., 1993; Freeman & Wasfie, 1989; Baquet & Rigen, 1986; Hirschman, Whitman, & Ansell, 2007). In review of breast cancer mortality during 1980 through 1988, for all ages, breast cancer mortality increased by 2% per year for African American women as opposed to 0.5% per year for white women (Chervarley & White, 1997). Although, breast cancer is the most common form of cancer among American women of all major ethnic groups, (Ashing-Giwa, 2004; ACS 2002), population studies confirmed that African American women with breast cancer have worse outcome compared to white women (Newman et al., 2002; Briele, Walker, Wild & Wood, 1990; Marbella & Layde, 2001; Chervarley, & White). Older women, particularly black women, are at elevated risk of being diagnosed with the most advanced form of breast cancer (Saratino, Belle, & Swanson, 1986). In 1973, Henschke et al. (1973) reported an

alarming decrease in cancer survival in the black population. “The survival rates after treatment for breast cancer have generally been found to be lower for black women than for white women,” (Briele, Walker, Wild, & Wood, 1990, p, 1062). The American Cancer Society’s special report on cancer in the economically disadvantaged, confirmed the mortality differential in black and white women (ACS, 1986). Lefall (1981) reflected that unlike most cancers, breast cancer is more common in white women than black women, but while there has been a 2% increase in the death rate from breast cancer in white females there has been an increase of 5% in black females. In the years 2003 through 2007, African American women had a 39% higher death rate than white women despite a lower incidence rate. It is estimated that 118.3 incidences of breast cancer and 33.8 deaths from the disease will occur per 100,000 African American women while 132.5 incidences of breast cancer and 25.0 deaths will occur per 100,000 white women in 2011. (<http://cancertopics/factsheet/disparities/cancerhealthdisparities>). The American Cancer Society projected 26,800 new cases of breast cancer and 6,040 deaths in African American women in 2011 (ACS, 2011).

Breast cancer in young black women has generated investigative interests. Retrospective analysis of New York Harlem Hospital’s breast cancer patients between 1964 and 1986 by Freeman and Wasfie (1989) revealed a slightly lower incidence of breast cancer in black women, in general, but an exceptionally high incidence of breast cancer in black women younger than age 40. Just as a comprehensive epidemiologic study of breast cancer among black and white women by Baquet, Mishra, Commiskey, Elison, and DeShields (2008) showed that between 1995 and 2004, for all the age groups, black women died more than white women and young black women presented with larger tumors that were difficult to treat, hence lowering their survival of the disease. The National Cancer Institute, the nation’s Congress directed institution to promote

the coordination of cancer research and the useful application of the results (Greednwald & Cullen, 1984) concurred that young black women presented aggressive tumors which are less responsive to standard cancer treatments (<http://cancertopics/factsheet/disparities>). Ansell, Whitman, Lipton and Cooper's (1993) study of women with breast cancer between 1973 and 1985 in two public hospitals in Chicago also found that black women who presented with breast cancer were younger than white women with the disease. In Stanford and Greenberg's (1989) calculation of breast cancer incidence rates in white and black women ages 30 to 54, they reported an excess of receptor negative cancer in young black women and they inferred that it may help explain the racial disparity in breast cancer survival. Another revelation is that women whose mothers or sisters have had breast cancer have two to three times the usual risk for developing breast cancer in their lifetimes (Howts, Wojtkowiak, Simmonds, Weinberg, & Heitjan, 1991). According to Marbella and Layde (2001), from 1993 to 1996, while white women experienced annual decreases in breast cancer deaths, black women aged 40 to 50 had a 1.5 times higher death rates and black women 35 years and younger died at the rate of twice as much as their white counterparts. In Borysenko's (1996) *A Woman's Book of Life*, the author named age 30, the transition age when a woman terminates the existing life structure and explores new possibilities for her continued growth. Maybella and Layde inferred that this transition age is deadlier for black women than their white counterparts.

African Americans make a large percentage of the city of Chicago's population at 32.9%, with 45% whites, and 28.9% Hispanics/Latino (<http://quickfacts.census.gov/qfd/states/17/1714000.html>). The windy city resembles other major American urban centers in its cultural, demographic, socioeconomic, and ethnic diversity but has the worst cancer mortality rates among its black population (Phillips & Lacey, 1987). One of the

nation's grimmest statistics on breast cancer is derived in Chicago's African American women with mortality rates on breast cancer worse than the national average (Hirschman, Whitman, & Ansell, 2007). In Metropolitan Chicago, an African American woman's chance of dying from breast cancer is 62% higher than her white counterpart (http://www.chicagobreastcancer.org/site/epage/126457_904.htm). Using data from the Illinois State Cancer Registry, the Illinois Department of Public Health Vital Records and the Illinois Behavioral Risk Factor Surveillance System, Hirschman, Whitman, and Ansell (2007) compared breast cancer death, incidence, stage at diagnosis and mammography screening rates between black and white women, and found that while there has been a sharp reduction in the number of breast cancer deaths among white women, there has been no improvement for black women in Chicago in 23 years, despite advancement in screening and treatment for the disease. According to Ansell et al. (2009) of the 588,000 women in the age-range of 40 and 69 who were eligible for mammography screening in Chicago in 2007, 206,000 women got screened. Rauscher, Allgood, Whitman, and Conant (2011) found unequal distribution of screening mammography services. The investigators noted that black and underprivileged women were less likely than white women to utilize digital mammography screening or mammography screening within academic facilities where breast imaging specialists read mammograms accurately. "The long-awaited decline in breast cancer mortality in the United States has finally appeared, although only among white women," (Chervarly & White, p. 775). Menashe, Anderson, Jatoui and Rosenberg, (2009) lamented that the differentials in breast cancer mortality rates are moral and ethical dilemma for the nation.

Researchers have offered explanations for breast cancer mortality differentials between African American and white women and they have tested targeted interventions at reducing this

disproportion (Phillips & Lacey, 1987; Lacey, et al., 1993; Whitman et al., 1991; Ansell et al, 1988; Ansell, Whitman, Lipton, & Cooper, 1993; Ferrans, et al., 2006; Raucher et al., 2010).

Some Explanations of Breast Cancer Mortality Differentials

Mayberry and Stoddard-Wright (1992) explained that the striking variations in rates of breast cancer incidence and mortality suggest complex interrelation of socio-cultural, biological and other environmental factors between and within populations. Similarly, Dawson, Ferguson, and Karrison (1982) affirmed that breast cancer is a disease of varying and complex dynamics and many factors do determine the outcome. McWhorter and Mayer (1987) investigated 36,905 breast cancer cases from nine registries in the Surveillance, Epidemiology and End Results (SEER) program of the National Cancer Institute in the years 1978 through 1982 and noted racial differences in the types of breast cancer treatment. McWhorter and Mayer revealed that blacks received less aggressive therapy and they were more likely to be treated non-surgically or treated with no cancer-directed therapy. In 2008, Consedine, Adjei, Herschman and Neugut findings also indicated that part of the mortality difference may lie in the fact that African American women receive suboptimal adjuvant chemotherapy and hormone therapy. The difference in treatment could have been due to patients advance cancer, co-existing disease and non-acceptance of recommended treatment (McWhorter & Mayer). The differences in breast cancer hazard rates may reflect racial differences in response and access to innovations in breast cancer screening and treatment as well as other biological and non-biological factors (Menashe, Anderson, Jatoi, & Rosenberg, 2009). Similarly, Dawson, Ferguson, and Karrison (1982) affirmed that breast cancer is a disease of varying and complex dynamics and many factors do determine the outcome. The suggestion that breast cancer racial disparity might be because of racial differences in tumor biology prompted Whitman, Ansell, Orsi, and Francois (2010) to

strongly state that such reasoning is faulty and can perpetuate harmful racial stereotypes for black people. Employing vital records of women in Chicago, New York City and the United States, Whitman, Ansell, Orsi, and Francois studied age-adjusted breast cancer mortality and found the race ratios to be about the same in 1980 through early 1990s before diverging as benefits from early detection due to mammography screening and treatment began to manifest. Similarly, in a community effort to reduce mortality disparity between black and white women, Ansell et al.(2009) reported that by 2005, the breast cancer mortality in black women was 116% higher with the age-adjusted black mortality rate of 41.3 which is more than twice that of white rate of 19.2. Whitman, Ansell, Orsi, and Francois concluded that medical advancements have afforded privileged women, who are often white, access to interventions while the underprivileged, who are often black, lacked access to interventions. The researchers' findings of lack of access is further explained by Ansell et al's report of inadequate number of hospitals that has the American College of Surgeon's Commission on Cancer approved cancer programs in African American neighborhoods. Ansell et al noted that of the 77 community areas of Chicago, 25 communities have the highest breast cancer mortality rates. African Americans dominantly reside in 24 of these communities which are mostly on the south side of the city. Ansell et al found that only one of the community areas has a hospital with an approved cancer program and on the south of Chicago, only two hospitals have approved cancer programs.

Irregular visits to the physician or not having a regular physician was highly associated with advanced disease presentation (Lannin et al. 1998). Inadequate health care in Chicago public clinics where black women did not receive appropriate cancer screening as recommended by the ACS guidelines was what Whitman et al. (1991) found. According to Dodd (1989) even after five years of the American Cancer Society's publications of its cancer-related guidelines,

only 11% of physicians were found to have followed the recommendations. The lack of physician's recommendation on cancer screening is one of the greatest barriers to early cancer detection and cancer prevention in the black population (Glazer et al. 1989).

Hand et al. (1991) studied how hospitals complied with clinical standards to care for breast cancer patients by examining the data of 5,766 newly diagnosed breast cancer patients from 99 hospitals in the Chicago Metropolitan area. Hand et al. confirmed that late stage breast cancer detection is associated with urban hospitals where the socioeconomically-disadvantaged frequently seek medical attention. Glanz, Resch, Leman, and Rimer (1996) used the Health Belief Model in interviewing 1677 women, of whom 338 were African Americans and discovered that health providers do not recommend screening to black women as often as they do to white women. Hirschman, Whitman, and Ansell (2007) attributed the difference between black and white women's death rates in Chicago to the likelihood of black women receiving substandard mammography screenings done with old or inferior equipment, resulting in inaccurate films. African Americans are also more likely to have their mammography screening results read by unseasoned technicians who misinterpret breast cancer signs on the mammography films (Hirschman, Whitman & Ansell). The investigators' comments partly contradicted Osteen and Karnell (1994) observation that research has yielded better treatment methods including breast conserving treatment and public information had led to increased awareness of the importance of early detection and treatment. Notably, Hirschman, Whitman and Ansell comments came thirteen years after Osteen and Karnell's optimistic report.

In an investigation of 22,111 breast cancer cases from the New York State Department of Health Tumor Registry, Mandelblatt, Andrews, Kerner, Zauber, and Burnett (1991) noted that the odds of having late stage breast cancer was much higher for unmarried black women with

low-income. Incidence and mortality rates vary by marital status and social class with rates higher among the unmarried (Rohan & Bain, 1987). Lannin et al. (1998) also cited a correlation between never having been married and the presentation of late stage breast cancer. Lacking both financial and social support provided by a spouse may have been contributory to their late presentation of the disease (Lannin et al.).

Income comparison in Ansell, Whitman, Lipton and Cooper's (1993) study of the effect of low-income on breast cancer showed most of the black women in their investigation came from poorer communities. Although the incidence of breast cancer is greater among women of higher socioeconomic status, lower socioeconomic women and minority women tend to be diagnosed at a more advanced stage of the disease (National Institutes of Health, 1990). Host immune defenses are impaired in lower socio-economic status patients with cancer due to nutrition or other factors (Ansell, Whitman, Lipton, & Cooper, 1993). In a study of etiology of breast cancer, experiments in animals showed a positive relationship between a high-fat diet and risk of breast cancer (Rohan & Bain, 1987). Since cancer is thought to be a multistage process with a long latent period, dietary patterns early in life influence growth and development and have relationship to breast cancer risk (Micozzi, 1985). Lower socioeconomic status women would have a higher rate of expected breast cancer deaths that could have been prevented by early detection practices (Farley & Flannery, 1989).

Fifty-six percent of Freeman and Wasfie's 1989 study participants delayed seeking medical attention for their breast symptoms for more than three months due to poverty. Fifty percent of these patients' breast cancers were at Stages III and IV with advanced local disease or distant metastases. At that time 33% of black Americans compared to 12% of white Americans were poor (Freeman & Wasfie, 1989). African American women heading families are at an even

greater risk of poverty with their risk measuring more than ten times that of Caucasian men heading families (Todd & Worrell, 2000). Poor Americans have a 10% to 15% lower survival rate as compared to middle class and affluent Americans; less education, undernourishment, risk-promoting lifestyles and less access to healthcare are contributors to lower survival (ACS 1986).

Older women are more likely to delay contacting their physicians once a suspicious breast symptom has been detected because breast symptoms are obscured by competing health problems or appear insignificant in comparison to other more painful disabling conditions (Saratino, Belle & Swanson). “The long-term survival of women with breast cancer is dependent on the stage of disease at the time of diagnosis,” (Farley & Flannery, 1989, p. 1508). Freeman and Wasfie (1989) warned that the presence of a positive node which signifies advanced disease remains one of the strongest determinants of breast cancer survival. “If breast cancer is discovered before lymph node metastases have occurred, the five year survival rate is 84 percent,” (Keller, George, & Podell, 1980, p. 887).

Early Detection: The Mainstay of Breast Cancer Survival

Early detection is effective in reducing associated morbidity and mortality in breast cancer (NIH, 1990). Given the poor understanding of the etiology of breast cancer (MMWR, 1984) and since proven interventions for preventing breast cancer are not established (Kessler, Feuer & Brown, 1992) early detection of breast cancer is a primary tool for controlling the disease. Without comprehensive breast cancer screening initiatives and increased regular screening for breast cancer, premature and overall mortality from breast cancer will rise markedly over time (MMWR, 1984). Burack and Lang (1989) encouraged programs of early detection that can lower the risk of breast cancer mortality among black women by up to 40%.

One of the programs of early detection is mammography screening. Mammography decreases breast cancer mortality because it detects some breast cancers before they are detectable by breast physical examination (Eddy, Hasselblad, McGivney & Hendee, 1988). The American Cancer Society recommends mammography screening for women age 40 and older every year (<http://www.cancer.org/BreastCancer>). Women who are younger than 40 years of age with symptoms that are suggestive of cancer of the breast are candidates for mammography as well (JAMA, 1988). Virtually all experts agree that a woman who is without breast cancer symptoms, who is at least 50 years old, will benefit from regular breast screening by a combination of mammography and careful physical examination (JAMA). Mammography screening provides the psychosocial benefits of relief since it decreases the probability of late-stage breast cancer diagnosis (Eddy, Hasselblad, McGinney, & Hendee, 1988). The study of control trials by Chevarly, and White in 1997 confirmed that mammography screening every one to three years reduces mortality among women aged 50 to 69 by approximately 25%. The 1987 Center of Disease Control's National Health Interview Survey reported lower rates of mammography utilization by black women than white women. Whitman, Shah, Silva, and Ansell (2007) in a study of mammography screening in six diverse communities in Chicago reported that communities with predominantly black population had the poorest screening proportion of all the six communities. The racial differences in mammography use may contribute to racial differences in breast cancer mortality. The differences in mammography use can explain a 10% to 12% of excess late stage breast cancer among black women compared to white women (Marbella, & Layde, 2001).

When Burack, and Liang (1989) assessed the relationship between patient characteristics, knowledge and beliefs to the utilization of mammography screening, they found

the strongest predictor of subsequent completion of mammography screening to be the patient's initial acceptance of the procedure as recommended by a healthcare provider. The initial acceptance was associated with knowledge of the procedure; belief that testing, early detection and treatment were useful; and belief that cancer death was avoidable. Burack and Liang's study showed cost, fear of procedure, health beliefs, and cultural beliefs were barriers. Farley and Flannery, (1989) however, found that black women who are often socioeconomically disadvantaged have decreased awareness of or belief in the importance of early detection. "Among all women who had not had a mammogram in the past year, the most important reason for not having had the test was that they believed it was unnecessary (Farley & Flannery, p 1511). As mammography screening is a detector of early breast cancer, (Eddy et al.) so are the regular practices of clinical breast examination (CBE) and breast self-examination (BSE).

Clinical breast examination (CBE) is an examination of the breast by a physician. The American Cancer Society recommends that women in their 20s and 30s should have a clinical breast examination as part of a regular health examination by a health professional preferably every three years. Starting at age 40, a woman should have a CBE by a health professional every year (<http://www.cancer.org/BreastCancer/MoreInformation/BreastCancerEarlyDetection>). Mammography and clinical examinations of the breasts are complementary mainstay of early detection efforts for breast cancer and both are necessary to achieve maximum detection rates (NIH, 1990). After seven years of a combination study regarding mammography and clinical breast examination in 62,000 women aged 40 to 64 years old in West London, England, researchers found mortality from breast cancer was reduced by one third in the study group compared to the control group (Chamberlain et al., 1975). "The reduction was most striking in women aged 50 to 59," (Chamberlain et al., p. 1026). A 1986 analysis of a nationwide survey of

4659 women revealed that 54.5% of women aged 40 years and older had their breast examined by their physicians within the last year, however, the proportion of women who received CBE declined progressively with increasing age from 60% for women 40 to 49 years to 49% for women aged 65 years or older (Hayward, Shapiro, Freeman & Corey, 1988). The risk of breast cancer increases with age (ACS, 1986).

Breast self examination (BSE) is when a woman uses the tips of her fingers to feel for lumps in her breasts. BSE is a no-cost and efficient way of detecting breast cancer. The American Cancer Society's endorses the practice of BSE for women in their 20s (<http://www.cancer.org>). Routine screening by self-examination and clinical examination can lead to the discovery of breast cancer at clinically more localized stage (Keller, George & Podell, 1980). Lannin et al. observed that the majority of early stage cancers reported in their study, were detected by patients who practiced BSE.

Since the American Cancer Society's early detection method of screening mammography are for women aged 40 and over, and are not recommended for women younger than age 40 because, "it is theoretically possible that in young women, the accumulation of small radiation doses from repeated mammography could actually induce some breast cancers," Chamberlain et al., p. 1026, the CBE and BSE are early detection resorts for young African American women whose breast cancer mortality rates are disproportionately high. The study of psychosocial predictors of BSE practices in black women revealed that younger black women did not perform BSE as frequently as older women and they were not competent or confident in the practice of BSE (Jacob, Penn, and Brown, 1998). Although 99% of women knew about breast self examination, only 19% practiced BSE monthly and those who did not perform BSE stated ignorance of its importance, lack of specific knowledge, lack of confidence, fear, anxiety and

forgetfulness as culprits (Keller, George and Podell, 1980). Keller, George and Podell attributed the “forgetfulness” to fear, anxiety and denial. Leathar and Roberts (1985) found older women to have difficulty accepting the psychological “niceness” of examining their breast because it was culturally repressible in their younger days.

Manfredi, Warnecke, Graham, and Rosenthal (1977) asked black women in inner-city of Buffalo, New York about how the level of fear of breast cancer had influenced the women’s interest in learning and performing BSE. The researchers found that women with medium level of fear of breast cancer tend to seek knowledge about the disease and practice BSE because they believe such practice is preventative. Women who are not afraid of breast cancer are less likely to seek knowledge about the disease or practice BSE because they do not believe they are at risk. Women who have a high level of fear of the disease are less likely to seek knowledge about the disease and are less likely to practice BSE because they are too afraid of detecting a lump. When women with high level of fear have breast symptoms, they are more likely to delay seeking help.

Beliefs – Barriers to Early Detection

Barriers to early detection of breast cancer are adversely compounded by folk beliefs, religious beliefs, relationships with men, and powerlessness against disease (Lannin et al, 1998). African American women interpreted their breast symptoms as a normal part of a woman’s system and if left alone would “tend to come and go,” (Lannin et al). African American women believe that breast lumps that are not bothersome are better left alone and if the lump begins to grow, they should not seek medical attention “because letting air get to cancer or cutting on a cancer would make it spread,” (Lannin et al.). Some of the women in Lannin et al. study were reluctant to have their breast cancer detected because of the fear of being physically disfigured and unattractive, which they thought would be detrimental to their relationships with their male

partners. Leathar and Roberts (1985) wrote that breast cancer was a highly emotive, deeply threatening topic for the women in their study. Both young and old women in the study felt the psychological implications of being incomplete in the feminine sense. However, older women in the investigation felt less pressure about their male partners and claimed they would have greater emotional support from their husbands because of the longevity of their relationships and the less demand for sexual relations by their mates.

Religious beliefs, folk beliefs and fatalism about breast cancer infiltrate the black community's reception of medical advancement to control breast cancer. In the use of mammography screening for example, the American Cancer Society reported low utilization because of the misconception of the amount of radiation from the procedure. The ACS clarified that the radiation from the mammography procedure is very low and that a woman's exposure to mammography every year for 50 years would amount to 20 to 40 rads which is about the amount of radiation one would be exposed to on a commercial jet when flying from New York to California; however, radiation treatment for breast cancer exposes a woman to several thousand rads (<http://www.cancer.org>).

Intervention Programs for African American Women

With factors of lack of knowledge, socioeconomic conditions, access to healthcare, inadequate healthcare, cultural beliefs, affecting the control of breast cancer in African American community, many researchers have sought to address these issues in a variety of ways. For example, Ansell et al, (1988) responded to the Illinois cancer statistics which revealed that the Cook County Hospital was not detecting breast cancer early at the rate in which the state of Illinois was in 1983. To improve the rate of early detection of breast cancer in Cook County Hospital, Ansell et al. implemented a breast cancer education and screening program in the

General Medicine Clinic of Cook County Hospital where most poor people are treated for various chronic diseases. While women waited for their medical appointments, nurses recruited and taught them how to detect breast cancer. Ansell et al. reported that within a year of their investigation, the percentage of women who were trained to check their own breasts for lumps increased from 10% to 58%; those whose breast were checked for lumps by clinicians increased from 26% to 46%; and those who had mammograms increased from 2% to 41%; and the number of poor women who participated in screening jumped dramatically. The investigators elaborated that before the study, mammograms performed in 1982 were 747, with the implementation of the study the number jumped to 7000 in 1986. Ansell et al also emphasized that between 1980 and 1983, 31% of breast cancers were detected early, between 1984 and 1986, 40% of early breast cancers were detected.

Similarly, Ansell, Lacey, Whitman, Chen, and Phillips (1994) employed nurses who recruited and educated low-income minority women in Chicago for breast and cervical cancer screenings while they waited for their medical appointments. In situations where breast abnormalities were detected, research nurses escorted women to medical appointments to support and explain the doctors' diagnoses and the next steps to the women. The nurses then used computer-generated follow-up tracking system to remind the women of their next medical appointments. Ansell et al. (1994) said within 18 months 84 women were diagnosed and received free treatments for breast cancer.

On the same intervention framework, Herbison and Lokanc-Diluzio (2008) wrote about their program to remedy high breast cancer mortality rates in black women by using low-income breast cancer survivors to tell their survivorship stories in order to educate and encourage early detection of the disease among other low-income women. Likewise, Kreuter, Black, Friend,

Booker, and Klump (2006) implemented *The Reflections of You Kiosk* project in 40 sites in St. Louis, Missouri where they placed interactive computer kiosks which contained breast cancer information and questionnaires in churches, beauty salons, Laundromats, neighborhood health centers and social service centers. From the 40 sites, the authors said the kiosks were accessed 6,099 times in 470 days - the Laundromats had the most traffic but least knowledgeable users, the churches had the most knowledgeable users on breast cancer and mammography. Sung et al. (1992) studied compliance to breast and cervical screenings by investigating knowledge, attitudes and practices of black women in Atlanta, Georgia in order to increase the rate of screening for these cancers by 15%. Herbison and Lokanc-Diluzio reported that they increased screening compliance for these cancers in their intervention group. These aforementioned programs are proofs of African American women's positive responses to well-directed efforts to control breast cancer in their communities. Should there not be a more concerted effort to engage all women, particularly African American women in programs such as aforementioned in order to save lives? The answer to the question of why there have not been much more definitive efforts to control breast cancer could be in the nation's appreciation of the role of women in society.

Breast Cancer Control – A National Obligation

As earlier cited, breast cancer is costly to women because of the number of years lost to premature deaths. Premature deaths are devastating to the structure and stability of the family. The high rates of breast cancer deaths in the African American community leave indelible mark on the psychosocial wellbeing, economic strength, and community development. Psychological trauma which develops upon the experience of an early parental loss contributes to the development of depression even in old age (Liisa-Kivela, Luukinen, Koski, Viramo & Pahkala,

1998). Liisa-Kivela maintained that an early loss of mother among men independently predicted the occurrence of depression. Harris, Brown and Bifuko (1986) agreed that the loss of parent influences psychiatric health; the loss of a mother before the age of 17, is associated with the raised rate of depression because of lack of care.

The importance of women in society cannot be underestimated. In his press release announcing the *Women as Agents of Change: Commonwealth Day 2011* Conference, the Secretary General of the Commonwealth wrote,

Women are barometers of society: they are an indication of its internal pressure levels, and their fortunes can be the clearest forecasts of good or bad things to come. Where women prosper, societies prosper; and where women suffer, so too do the societies which they live. By investing in women... we have seen that we can accelerate social, economic, and political progress. (<http://www.womenasagentsofchange.org/media-room/press-releases/>).

Former U.S. President Bill Clinton shared the same sentiments about women when he commemorated the International Women's Day in 1997, "By improving the lives of women, we are making a vital investment in the future – when women thrive, their families thrive, when families thrive, communities flourish and society reaps its benefit."

(<http://www.4president.org/issues/clinton1996/clinton1996women.htm>)

Engaging African American Women's Resiliency in Community Wellness

African Americans have lived through the devastating experiences of migrations from the west coast of Africa, to the mainland of North American (Berlin, 2010). Current conditions of African Americans have been described as oppressive, disenfranchised, impoverished, and worse than that of other U.S. immigrant groups because of "its roots and in the subsequent semi-

slavery of low-wage jobs and poor living conditions” (Encyclopedia of Sociology, vol 1, 1992). In her book *Moving the Mountain: The Women’s Movement in America since 1960*, Davis (1991) vividly described the health status of African American women. Davis wrote:

Medical statistics of African Americans sketched a dismal picture. They [African American women] were twice as likely as white women to die from diabetes in middle age, and three times as likely to be killed by cervical cancer. Though, they didn’t develop breast cancer as often, if they did get it, they were less likely to survive, and if they had high blood pressure, they were more apt to suffer kidney damage.... In part, these vulnerabilities reflected the quality of the medical care low-income African Americans received. (p. 245-246).

The results of this dismal health report on the African American family reverberate in the overall social construct of their immediate environment and spills onto the social wellbeing of the nation at large. Braithwaite and Lythcott (1989) summarized that poverty and powerlessness create circumstances in people’s lives that predispose them to the highest indexes of social dysfunction. “Poverty of the spirit and of resources remains the antecedent risk factor of preventable disease,” (Braithwaite and Lythcott, 1989, p. 282)

Despite the history of African Americans and the continued hardship therein, African American women have been known to hold down the community turf. African American women have held the key to sustained development and improved lives. Many African American women are notable in guiding the African American communities through the waters of insurmountable challenges in history. For example, Harriet Tubman made nineteen trips during the decade prior to the civil war in the Underground Railroad and helped estimated 300 slaves reach freedom (Garrison, 1999, p. 37); Madam C.J. Walker, the first African American to become a millionaire

was orphaned at age 7, raised by her sister, she developed and sold a line of hair care products to African Americans in 1905. She trained women to establish their own businesses by selling her hair products and other cosmetics (The World Book Encyclopedia, 2009); Maggie Lena Walker was the first woman in the United States to establish a bank in the early 1900s, the bank still exist today (Schiele, Jackson, & Fairfax, 2005). In modern times, Condoleeza Rice was the Secretary of State during George W. Bush's administration; Michelle Obama is the First Lady of the country; Oprah Winfrey is a TV personality and first African American woman billionaire, and just recently, in the city of Chicago, Diane Lattiker won the CNN Heroes award for keeping youngsters off the gang and violent streets of Roseland community of Chicago through her project, fittingly named "Kids off the Block."

African American women have impacted lives and contributed greatly to the American society and their resiliency can manifest in the reduction of the alarming rates of breast cancer if well tapped. The National Cancer Institute acknowledged the worth of a community's interest to improve its lot when it funded the now defunct National Black Leadership Initiative on Cancer, a program that enlisted concerned black leaders and unsung heroes to help address the disproportionate cancer morbidity and mortality in the African American communities (NCI, 1987). A similar approach could help change the dismal medical statistics of African American women, and help the country improve its own health and reattach its own social quilt. In so doing, every woman, including African American women should benefit from the director of the National Cancer Institute's 1994 message that states,

we as a nation stand at that defining moment in history when a surge of new technologies and the fruits of many years of investigation will yield, over the next two decades,

unimagined leaps forward in our understanding of cancer and our ability to control and eliminate it through discovery, development and delivery. (p. 1).

Beauty Salons as Social Networks to Effect Breast Cancer Reduction

In order to be advantaged by the director of NCI's statement, one of African American women's support sources has to be tapped. Patterson (2004) investigated the maintenance of a healthy self-esteem in African American women despite the current and historical backdrop and found that African American women maintain a very high self-esteem significantly because of their support networks and achievement outcomes. When Todd and Worrell (2000) asked African American women what factors made them live positive and productive lives in the face of adversity, stress and poverty, the author found that informal social support is an integral part of their resiliency. Todd and Worrell (2000) wrote, "Many people living in poverty do not exhibit poor mental health and negative well-being and on the contrary, continue to have a positive sense of well-being – that is, many are resilient" (Todd & Worrell, p. 119). Brodsky (1999) asserted that resilience is an effective, if imperfect, means of coping. If, as Todd and Worrell (2000) maintained, social support is key to resiliency, and women, in particular, play a key role in social support systems of other women, then the beauty salon, where women congregate to boost their self-images, is fertile for engineering positive health outcomes for African American women.

In her book, *Bone Black: Memories of Girlhood*, Hooks (1996) laid a solid foundation for the importance of hair and hair care in the African American community as she wrote,

GOOD HAIR – that's the expression. We all know it, begin to hear it when we are all small children. When we are sitting between the legs of mothers and sisters getting our hair combed. Good hair is hair that is not kinky, hair that does not feel like balls of steel

wool, hair that does not take hours to comb, hair that does not need tons of grease to untangle, hair that is long. (p. 91).

Historically, the beauty salon is particularly vital to the African American public sphere (Day & Schuler, 2004). Black women have had a long record of work within the hair industry dating back to early twentieth century when employment opportunities were constrained for black women due to racism (Harvey, 2005). Business ownership became an appealing pathway to economic empowerment when Madame C. J. Walker developed hair care products for the unique qualities of the African hair and trained African American women to start their own businesses by selling her products (Day & Schuler). The beauty industry became a distinctive niche that African American women could enter relatively easily, pursue entrepreneurship and maintain access to a relatively untapped consumer base (Harvey, 2005). What Walker did in the twentieth century gave beauticians a greater professional profile (Day & Schuler). Day and Schuler wrote that hair care and hair design are especially critical part of the African American social life, culture, and identity. “Hair salons became centers of cultural production and economic exchange as well as “third places,” sites of discourse that form a hub serving across a dense network of families, friends and acquaintances – trans-generational interlocking networks of families” (Day and Schuler, p. 256). Beauty salons have always been political, economic, and social forces in the African American communities (Linnan et al., 2005).

In the beauty salon, beauticians perform emotional labor (Toerien, 2007) by engaging in personal conversations with their clients. Gimlin(1996) found that hairstylists position themselves as their clients’ friends, confidantes or therapist and they believed they rendered emotional work that enhanced the well-being of their clients. Gimlim (1996) wrote, “beauticians deal with their customers by attempting to create a personal relationship with them, listening to

and remembering the intimate details of their lives and claiming emotional attachment to them.” Clients in the beauty salon expect to be serviced with unspoken freedom to exchange ideas, gossip, speak their minds, in a trusted environment. The importance of the beauty salon is as expressed in Mulvey and Richards (1998) writing that women’s identity comes from their experience and background and their choices are expressed through image- clothes, make-up and hair.

Brown (2001), who studied information exchange of hairstylists and their clients and concluded that hairstylists play an important role in linking their clients to human services information. So did Linnan et al. (2005) who used Political Economy of Health (PEH) theoretical perspective to describe and frame a health promotion project in beauty settings in North Carolina. Linnan et al. expressed that women are the best carriers of health information to their families, reaching them in relaxed and trusted environment of beauty salons will be promising to research. In another investigation, Linnan and Ferguson (2007) involved beauticians in delivering cancer preventive messages of eating fruits, vegetable and maintaining healthy weight to their clients. Linnan and Ferguson reported that after 12 months, a convenience sample of clients participated in a post test that showed that over 80% of the clients remembered what they were taught and had adhered to the cancer prevention messages. With the knowledge that barber shops share similar characteristics with beauty salons in the sense that they create safe and trusting environment for clients, Hart and Bowen (2004) reported success in their utilization of the barber shop to disseminate prostate cancer information. Forte (1995) responded to the low rates of mammography screening by older African American women by recruiting 250 older African American women in beauty shops within eight months. Forte (1995) reported that other researchers had dubbed older African American women “hard-to-reach” because

of the difficulty they had in reaching them with cancer education and screening messages. Sadler et al. (2011) tested the efficacy of breast cancer education sessions in beauty salons in a cluster randomized controlled trial to increase breast cancer screening among African American women. The investigators trained cosmetologists to engage their clients in dialogues about the importance of early detection of breast cancer. Sadler et al found that women in the intervention group reported significantly higher rates of mammography; the intervention itself was well received by participants; the intervention did not interfere with salon services.

There is potential for beauty salons to become intervention sites for breast cancer control. It is highly likely that African American beauty salon owners who are viewed as leaders in the community will be willing to adhere to societal call for breast cancer intervention through their beauty shops. By the nature of their work, they are community gatekeepers who have seen the alarming effects of breast cancer in their communities and who, it is hypothesized, would be willing engagers of health promotion and health interventions in their shops. The resiliency of the African American woman is fed through the encouraging and empowering atmosphere of the beauty salon where she is physically prepared and mentally transformed regularly to engage the world around her. Bringing breast cancer information to the unique setting of beauty salons where women are relaxed and willing to receive life-saving information, would make a significant difference in breast cancer prevention and control. When Kang, Bloom, and Romano, (1994) investigated the use of cancer screening among African American women in correlation with their social support, the investigators found that women with more social ties were more likely to have had routine mammograms as opposed to those with fewer social ties. Kang, Bloom, and Romano, (1994) concluded that social networks are important not only in encouraging an

initial doctor's appointment but also social networks are instrumental in subsequent visits and follow-up on physician's recommendations.

Conclusion

Chapter II literature review revealed that the alarming breast cancer mortality rates in African American women have been studied by researchers for many years and that the quest to control the disease has also triggered various outreach efforts. In Chicago, in particular, Ansell et al (2009) wrote that one of the primary problems of breast cancer disparity was caused by gaps in education. Literature review supports engaging African American women in a comfortable, relaxed and trusting environment of the beauty salon with breast cancer education. Stimulating African American women's historically-known resiliency in the beauty shop environment with culturally-specific breast cancer education could catalyze positive attitudinal and behavioral changes toward breast cancer. As a result, the African American communities of the city of Chicago can report on the reduction of breast cancer and celebrate lives saved from breast cancer among African American women.

CHAPTER III
METHODOLOGY
Introduction

Breast cancer is a disease of dread for most women. In the African American community in particular, the fear of the disease stems from the fatalistic view women have because of close encounters with family members or friends who have succumbed to the disease. This grip of fear about breast cancer is supported by reports of disproportionate breast cancer deaths in the African American women as compared to white women (<http://www.cancer.gov/cancertopics>). The fear of the disease also fuels the trend of lack of knowledge, avoidance of screening, late presentation of the disease, and late treatment (Menashe, Anderson, Jatoi, & Rosenberg, 2009). Currently, white women have a higher incidence of breast cancer while black women have a higher death rate (Whitman, Ansell, Orsi, & Francois, 2010). In order to reduce this disproportionate number of breast cancer deaths in the African American communities, rigorous intervention strategies to educate and encourage screening must be implemented. The beauty salon could be a natural pipeline for such dissemination. The purpose of this investigation was to conduct an in-depth study of the receptivity of African American beauty salon owners to

the integration of consistent breast cancer educational programs in their salon operations in order to control the high mortality rate of breast cancer among African American women of Chicago. The findings of this study could have implications for the construction of a pipeline of health interventions to control a myriad of diseases that afflict women of all races through the beauty industry. Beauty salons have been important to women for centuries, weaving health intervention into this setting could yield significant progress in public health strategies. Secondarily, the study could give insights to outreach efforts to men in barber shops since barber shops are similar to beauty salons in their offerings of relaxed, trusting, and social atmosphere. Social marketers and public health interventionists have strongly stated that, “Brief social marketing campaigns cannot be expected to result in substantial cognitive and/or behavior changes,” (Lefebvre, & Flora, 1988). The Health Belief Model suggests that an individual’s readiness to change is dependent upon their perceived vulnerability to disease, severity of health condition, benefits of behavior change, and barriers to controlling the health condition. (Strecher & Rosenstock, 1997). The high mortality of breast cancer in African American women of Chicago warrants established permanence of venues through which steady stream of education and information will be delivered in trusting interactions and environments. Such an establishment would be groundbreaking in yielding change in the behavior of African American women toward breast cancer and early detection practices. The feasibility of establishing African American beauty salons as public health intervention sites is the focus of this investigation. Chapter III describes the processes utilized to gather quantitative and qualitative data to answer the following research questions:

1. To what extent would beauty salon owners integrate breast cancer intervention programs in their salon operations?

2. What would motivate salon owners to integrate breast cancer intervention programs in their salon operations?
3. What would discourage salon owners from integrating breast cancer intervention programs in their shops?
4. How frequently would salon owners allow health intervention programs to be presented in their salons?
5. What agent of implementation of breast cancer intervention would salon owners prefer given the choices of hair stylists, lay educators, health educators or nurses?

Research Design

This study is a descriptive, mixed-method research with qualitative and quantitative data gathering components. The qualitative portion of the research was conducted as described below:

Phase I - Qualitative Research:

Using the local yellow pages and the internet beauty salon directory, the investigator compiled a list of African American beauty salons in the city of Chicago. The researcher visited an administrator of a beauty school on the South side of Chicago and discussed the need to recruit participants for the qualitative portion of the research. The administrator provided a list of the beauty school alumni who are current Chicago salon owners.

From the yellow pages' list, the internet listing and beauty school alumni contact list, 12 African American beauty salon owners were identified as ideal candidates for the qualitative study because of the location of their salons, the distance of their salon to the other salons on the list and the potential for the predominance of African American clientele because of the location. These identified salon owners were contacted by phone and invited to participate in the study. 11 salon owners accepted the invitation to participate in the study. Following their individual

acceptance, the researcher met with the salon owners at their respective salons and at their convenience. All of the salon owners chose to be interviewed on days when they were closed or when they did not have clients scheduled for service. The researcher met with all but one salon owner. The salon owner who was unable to participate in the interview had a pressing personal time conflict and had to cancel.

For the 10 salon owners who participated in the qualitative study, the researcher arrived at the site of each interview with a list of questions, (Appendix A), a Sony micro-digital recorder, an informed consent form and a small gift of less than \$5.00 in value. The researcher reiterated information about the research study. The investigator also gave time for the participant to read and ask questions of the study and the informed consent form. After the participant finished the informed consent process by signing the consent form, the investigator asked for permission to begin the interview and record the interview. The time expended on these interviews ranged from 10 minutes to 32 minutes. The difference in interview times was because some salon owners elaborated on their answers while others chose to be brief. Following the completion of all the interviews, the researcher transcribed and coded the responses. By personally transcribing the recordings, the investigator gleaned from the detailed explanations by some of the salon owners. These detailed explanations enriched the research. The investigator used the findings of the qualitative study to develop a survey instrument that used the language of the beauty salon owners to offer a five point Lickert scale questionnaire.

Phase II Quantitative Study (Test of Survey Instrument):

After the development of a 26-question survey instrument based on responses to the qualitative study, the researcher asked three African American beauty school administrators to vet the survey instrument for its reliability and content validity. Once the survey instrument was

vetted, the researcher asked one of the administrators if salon owners, who were in Continuing Education classes at the time of the study, could test the survey instrument. The researcher purposefully chose a beauty school with longevity and an impressive alumni list of African American salon owners to test the survey instrument. The administrator granted permission to test the quantitative survey instrument among the salon owners while undertaking their continuing education courses.

Seven newly enlisted African American beauty salon owners were informed and consented before testing the instrument to ensure that the questionnaire is consistent with the researcher's queries; that the instrument measured what it was designed to measure; that the salon owners responded to the questions with clarity; and that their responses were on the same wavelength as the qualitative study respondents.

To get the perspective of other salon owners who are not part of the beauty school, the investigator recruited three more salon owners. The salon owners were randomly selected from the yellow pages and internet listings of beauty salons. The investigator called the salon owners, introduced them to the study and invited them to participate in testing the survey instrument. Following their acceptance of the invitation, the researcher met with the salon owners in their various salons. The researcher described the study again, and gave the salon owners informed consent information to read, digest and gain clarity before filling out the survey.

Once the questionnaire had been tested (Appendix B) and all minor adjustments and corrections were made, the questionnaire was submitted as Phase II for Institutional Review Board's approval. However, the investigator asked for an IRB exemption in requesting personal signatures as part of the informed consent. The reason for the request was because of the hesitancy of participants to sign their names during the qualitative phase and the testing phase of

the instrument. Since the research questions are benign, non-invasive, pose no harm to participants and the signatures are of no significant value to the study, the investigator deemed the request for signatures as potentially harmful to the gathering of data. The investigator was granted permission to consent participants by giving them the informed-consent form before the survey was administered. By proceeding to fill out the questionnaire, the participant is deemed to have been informed and consented by the virtue of their participation.

Phase III Quantitative Study (General)

To reach a large number of African American beauty salon owners, the researcher exhibited at a beauty exposition in Chicago's south west suburbs. According to the American Health and Beauty Aid Institute, (AHBAI, 2012) the beauty show features hands-on workshops, product demonstrations, styling competition and an exhibition with over 100 booths. AHBAI confirmed that the exhibition attracted over 5,000 professionals nationwide and it is the largest Midwest trade show dedicated to the needs of Black cosmetologists, barbers and nail technicians. AHBAI was founded to represent the thriving ethnic health and beauty care industry, one of the few American industries founded and fueled by African-Americans (<http://www.ahbai.org/about/>).

In two days of beauty exposition, the researcher, recruited, informed, and consented a convenience sample of 98 African American beauty salon owners. 66 of the beauty salon owners operated beauty salons frequented by predominantly African American clientele. 32 of the salon owners operated beauty salons frequented by predominantly African American clientele in other cities. To distinguish between the Chicago African American beauty salon owners and the out-of-Chicago beauty salon owners the investigator administered colored questionnaires to Chicago salon owners (Appendix C) and black-and-white questionnaires to out-of-Chicago salon owners.

At the completion of the survey, the researcher gave participants a gift of less than \$5.00 in value. The gifts were not used as enticement, term or reward for participating in the study.

Population

Primarily, the study was conducted among African American beauty salon owners who cater predominantly to African American clientele in the Chicago area. Secondly, additional data was collected from beauty salon owners who participated in the beauty show from out-of-Chicago areas. The additional out-of-Chicago list served as a comparative group in the description of the Chicago beauty salon owners' group. Using a convenience sample, 10 African American beauty salon owners on the south and west sides of Chicago were interviewed for the qualitative study. All of these salon owners are female African American beauty salon owners who have owned their salons for minimum of six years, except for one salon owner who has owned the salon for three years. The breakdown of their ages, highest level of education and longevity of salon ownership is as follows:

Table 1

Age Range

Data Summary (Phase I – Qualitative Study)

Age Range	Frequency (<i>n</i>)	Valid Percentage (%)
	(n=10)	

31 – 40	04	40
41 - 50	03	30
51 – 60	02	20
60 and above	01	10

Table 2

Highest Level of Education

Data Summary (Phase I- Qualitative Study)

Level of Education	Frequency (n)	Valid Percentage (%)
	(n=10)	
Beauty school	04	40
Some college	06	60

Table 3

Number of Years of Salon Ownership

Data Summary (Phase I- Qualitative Study)

Number of Years of Ownership	Frequency (n)	Valid Percentage (%)
	(n=10)	
1-10	03	30
11-20	04	40
20+	03	30

Three African American beauty school administrators vetted the survey instrument for its language-ability, reliability and content validity. These school administrators run the school’s day-to-day activities, develop beauty school curriculum, teach classes and they have been in their positions for more than five years. Using convenience sample, seven African American beauty salon owners helped in testing the instrument before finalization. These salons owners have established beauty salons in predominantly African American communities and they serve predominantly African American clientele. Six of the salon owners are female, while one of the salon owners is male. Their demographic information on age, highest level of education and longevity of salon ownership is as follows:

Table 4

Age Range - (Phase II – Quantitative Study-Test of Survey Instrument)

Age Range	Frequency (n)	Valid Percentage (%)
	(n=7)	
21-30	01	14.2
31-40	01	14.2
41-50	01	14.2
51-60	03	42.8
60 and above	01	14.2

Table 5

Highest Level of Education - (Phase II – Quantitative Study-Test of Survey Instrument)

Level of Education	Frequency (n)	Valid Percentage (%)
	(n=7)	
Beauty school	02	28.6
Some college	05	71.4

Table 6

Number of Years of Ownership

Data Summary (Phase II – Quantitative Study-Test of Survey Instrument)

Years of Ownership	Frequency (n)	Valid Percentage (%)
	(n=7)	
6-10	01	14.2
11-15	01	14.2
16-20	02	28.6
20 and above	01	14.2
Unknown	02	28.6

At a major beauty exposition, a convenience sample of 98 African American beauty salon owners filled out the survey. 66 of these salon owners were from the Chicagoland area, while 32 African American beauty salon owners were from other cities other than Chicago. Except for one male participant, all participants are female. Almost all of the participants are African Americans with the exception of one participant who identified herself as other. Demographic

information on age, highest level of education, and longevity of salon ownership is as listed in the table below:

Table 7

Age Range

Data Summary (Phase III – Quantitative Study-General)

Age Range	Frequency (n)	
	(n=98)	
	Chicago Area	Outside of Chicago
20-30	07	02
30-40	20	08
40-50	23	09
50-60	08	05
60 and above	03	05
Unknown	05	03

Table 8

Highest Level of Education

Data Summary (Phase III – Quantitative Study-General)

Level of Education	Frequency (n)
	(n=98)

	Chicago Area	Outside of Chicago
Beauty school	15	08
Some college	49	15
High school	0	02
Unknown	02	07

Table 9

Number of Years of Salon Ownership

Data Summary (Phase III – Quantitative Study-General)

Number of Years of Salon Ownership	Frequency (<i>n</i>)	
	Chicago Area	Outside of Chicago
1-5	33	07
6-10	08	02
11-15	04	04
15-20	06	05
20 and above	12	07
Missing	4	7

Data Collection

African American beauty salon owners responded to 26 questions relating to the extent of their interest in having breast cancer intervention programs in their beauty salons. The study surveyed their experiences with breast cancer; their exposure to breast cancer intervention

programs; their willingness to allow breast cancer intervention programs in their shops; the logistics of implementing breast cancer intervention programs in their shops. In addition to the questions above, the survey instrument also included the collection of demographic information.

As a mixed-method research, the first phase of the study was a qualitative study. 10 African American beauty salon owners were interviewed. These salon owners were identified from listings in the yellow pages, on the internet and in a beauty school on the south side of Chicago. The 10 salon owners were interviewed individually within a period of eight days. The responses to the interviews became the basis for the development of a survey instrument. After the development of the survey instrument, three African American administrators of a beauty school were recruited to help vet the content and reliability of the instrument. Then, seven African American beauty salon owners tested the survey instrument before its finalization for the quantitative study. Through a beauty exposition, a convenience sample of 98 African American beauty salon owners was recruited to complete the 30-question survey instrument. 66 of these beauty salon owners operate in the Chicagoland area. 32 other beauty salon owners who participated operate their beauty shops in other cities in the Midwestern states.

Analytical Methods

This study is a tri-phased exploratory and descriptive study. Phase 1 was an exploratory, qualitative study with 10 salon owners to establish the right questions, language and content of the survey instrument. Phase II was a test of the survey instrument among a limited number of participants. Phase III was the implementation of the study within a larger convenience sample.

Phase I- Qualitative Study

The researcher enlisted the support of a beauty school on the south side of Chicago to recruit African American beauty salon owners who serve predominantly African American

clientele. In 10 one-on-one interviews with the salon owners at their various beauty salons, the salon owners answered 30 questions relating to the study. The interviews were digitally recorded and later transcribed. The responses were coded. The frequency of answers to the interview questions aided in the development of five-point Lickert scale questionnaire.

Phase II - Test of Quantitative Instrument

Once the survey instrument was developed, the researcher tested the questionnaire among seven newly enlisted African American beauty salon owners. These salon owners were taking their continuing education classes at the beauty school on the south side of Chicago when they participated in this study. The test of the instrument ensured that the language was appropriate and that the instrument was reliable and valid. Following the test, some minor changes were made and an IRB approval was attained to administer the survey to a larger sample.

Phase III - Quantitative Instrument

The data collected are to describe the receptivity of African American beauty salon owners to the integration of breast cancer intervention programs in their salon operations. The questionnaire was a five-point Lickert scale. A convenience sample of salon owners at a major beauty exposition was recruited for the study. 98 salon owners from Chicago and outside of Chicago were participants. Data collected from the convenience sample of salon owners from cities outside of Chicago are compared to that collected from salon owners from Chicago.

To answer the first research question of “to what extent beauty salon owners would integrate breast cancer educational programs to their salon operations,” the researcher asked a few related questions - how interested would salon owners be in allowing breast cancer education programs in their shops; if they are interested, why would they be interested in allowing breast cancer education programs in their shops; and if they are not interested, why

would they not be interested in allowing breast cancer education in their shops. The responses of the beauty salon owners were entered in IBM SPSS Statistics 19. This is a descriptive research. The researcher sought frequencies and variability in the salon owners' responses in order to describe the research population's attitudes toward breast cancer intervention in their salons. To compare the Chicago salon owners' responses to the responses of the salon owners from out-of-Chicago and to examine the differences between the two groups, the researcher used the t-test for independent samples.

To answer the second question of what would motivate salon owners to integrate breast cancer educational programs in their shops, the researcher entered the salon owners' responses to questions about incentives and needs – “what would you need to allow this education series in your shop; can you anticipate a particular incentive that would help you as a shop owner in your consideration of whether or not you would host a breast cancer education program in your shop; can you anticipate a particular incentive that your clients would need in order to take full advantage of this type of program in your shop.” The salon owners' responses were entered using IBM SPSS Statistics 19. This is a descriptive research. The researcher sought frequencies and variability in the salon owners' responses in order to describe what would discourage salon owners from integrating breast cancer educational programs in their shops. To compare and examine the differences between the Chicago salon owners' responses to the responses of the salon owners from out-of-Chicago on this question, the researcher analyzed their responses using the t-test for independent samples.

To answer the third question of what would discourage salon owners from integrating breast cancer educational programs in their shops, the researcher entered the

salon owners' responses to the question and to two follow-up and related questions. The questions are: "what would be your concern or worry about having this type of program in your shops; what negative consequences do you anticipate being associated with having this educational program in your shop." The salon owners' responses were entered using IBM SPSS Statistics 19. This is a descriptive research. The researcher sought frequencies and variability in the salon owners' responses in order to describe what would discourage salon owners from integrating breast cancer educational programs in their shops. To compare the Chicago salon owners' responses to the responses of the salon owners from out-of-Chicago on this question and to determine the differences between the two groups, the researcher analyzed their responses using the t-test for independent samples.

To answer the fourth question of how frequently would salon owners allow health educational programs to be presented in their salons, the researcher used the IBM SPSS Statistics 19. This is a descriptive research. The research sought frequencies and variability in the salon owners' responses. To compare the Chicago salon owners' responses to the responses of the salon owners from out-of-Chicago and determine the differences between the two groups, the researcher used the t-test for independent samples.

To answer the fifth question of what agent of implementation of breast cancer intervention salon owners prefer given the choices of hair stylists, lay educators, health educators or nurses, the researcher used the IBM SPSS Statistics 19. This is a descriptive research. The research sought frequencies and variability in the salon owners' responses. To compare the Chicago salon owners' responses to the responses of the salon owners from out-of-Chicago on this question and to determine the differences between the two groups, the researcher used the t-test for independent samples.

Limitations

In the qualitative study, travel to the various sites to meet beauty salon owners to conduct the research interviews was time consuming and costly due to high gas prices at the time the research was conducted. The rate of forgetfulness about the schedule of the interviews was high, despite the researcher's calls and recalls to confirm and remind salon owners of the interview times. Several salon owners forgot or scheduled appointments at conflicting times with the interview. Hence the researcher had many waiting periods – at one salon, a wait period of two hours before the salon owner called off the interview for another conflicting schedule. The discouraging experience with the qualitative study in terms of schedule conflicts, waiting times, travel times, and exorbitant gas prices led the researcher to deviate from the original plan of going door-to-door to hundreds of salon owners for one-on-one completion of the survey instrument. Instead, the researcher gained access to a beauty exposition and implemented the quantitative study.

In administering the quantitative research survey at the beauty exposition, the researcher recruited a random, convenience sample of salon owners. Although the exposition attracted 5,000 beauty industry professionals according to AHBAI, all of the exposition participants were not salon owners. There were hairstylists, nail technicians barbers and other professionals in the exposition. There were many beauty show attractions on the exhibit floor that were more enticing and attractive to salon owners than taking surveys about breast cancer intervention in the beauty shops. The subject of breast cancer was out of place in the beauty exposition setting therefore invoking surprising expressions in some participants.

Chapter III explained the methods of recruiting convenience samples of African American beauty salon owners who participated in the qualitative and quantitative phases of the study to assess the receptivity of African American beauty salon owners to integrate breast cancer intervention programs into their salon operations. The Chapter described the data collection and data analysis processes that were utilized to answer the five research questions. The analysis of the data collected, will answer the question of whether the beauty salon component of the beauty industry can become a pipeline to disseminate breast cancer information and to intervene with life-saving initiatives.

CHAPTER 1V

FINDINGS AND CONCLUSIONS

Introduction

Breast cancer continues to be a disease of reckoning for women. It is ranked first among women ages 20-59 in cancer deaths (Siegel, Naishadham & Jemal, 2012). African American women experience a 6% lower breast cancer incidence rate, but they have a 16% higher breast cancer death rate than white women (Siegel, Naishadham & Jemal). This alarming higher death rate is attributable to late detection, late presentation of the disease for treatment, fear of the disease, cultural beliefs, lack of access to state-of-the-art healthcare facilities, socio-economic factors, lifestyle, etc. (Guidry et al., 2003; Price, Desmond, Stenker, Smith & Steward, 1992; Manfredi, Warnecke, Graham & Rosenthal, 1977; Resch, Leman & Rimer, 1996).

Investigators have established many ways to reach the African American population with breast cancer information that would save their lives. There have been educational programs to alleviate the fear of the disease, to combat cultural beliefs, and to lead women to reputable screening facilities and lessen the financial burden of screening for breast cancer (Forte, 1995; Hand et al., 1991; Whitman et al., 1991; Baquet, Mishra, Commiskey, Elison & Deshields, 2008; Ferrans et al., 2006). Yet, there has not been significant reduction in the high death rate of breast cancer in the African American population. The American Cancer Society suggested that further progress can be accelerated by applying existing cancer control knowledge across all segments of the population with an emphasis on those groups in the lowest socioeconomic bracket (ACS 2012) DOI: 10:3322/caac.20138.

This research investigated ways to adhere to the American Cancer Society's suggestion of applying existing cancer control knowledge across all segments of the population by assessing the receptivity of African American beauty salon owners to the integration of breast cancer

intervention programs into their salon operations. According to Browne (2006), most black women have a regular source of hair care, but not medical care. The author stated that large segments of the population are accessing health information in very sophisticated ways, while many in the African American population remain disconnected from basic life-saving health information. Lewis, Shain, Quinn, Turner and Moore (2002) wrote:

beauty salons hold significant social and cultural roles in the African American community ...they have been known as neighborhood news-holes and advice-havens where hairdressers are like therapists and teachers when they talk to their clients. (pg. 136)

Browne (2006) reinforced this statement by writing that hair salons hold special meaning among African American women in many ways, that salons are like a place of worship, places of refuge and healing where women can go to be pampered and cared for consistently. The findings of Linnan and Ferguson, 2007; Gimlin, 1996; Hart and Bowen, 2004; Linnan, 2005; Delgado, 1998; Soleman et al. 2004; and Forte 1995; have shown that beauty salons can become instrumental in the delivery of preventive and intervention strategies in the African American community.

This study assessed the possibility of African American beauty salons as vehicles of public health preventive and intervention strategies by asking the following research questions:

1. To what extent would beauty salon owners integrate breast cancer intervention programs in their salon operations?
2. What would motivate salon owners to integrate breast cancer intervention programs in their salon operations?

3. What would discourage salon owners from integrating breast cancer intervention programs in their salon operations?
4. How frequently would salon owners allow health educational programs to be presented in their salons?
5. What agent of implementation of breast cancer intervention would salon owners prefer given the choices of hair stylists, lay educators, health educators or nurses?

Findings

This descriptive, mixed method study was implemented in three phases. Phase I was a qualitative study with 10 African American beauty salon owners. The findings of the qualitative study aided the development of a 26-question survey instrument that used the language of the beauty salon owners to offer a five point Lickert scale questionnaire.

The qualitative study revealed that most beauty salon owners are interested in integrating health education in their salon operations; that the reason they have not integrated breast cancer intervention programs in their operations was because no one ever approached them to do so. Ninety-seven percent of the qualitative respondents also indicated that they, people they know, and their clients have been touched by breast cancer; and that the fact that they, people they know, and their clients have been affected by breast cancer, motivates them to be involved in breast cancer educational programs in their shops.

Phase II of the study was the test of the survey instrument among seven newly enlisted African American beauty salon owners to ensure that the questionnaire was consistent with the researcher's queries; that the instrument measured what it was designed to measure; that the salon owners responded to the questions with clarity; and that their responses were on the same wavelength as that of the qualitative study participants.

Phase III of the study was the administration of the 26-question survey instrument to a sample size of 98 African American beauty salon owners. The salon owners were participants at a major beauty exposition in the Chicagoland area. In two days of beauty exposition, the researcher recruited, informed, and consented a convenience sample of 98 African American beauty salon owners. Sixty-six of the beauty salon owners operated beauty salons frequented by predominantly African American clientele in Chicago; 32 of the salon owners operated beauty salons frequented by predominantly African American clientele in other cities. To distinguish between the Chicago African American beauty salon owners and the out-of-Chicago beauty salon owners, the investigator administered colored questionnaires to Chicago salon owners and black-and-white questionnaires to out-of-Chicago salon owners. Responses to all research questions were entered in IBM SPSS Statistics 19 to determine the frequency of their responses to the five point Lickert scale survey.

The first research question was to ascertain the extent that beauty salon owners would integrate breast cancer intervention programs in their shops. The researcher asked three modifying questions to derive at a deductive answer. The first question was:

1. How interested would you be in allowing breast cancer education programs in your shop?

Table 10 shows the frequency of their responses to the 5 point Lickert scale questionnaire:

Table 10

*Salon Owner's Level of Interest in Integrating Breast Cancer Intervention Programs in Shops**Data Summary*

Level of Interest	Frequency (n) (n=98)	Valid Percentage (%)
Very Interested	29	32.2
Interested	34	37.8
Not Interested	10	11.1
Not at all Interested	02	2.2
I don't know	15	16.7
Total	90	100.0
Missing in system	08	

Of the 98 participants, 90 respondents answered this question. Twenty-nine respondents answered that they were very interested; 34 responded that they were interested. Ten participants answered that they were not interested and 15 respondents answered that they do not know if they were interested or not interested. Overall, a cumulative percentage of 70% of the respondents answered that they were very interested/interested in allowing breast cancer educational programs in their shops.

To further ascertain the answer to research question 1, the researcher also asked:

2. If you are interested, why would you be interested in allowing breast cancer educational programs in your shop? Table 11 depicts the frequency of their responses:

Table 11

Reasons for Salon Owners Interest in Integrating Breast Cancer Program in Shops

Reasons for Interest	Frequency (n) (n=98)	Valid Percentage (%)
Increase client awareness	50	67.6
Support others	13	17.6
Encourage early detection	03	4.1
Positive influence	06	8.1
Other	02	2.7
Total	74	100.0
Missing in system	24	

The participants' responses to this question were very positive. A cumulative 97.3% of the respondents answered that they were interested in allowing breast cancer educational programs in their shops to increase their clients' awareness of breast cancer, to support others, to encourage early detection and to be positive influences in their communities. The 24 respondents who did not answer the question had earlier indicated in their responses to question 1 that they were not interested in allowing breast cancer educational programs in their shops.

The third part of ascertaining research question 1 was to ask:

3. If you are not interested, why would you not be interested in allowing breast cancer educational programs in your shop? Table 12 depicts the frequency of their responses:

Table 12

Reasons for Salon Owners Disinterest in Integrating Breast Cancer Program in Shops

Reasons for Disinterest	Frequency (n) (n=98)	Valid Percentage (%)
Lack of time	12	52.2
Not convenient	06	26.1
Not applicable	02	8.7
Other	03	13.0
Total	23	100.0
Missing in system	75	

Twenty-three of the 24 participants who indicated that they were not interested or they don't know if they were interested in allowing breast cancer educational programs in their shops responded to this question. Twelve of these respondents cited lack of time and 6 of them indicated that the intervention program would not be convenient to them. The 75 respondents who did not respond to this question had already indicated that they were interested in breast cancer educational program in their shops; hence this question was not applicable to them.

The second research question inquired about what would motivate salon owners to integrate breast cancer educational programs in their shops. To derive the answer to this question, the researcher asked three deductive questions. The researcher asked:

1. If you are interested, (in allowing breast cancer educational programs in you shop) what would you need to allow this educational series in your shop? Table 13 depicts the frequency of their responses:

Table 13

*What Salon Owners Need to Integrating Breast Cancer Intervention Programs in Shops**Data Summary*

Need	Frequency (<i>n</i>) (<i>n</i> =98)	Valid Percentage (%)
Organizational help	31	38.3
Appealing flyers/brochures	19	23.5
Clients participation	11	13.6
Nothing	06	7.4
I don't know	14	17.3
Total	81	100.0
Missing in system	17	

The respondents to the question of what salon owners need to allow breast cancer education in their shops, chose three distinctive answers - organizational help, appealing flyers and brochures, and clients' participation in the program. The 17 participants who did not respond to this question are part of the 24 participants who had indicated that they were not interested in allowing breast cancer educational programs in their shops.

The second deductive question about what would motivate beauty salon owners to allow breast cancer educational programs in their shops is the question of incentives for salon owners.

The researcher asked:

2. Can you anticipate a particular incentive that would help you as a shop owner in your consideration of whether or not you would host a breast cancer educational program in your shop? Table 14 depicts the frequency of their responses:

Table 14

*Incentives to Encourage Integrating Breast Cancer Intervention Programs in Salons**Data Summary*

Incentive for salon owners	Frequency (n) (n=98)	Valid Percentage (%)
Nothing	35	42.2
Need to think about it	31	37.3
A fee	04	4.8
I don't know	12	14.5
Other	1	1.2
Total	83	100.0
Missing in system	15	

The percentage of salon owners who indicated that they do not need an incentive to allow breast cancer educational programs in their shops is 42.2% while 37.3% responded that they needed to think about allowing breast cancer educational programs in their shops. Fourteen point five percent responded that they do not know of any incentive that would encourage them, while 4.8% responded that a fee would be an incentive. Those participants who did not respond to this question had earlier indicated that they were not interested in allowing breast cancer education in their shops.

The third deductive question about what would motivate beauty salon owners to allow breast cancer educational programs in their shops is the question of incentives for their clients: The researcher asked:

3. Can you anticipate a particular incentive that your clients would need in order to take full advantage of this type of program in your shop? Table 15 depicts the frequency of their responses:

Table 15
Incentives to Encourage Clients in Breast Cancer Intervention Programs in Salons

Data Summary

Incentives for clients	Frequency (<i>n</i>) (<i>n</i> =98)	Valid Percentage (%)
Give-aways	43	51.2
BCA Check-up reminders	09	10.7
Refreshments	04	4.8
Nothing	07	8.3
Will ask clients	21	25.0
Total	84	100.0
Missing in system	14	

The respondents to this question answered that they would need give-aways for their clients (51.2%); they will ask their clients what incentives the clients would want in order to participate (25%); they would need breast cancer check-up reminders (10.7%); they would need refreshments (4.8%) and they would need no incentives for their clients (8.3%)

The third research question is about what would discourage salon owners from integrating breast cancer educational programs in their shops?

On this question, the researcher asked three pertinent questions which serve as deductive answers to the question of discouragement - what would discourage salon owners from allowing

breast cancer educational programs in their shops; what would be of concern to salon owners if they should allow breast cancer educational programs in their shops; and what negative consequences do they anticipate by being associated with having breast cancer educational programs in their shops. Tables 16, 17 and 18, depict the frequency of their responses:

Table 16

What Would Discourage Salon Owners from Integrating Breast Cancer Intervention Programs

Data Summary

What would discourage	Frequency (n) (n=98)	Valid Percentage (%)
Nothing	40	51.9
Conflicts with schedule	17	22.1
Clients' disinterest	08	10.4
Inconvenience	07	9.1
Unprofessional staff	05	6.5
Total	77	100.0
Missing in system	21	

Over 50% of the beauty salon owners who participated responded that nothing would discourage them from allowing breast cancer educational programs in their shops. Twenty-two point one percent responded that conflict with their schedule will discourage them from allowing breast cancer educational programs in their shops. Nine point one percent responded that the inconvenience of the program will discourage them from allowing breast cancer educational programs in their shops while 6.5% cited that having unprofessional staff to conduct the

intervention program would discourage them and 10.4% cited that the disinterest of their clients would discourage them from allowing breast cancer intervention programs in their shops.

Table 17

What Would Be of Concern to Salon Owners in Integrating Breast Cancer Intervention Prog.

Data Summary

Concern	Frequency (n) (n=98)	Valid Percentage (%)
Nothing	42	54.5
Clients' disinterest	17	22.1
Unprofessional staff	12	15.6
Too frequently done	05	6.5
Other	01	1.3
Total	77	100.0
Missing in system	21	

On the question of what would be of concern to beauty salon owners in allowing breast cancer educational programs in their shops, 54.5% responded that nothing will be of concern to them, 22.1% noted that they will be concerned if their clients are not interested; 6.5% stated that frequently held educational programs in their shops will be of concern to them, while 15.6% cited unprofessionalism from cancer education staff.

Table 18

*What Would Be of Consequence to Salon Owners in Integrating Breast Cancer Intervention**Program**Data Summary*

Consequence	Frequency (n) (n=98)	Valid Percentage (%)
Nothing	64	77.1
Clients' disinterest	04	4.8
I don't know	12	14.5
Other	03	3.6
Total	83	100.0
Missing in system	15	

Of whether there will be consequences for allowing breast cancer educational programs in their shops, 77.1% of the beauty salon owners responded that there will be no consequences, while 4.8% cited client's rejection as a possible consequence and 14.5% stated that they don't know if there would be consequences.

The fourth research question asked beauty salon owners how frequently they would allow breast cancer educational programs to be presented in their salons? To answer research question 4 about how frequently salon owners would allow health educational programs in their shops, the researcher asked three indicative questions of how often salon owners would allow breast cancer educational programs in their shops, the day of the week that would be convenient

for such programming and the duration of the presentations. Tables 19, 20, and 21 depict the frequency of their responses.

Table 19

How Frequently Would Salon Owners Integrate Breast Cancer Intervention Programs?

Data Summary

Frequency	Frequency (n) (n=98)	Valid Percentage (%)
Every six months	44	55.7
Every three months	16	20.3
Every two months	09	11.4
Monthly	09	11.4
Total	79	100.0
Missing in system	19	

In terms of how frequently salon owners will allow breast cancer educational programs in their shops, 55.7% stated that they will allow the educational program every six months, while 20.3% stated every 3 months and 11.4% stated every 2 months.

Table 20

Salon Owners' Preferred Days to Integrate Breast Cancer Intervention Programs.

Data Summary

Preferred Days	Frequency (n)	Valid Percentage (%)
	(n=98)	
Saturday	30	41.1
Tuesday	21	28.8
Friday	10	13.7
Wednesday	08	11.0
Thursday	04	5.5
Total	73	100.0
Missing in system	25	

Salon owners responded that Saturdays (41.1%), Tuesdays (28.8%), Fridays (13.7%), are preferred days of the week. 12.3% of the respondents also chose Wednesdays and Thursdays.

Table 21

Salon Owners' Preferred Time Duration to Integrate Breast Cancer Intervention Programs.

Data Summary

Preferred Duration	Frequency (n)	Valid Percentage (%)
	(n=98)	

30 minutes	41	48.8
One hour	24	28.6
Two to three hours	05	6.0
As long as it takes	04	4.8
I don't know	10	11.9
Total	84	100.0
Missing in system	14	

In terms of how long (how much time per session) salon owners want breast cancer educational programs in shops, 48.8% chose 30 minutes; 28.6% chose one hour; while others chose between two to three hours or as long as it takes or that they don't know.

The fifth research question asked salon owners who the agent of implementation of breast cancer intervention programs should be in their shops given the choices of hair stylists, lay educators, health educators or nurses. Table 23 depicts the frequency of their responses:

Table 22

Salon Owners' Preferred Agent of Implementation to Integrate Breast Cancer Intervention Programs.

Data Summary

Agent of Implementation	Frequency (n)	Valid Percentage (%)
	(n=98)	

Educator and brochures	30	35.7
Doctor /Nurse and Video	23	27.4
Doctor or Nurse	19	22.2
Brochures only	09	10.7
Videos only	03	3.6
Total	84	100.0
<hr/>		
Missing in system	14	

On the question of who or what salon owners would prefer to conduct or deliver the cancer information messages, a cumulative 85.7% of the respondents chose to have a doctor, a nurse, and an educator implementing the intervention programs. 53% of these respondents chose to have health care professionals in addition to educational videos and brochures as part of the implementation.

Comparison of the Chicago beauty salon owners and the Out-of-Chicago beauty salon owners were analyzed using the t-test for independent sample. The data analysis on all the five research questions demonstrated no statistically significant difference between the Chicago beauty salon owners and the out-of-Chicago salon owners.

Conclusions

With the knowledge that African American women are dying disproportionately from breast cancer compared to their white counterparts, this research has sought to investigate beauty salons as avenues in which breast cancer intervention programs that could save lives are disseminated to African American women. The research questions inquired about salon owners' interest in breast cancer information in their shops and also the logistics of implementing intervention programs in their shops.

The first research question asked to what extent beauty salon owners would integrate breast cancer educational programs in their shops. This question was asked using three

modifying questions pertaining to how interested they are in allowing breast cancer intervention programs in their shops and why they would be interested. The third modifying question asked if they are not, why are they not interested.

Of the 98 participants, 70% answered that they are very interested/interested, 13.3% responded that they are not interested/not-at-all interested, while 16.7% responded that they do not know if they are interested or not interested in allowing breast cancer intervention programs in their shops. Eight participants did not respond to this question.

A cumulative percentage of 97.3 of the participants who responded to why they are interested in allowing breast cancer intervention programs in their salon operations cited motivations such as increasing their clients' awareness, supporting others, encouraging early detection and being positive influences in their communities.

Of the 23 participants who responded that they are not interested in allowing breast cancer intervention programs in their salon operations, 12 cited lack of time and 6 responded that such programming is not convenient to their salon operations.

On the overarching research question 1 of to what extent beauty salon owners would integrate breast cancer intervention programs in their shops, it is concluded that beauty salon owners are moderately interested in allowing breast cancer intervention programs in their salon operations and they have high motivations of community service for such interest. Those who are not interested cited lack of time and inconvenience to their salon operations as barriers to their interest in allowing breast cancer education in their shops.

The second research question asked what would motivate beauty salon owners to integrate breast cancer intervention programs in their salon operations. Three modifying questions of what would salon owners need to allow breast cancer intervention in the shops,

what could be an incentive to encourage them to have a breast cancer intervention program in their shops and what would be an incentive to encourage their clients to partake in the breast cancer intervention programs were asked.

Salon owners who responded to the question of what they would need to allow breast cancer intervention programs in their shops, cited a need for help in organizing their event (38.3%), appealing flyers and brochures to promote the event (23.5%) and their clients' participation (13.6%). Seventeen percent stated that they do not know what they need to implement a breast cancer intervention program in their shops. Overall, 82.7% wanted nothing for themselves nor do they need incentives that would enhance the intervention program in their shops.

Salon owners who responded to what would encourage their clients to participate in breast cancer intervention programs in their shops cited give-aways (51.2%), breast cancer check-up reminders (10.7%), refreshments (4.8%). Eight percent of the respondents stated that their clients would not need anything to encourage them to participate and 25% of the participants stated that they would need to ask their clients.

On the overarching question of what would salon owners need to allow the integration of breast cancer intervention programs in their shops, salon owners overwhelmingly cited incentives that would enhance the program for the betterment of the program and its acceptance in the community and noteworthy that they did not seek ask for anything for their personal gains.

To measure the level of possible discouragement about integrating breast cancer intervention programs in beauty salons, the researcher asked salon owners three clarifying questions about discouragement, concern, or consequences for allowing breast cancer

intervention programs in their shops. Salon owners responded that nothing would discourage them from allowing breast cancer intervention program in their shops (51.9%), while others cited conflicts with schedule (22.1%), inconvenience (9.1%), unprofessional staff (6.5%) and disinterested clients (10.4%) as factors that would discourage them from allowing breast cancer educational programs in their shops. Whereas, in terms of concern and consequences, salon owners, at 77.1% said nothing will be of consequence if they allowed breast cancer intervention programs in their shops. 54.5% stated that nothing will be of concern to them about allowing breast cancer intervention in their shops. On a limited level, some salon owners responded that unprofessional staff, inconvenience and client's disinterest would concern, discourage and be of consequence to them in allowing breast cancer intervention programs in their shops.

The last two research questions asked about logistics of integrating breast cancer intervention programs in beauty salons. The researcher asked how frequently breast cancer intervention programs should be held in the beauty salon; which day of the week would be ideal to hold the breast cancer intervention programs; how much time could be allotted to the intervention program within a day, and what agent of implementation would the salon owners prefer.

Salon owners prefer to host breast cancer intervention programs in their shops once every six months (55.7%), once every three months (20.3%). Forty-one percent of salon owners chose Saturdays as the most ideal day for intervention sessions while 28.8% chose Tuesdays and 10.7% chose Fridays. In terms of how long the sessions should take, salon owners preferred 30 minutes (48.8%) and one hour (28.6%).

Eighty-five percent of salon owners prefer to have a doctor, nurse or educator to accompany videos or brochures in the breast cancer intervention sessions while 27.4% prefer doctor-nurse-video, 22.6% prefer doctor-nurse, and 30.6% prefer educator-brochures.

Implications and Recommendations

The healthcare industry is a multi-billion dollar enterprise that faces an avalanche of existing diseases, disease discoveries and treatments year by year. With medical advancement, new diseases are being uncovered and life-saving strategies are being developed. Many of these diseases will affect women, their children and the general population. As long as there are diseases, there always will be needs for health information, prevention and interventions.

The World Health Organization (WHO), projected that between 2002 and 2030, life expectancy will increase around the world; fewer children younger than 5 years will die; the proportion of people dying from non-communicable diseases such as heart disease and cancer will increase. WHO also predicted that deaths from infectious diseases will decrease overall but HIV/AIDS deaths will continue to increase. WHO surmised that the magnitude of the increase will depend on how many people have access to antiretroviral drugs and the efficacy of prevention (Mathers & Loncar, 2006).

It is for the sake of efficacy of prevention that this study investigated beauty salons. Hair maintenance is important to most women. As long as women have hair, the beauty salons will be vibrant grounds to reach women. Although there have been research investigations performed in beauty salons on health-care issues, there has not been enough studies that have asked salon owners about their level of interest in being vehicles of health information dissemination or interventions. This study has asked beauty salon owners about

their level of interest and about the logistics of implementing intervention programs within their salon operations. Anecdotally, salon owners who participated in the Phase 1 qualitative study lamented that they were never approached about hosting health information programs in their shops. In the general quantitative study, 97% of the participants also indicated that they or someone they know have been touched by breast cancer and that they are motivated to support programs that will alleviate disease burdens because they have been affected.

This research study concluded that beauty salon owners are moderately interested in intervention programs in their salons; that the difference between those who are interested and those who are not interested are encapsulated in whether the implementation of such programs are convenient to salon operations and whether the salon owners have the time to allow such implementation. The findings have implications for future collaborations between the healthcare and the beauty industries.

This research is a beginning process of understanding the beauty industries' needs and intentions in regards to collaborative efforts with the health-care industry. Further understanding and on-going communication are warranted in order to solidify the beauty industry as collaborators of health care interventions. It is to be expected that the beauty industry will play a pivotal role in disease prevention for women and their immediate family members in the near future.

The findings of this research suggests that with adequate and systematic courting of the beauty industry by public health establishments, public health workers will be able to gain the trust necessary to have adequate access to women and educate them on various diseases. Although our findings show moderate interest in integrating breast cancer intervention programs in beauty shops, it is suggested that the level of interest should be

weighed against the fact that some shops are too small and with limited clientele to be viable for such programming. It is recommended that public health organizations seeking to work with beauty salons should consider the size of the shop and the number of clients serviced in the shop to make an educated deduction of the shops viability. The size of the salon does matter in the efficiency of this type of programming.

The beauty industry has robust organizations and beauty schools that can be instrumental in promoting the collaboration of public health establishments with the beauty industry. It is recommended that researchers seek these organizations' support in their endeavors. With their support, public health establishments can gain built-in marketers of their intentions to beauty salon owners. Once there is buy-in from the salon owners, care must be taken to work closely with the salon owner who in turn will need to encourage her stylists to participate. Hair stylists are usually independent contractors in a salon and their operations are not necessarily dictated by the salon owner. In essence, salon owners will also need to gain the support of the hairstylists for the success of the intervention programs.

Some of the respondents indicated that they need to have professionals at the wheels of this intervention programs. It is recommended that researchers be selective in the choice of the health educators who are sent to the field and ensure that they are versed in the subject matter; respectful of the community; and sensitive to the operations of the beauty salon. With the influx of information on the internet and through the media, women know something about various diseases. The point of contact-interventions is to give women accurate information that would lead them to preventive action. Health workers who are selected to educate in these sites should be adequately prepared to educate.

Researchers should be mindful of the fact that salon owners want to keep their clients and any complaints from their clients could derail the collaborative effort. As our findings indicated, many of the salon owners responded to various questions that they would seek their clients' opinions. In our study, it is telling that salon owners value their clients in seeking incentives for their clients more than they indicated for themselves

Beauty expositions are excellent venues to reach leaders and members of the industry for research processes. Care must be taken to understanding the overwhelming nature of beauty expositions and the distractions there-in in order to take the best advantage of these sites to reach those in the beauty industry..

Planning and preparatory processes with salon owners can be arduous. Researchers need to be mindful of the sporadic nature of the beauty business and the tight schedules salon owners keep in order to serve their clients well.

This research began with the search for reaching women with breast cancer information through the beauty salon. The findings show that the beauty salons are fertile grounds for health interventions in general. As the world turns, so would be diseases that need to be prevented and controlled. Women are considered the caretakers of their families; women utilize beauty salons in groves; and beauty salons are ideal for adult learning. In this light, the beauty industry is very fit to collaborate with the health industry for the sake of women's health. Researchers should welcome and leverage this possibility.

REFERENCES

- American Anthropological Association (2011) Race: Resources glossary. Retrieved from www.understandingrace.org/resources/glossary.html)
- American Cancer Society, (2002) Cancer facts & figures
- American Cancer Society, (2009) *Cancer facts & figures for African Americans 2009-2010*.
- American Cancer Society, (2011) *Cancer facts & figures for African Americans 2011-2012*.
- Ansell, D. A., Dillard, J., Rothenberg, M., Bork, J., Fizzotti, G. F., Alagaratnam, D., Shiimoto, G., Gunther, T., & Greager, J. (1988). *Cancer*, 62(2), 425-428.
- Ansell, D., Lacey, L., Whitman, S., Chen, E., & Phillips, C. (1994). A nurse delivered intervention to reduce barriers to breast and cervical cancer screening in Chicago inner city clinics. *Public Health Reports*, 100(1), 106-111
- Ansell, D., Paula, G., Whitman, S., Ferrans, C., Burgess-Bishop, J., Murray, L., Rao, R., Marcus, E. (2009). A community effort to reduce the black/white breast cancer mortality disparity in Chicago. *Cancer Causes Control*. doi: 10.1007/s10552-009-9419-7
- Ansell, D., Whitman, S., Lipton, R., & Cooper, R. (1993). Race, income, and survival from breast cancer at two public hospitals. *Cancer*, 72(10), 2974-2978.
- Ashing-Giwa, K. T., Padilla, G., Tejero, J., Kraemer, J., Wright, K., Coscarelli, A., Clayton, S., Williams, I., Hills, D. (2004). Understanding the breast cancer experience of women: A qualitative study of African American, Asian American, Latina and Caucasian cancer survivors. *Psycho-Oncology*, 13(6), 408-428
- Baquet, C., Mishra, S., Commiskey, P., Ellison, G., & 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), 480-488.

- Baquet, C.R., Ringen, K. (1986). Cancer among blacks and other minorities: statistical profiles. *Public Health Service, National Cancer Institute, NIH Pub. No. 86-2758*
- Berlin, I. (2010). The making of African America: The four great migrations. Penguin Group (USA), Inc. New York, NY ISBN 978-0-670-02137-6
- Bibb, S. (2001). The relationship between access and stage of diagnosis of breast cancer in African American and Caucasian women. *Oncology Nursing Forum*, 4(28), 711-719.
- Bonner, F. (1998). Higher cancer incidence reflects socio-economic factors. *Proceedings of the National Black Leadership Initiative on Cancer, Morehouse School of Medicine* p. 28.
- Bradley, C. J., Given, C.W., & Roberts, C. (2002). Race, socioeconomic status, and breast cancer treatment and survival. *Journal of the National Cancer Institute*, 94(7), 490-496.
- Braithwaite, R.L., Lythcott, N. (1989). Community empowerment as a strategy for health promotion for black and other minority populations. *Journal of the American Medical Association*, 26(2)
- Breast cancer glossary of medical terms. Retrieved from (<http://www.imaginis.com/glossary/breast-cancer-glossary-of-medical-terms-14>)
- Briele, H.A., Walker, M.J., Wild, L., Wood, D., Greager, J.A., Schneebaum, S., Silva-Lopez, E., Han, M., Gunter, T., Gupta, T.K. (1990) Results of treatment of stage I-III breast cancer in Black Americans: The Cook County Hospital Experience, 1973-1987. *Cancer*, 65(5), 1062-1071
- Brown, C. (2001). Information encounters in the beauty salon. *Proceedings of the 29th annual conference of the Canadian Association for Information Service*. Retrieved from http://cais-acsi.ca/proceedings/2001/Brown_2001.pdf

- Browne, R.C., (2006). Most black women have a regular source of hair care but not medical care. *Journal of the National Medical Association*, 98,(10), 1652-1653
- Burack, R.C., Liang, J. (1989). The acceptance and completion of mammography by older black women. *American Journal of Public Health*, 79(6), 721-726
- Cancerlynx Breast Cancer Glossary. Retrieved from <http://www.imaginis.com/glossary/breast-cancer-glossary-of-medical-terms-14>
- Cangemi, D. (2008). *A pilot study to examine the feasibility of involving urban hair salons and stylists in a social marketing campaign aimed at improving calcium consumption among low income, African-American and Hispanic children* (Master's Thesis). Rutgers, The State University of New Jersey, New Brunswick, New Jersey.
- Caplan,, L. S., Wells, B. L., & Haynes, S. (1992). Breast cancer screening among older racial/ethnic minorities and whites: Barriers to early detection. *Journal of Gerontology*, 47, 101-110.
- Chamberlain, J., Rogers, P., Price, J.L., Ginks, S., Nathan, B.E., Burn, I. (1975). Validity of clinical examination and mammography as screening tests for breast cancer. *The Lancet*, November 22, 1026-1030
- Champion, V., & Menon, U. (1997). Predicting mammography and breast self-examination in African American women. *Cancer Nursing*, 20(5), 315-322.
- Chervarley, F., White, E. (1997). Recent trends in breast cancer mortality among white and black U.S, women. *American Journal of Public Health*, 87, 774-781
- Commonwealth Conference 2011, Retrieve from:
<http://www.womenasagentsofchange.org/media-room/press-releases/>

- Davis, F. (1991). *Moving the mountain, the women's movement in America since 1960*. Simon and Schuster. Inc. New York, NY
- Delgado, M. (1998). Alcoholism services and community settings: Latina beauty parlors as case examples. *Alcoholism Treatment Quarterly*, 16, 71-83.
- Dignam, J. (2000). Differences in breast cancer prognosis among African American and Caucasian women. *CA – A Cancer Journal for Clinicians*, 50(1), 50-64.
- Dodd, G.D. (1989). Cost reduction in mammography. *Cancer* 64, 2667-2670
- Due, T., (2001). *The black rose – the dramatic story of Madame C. J. Walker, America's first black female millionaire*. New York : Balantine Books, Random House.
- Eddy, D.M., Hasselblad, V., McGivney, W., Hendee, W. (1988). The value of mammography screening in women under age 50 years. *Journal of the American Medical Association*, 259(10), 1512-1519
- Encyclopedia of Sociology, 1992, Macmillan Publishing Company, New York, NY
- Farley, T.A., Flannery, J.T. (1989). Later-stage diagnosis of breast cancer in women of lower socio-economic status: Public health implications. *American Journal of Public Health*, 79(11), 1506-1512
- Ferrans, C., Akpan, B., Davis, M., Giachello, A., Johnson, T., Martinez, V., Parsons, J... (2006) *Cultural beliefs contributing to late-stage diagnosis in African American, Latina and Caucasian women*. Paper presented at the 2006 Oncology Nursing Society Conference.
- Forte, D. A. (1995). Community-based breast cancer intervention program for older African American women in beauty salons. *Public Health Reports*, 110(2), 179-183.

- Frazier, E.L., Jiles, R.B., & Mayberry, R. (1996). Use of screening mammography and clinical breast examinations among Black, Hispanic and White women. *Preventive Medicine, 25*, 118-125
- Freeman, H. P., Wasfie, T. J., (1989). Cancer of the breast in poor black women. *Cancer, 63*, 2562-2569
- Friedman, C., Ahmed, F., Franks, A., Weatherup, T., Manning, M., Vance, A., & Thompson, B. (2002). Association between health insurance coverage of office visit and cancer screening among women. *Med Care, 40*(11), 1060-1067.
- Garrison, W. (1999). *Amazing women of the civil war*. Rutledge Hill Press, Nashville, TN
- Ghafoor, A., Jemal, A., & Cokkinides, V. (2002). Cancer statistics for African Americans
- Gimlin, D. (1996). Pamela's place: Power and negotiation in the hair salon. *Gender & Society, 10*(5), 505-526.
- Glanz, K., Resch, N., Leman, C., & Rimer, B. K. (1996). Black-white differences in factors influencing mammography use among employed female health maintenance organization members. *Ethnicity and Health, 1*(3), 207-220.
- Glazer, E.R., Johnson, L.F., Thompson, V.R., Stagger, F.E., Jackson, J.B., Austin, D.F. (1989). Assessment of potential cancer control by Golden State Medical Association Physicians. *Journal of the National Medical Association, 81*(4)
- Greenwald P., Cullen, J.W. (1984). The scientific approach to cancer control. *CA-A Cancer Journal for Clinicians, 34*(6)
- Guidry, J. J., Mathews-Juarez, P., Copeland, V. A. (2003). Barriers to breast cancer control for African-American women. *Cancer, 97*(1), 318-323.

- Haenszell, W. (1950). A standardized rate for mortality defined in units of lost years of life. *American Journal of Public Health, 40*(1)
- Hand, R., Sener, S., Imperato, J., Chmiel, J., Sylvester, J., & Fremgen, A. (1991). Hospital variables associated with quality care for breast cancer patients. *Journal of the American Medical Association, 266*(24), 3429-3432.
- Hart, A., & Bowen, D.J. (2004). The feasibility of partnering with African-American barbershops to provide prostate cancer education. *Ethnicity and Disease, 14*, 269-273.
- Herbison, S., Lokanc-Diluszio, W. (2008). The novella approach to inform women living on low income about early breast cancer detection. *Health Promotion Practice, 9*(3), 294-304.
- Hirschman, J., Whitman, S., & Ansell, D. (2007). The black: White disparity in breast cancer mortality: The example of Chicago. *An International Journal of Studies of Cancer in Human Populations, 18*(3), 323-333. doi:10.1007/s10552-006-0102-y
- Horn, J.W., Sondik, E.J. (1989). Person-years-of-life-lost due to cancer in the United States 1970 and 1984. *American Journal of Public Health, 79*(11)
- InfoUSA (2011) as retrieved from http://www.infousagov.com/about_infoUSA.asp
- Imaginis (2006). Retrieved from <http://www.imaginis.com/glossary/breast-cancer-glossary-of-medical-terms-14>
- Jacob, T. C., Penn, N.E., & Bown, M., (1998). Breast self-examination: Knowledge, attitudes, and performance among black women. *Journal of the National Medical Association, 81*(7), 769 –776
- James, D. (2008) *Hairtalk: Stylish braids from African roots*. New York: Sterling

- Jemal, A., Siegel, E., Ward, Y., & Xu, J. (2008). Cancer statistics 2008. *American Cancer Society*. doi:10:3322/C.A. 2007.0010
- Kang, S.H., Bloom, J.R., Romano, P.S. (1994). Cancer screening among African-American women: Their use of tests and social support. *American Journal of Public Health*, 84(1), 101-103
- Keller, K., George, E., Podell, R., (1980). Clinical breast examination and breast self-examination experience in a family practice population. *The Journal of Family Practice* 11(6), 887-893
- Kessler, L.G., Feuer, E.J., Brown, M.L. (1991). Projections of the breast cancer burden to U.S. women: 1990-2000. *Preventive Medicine*, 20, 170-182
- Kreuter, M. W., Black, W. J., Friend, L., Booker, A. C., Klump, P. (2006). Use of computer kiosk for breast cancer education in five community settings. *Health Education and Behavior*, 33, 625-642.
- Lacey, L., Whitfield, J., DeWhite, W., Ansell, D., Whitman, S., Chen, E., & Phillips, C. (1993). Referral adherence in an inner city breast and cervical cancer screening program. *Cancer*, 72(3), 950-955
- Lannin, D.R., Mathews, H.F., Mitchell, J., Swanson, M.S., Swanson, F.H., Edwards, M.S. (1998). Influence of socioeconomic and cultural factors on racial differences in late-stage presentation of breast cancer. *Journal of the American Medical Association*, 279, (22), 1801-1807
- Lefall, L.D. (1981). Breast cancer in black women. *CA-A Cancer Journal for Clinicians*, 31(4)
- Lefebvre., & Flora, J.A. (1988). Social marketing and public health intervention. *Health Education and Behavior*. doi:10.1177/109019818801500305

- Lewis, Y. R., Shain, L., Quinn, S. C., Turner, K., Moore, T. (2002). Building community trust: Lessons from and STD/HIV peer educator program with African American barbers and beauticians. *Health Promotion Practice, 3*(2), 133-143
- Lieb, S. (1991) Principles of adult learning. Retrieved from (<http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/adults-2.htm>).
- Linnan, L. A., Emmons, K. M., & Abrams, D. B. (2002). Beauty and the beast: Results of the Rhode Island smokefree shop initiative. *American Journal of Public Health, 92*(1), 27-28.
- Linnan, L.A., & Ferguson, Y. O. (2007). Beauty salons: A promising health promotion setting for reaching and promoting health among African American women. *Health Education & Behavior, 34*(3), 517-530. doi:10.1177/1090198106295531
- Linnan, L. A., Ferguson, Y. O., Wasilewski, Y., Lee, A. M., Yang, J., Solomon., & Katz, M. (2005). Using community-based participatory research methods to reach women with health messages: Results from the North Carolina beauty and health pilot project. *Health Promotion Practice, 6*, 164-173. doi:10.1177/1524839903259497
- Mandelblatt, J., Andrews, H., Kerner, J., Zauber, A., & Burnett, W. (1991). Determinants of late stage diagnosis of breast and cervical cancer: The impact of age, race, social class, and hospital type. *American Journal of Public Health, 81*(5), 646-648.
- Manfredi, C., Warnecke, R., Graham, S., & Rosenthal, S. (1977), Social psychological correlates of health behavior: Knowledge of breast self-examination techniques among black women. *Social Science and Medicine, 11*, 433-440.

- Manley, A. (1998) The health status gap: Education may reduce cancer risk. *Proceeding of the National Black Leadership Initiative on Cancer*. p. 11
- Marbella, A.M., Layde, P.M. (2001). Racial trend in age-specific breast cancer mortality rates in U.S. women. *American Journal of Public Health*, 91(1), 118-12
- Mariotto, A. B., Yabroff, K. R., Shao, Y., Feuer, E. J., & Brown. M.L. (2010). *Journal of the National Cancer Institute*, 103(2), 117-128
- Mathers, C. D., Loncar, D. (2006). Evidence and information for policy cluster. *World Health Organization, Geneva Switzerland*. Retrieved from <http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.0030442>
- McWhorter, W.P., Mayer, W.J. (1987). Black/White differences in type of initial breast cancer treatment and implications for survival. *American Journal of Public Health*, 77(12), 1515-1517
- Menashe, I., Anderson, W.F., Jatoi, I., Rosenberg, P.S. (2009). Underlying causes of the black/white racial disparity in breast cancer mortality: A population-based analysis. *Journal of the National Cancer Institute*, 101,993-1000
- Metropolitan Chicago Task Force
http://www.chicagobreastcancer.org/site/epage/126457_904.htm
- Metropolitan Chicago Breast Cancer Task Force. (2010). *Annual report to the community*
- Mettlin, C, (1988). Descriptive and analytic epidemiology: Bridges to cancer control. *Cancer* 62:1680-1687 September 1988
- Micozzi, M.S. (1985). Nutrition, body size, and breast cancer. *Yearbook of Physical Anthropology*, 28:175-206

- Morgan, P. D., Fogel, J., Tyler, I. D., & Jones, J. R. (2010). Culturally targeted educational intervention to increase health awareness among African Americans. *Journal of Healthcare for the Poor and Underserved, 21*(3), 132-147.
- National Cancer Institute (1990). Promoting mammography screening: Ideas & resources for public health departments. *U.S. Department of Health Services, Public Health Service, National Institutes of Health, NIH Publication No. 90-497, Printed January 1990*
- National Cancer Institute, (<http://cancertopics/factsheet/disparities/cancerhealthdisparities>)
- National Institutes of Health (2002). The nation's investment in cancer research: A plan budget proposal for fiscal year 2004. NIH publication No. 03-4373
- National Institutes of Health (1990). Promoting mammography screening: Ideas & resources for public health departments. NIH publication No 90-497
- National Cancer Institute (1996, May). *The nation's investment in cancer research: A budget proposal for fiscal years 1997-1998*
- National Cancer Institute as retrieved from www.cancer.gov/cancertopics
- National Cancer Institute (2010, September). Retrieved from:
<http://www.cancer.gov/aboutnci/servingpeople/cancer-statistics/snapshots>
- Newman, L. A., Mason J., Cote, D., Vin, Y., Carolin. K., Bouwman, D., Colditz, G. A., (2002), African-American ethnicity socioeconomic status, and breast cancer survival. *Cancer 94*(11), 2844-2854
- Osteen, R. T., & Karnell, H. L. (1994). The National Cancer Data Base Report on Breast Cancer. *Cancer. 73*, 1994-2000.

- Price, J. H., Desmond, S. M., Slenker, S., Smith, D., & Stewart, P. W. (1992). Urban black women's perceptions of breast cancer and mammography. *Journal of Community Health, 17*(4), 191.
- Princeton University Wordnet, (2011). Retrieved from (wordnetweb.princeton.edu/perl/webwn).
- Race resources glossary. Retrieved from www.understandingrace.org/resources/glossary.html
- Rauscher, G.H., Ferrans, C.E., Kaiser, K., Campbell, R.T., Calhoun, E.E., Warnecke, R.B. (2010). Misconceptions about breast lumps and delayed medical presentation in urban breast cancer patients. *Cancer Epidemiology, Biomarkers & Prevention, 19*(3), 640-701. doi: 10.1158/1055.9965.EPI-09-0997
- Rauscher, G., Allgood, K., Whitman, S., Conant, E. (2011). Unequal distribution of screening mammography services by race/ethnicity and health insurance. *Journal of Women's Health, 20*(00). doi 10.1089/jwh.2010.2415
- Rohan T.E., Bain, C.J. (1987). Diet in the etiology of breast cancer. *Epidemiologic Reviews, vol 9*
- Sadler, G.R., Ko, C.M., Wu, P., Alisangco, J., Castaneda, S.F., Kelly, C. (2011). A cluster randomized controlled trial to increase breast cancer screening among African American women: the black cosmetologists promoting health program. *Journal of the National Medical Association 103*(8), 735-745
- Scharff, D. P., Mathews, K. J., Jackson, P., & Hoffsuemmer, J. (2010). More than Tuskegee: Understanding mistrust about research participation. *Journal of Healthcare for the Poor and Underserved, 21*(3), 879-897.
- Siegel R., Naishadham, D., Jemal, A. (2012). Cancer statistics, 2012. Retrieved from <http://onlinelibrary.wiley.com/doi/10.3322/caac.201138/full>

- Smith, S. A., Hamilton, S., Sheats, J. Q., Mensah, E., Apantaku, F., & Sullivan, L. (2003). Stay beautiful/stay alive: A successful approach to community-based participatory research. *American Health Studies, 18*(4), 219-224.
- Snapshots of Cancer. Retrieved from: www.cancer.gov/aboutnci.
- Solomon, F. M., Linnan, L. A., Wasilewski, Y., Lee, A. M., Katz, M. L., & Yang, J. (2004). Observational study in ten beauty salons: Results informing development of the North Carolina beauty and health project. *Health Education and Behavior, 31*, 790-807.
- Strecher V. J., & Rosenstock, I. M. (1997). Health beliefs model. Retrieved from <http://books.google.com/books?hl=en&lr=&id=zVh30FrAuDsC&oi=fnd&pg=PA113&dq=health+belief+model&ots=IiaVmzwLyo&sig=wIBgqnp18w1BKa84jLGXosLe0sg#v=onepage&q=health%20belief%20model&f=false>
- Sullivan, L., Jackson, F., Sheats, J., & Smith, S. (1998) NBLIC: Where we have been, where we are going. *Proceedings of the National Black Leadership Initiative on Cancer*. p. 3
- Sung, J. F.C., Coates, R.J., Williams, J.E., Liff, J.M., Greenberg, R. S., McGrady, G. A., & Blumenthal, D.S. (1992) Cancer screening intervention among black women in inner-city Atlanta – Design of a study. *Public Health Reports, 107*(4), 361-368.
- U.S. Census, (<http://quickfacts.census.gov/qfd/states/17/1714000.html>)
- U.S. Census, (2011). Retrieved from: <http://quickfacts.census.gov/qfd/states/00000.html>
- Whitman, S., Ansell, D., Lacey, L., Chen, E., Nyambi, E., Dell, J., & Phillips, C. W. (1991). Patterns of breast and cervical cancer screening at three public health centers in an inner-city urban area. *American Journal of Public Health, 81*, 1651-1653.
- Whitman, S., Ansell, D., Orsi, J., Francois, T. (2010). The racial disparity in breast cancer mortality. *Journal of Community Health*. doi: 10.1007/s10900-010-9346-2

Whitman, S., Shah, A.M., Silva, A., Ansell, A. (2007). Mammography screening in six diverse communities in Chicago – a population study. *Cancer Detection and Prevention* 31, 166-172.

Wilkinson, R. G. (2006). The impact of inequality. *Social Research: An International Quarterly*, 73(2), 711-732

World Development Report (1993). Investment in health. Retrieved from (<http://files.dcp2.org/pdf/WorldDevelopmentReport1993.pdf>)

World Health Organization (2011). Health promotion. Retrieved from www.who.int/topics/health_promotion/en/