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Perceptions, Beliefs, and Behaviors Toward Breast Cancer Screening of Filipino Women in Saudi Arabia

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Abstract

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Despite the existence of breast cancer screening that could promote early diagnosis and survival of breast cancer, high mortality rates of breast cancer persist among Filipino women. The purpose of the qualitative study was to describe the perceptions, beliefs, and behaviors of Filipino women working as Overseas Filipino Workers (OFWs) in Saudi Arabia. Face-to-face interviews were conducted with 20 Filipino women between the ages of 40 to 60 years who were recruited voluntarily using purposeful sampling technique. Guided by the structures of health belief model (HBM), the study used an inductive coding technique to elicit common themes from the raw data. The study established that the participants' screening behaviors were influenced by family history of breast cancer, the financial and emotional burden of the disease and its treatment, the benefit of early detection, mobility to participate, culture and language barriers, and the social media. The study also demonstrated that the desire to participate in breast cancer screening is influenced by the participants' perception of susceptibility and perception of severity to breast cancer. The findings of the study could create a positive social change as it may inform the practice of public health providers, influence the drafting of informed policies for comprehensive breast health care, and improve access to preventive health services for Filipino women OFWs. Furthermore, the study could empower Filipino women in their personal health decision making, especially when working in other countries where good health is the working capital and a precondition for survival.

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Dedication

For those who suffered and still suffering from breast cancer all over the world.

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Thank you to my husband and my son for serving as my inspirations in reaching the “light at the end of the tunnel” of this dissertation.

My special thanks go to God...for everything.

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Chapter 1: Introduction to the Study

Introduction

Breast cancer is the most common cancer that affects women globally (World Health Organization [WHO], 2016). According to the WHO (2016), breast cancer cases are increasing particularly in third world countries where the majority of cases are detected in late stages. In 2012, GLOBOCAN estimated that 1.67 million new cancer cases were diagnosed globally making breast cancer the second most common cancer in general and the most frequent cause of cancer among women (International Agency for Research on Cancer [IARC], 2016). The WHO estimated that worldwide, 508,000 women died due to the disease in 2011. More recently IARC (2016) found that breast cancer remains the most frequent cause of cancer death in women in less developed regions with 324,000 deaths (14.3% of total), and the second cause of cancer death in more developed regions with 198,000 deaths or 15.4% of total breast cancer deaths.

Despite the breakthroughs in modern screening procedures and medical treatment, WHO (2016) found that the burden of the disease continued in both developed and developing countries. In developed countries like the United States, the American Cancer Society (ACS, 2016a) estimated that 231,840 new cases of invasive and 60,290 additional cases of in situ breast cancer would be diagnosed among American women in 2015. Additionally, the ACS approximated that 40,290 U.S. women are expected to die from the disease in the same year. Although the risks of breast cancer can be reduced with prevention, the strategy cannot eliminate most of the breast cancer cases that

develop in low-and-middle-income countries where the disease is detected in late stages of the disease (WHO, 2016).

Many individuals have knowledge about one or more of the risk factors for breast cancer. However, there is a disparity in awareness in some populations. Thomson et al. (2014) found that misperceptions regarding breast cancer risk factors occur among some groups of women. These misperceptions could adversely influence prevention and early detection programs aimed to increase the quality of life of those who suffer from the disease (Thomson et al., 2014). Furthermore, Sanders, Loftin, Seda, and Ehlenbeck (2014) stated that inaccurate risk perceptions could have an effect on subsequent health behaviors, decision making, as well as psychosocial and health outcomes.

The susceptibility to breast cancer among people varies depending on the exposure to known risk factors. Among the risk factors for breast cancer stated by the Centers for Disease Control and Prevention (CDC, 2016) include (a) getting older, (b) genetic mutations (inherited changes to BRCA1 and BRCA2 genes), (c) early menstrual period, (d) late or no pregnancy, (e) starting menopause after age 55 (long exposure to estrogen), (f) not being physically active, (g) obesity after menopause, (h) having dense breasts, (i) using combination hormone therapy, (j) taking oral contraceptives, (k) personal history of breast cancer, (l) personal history of certain noncancerous breast diseases, (m) family history of breast cancer, (n) previous treatment using radiation therapy, (o) women who took the drug diethylstilbestrol, (p) drinking alcohol.

The burden of breast cancer is magnified in some groups of women as evidenced by the disparities in incidence and mortality rates of the disease. Among U.S. Filipino

women, breast cancer is the most commonly diagnosed type of cancer and the leading cause of cancer deaths (Villero, Macaerag, & Burke, 2014). Villero et al. (2014) found that Filipino women have much higher incidence and mortality rates of breast cancer compared to other Asian subgroups. Villero et al. attributed the disparities in breast cancer survival to racial and ethnic differences and stage at diagnosis. Other factors that contributed to the disparity include tumor biology, socioeconomic characteristics, and breast cancer treatment (Villero et al., 2014). Furthermore, according to Simpson, Briggs, and George (2015), Filipino women should receive additional attention when diagnosing and treating breast cancer because the group is at increased risk of developing more aggressive breast cancer. Simpson et al. (2015) found that the disparities in the care received by the group are also noteworthy.

Timely breast cancer screening is vital in the successful management of breast cancer. Detecting the disease early with the use of the existing screening procedures can increase the survival to breast cancer (WHO, 2016). According to ACS (2016d), the goal of screening tests for breast cancer is to find breast cancer before it causes symptoms. The screening procedures such as mammograms, clinical breast exam, breast self-exam, magnetic resonance imaging (MRI), and ultrasound can diagnose the disease at early stages. Early detection will promote early management and control; thus, it increases the potential for survival (ACS, 2016d; Cancer Research UK, 2014; Shah, Rosso, & Nathanson, 2014; & WHO, 2016).

In Saudi Arabia, despite the steady increase in the incidence of breast cancer in the last few decades, programs for early diagnosis of breast cancer are still lacking (Al

Mulhim, Syed, Bagatadah, & Al Muhanna, 2015). El Bcheraoui et al. (2015) found that breast cancer is now considered as the ninth leading cause of death among women in Saudi Arabia. According to El Bcheraoui et al., cases of breast cancer in Saudi Arabia are predicted to increase continuously because partly of the rapid changes in dietary habits and the lifestyle of women in general, including Filipino women OFWs who are residing in the area.

Although the national policies on breast cancer screening are under development in Saudi Arabia, the country already has several breast cancer screening and educational programs that could benefit women in the country (Al Mulhim et al., 2015). The Pink Eastern initiative promotes awareness about breast cancer and the Saudi Cancer Foundation, a nongovernmental organization, has been providing free mammogram examinations since October 2009 (Al Mulhim et al., 2015). According to El Bcheraoui et al. (2015), despite the free diagnostic facilities available in the country, few women are utilizing these services. The poor participation in breast cancer screening reflects a health behavior that could contribute to a late-stage diagnosis of the disease.

Breast cancer screening behaviors are influenced by an individual’s perception. The perception of risk and susceptibility to disease influences the individual's participation in breast cancer screening (Kristiansen, Lue-Kessing, Mygind, Razum, & Norredam, 2014). Sunil et al. (2014) found that perceived susceptibility to breast cancer, perceived barriers to screening participation, as well as knowledge and source of health information significantly influence the behavior of women towards breast cancer screening. Women with higher levels of breast cancer knowledge tend to adhere more to

breast cancer screening recommendations compared to women with lower levels of breast cancer knowledge (Sunil et al., 2014). Sadler et al. (2012) also found that the number of women adhering to current breast cancer screening guidelines increases after they receive breast cancer information.

The lack of awareness compounds diagnosis of breast cancer. The lack of awareness and negative attitudes, coupled with poor access to screening services are the main reasons why some women have poor screening behavior (Munyaradzi, January, & Maradzika, 2014). Likewise, Ramathuba, Ratshirumbi, and Mashamba (2015) stated that the level of knowledge influences the attitudes and practices of women toward breast cancer screening. Individuals who participate in educational programs are found to have better education, higher health literacy, and greater adherence to health-promoting guidelines (Sadler et al., 2012). Conversely, the lack of an educational program to address knowledge deficit to breast cancer screening can adversely affect early detection that significantly contributes to the high mortality rate of breast cancer (Ramathuba et al., 2015).

A significant number of Filipino women are currently working in Saudi Arabia, and most of them are at risk to the disparity in breast cancer screening. Data obtained from Philippine Statistic Authority (2011) showed that there are an estimated 2 million OFWs in Saudi Arabia, and 47.7% of these are women. The migration of Filipino women in other countries affects their health status because their individual health seeking behavior is affected by the lack of access to available resources (Maneze, DiGiacomo, Salamonson, Descallar, & Davidson, 2015). Particularly, the participation of migrant

women in screening procedures is affected by the differences in socioeconomic status, differences in culture, psychosocial issues, and differences in risk perception (Kristiansen et al., 2014). Women coming from countries with a lower incidence rate of breast cancer may perceive their risk to be less than women born in countries with higher rates may. The differences make migrant women less likely to find relevance in participating in the screening procedures (Kristiansen et al., 2014). Additionally, Kristiansen et al. (2014) stated that the screening behavior of migrant women is influenced by more than just cognitive, rational decision making; but also by trust, discrimination, socioeconomic position, social support, and language competencies.

In this chapter, the background of the study is provided, as well as the problem statement, the purpose of the study, research questions, nature of the study, theoretical framework, assumptions and limitations of the study, delimitations, and significance of the study. The chapter ends with a summary of the chapter and transition to the next.

Background of the Study

Among Asian people, Filipino women are one of the groups that have high mortality to breast cancer (Ho, Muraoka, Cuaresma, Guerrero, & Agbayani, 2010). According to Ho et al. (2010), the lack of awareness in the group triggers the high mortality of the group to breast cancer. The lack of awareness adversely affects their perception about the screening procedure resulting in the development of behavior that fails to appreciate the benefits of participating in breast cancer screening. Breast cancer screening with mammography, clinical breast examination, and breast self-examination is a systematic application of screening test among presumably asymptomatic individuals

(WHO, 2016). Breast cancer screening procedures can facilitate early detection and early treatment at earlier stages when the disease is still responsive to management (WHO, 2016). According to Cancer Research UK (2014), once early diagnosis and treatment of breast cancer are facilitated, the potential for survival from the disease increases.

In Saudi Arabia, breast cancer is the ninth leading cause of death for women (El Bcheraoui et al., 2015). According to El Bcheraoui et al. (2015), the incidence rate of the disease is expected to continue increasing, partly because of the rapid changes in lifestyle and the high calorie and fatty diet intake observed during the last decade. Although there seems to be limited literature describing the geographical variations of the knowledge, attitudes, and practices around breast cancer in the country, there exists a general trend of poor participation of women to breast cancer screening (El Bcheraoui et al., 2015). Saudi Arabia has developed more widespread screening and educational programs for breast cancer that could be of great advantage to the women of the Kingdom. However, despite the presence of diagnostic facilities that offer adequate screening service like free mammography, few women are taking the screening procedures (El Bcheraoui et al., 2015).

Several researchers have shown evidence of the benefits of breast cancer screening procedures. Awareness of the procedures affects individual participation. According to Cancer Research UK (2014), the lack of awareness is one of the reasons for high mortality of the disease despite the existence of breast cancer screening procedures. Conversely, awareness about the screening benefits could create a positive perception and could facilitate the development of behavior that enhances early diagnosis and treatment

of the disease (Cancer Research UK, 2014). The description of the perceptions and beliefs about breast cancer screening facilitates understanding of screening behaviors, the knowledge that is vital in the development of appropriate health interventions to address breast health problems.

Problem Statement

Researchers have compiled a substantial body of evidence establishing the fact that Filipino women migrating to other countries experience disparity in breast cancer screening (Ho et al., 2010; Sadler et al., 2012; Villero et al., 2014). Currently, the reasons that influence breast cancer screening behaviors, in general, is understood, but not the screening behavior of migrating Filipino women working as OFWs in Saudi Arabia. WHO (2014) established that screening behavior is influenced by how individuals perceive the positive impact of participating in screening programs. Awareness of the benefits of the screening procedures facilitates the creation of a positive perception among women promoting the development of behavior that enhances the adaptation of screening behavior. However, a gap exists in describing the breast cancer screening perceptions, beliefs, and behaviors of Filipino women working as OFWs in Saudi Arabia that can be used to predict their breast cancer screening behavior. Therefore, further examination of the perceptions, beliefs, and behaviors toward breast cancer screening of Filipino women is needed to facilitate the understanding of their screening behavior. The investigation provides knowledge that could help address the significant issues of public health affecting the breast health status of women.

Purpose of the study

The purpose of the study was to examine the perceptions, beliefs, and behaviors of Filipino women working as OFWs in Saudi Arabia. The examination facilitated understanding of the screening behavior of Filipino women that led to the disparity in participation to the screening procedures. The understanding could facilitate the development of appropriate health interventions to promote and sustain the desired screening behavior. Likewise, the purpose of this study was to add knowledge that may inform the practice of public health providers. The results may also influence the drafting of informed policies for comprehensive breast health care and the improvement of access to preventive health services for expats working in Saudi Arabia. Furthermore, the result of this study can be used by the country of origin of the participants, in this case, the Philippines, in drafting needed policies on breast health care services in the context of migration. Finally, the knowledge that was gained in the study could empower women in personal health decision making, especially when working in other countries where good health is the working capital and a precondition for survival.

Nature of the Study

The nature of the study is a qualitative method. Specifically, the study used a qualitative descriptive approach in addressing the research questions aimed to describe the perceptions, beliefs, and behaviors about breast cancer screening of Filipino women working as OFWs in Saudi Arabia. The decision to use qualitative descriptive was based on the focus of describing the perceptions, beliefs, and behaviors of participants that provided an understanding of the breast cancer screening behaviors of the participants.

According to Flick (2014), the search of appropriate research designs led to the examination of several qualitative research theories that can determine the appropriate method for qualitative investigation.

Although the cornerstone of the qualitative descriptive approach is to describe, somehow it employs a certain degree of interpretation that is not complex (Vaismoradi, Turunen, & Bundas, 2013). Interpretive position provides a pervasive lens or perspective on all aspects of qualitative investigation (Creswell, 2013). Creswell added that the participants in this kind of inquiry represented the marginalized or the underrepresented groups, whether those differences takes the form of class, religion, geography, race, sexuality, and gender. According to Creswell (2013), the study also takes the feminism views, a stance that centers on problematic women's diverse situations such as policy issues to realize justice to women in the specific context. Furthermore, according to Creswell (2014), qualitative research is focused on understanding the influences of behavior and the discovery of the influences of perceptions, beliefs, and practices related to specific diseases.

The research questions were constructed using HBM as a foundation. The types of data that were useful in addressing the proposed research questions for this study were qualitative data, detailing the participants' subjective description of their perceptions, beliefs, and behaviors toward breast cancer screening. The sources of data included the audio recording and the interview transcripts obtained during the unstructured and open-ended face-to-face interview process. The interview is considered as the primary method of collecting qualitative data (Englander, 2012). The unstructured face-to-face interview

usually provides richer information on the personal regard of the participant to the topic of interest (Englander, 2012). According to Waltz, Strickland, and Lenz (2010), the conversational storytelling approach allowed in unstructured interviews provides full and in-depth information necessary to understand better what the study participants are describing.

The qualitative data were analyzed using the constructs of the HBM as a guide to elucidate how the participants emerged to have low rates of participation for screening procedures. The use of inductive analysis in the study enabled the creation of a composite description of the topic under inquiry. The inductive analysis in qualitative research enables the systematic analysis using primarily detailed readings and interpretation of raw data that allow the emergence of themes or categories (Thomas, 2006). The inductive analysis enables the qualitative researcher to begin with an area of study, facilitating the emergence of themes, patterns, categories and even a theory from the data (Patton, 2002; Thomas, 2006). Furthermore, Thomas (2006) stated that inductive analysis allows the finding of existing research to emerge from the significant, frequent, or dominant themes inherent in qualitative data.

In conducting general inductive analysis for this research study, the data from the interviews were repeatedly read to identify categories and themes. Rigorous and systematic reading and coding of the transcript allow the emergence of the major themes (Thomas, 2006). Repeated studying of the interview data was done to exhaust all possible description of the perceptions, beliefs, and behaviors of the participants to breast cancer

screening until no new themes emerge. According to Creswell (2013), when no new themes emerge, it indicates that all major themes are already identified.

The study used NVivo11 software to help organize, code, and manage the qualitative data. The role of Computer Assisted Qualitative Data Analysis (CAQDAS), software packages like NVivo11 in assisting qualitative studies, is increasingly important with the complexity of analyzing and managing qualitative data (Leech & Onwuegbuzie, 2011). The use of NVivo software produced by QRS International could provide qualitative studies with a broad range of tools for the easy management and analysis of qualitative data (Leech & Onwuegbuzie, 2011). It could provide a thorough and detailed analysis compared to a manually coded data (Leech & Onwuegbuzie, 2011). NVivo could also strengthen the quality of the study by increasing the rigor of the coding process (Hilal & Alabri, 2013). Additionally, Saldaña (2016) stated that NVivo permits and maintains the management and organization of evolving data from the coding process into hierarchies and networks that will eventually give way to a visual representation of data.

Each participant in the study was selected purposively. Inclusion criteria included being Filipino women, residing in Hail City, Kingdom Of Saudi Arabia, ranging in age between 40 to 60 years old, with English-speaking ability. The exclusion criteria included Filipino women 39 years old and below and 61 years old and above, non OFW, with difficulty speaking in English, and a nonresident of Hail City, KSA. The number of participants was 20. According to Creswell (2013) and Englander (2012), 5 to 20 study participants would be enough to appreciate the different aspect of the issue of interest in

the qualitative study. Also, Creswell stated that a small number of participants would be adequate since qualitative studies do not aim to achieve generalization of the findings.

The qualitative descriptive inquiry relates to the approach of the study because the methodology aligns with the goals to understand the participants' screening behavior based on the description of the perceptions, beliefs, and behaviors of the participants about breast cancer screening. The study draws on feminist view in an attempt to empower women in their informed health decision making concerning their breast health in particular and ultimately in their personal health in general. The social implication of women empowerment could assist women to be more knowledgeable about breast cancer and to be more vigilant about their breast. The policy changes that eventually ensue could create sustainable programs that could ultimately improve the health of the general population.

Theoretical Framework

The HBM was used as the theoretical framework of the study. The use of HBM as a theoretical framework in the study aimed to provide the foundation for the understanding of the perceptions, beliefs, and behaviors of the target group; and to facilitate understanding of the context in which these factors occur in breast cancer screening. The HBM provided guidelines for the construction of the research questions and in the analysis of data, facilitating the understanding of the context in which these perceptions, beliefs, and behaviors about breast cancer screening occur (Glanz & Bishop, 2010). The HBM posits that health behavior is influenced by the individuals' perceptions,

expectancies, and value beliefs that are the basis for the individual in taking health-related actions (Glanz, Rimer, & Viswanath, 2015).

The HBM proposes that the adoption of health behaviors is based on six constructs (Glanz et al., 2015). First, is perceived susceptibility. Perceived susceptibility refers to the individual's belief of the likelihood of acquiring the disease. The individual's subjective estimation of threat and vulnerability to the disease and its complications is thought to influence the health decisionm making of the individual (Glanz & Bishop, 2010). Second is the perceived severity. According to Glanz et al. (2015), perceived severity refers to the individual's beliefs about the seriousness of contracting the disease condition including its complications and consequences. The third is the perceived benefits. Glanz et al. stated that perceived benefits refer to the individual's belief in the positive outcome from adopting a particular health behavior. The benefits could either be the reduction of the risk of acquiring the disease or the reduction of the potential consequences. The fourth construct is the perceived barrier. Perceived barriers refer to the beliefs about the tangible or intangible cost that serve as obstacles and contribute to the negative part of adopting a recommended health action (Glanz et al., 2015).

Moreover, the fifth construct is the cues to action. The cues to action refer to those external and internal factors that could trigger the prescribed health behavior (Glanz et al., 2015). Cues to action could be the social impetus influencing an individual's health behavior, promoting awareness of a disease or health issue, and contributing to the overall *readiness* of an individual to adopt a particular health behavior (Sunil et al., 2014). Lastly, the sixth construct is the self-efficacy that refers to the beliefs that one can

perform the recommended behavior. It is a sense of confidence or the conviction of an individual that the behavior can be successfully executed (Glanz et al., 2015).

Research Questions

The research questions of the study are the following:

1. How does the perception of susceptibility influence the behaviors of Filipino women toward breast cancer screening?
2. What are the factors that influence the participants' perceived severity to breast cancer?
3. What beliefs do Filipino women possess regarding the benefits of breast cancer screening?
4. How does the participation to screening procedures of Filipino women in Saudi Arabia being influenced by their perceived barriers?
5. How do Filipino women perceive their capability of performing the recommended screening procedures?
6. What perceived cues to action influence Filipino women into adopting the screening behavior?

Assumptions

Assumptions of the study included the availability of an adequate number of participants who are qualified based on the inclusion criteria of selection. The participants were assumed available during the face-to-face interview wherein they were assumed to describe their perceptions, beliefs, and behavior towards breast cancer screening honestly. The inquiry is assumed to provide knowledge that could facilitate the

creation of health programs and therefore enhance participation in breast cancer screening programs. It is also assumed that the findings of the study could improve the breast cancer screening behaviors of Filipino women, and ultimately empower women, in general, to be more knowledgeable about breast cancer and be vigilant of their breast health. Lastly, the study assumed that women could become more proactive in the development of policies that will create sustainable health programs thereby improving women's health and the health of the population in general.

Scope and Delimitations

The relationship between early detection of breast cancer and the increased survival with the disease has been established in several significant studies in the literature, however, confirming the relationship was not the focus of this study. The study demonstrated the description of the perceptions, beliefs, and behaviors of the participants toward breast cancer screening in an attempt to understand their low rate of participation to screening procedures. Due to the nature and the constraints of the study, the results were not generalized to all Filipino women. The sample of the study, however, provided valuable insight and knowledge currently missing in the literature that could be useful in policymaking. Evidence to support quality and strength of the study were shown in the detailed description of the sampling, as well as in the adequacy of the description on how the participants were selected. The process of sample selection described in detail ensured the credibility as well as transferability of results (Laureate Education Inc., 2010).

Limitations

The criticism in the use of qualitative descriptive as being flawed and lacking in rigor are some of the limitations of the study. The limitations were overcome, however, by reducing the subjective elements of the researcher during the data analysis as recommended by Neergaard, Olesen, Andersen, and Sondergaard (2009). The issue of trustworthiness was addressed in this study by staying true to a single qualitative tradition all throughout, as well as by providing evidence of rigor that supported the quality and strength of the study. My personal biases were accounted to ensure the credibility of the findings. My preconceived notions were isolated or bracketed by recording my thoughts in a series of journaling notes. Preconceived notions that might cause bias and impact observations and understanding as a human being should be bracketed to prevent the potential tainting of the research process (Creswell, 2014; Laureate Education, Inc., 2010b; Tufford & Newman, 2012).

Definition of Terms

Behavior: a way in which one behaves in response to breast cancer and breast cancer screening.

Beliefs: an opinion or conviction about breast cancer and breast cancer screening.

Breast cancer: a malignant tumor that starts at the tissues of the breast (Cancer Research UK, 2015).

Breast cancer: a malignant tumor that starts at the tissues of the breast (Cancer Research UK, 2015).

Breast cancer screening: screening tests for breast cancer for women without breast symptoms (ACS, 2015d)**.**

Breast self-exam: examination performed by the individual herself feeling for lumps or other changes in the breast (Obi Uche, 2014).

Clinical breast exam: the manual examination of the breast by a health practitioner to feel for lumps and check for other changes in the breast of a woman (Obi Uche, 2014).

Cues to action: those external and internal factors that could trigger the participation to breast cancer screening.

Filipino women: women working as Overseas Filipino Workers (OFWs) in Saudi Arabia.

Incidence rate: the number of new breast cancer cases per population at risk at a given period.

Mammogram/Mammography: a mammogram is an x-ray picture of the breast that is used detects breast cancer in asymptomatic women (National Cancer Institute, 2014).

Mortality rate: the number of breast cancer deaths occurring in a given population at risk during a specific period.

Perception: a way one thinks about breast cancer and breast cancer screening.

Screening behavior: a way one behaves in relation to participation to breast cancer screening practices.

Perceive susceptibility the belief on an individual of the likelihood of acquiring breast cancer.

Perceived severity: the beliefs about the seriousness of contracting breast cancer including its complications and consequences.

Perceived benefits: the individual's belief of the positive outcome from adopting breast cancer screening behavior.

Perceived barrier: the beliefs about obstacles or the negative part of adopting breast cancer screening behavior.

Self-efficacy: the beliefs that one can perform breast cancer screening.

Significance

The knowledge that was elicited from the study aims to fill the gap in understanding the screening perceptions, beliefs, and behaviors of Filipino women. The result of the study can guide future studies. It can also provide the much-needed knowledge that could guide the development of effective health interventions that could address the low rates of participation of the group to breast cancer screening. The findings of the study may inform the practice of public health providers, helping them to overcome the challenges in the delivery of adequate and appropriate breast health care to women. The result of the study can also be used to influence the drafting of informed policies on comprehensive breast health care for expats working in Saudi Arabia.

Furthermore, the result of the study can be used by the country of origin of the participants, the Philippines, in drafting needed policies that could cater to the breast health care needs of its overseas workers. Finally, the knowledge that was gained in this study can empower women in personal health decision making, especially when working in other countries where good health is the working capital and a precondition for

survival. The women empowerment that could ultimately ensue facilitates the creation of well-informed individuals creating a social change that could improve the general health status of the population.

Summary

Despite the existence of different breast cancer screening procedures to detect breast cancer at earlier stages, Filipino women working in other countries are experiencing disparity in breast cancer screening practices. The current disparity is triggering low participation to screening procedures, effectively placing Filipino women at a condition where breast cancer is detected at later stages, and thus, decreasing their chances of survival from the disease. This qualitative descriptive study was set out intending to explore the perceptions, beliefs, and behaviors of the participants to breast cancer screening to understand their breast cancer screening behavior. Chapter 1 presented an overview of the inquiry. It also provides insight into the theoretical base and methodology that will be used to conduct the study. Chapter 2 presents a review of significant literature that supported the needs of the study. Chapter 3 presents the methodology that was used to collect and analyze the qualitative data needed in answering the research questions. Chapter 4 presents the results based on the in-depth interviews. Chapter 5 presents the discussions, recommendations, conclusions, and the implications for social change.

Chapter 2. Literature Review

Introduction

In Chapter 2, the social science and public health literature were reviewed. The review of the relevant literature identified a need for a thorough study to explore the perceptions, beliefs, and behaviors to breast cancer screening of female OFWs in Saudi Arabia. Several researchers have identified the significance of breast cancer screening in increasing the survival to breast cancer. However, much of the current literature has focused primarily on women migrating to more popular Western countries like the United States. The current focus of research to migrating Filipino women in Western countries leaves little knowledge about the breast health status of Filipino women in other nations like Saudi Arabia.

The review of literature began by exploring the databases using the search criteria and the theoretical framework that was used to support this qualitative study. This section explored the relevant literature on breast cancer, its definition, and manifestations. The section also discussed the classification and the risk factors of breast cancer and described the current burden of breast cancer across different groups. Additionally, this section reviews the screening procedures utilized to diagnose breast cancer and the benefits and harmful effects of breast cancer screening. Furthermore, this section examines the perceptions, beliefs, and behaviors of different groups to the screening procedures.

Search Criteria

The inquiry conducted was based on peer-reviewed journals, books, and data from articles of renowned organizations. It included studies published between 2011 and 2016 in the search. The databases used include useful research databases under health sciences including Cumulative Index to Nursing & Allied Health Literature (CINAHL) Plus with Full Text, MEDLINE with Full Text, PubMed, and ProQuest Nursing & Allied Health Source. Google Scholar that is linked to Walden library databases was also used in the search.

Keywords and Phrases

Keywords and phrases used in searching included breast, breast cancer, breast cancer mortality, breast cancer screening, health belief model, and breast cancer in Saudi Arabia. Literature that was relevant based on scientific and compelling arguments about the topic of interest was selected for review. Finally, a cohesive essay of the synthesis of several studies was done after the data were analyzed using the literature matrix outlining the article's research question, methodology, research design, sample, analysis and results, and recommendations for further studies.

Theoretical Framework

The use of HBM as a theoretical framework in the study aimed to provide a foundation for the understanding of the perceptions, beliefs, and behaviors of the target group, as well as facilitate understanding of the context by which these factors occur about breast cancer screening. According to Raingruber (2014), in 1950, the constructed model served as a theoretical framework for exploring the utilization of preventive health

services. It was consequently used in the development of prevention-related interventions of symptomatic health conditions such as cancer (Raingruber, 2014).

The HBM posits that health behavior is influenced by the individuals' perceptions, expectancies, and value beliefs (Glanz et al., 2015). According to Glanz et al. (2015), the model assumes that individuals are likely to adopt a health behavior if the following factors are involved: (a) the individuals consider themselves susceptible to conditions that have potentially serious complications, (b) the individuals believe that the prescribed behavior is beneficial in reducing the potential of acquiring the disease, (c) the individuals believe that the anticipated benefits of taking action outweighed the barriers, (d) the person believed that the action could be performed successfully known as self-efficacy.

According to Glanz et al. (2015), the HBM is based on the following six constructs:

1. Perceived susceptibility
2. Perceived severity
3. Perceived benefits
4. Perceived barrier
5. Cues to action
6. Self-efficacy

Perceived Susceptibility

Glanz et al. (2015) stated that perceived susceptibility is the belief of an individual of the likelihood of acquiring the disease. According to Sunil et al. (2014),

perceived susceptibility is consistently used in research related to breast cancer screening and is often operationalized as the perceived likelihood of personally getting breast cancer. According to Pons-Vigués et al. (2012), in describing the knowledge, attitude, and perceptions of breast cancer screening among native and immigrant women in Barcelona, Spain, the researchers found that Filipino women were among the groups to have a low perception of susceptibility to breast cancer. Pons-Vigués et al. (2012) also found that the perceived vulnerability of the immigrant women to breast cancer is directly related to the participants' fewer points on the positive attitude about breast cancer screening. Additionally, Glanz et al. stated that intervention strategy that can influence an individual's perceived susceptibility include defining the population at risk of the disease, personalizing an individual at risk based on health behavior, and describing the perception of susceptibility of the individual consistent with the actual risk.

Perceived Severity

Perceived severity refers to the beliefs about the seriousness of contracting the disease condition including its complications and consequences (Glanz et al., 2015). In studies where perceived severity was considered, perceived severity is operationalized by measuring the perceived burden caused by the disease including personalized consequences such as alteration in appearance, psychological distress, and financial burdens (Sunil et al., 2014). Intervention strategy that can influence perceived severity includes the specification of consequences of the disease, as well as triggering emotions regarding the risk and the consequences of the illness (Glanz et al., 2015).

Perceived Benefits

According to Glanz et al. (2015), perceived benefits refer to the individual's belief in the positive outcome from adopting a particular health behavior. Glanz et al. also stated that the benefits could be either the reduction of the risk of acquiring the disease or the reduction of the potential consequences. Additionally, Sunil et al. (2014) stated that the individual's motivation to adopt breast cancer screening is the belief that early detection would result in better health outcomes. It is vital to shift the individuals' perspective by highlighting the beliefs of others about a behavior and its effect to influence the individual's perception of the benefits of a specific health action (Glanz et al., 2015).

Perceived Barrier

Perceived barriers refer to the beliefs about obstacles in performing a behavior and the negative part of adopting a recommended health behavior (Glanz et al., 2015). Glanz et al. (2015) stated that the barriers could either be tangible or intangible cost. Review of significant literature provided ample list of the barriers that influence the screening behavior of women. According to Sunil et al. (2014), barriers include fears or pain and embarrassment, the cost in terms of time and money, relationships with health care providers, and lack of access to screening procedures. The perceived barriers to adopting a health behavior can be overcome through reassurance, correction of misinformation, and provision of incentives and assistance (Glanz et al., 2015).

Cues to Action

Cues to action refer to those external and internal factors that could trigger the prescribed health behavior (Glanz et al., 2015). Cues to action could be the social impetus

influencing an individual's health behavior, promoting awareness of a disease or health issue, and contributing to the overall *readiness* of an individual to adopt a particular health behavior (Sunil et al., 2014). Sunil et al. (2014) found that in the screening behaviors of Hispanics, the strongest factor associated with cues of action have been attributed to recommendations and information coming from physicians. Glanz et al. (2015) stated that interventions that could promote awareness and the use of appropriate recall and reminder system could influence the individual's screening behavior.

Self-efficacy

Self-efficacy refers to the beliefs that one can perform the recommended behavior (Glanz et al., 2015). Additionally, Glanz et al. (2015) stated that self-efficacy is the confidence or the conviction of an individual that the behavior can be successfully executed. To influence self-efficacy, the recommended interventions include (a) the provision of training and guidance in performing the prescribed health action, (b) the use of progressive goal setting, (c) the provision of verbal reinforcement, (d) demonstration or modeling of desired behavior, and (e) the reduction of anxiety in performing the prescribed action (Glanz et al., 2015).

Breast Cancer: Symptoms, Types, and Risk Factors

Breast cancer is cancer that starts at the tissues of the breast (Cancer Research UK, 2015). The disease is a heterogeneous disease that comprises multiple tumor entities. It is associated with different biological features, various clinical behaviors, and distinctive histological patterns (Caldarella et al., 2013). The breasts are made up of fat, connective tissue, and gland tissue divided into lobes. According to Cancer Research UK

(2015), the glandular tissues make the breast dense, and as women reached the stage past their menopause, the density fats replace decreases as glandular tissues. The decreased in the density of breast is the reason why mammography is more suitable for older women than the younger ones. A mammogram is harder to read when the breast is dense (Cancer Research UK, 2015). Changes in the breast are common, and they may occur due to hormonal changes or caused by the normal aging process. Noticeable changes, however, as the breast looks and feels different may require an appointment with health care provider (National Cancer Institute, 2015).

While the different kinds of breast cancer exist in literature, some are more common than the others are. Some of the common types of breast cancer include ductal carcinoma in situ, invasive lobular carcinoma, and invasive ductal carcinoma. The ACS (2016c) stated that most breast cancers are carcinomas, a type of cancer that starts in the epithelial cells lining the breast, and some are sarcomas that involve cancer cells originating from the cells of muscle, fat, and connective tissues within the breast itself. Ductal cancers are breast cancers that begin in the cells that line the ducts, and those cancer cells that begin in the cells that line the lobules are called lobular cancers (ACS, 2016c). The ACS further classified breast cancer based on whether the cancer is in situ (not invasive) or invasive. Breast cancer in situ does not spread into the surrounding breast tissue while invasive breast cancer spreads to other parts of the body. Invasive breast cancers, either ductal or lobular, spread or metastasize from their site of origin to other parts of the body (CDC, 2016). Breast cancer metastasizes from either ducts or

lobules of the breast to other parts of the body through lymph vessels and blood vessels (CDC, 2016).

A review of the significant literature provided several risk factors for breast cancer. The CDC (2016) stated that some risk factors for breast cancer include: (a) getting older, (b) genetic mutations (inherited changes to BRCA1 and BRCA2 genes), (c) early menstrual period, (d) late or no pregnancy, (e) starting menopause after age 55 (long exposure to estrogen), (f) not being physically active, (g) obesity after menopause, (h) having dense breasts, (i) using combination hormone therapy, (j) taking oral contraceptives, (k) personal history of breast cancer, (l) personal history of certain noncancerous breast diseases, (m) family history of breast cancer, (n) previous treatment using radiation therapy, (o) women who took the drug diethylstilbestrol, and (p) drinking alcohol.

While most people may have knowledge about one or more of the risk factors for breast cancer, the disparity in awareness exists in some population. Thomson et al. (2014) found that many misperceptions on the risk factors of breast cancer occur among some groups of women. Thomson et al. (2014) also stated that the perceived risk factors of some individuals do not correspond to those that are accepted by the scientific community. The misperceptions could adversely influence the success of prevention and early detection programs that aim to increase the quality of life of those who suffer from the disease (Thomson et al., 2014). Furthermore, Sanders et al. (2014) stated that inaccurate risk perceptions could have an effect on subsequent health behaviors, decision making, as well as psychosocial and health outcomes.

The Burden of Breast Cancer

Breast cancer is the most common cancer that affects women globally (WHO, 2016). In 2012, GLOBOCAN estimated that in 2012, 1.67 million new cancer cases were diagnosed globally making breast cancer the second most common cancer in general and the most frequent cause of cancer among women (IARC, 2016). Breast cancer is also the most common cause of cancer death in women in less developed regions with 324,000 deaths (14.3% of total), and the second cause of cancer death in more developed regions with 198,000 deaths or 15.4% of total deaths due to cancer (IARC, 2016).

Despite the breakthroughs in modern screening procedures and medical treatment, relevant literature provided shreds of evidence of the continuous burden of the disease in both developed and developing countries as it remains the most common cancer among women all over the world (WHO, 2016). ACS (2016b) stated that in developed countries like the United States, approximately 231,840 new cases of invasive breast cancer would be diagnosed among women and 60,290 additional cases of in situ breast cancer in 2015. On the same year, the ACS approximated that 40,290 women are expected to die from the disease. Additionally, the ACS stated that among U.S. women aging 60 to 84, whites have higher incidence rate but blacks are more likely to die from the disease in all ages.

The burden of breast cancer is magnified in some groups of women as evidence of the disparities in incidence and mortality rates. Among U.S. Filipino women, breast cancer is the most commonly diagnosed type of cancer and the leading cause of cancer deaths (Villero et al., 2014). Villero et al. (2014) also found that Filipino women have much higher incidence and mortality rates of breast cancer compared to other Asian

subgroups. The disparities in breast cancer survival have been attributed to racial and ethnic differences, in stage at diagnosis, tumor biology, socioeconomic characteristics, and breast cancer treatment (Villero et al., 2014).

A significant number of Filipino women are currently working in Saudi Arabia, and most of them are at risk to the disparity in breast cancer screening. Data obtained from Philippine Statistic Authority (2011) shows that Overseas Filipino Workers (OFWs) in Saudi Arabia is estimated at 2 million, and 47.7% of these are women. The migration of Filipino women in other countries affects their breast health status. Inequality in the participation of migrant women to screening procedures is affected by the differences in socioeconomic status, differences in culture, psychosocial issues, and differences in risk perception (Kristiansen et al., 2014). Women coming from countries with a lower incidence rate of breast cancer may perceive their risk to be lower than women born in countries with higher rates may. The differences make migrant women less likely to find relevance in participating in the screening procedures (Kristiansen et al., 2014). Kristiansen et al. (2014) further stated that the screening behavior of migrant women is influenced by more than just the cognitive, rational decision making; but also by trust, discrimination, socioeconomic position, social support, and language competencies.

Breast Cancer Screening Procedures

The ACS (2016d) recommended screening tests in women without breast symptoms. According to ACS, the goal of screening tests for breast cancer is to find it before it causes symptoms. Screening procedures include the use of mammograms, clinical breast exam, and breast self-exam, and MRI (ACS, 2016d). Ultrasound can be

utilized as a supplemental screening in high-risk women who do not have easy access to or not candidates for MRI (Shah et al., 2014).

Mammography

A mammogram is an x-ray picture of the breast that is used to detect breast cancer in asymptomatic women. The X-ray pictures of each breast make possible the detection of tumors that are usually not palpable, as well as detect microcalcifications that could indicate the presence of breast cancer (National Cancer Institute, 2014). The effectiveness of mammography was shown in a study conducted by Hendrick and Helvie (2011) who found that an annual screening mammography screening of women 40- 84 years old shows great benefit in reducing breast cancer mortality by 39.6%. According to Hendrick and Helvie, the annual screening test is better than the biennial mammography of women 50- 74 years old as recommended by the United States Preventive Services Task Force Screening, which reduced mortality only by 23.2%. Elmore (2016) stated that despite the benefit of mammography, the screening procedure could produce false-positive results. Elmore also stated that although mammography screening is associated with mortality benefits among average-risk women, the absolute benefit of the procedure is insignificant. Nevertheless, Hendrick and Helvie confirmed the results of the studies of Magnus, Ping, Shen, Bourgeois, and Magnus (2011); Moss et al. (2015); and Parvinen et al. (2015), that mammography is effective in reducing breast cancer mortality when performed at particular interval among appropriate age groups.

Clinical Breast Exam and Breast Self-Exam

Clinical breast exam (CBE) is the manual examination of the breast by a health practitioner to feel for lumps and check for other changes in the breast of a woman. On the other hand, the breast self-exam (BSE) is the personal examination of the breast by an individual to feel for lumps or other changes in the breast (Obi Uche, 2014). A review of the literature shows that the benefit regarding decreasing mortality of BSE is controversial. Despite the conflicting reports on the benefits of BSE, healthcare providers are encouraging women to perform monthly BSE to empower them about their health decision making (Shah et al., 2014).

One of the factors that influence the practice of BSE among women is self-efficacy or untrusting their ability to perform the procedure (Abolfotouh et al., 2015). Registe and Porterfield (2012) found in their study that the regularity of BSE practice is influenced by the low confidence in the ability to do it properly. Registe and Porterfield confirmed the result of the study of Ramathuba et al. (2015), wherein the majority of women participants in their study did not know that BSE should be performed seven days after menstruation.

MRI

Magnetic resonance imaging was found to be useful in detecting breast cancer. The use of MRI instead of X-rays was a viable alternative in screening population who are at increased risk of developing breast cancer (Wilson & Held, 2014). According to Lehman et al. (2016), the consideration of using screening MRI as an adjunct to mammography is necessary for women with a personal history of breast cancer. Lehman

et al. stated that the overall sensitivity of MRI is 79.4% of all cancers and 88.5% of invasive cancers. Destounis, Arieno, and Morgan (2016) likewise stated that the personal history of premenopausal breast cancer as a risk factor is required for the referral to screening breast MRI. Destounis et al. also stated that the ones that could benefit from screening breast MRI are not only patients with a personal history of breast cancer but also those who have a family history of breast cancer.

Benefits of Breast Cancer Screening

A review of the relevant literature provided evidence of the benefits of breast cancer screening. Early detection of the disease with the use of the existing screening procedures can increase the survival to breast cancer (WHO, 2016). According to ACS (2016d), the goal of screening tests for breast cancer is to find breast cancer before it causes symptoms. The screening procedures such as mammograms, clinical breast exam, breast self-exam, MRI, and ultrasound can diagnose the disease at early stages. Early detection will promote early management and control of the disease, hence, the increase in the potential for survival (ACS, 2016d; Cancer Research UK, 2014; Shah, et al., 2014; WHO, 2016).

Seneviratne et al. (2015) found that disparity in breast cancer survival between indigenous Māori and nonindigenous European women in New Zealand is the disparity in the stage at diagnosis of breast cancer. The experience of Māori women to an age-adjusted risk of death from breast cancer is due to the delayed diagnosis and treatment of the disease. An equitable, quality and timely cancer care facilitated by an increased

mammographic screening coverage may improve the survival disparity of breast cancer (Seneviratne et al., 2015).

The delayed diagnosis of breast cancer is one of the reasons for the establishment of the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) in 1991. The delayed diagnosis that leads to inappropriate treatment of breast cancer in some groups is attributed to the substantial disparity in socioeconomic status, causing disparity in breast cancer–related morbidity and mortality (Rajan, Begley, Highfield, & Kim, 2015). According to Rajan et al. (2015), the creation of NBCCEDP provides regular screening and timely diagnostic follow-up to women who have low-income, uninsured, and underinsured. Although the NBCCEDP is a valuable resource for women who have limited means of being screened, health education is still important to facilitate the development of screening behavior of the target individuals that could critically link them to the screening programs (Levano et al., 2014).

Despite the inconsistencies on the benefits of breast cancer screening, a consensus is growing among experts about the importance of having informed medical decision making among women. Elmore (2016) recommended that health practitioners should provide the necessary health information to help women in accounting for their individual breast cancer risk and preferences. Empowering women with informed decision making can make them balance the harms and benefits of screening for themselves instead of submitting to a single, generic recommendation.

Perceptions, Beliefs, and Behaviors to Breast Cancer Screening

Researchers have shown adequate evidence that breast cancer screening behaviors of individuals are influenced by their different perceptions about breast cancer and its screening procedures. Sunil et al. (2014) studied breast cancer knowledge, attitude, and screening behaviors of Hispanics in South Texas colonias. Sunil et al. found that susceptibility to breast cancer, barriers to screening participation, knowledge, and source of health information influence the behavior of women toward breast cancer screening. Sunil et al. used logistic regression analysis to predict CBE and mammography screening behaviors and concluded that women with higher levels of breast cancer knowledge have higher tendency to adhere to breast cancer screening recommendations compared to women with lower levels of breast cancer knowledge.

The findings of Sunil et al. (2014) are consistent with the result of the study conducted by Sadler et al. (2012) on the impact of the Asian grocery store-based education program for Chinese, Filipino, Korean, and Vietnamese women. Sadler et al. found that Asian women aged 40 and older and non-adherent for annual screening mammograms were more likely to submit for a mammogram after their knowledge of breast cancer screening program were enhanced. In randomized controlled trials, Sadler et al. found that there was an increasing number of women adhering to current breast cancer screening guidelines after they received breast cancer information.

Sunil et al. (2014) and Sadler et al. (2012) both recognized the influence of perceived barriers to the adherence to screening procedures. The success of adopting the screening behavior through health education program is influenced by culture and

language in the delivery of health education, routine activities of daily living, and financial and transportation to screening (Sadler et al., 2012). Adherence to breast cancer screening is also affected by barriers such as embarrassment of discussing and exposing body parts during a physical examination, especially when the one examining is a male physician (Munyaradzi et al., 2014; Sunil et al., 2014). Additionally, Hasnain, Menon, Ferrans, and Szalacha (2014) stated that being a recent immigrant could be a barrier as it decreases the timely utilization of breast cancer screening services. Poor access to screening services coupled with a lack of awareness are the main reasons why some women are not participating in screening services (Munyaradzi et al., 2014).

The perceived barriers to screening procedures can be minimized through the development of health approaches and educational programs that are culturally appropriate as well as assurance of accessibility to a primary care provider (Hasnain et al., 2014). Their level of knowledge could significantly influence a significant change in the perception of individuals to breast cancer and its screening procedures, and thus, the screening behavior. Individuals who participate in educational programs are found to be better educated, have higher health literacy, and found to adhere more to health promoting guidelines (Sadler et al., 2012).

The lack of an educational program to address knowledge deficit to breast cancer can compound late detection and management of the disease. In a descriptive cross-sectional survey conducted by Ramathuba et al. (2015) in a rural South African community, they found out that the level of knowledge influences the attitudes and practices of women toward breast cancer screening. The researchers concluded that

knowledge deficit adversely affects early detection which significantly contributes to the high mortality rate of breast cancer in the region. Ramathuba et al. stated that community-based intervention is recommended focusing on health awareness campaign through home-based carers who are responsible for disseminating information about breast cancer screening.

Poor perceptions about the benefit of breast cancer screening are usually attributed to lack of health programs that could increase individual awareness. According to El Bcheraoui et al. (2015), breast cancer is now considered as the ninth leading cause of death among women in Saudi Arabia. El Bcheraoui et al. stated that cases of breast cancer in Saudi Arabia are predicted to increase continuously because partly of the rapid changes in dietary habits and the lifestyle of women in general. Although the national policies on breast cancer screening are still being polished in Saudi Arabia, the country already has a widespread screening and educational programs for breast cancer that could be a significant advantage to the women of the Kingdom (Al Mulhim et al., 2015). The Pink Eastern initiative promotes awareness about breast cancer and the Saudi Cancer Foundation, a nongovernmental organization, is providing a free mammogram examination since October 2009 (Al Mulhim et al., 2015). However, despite the presence of diagnostic facilities available in the country that is offering free breast cancer screening, few women are availing these services (El Bcheraoui et al., 2015).

Summary

This chapter reviewed the scholarly literature that identifies a need for continued research to examine the perceptions, beliefs, and behaviors of Filipino women in Saudi

Arabia towards breast cancer screening. The HBM was the theoretical framework guiding this investigation. Health Belief Model provided the groundwork to understand the multitude of factors that converged influencing the screening behavior and perceptions of Filipino women. Participation in breast cancer screening is influenced by the individual's perception of susceptibility to disease and the severity of risk, the perception of benefits, perception of barriers, cues to action, and self-efficacy. Evidence in the literature also suggests the existence of disparity in the incidence and mortality of breast cancer across population between the developed and developing countries. The disparity occurs because of the differences in socioeconomic status, education, and race among others. Studies suggest that a low rate of participation to breast cancer screening often strongly correlates to high mortality of the disease.

Regular participation in breast cancer screening is paramount to survival. It promotes early detection of breast cancer (Hendrick & Helvie, 2011; Magnus et al., 2011; Moss et al., 2015; Parvinen et al., 2015; Villero et al., 2014). Despite the existence of screening procedures to diagnose breast cancer at earlier stages, however, the rate of participation to breast cancer screening remains low in some groups (El Bcheraoui et al., 2015). The low rate of participation was attributed, among other factors, to several perceived tangible and intangible cost that served as barriers in performing the prescribed health action. Appropriate health education programs could increase the knowledge and the awareness of people about breast cancer, its multitude of risk factors, and the benefits of breast cancer screening. Relevant literature shows that increased knowledge on breast

cancer can minimize the disparity in incidence and mortality of the disease that is currently hounding the global health environment.

Chapter 3: Methodology

Introduction

The purpose of the study was to examine the perceptions, beliefs, and behaviors of Filipino women working as OFW in Saudi Arabia. The examination facilitated the understanding of the screening behaviors of Filipino women that lead to the disparity in participation to the screening procedures. The understanding could facilitate the development of appropriate health interventions that could promote and sustain the desired screening behavior. Likewise, the purpose of the study was to add knowledge that may inform the practice of public health providers. The results could also influence the drafting of informed policies for comprehensive breast health care and improve access to preventive health services for expats working in Saudi Arabia.

Furthermore, the results of the study can be used by the country of origin of the participants, the Philippines, in drafting needed policies on breast health care services in the context of migration. Finally, the knowledge gained in this study could be used to empower women in personal health decision making, especially when working in other countries where good health is the working capital and a precondition for survival. Chapter 3 outlines the research methodology used to examine the perceptions, beliefs, and behaviors of the participants to breast cancer screening. It also described the context of the study and the selection process of the sample, the role of the primary researcher, the ethical consideration and protection of the participants' rights, and the procedures for data gathering and analysis.

Research Design

The research design selected for the study will be utilized to answer the following research questions:

1. How does the perception of susceptibility influence the behaviors of Filipino women toward breast cancer screening?
2. What are the factors that influence the participants' perceived severity to breast cancer?
3. What beliefs do Filipino women possess regarding the benefits of breast cancer screening?
4. How does the participation to screening procedures of Filipino women in Saudi Arabia being influenced by their perceived barriers?
5. How do Filipino women perceive their capability of performing the recommended screening procedures?
6. What perceived cues to action influence Filipino women into adopting the screening behavior?

The qualitative descriptive approach was the most appropriate research design to answer the research questions. The used of qualitative descriptive study enabled the researcher to describe the perceptions, beliefs, and behaviors toward breast cancer screening of Filipino women in Saudi Arabia. According to Sandelowski (2000), the goal of qualitative descriptive inquiries is a comprehensive summarization of events experienced by individuals or group of individuals in their everyday terms of those events. Investigators conducting qualitative descriptive inquiries stay close to their

qualitative data, and to the surface of words and events, they are trying to examine (Sandelowski, 2000). Sandelowski stated that qualitative descriptive design is typically an eclectic but reasonable combination of sampling, data collection and analysis, and representation techniques. Additionally, Sandelowski stated that qualitative descriptive design is the method of choice when a researcher desires to conduct a study intending for straight descriptions of the topic under inquiry.

Although the focus of the qualitative descriptive approach is to describe, somehow it employs a certain degree of interpretation that is not complex (Vaismoradi et al., 2013). Interpretive position provides pervasive lens or perspective on all aspects of qualitative investigation (Creswell, 2013). Additionally, Creswell (2013) stated that the participants in this kind of inquiry represented the marginalized or the underrepresented groups, whether those differences takes the form of class, religion, geography, race, sexuality, and, gender. The study also takes the feminism views. Creswell (2013) stated that feminism views center on problematic women's diverse situations such as policy issues to realize justice to women in the specific context. The used of qualitative design in the study enabled the researcher to focus on understanding the influences of behavior and the discovery of the influences of perceptions, beliefs, and practices related to specific diseases. The qualitative descriptive inquiry relates to the approach of the study because the methodology aligns with the goals to understand the participants' screening behavior based on the description of the perceptions, beliefs, and behaviors of the participants about breast cancer screening.

Participants of the Study

The participants included in the study were Filipino women, with age ranging from 40 to 60 years old, capable of speaking in English and currently residing in Hail, Saudi Arabia. The site of the study was in Hail City, Kingdom of Saudi Arabia where the participants are residing. Hail City was also selected as the site of the study out of proximity to where the researcher lives. The participants were recruited purposively from public places like public markets and public parks in the City where they are frequenting. With 47 % of the estimated 2 million OFWs working in the entire Saudi Arabia (PSA, 2011), a significant number of Filipino women are residing in Hail City. The number of participants was 20. According to Creswell (2013) and Englander (2012), 5 to 20 study participants would be enough in appreciating the different aspect of the issue of interest in the qualitative study. A small number of participants would be adequate since qualitative studies do not aim to achieve generalization of the findings (Creswell, 2013).

Role of the Researcher

The role of the researcher in the study was that of the principal investigator responsible for all activities in all stages of the study. According to Sanjari, Bahramnezhad, Fomani, Shoghi, and Cheraghi (2014), researchers are involved in all stages of the study, ensuring that all ethical standards are maintained. The researcher defined the concepts involved in the study, selected an appropriate design and gathered the necessary qualitative data that supported the inquiry. The role of the researcher in data collection procedures included the development of field notes during the actual interview. Patton (2002) stated that the researcher is considered as an instrument in

qualitative data gathering. Thus, it is important to identify personal values assumptions, and personal biases from the start of the qualitative data collection (Creswell, 2014). The researcher made sure that adequate rapport would be established. Creswell (2013) stated that rapport should be established before the actual interview to obtain the trust and cooperation of the interviewee during the actual interview. The researcher was also responsible for preparing adequately for the interview because the challenges of qualitative data collection can be mitigated with preparedness (Creswell, 2013).

Ethical Protection of Participants

Some important ethical issues that were taken into account during the study included anonymity, confidentiality and informed consent (Sanjari et al. 2014). Informed consent was obtained from the participants before they joined the study. The consent provided the potential participants with the researcher's identity and the objectives of the study. Feedbacks were obtained through key questions to understand the information. The privacy of the participants was ensured. Reports coming out of this study did not share the identities of individual participants. The study used a coding system that permitted not using the participants' name in the research report. Details that might identify participants, such as the location of the study, also were not shared. The participants' personal information was also not used for any purpose outside of this research project. Data were kept secured by a locked file wherein I solely had access to it.

The participants were given enough time to air concerns and to understand the entire process of the research study. The objectives and the procedures of the research were discussed. I made sure that the potential participants were mindful of the benefits

and risks of joining the study. The participants in this study may have felt tired, experienced increased stress, or became upset. A crisis hotline that operates 24/7 was provided for them to speak with someone in confidentiality to air their concerns. The participants were made to realize that participation in the study was voluntary in nature; thereby, they had the right to stop from participating in the research at any given time.

The participants were also made to feel that they were not deceived in the study. Groenewald (2004) stated that deception could prevent insights while honesty coupled with the assurance of privacy reduces suspicion thereby promoting expression of sincere insights. Groenewald further stated that deception, which is counterproductive to the research process, could be avoided by providing the participants with a specific informed consent before they will affix their signature in the consent certificate.

Sample Recruitment Procedure

Before the actual recruitment procedure, permission was obtained from the Walden International Review Board (IRB). Once approval was given, recruitment commenced immediately. The sample of the study comprised of Filipino women who were living in Hail City, Kingdom of Saudi Arabia. The sample was recruited purposively from public places like public markets and public parks where the target participants were frequenting. Participants in this study were purposively selected due to their availability and willingness to participate. The potential qualified participants were approached courteously and were informed of the nature of the casual approach. The nature and the objective of the study were explained and that the study entailed voluntary participation in a face-to-face interview to provide an in-depth description of the

participants' perceptions, beliefs, and behaviors about breast cancer screening. Likewise, the inclusion criteria were explained to include being a Filipino, with age ranging from 40 to 60 years old, capable of speaking in English and residing as OFW in Hail City, Saudi Arabia. After that, the potential participants were politely asked to confirm if she met the inclusion criteria.

The exclusion criteria included Filipino women with age 39 and below and 61 years old and above, non OFW, with difficulty speaking in English, and a nonresident of Hail City, KSA. After satisfying the qualifications of a participant based on inclusion criteria, the potential participants were asked if they found any foreseeable problem in joining the study. Those that were approached that have not met the inclusion criteria and foresaw potential problems in joining the study were not recruited, but their time was appreciated. Those who were qualified and provided responses to not seeing any potential problem in the possibility of participating in the study were provided with a thorough discussion of the detailed information and nature of the research.

A copy of the consent form was provided to the potential participants detailing the formal invitation to participate. The consent form states the sample’s inclusion criteria, describing the nature and purpose of the study and explaining the protection of the participants' rights, the risks, and benefits of the study, as well as contact information for further inquiries. The participants were provided enough time to make decisions whether or not to join the study. The arrangement of the appropriate time and place for the actual interview was made after a target participant confirmed her participation through a cell phone or email. Participants who committed to the study were asked to sign the consent

to participate in the conduct of the actual interview process. If after signing the consent form or during the interview the study participant decided not to proceed, the interview process will be stopped immediately. All the participants who willingly participated finished their individual interviews.

Data Collection Procedures

Data collection commenced after I received the Walden University IRB approval. Qualitative data that detailed the participants' subjective description of their perceptions, beliefs, and behaviors toward breast cancer screening were the types of data that were useful to address the proposed research questions for the study. The sources of data included the audio recording and the interview transcripts obtained during the unstructured and open-ended face-to-face interview process. The interview is considered as the primary method of collecting qualitative data (Englander, 2012). The face-to-face unstructured interview usually provides richer information on the personal regard of the participant to the topic of interest (Englander, 2012).

In the study, an interview protocol was developed before the actual data collection. Interview protocols assist researchers in the difficult task of interviewing to collect qualitative data (Jacob & Furgerson, 2012). The interview protocol was developed, detailing not only the list of interview question but also the procedural level of the interview process. The interview protocol also included the script of what the interviewer said before the actual interview, as well as the scripts of the conclusion of the interview. Prompts for the interviewer to collect informed consent and prompts to serve as a reminder on what information to be collected are part of the interview protocol

(Creswell, 2013; Jacob & Furgerson, 2012). Before the actual interview, I set the time and selected an appropriate venue for the interview process. According to Jacob and Furgerson (2012), it is important to choose a venue in which, a quality recording can be done. Jacob and Furgerson further stated that equipment like recording machine and a backup plan in case of malfunction should also be ready. I made sure that rapport was established before the actual interview. Rapport and trust should be established before the interview to obtain cooperation (Creswell, 2013).

Likewise, beginning script and end of interview script were developed for the interview. Scripts help researchers not to forget the things that they want to share with each of the participants during interviews (Jacob & Furgerson, 2012). A beginning script is a prompt to share critical details and information, as well as provide explanations of the notion of the informed consent to ensure ethical considerations during the interview. Additionally, end of interview scripts should reflect contact information and the possibility of additional contacts or member-check in the future (Jacob & Furgerson, 2012). The scripts may not necessarily be read word for word during the interview, but it is important that you have it in front of you (Jacob & Furgerson, 2012).

The actual data collection involved audiotaped interview sessions using open-ended questions. Follow-up questions were asked during the interview. Follow-up questions enable the researcher to probe for details making way for the participants to express their insights adequately (Turner, 2010). Consent from the participants was obtained to have the interview audio recorded for accuracy. Proper names were not used. Instead, numbers were assigned to each study participant to protect their privacy and to

de-identify the data. The interviews lasted 60-90 minutes and were conducted in venues that ensured privacy, confidentiality, and free from distractions for a proper audio recording. At the completion of the interview, the participants were thanked for their time and inquired for any information that they wish to add. Field notes were made for any observations and thoughts about the interview. A debriefing through verbal presentation was provided to individual participants immediately after data collection, in addition to a debriefing after data analysis.

Data Analysis Procedures

The qualitative data were analyzed using the constructs of the HBM as a guide to elucidate how the participants emerged to have low rates of participation for screening procedures based on their screening perceptions, beliefs, and behaviors. The used of inductive analysis in the study enabled the creation of a composite description of the topic under inquiry. The inductive analysis in qualitative research enables the systematic analysis using primarily detailed readings and interpretation of raw data that allow the emergence of themes or categories (Thomas, 2006). Inductive analysis enables the qualitative researcher to begin with an area of study, facilitating the emergence of themes, patterns, categories and even a theory from the data (Patton, 2002; Thomas, 2006). Furthermore, Thomas (2006) stated that inductive analysis allows a finding of existing research to emerge from the significant, frequent, or dominant themes inherent in qualitative data.

The gathered data were organized, coded, and managed using NVivo 11 software. The use of Computer Assisted Qualitative Data Analysis (CAQDAS) software like

NVivo 11, software produced by QRS International, could provide the qualitative study with a broad range of tools for the easy management and analysis of qualitative data (Leech & Onwuegbuzie, 2011). It can provide a thorough and detailed analysis compared with manual coding (Leech & Onwuegbuzie, 2011). NVivo can also strengthen the quality of the study by increasing the rigor of the coding process (Hilal & Alabri, 2013). Saldaña (2016) added that NVivo permits and maintains the management and organization of evolving data from the coding process into hierarchies and networks that will eventually give way to a visual representation of data.

In conducting general inductive analysis for this research study, the data from the interview were repeatedly read to identify categories and themes. Rigorous and systematic reading and coding of the transcript allow the emergence of major themes (Thomas, 2006). Creswell (2013) stated that when no new themes emerge, it indicates that all major themes are already identified. Repeated studying of the interview data was done exhausting all possible description of the perception, beliefs, and behaviors of the participants to breast cancer screening until no new themes emerged.

Issues of Trustworthiness

The issue of trustworthiness was addressed in this study by staying true to a single qualitative tradition all throughout, as well as by providing evidence of rigor that supported the quality and strength of the study. Evidence to support quality and strength of the study were shown in the detailed description of the sampling, as well as in the adequacy of the description on how the participants were selected. The process of sample selection described in detail will ensure the credibility of the findings as well as

transferability of results (Laureate Education Inc., 2010). I made sure a clear effort of providing an explanation of the consistency of the result to the existing literature. According to Jeanfreau and Jack (2010), the explanation of the consistency aids in the interpretation of the meaning of study results, adding strength to the study.

In addition, the trustworthiness of this study was ensured by observing rigor in data collection, data analysis and reporting of the findings. Creswell (2013) stated that rigor is seen when the researcher conducts extensive data gathering and performs multiple levels of abstraction during data analysis. To ensure extensive data gathering, the researcher collected data from 20 participants, which is the largest number of participants (5-20) recommended by Creswell for a qualitative study. Rapport and trust were established to encourage extraction of rich and thick information from the participants at the beginning of the conversation (Creswell, 2013). I explored deep into the subjective accounts of the participants' perceptions, beliefs, and behaviors about breast cancer screening using guide questions developed before the actual interview. Follow-up questions were also asked as they develop through the evolution of the interview process.

In performing multiple abstractions during data analysis, I used inductive data analysis of the rich and thick verbatim extracts from the interview process. Creswell (2013) stated that inductive analysis involves the building of patterns, themes, and categories from the bottom up, organizing the data into an increasingly more abstract set of information. There was also an audio recording of the interview process to enable the researcher to revisit the qualitative data repeatedly for emerging themes and remains true

to the perspectives of the participants (Noble and Smith, 2015). Furthermore, to ensure trustworthiness of the study, there was validation through member check. Member check ensures that the emerging themes and findings are true to the accounts of the participants (Creswell, 2013). Noble and Smith (2015) stated that keeping a meticulous record, demonstrating a clear decision trail, and ensuring consistency and transparency in the interpretations of data can help ensure trustworthiness.

Finally, to ensure the credibility of the findings, my personal biases were accounted. My preconceived notions were isolated or bracketed by recording my thoughts in a series of journaling notes. Preconceived notions that might cause bias and impact observations and understanding as a human being should be bracketed to prevent the potential tainting of the research process (Creswell, 2014; Laureate Education, Inc., 2010b; Tufford & Newman, 2012).

Summary

The qualitative study explored the breast cancer screening perceptions, beliefs, and behaviors of Filipino women working as OFWs in Hail City, Kingdom of Saudi Arabia. The theoretical framework that guided the study was HBM. The research design that was used to answer the research questions was qualitative descriptive. Chapter 3 focused on the description and justification of the research design, description, and selection process of participants, the role of the primary investigator, the ethical protection of participants, and data collection and analysis process. Twenty Filipino women OFWs with age ranging from 40 to 60 years old were asked to participate in the study. The participants were asked to sign the informed consent form. The qualitative

data were collected using a face-to-face semi-structured in-depth interview using open-ended questions. The thick and rich qualitative data were transcribed and uploaded into NVivo11 software for storage, management, and analysis. A single qualitative tradition was used to ensure trustworthiness of the study, all throughout the study. Trustworthiness was also ensured by providing evidence of rigor such as conducting extensive data gathering and performing multiple levels of abstraction during data analysis. Biases that might taint the research process were avoided, if not minimized, by bracketing the preconceive notions that might influence observations as a human being. Chapter 4 will discuss the analysis and findings of the study.

Chapter 4: Results

This chapter presents the findings of the study. The findings were based on the responses to 15 in-depth interview questions from 20 Filipino women working as OFW living in Hail City, Saudi Arabia. The purpose of the study was to examine the perceptions, beliefs, and behaviors toward breast cancer screening of Filipino women in Saudi Arabia. The examination facilitated the understanding of the screening behaviors of Filipino women that led to the disparity in participation to the screening procedures.

Several studies described the current breast cancer screening behaviors of women, and how these behaviors influenced their participation in breast cancer screening procedures. However, there exists a current limitation in the literature that describes the breast cancer screening perceptions, beliefs, and behaviors of Filipino women working as OFW in Saudi Arabia that can be used to predict their breast cancer screening behavior. Thus, this study explored further into the participants' perceptions, beliefs, and behaviors toward breast cancer screening to understand their disparity in adapting the recommended screening behavior. The understanding could facilitate the development of appropriate health interventions that could promote and sustain the desired screening behavior. Additionally, this chapter described the research instrument, setting, recruitment protocol, participant profile, qualitative data collection process, and the data analysis. Interpretation of the data was discussed in chapter 5.

In this study, the qualitative descriptive approach was used to address the research questions. The decision to use qualitative descriptive was based on the focus of describing the perceptions, beliefs, and behaviors of the participants. Although the focus

of the qualitative descriptive approach is to describe, somehow it employs a certain degree of interpretation that is not complex (Vaismoradi et al., 2013). Interpretive position provides a pervasive lens or perspective on all aspects of qualitative investigation (Creswell, 2013). Additionally, Creswell stated that the participants in this kind of inquiry represented the marginalized or the underrepresented groups, whether those differences takes the form of class, religion, geography, race, sexuality, and, gender. The study also takes the feminism views that centers on problematic women's diverse situations such as policy issues to realize justice to women in the specific context (Creswell, 2013). According to Creswell (2014), qualitative research is focused on understanding the influences of behavior and the discovery of the influences of perceptions, beliefs, and practices related to specific diseases.

Research Tool

In obtaining the rich and thick qualitative data from the participants, an interview protocol was developed before the actual data collection. The developed interview protocol with the use of HBM constructs as a guide, detailed not only the list of interview questions but also the procedural level of the interview process. The interview protocol included the beginning and end-of-interview scripts aside from the actual interview questions. All the participants answered the 15 open-ended interview questions that provided a thick and rich description of the participants' perceptions, beliefs, and behaviors toward breast cancer screening. Follow-up questions were asked during the interview. The interviews were recorded using a digital voice recorder. The research questions that guided the study are the following:

1. How does the perception of susceptibility influence the behavior of Filipino women toward breast cancer screening?
2. What are the factors that influence the participants' perceived severity to breast cancer?
3. What beliefs do Filipino women possess regarding the benefits of breast cancer screening?
4. How does the participation to screening procedures of Filipino women in Saudi Arabia being influenced by their perceived barriers?
5. How do Filipino women perceive their capability of performing the recommended screening procedures?
6. What perceived cues to action influence Filipino women into adopting the screening behavior?

Setting

The setting of the study was Hail City, Kingdom of Saudi Arabia. Due to the limitation of public places conducive for interviews, most of the interviews were conducted in the participants' houses, and some interviews were conducted in the researcher's house. All the chosen venues were conducive for a face-to-face interview and a quality recording of the interview process.

Recruitment Protocol

The qualitative data was collected by in-depth face-to-face interviews with 20 Filipino women after the IRB approval. Only Filipino women who were 40 to 60 years old and lived in Hail City, Saudi Arabia, were included. The reason for choosing the age

bracket is the fact that the incidence of breast cancer increases with age and becomes more common in older people. Most breast cancers occur in women who are near over the age of 50 that is why mammograms are being recommended by ACS (2016a) to start between ages 40 and 44. The participants were selected purposively from public areas where they are frequenting like in public markets and public parks. I used my judgment of whom to approach as participants that meet the criteria of the study. During the initial meeting, the participant's individual eligibility to participate in the study was confirmed. The target participants were asked to confirm their age range, Filipino nationality, and their ability to speak the English language before being invited as actual participants. To encourage participation and to ensure active engagement to the entire process of the study, a thorough discussion of the nature of the research was conducted to each of the target participants. The selected sample was provided with detailed information about the nature of the research, as well as the details of the venue and time of the interview.

The participants were provided enough time to make decisions whether or not to join the study. The researcher's telephone number was given to the participants. The participants' contact numbers were also politely asked as a mean to follow up their willingness to participate. Twenty qualified participants confirmed their willingness to participate through telephone after understanding the entire process of the research study and their ethical rights as participants. Appointment as to the time and location of the interview was also set through the telephone. Informed consent was obtained, with the consent form (see Appendix B) being signed by the participants before the actual

interview. Each of the participants signed the consent form and indicated approval that the interview process will be recorded.

Participants Profile

Important demographic profiles of the participants were considered before signing the consent to participate. The participants should be residents in Hail City, Saudi Arabia working as OFW, should be 40 to 60 years old, and can speak English. The participants were asked if they foresee any problem with their actual participation in the study taking into account the minimal risks of the topic under study. Crisis hotlines were provided in the consent form to address participant's concerns related to their joining the study. The educational level of the participants and the nature of their job were documented during the informal conversation before and after the actual interview. The lowest educational level of the participants is college level, and some hold a master or a doctorate. All participants are working in Hail City, employed as nannies, beauticians, staff nurses, dentists, or university lecturers, and professors.

Data Collection

The data collection commenced after I received the Walden University IRB approval. The actual data collection involved audiotaped interview sessions with the 20 participants using open-ended questions. Follow-up questions were asked during the face-to-face interview. Consent of the participants to have the interview audio recorded for accuracy was obtained. Proper names were not used. Instead, codes were assigned to each study participant to protect their privacy and to de-identify the data. The interviews

lasted 60-90 minutes and conducted in venues that ensured privacy, confidentiality, and free from distractions for the proper audio recording of the interviews.

Due to the limitation of public places conducive for the interview process, the interviews were conducted either in the participants' houses or my house. Notes during the interview were also taken as a backup plan in case the recording malfunctions. At the completion of the interview, the participants were complimented for their time. Participants were informed about the possibility of member check. Immediately after the interview, field notes were made for any observations and thoughts about the interview. The qualitative data collected were transcribed and stored in a file folder of a laptop locked with a password.

Data Analysis

The transcribed data that was stored in a locked file were uploaded into the project created in NVivo 11 software. The data were organized in the internal menu of the software and was labeled as interviews. The qualitative data were analyzed using inductive analysis that enabled the creation of a composite description of the perceptions, beliefs, and behaviors toward breast cancer screening of the participants. According to Thomas (2006), an inductive analysis in qualitative research enables the systematic analysis using primarily detailed readings and interpretation of raw data that allow the emergence of themes or categories. In conducting general inductive analysis for this research study, the data from the interviews were repeatedly read facilitating the identification of categories and themes. Rigorous and systematic reading and coding of the transcript allowed the emergence of major themes.

Coding started by reviewing the characteristics of the research questions. Nodes were created to have a more direct approach to the data that best represent the relevant information in the data. The nodes were categorized to develop meaning through similar or dissimilar patterns and commonalities. The entire process of coding and categorizing the data guided the conceptualization and queries that facilitated the data analysis process. The use of Computer Assisted Qualitative Data Analysis (CAQDAS) software like NVivo 11, a software produced by QRS International provided the study with a broad range of tools that made management and analysis of qualitative data easier (Leech & Onwuegbuzie, 2011). Saldaña (2016) stated that NVivo permits and maintains the management and organization of evolving data from the coding process into hierarchies and networks that will eventually give way to a visual representation of data.

Evidence of Trustworthiness

The issue of trustworthiness was addressed in this study by staying true to a single qualitative tradition all throughout the study. Trustworthiness was also ensured by providing evidence of rigor that supported the quality and strength of the study. Evidence that supported the quality and strength of the study were shown in the detailed description of the sampling, as well as in the adequacy of the description on how the participants were selected. According to Laureate Education Inc. (2010), the process of sample selection described in details will ensure the credibility of the findings as well as transferability of results. The researcher made a clear effort in providing an explanation of the consistency of the result to the existing literature. According to Jeanfreau and Jack

(2010), the explanation of the consistency aids in the interpretation of the meaning of study results, adding strength to the study.

Furthermore, the trustworthiness of this study was ensured through observation of rigor in data collection, data analysis and reporting of the findings. Creswell (2013) stated that rigor is seen when the researcher conducts extensive data gathering and performs multiple levels of abstraction during data analysis. Rapport and trust were established at the beginning of the conversation to conduct an extensive data gathering. According to Creswell, establishing rapport and trust could encourage extraction of rich and thick information from the participants. The researcher explored deep into the subjective accounts of the participants' perceptions, beliefs, and behaviors about breast cancer screening using guide questions developed before the actual interview. Follow-up questions were done as they develop through the evolution of the interview process. The interview process was also audio recorded. The recording of the semi-structured interview enables the researcher to revisit the qualitative data repeatedly for emerging themes and remains true to the perspectives of the participants (Noble & Smith, 2015).

In performing multiple abstractions during data analysis, I used inductive data analysis of the rich and thick verbatim extracts from the interview process. Creswell (2013) stated that inductive analysis involves the building of patterns, themes, and categories from the bottom up, organizing the data into an increasingly more abstract set of information. The NVivo11 software enabled meticulous recording and management of all information relevant to the study. Noble and Smith (2015) stated that a meticulous

record keeping could help ensure trustworthiness by demonstrating a clear decision trail and ensuring consistency and transparency in the interpretations of data.

Moreover, to ensure trustworthiness of the study, validation was done whether the emerging themes and findings were true to the accounts of the participants (Creswell, 2013; Noble & Smith, 2015). The process of member check was employed by repeated statements to some of the participants to verify the accuracy of the findings with that of the participants' account during the interview process. Additionally, to ensure the credibility of the findings, my personal biases were accounted. The preconceived notion of the researcher was isolated or bracketed by recording the researcher's thoughts in a series of journaling notes. Preconceived notions that might cause bias and impact observations and understanding as a human being were bracketed to prevent the potential tainting of the research process (Creswell, 2014; Laureate Education, Inc., 2010b; Tufford & Newman, 2012).

Results

The results of the interview were presented in this section using the structures of the HBM and the interview questions as guides in organizing the themes that emerged. The themes identified during the coding process were interwoven throughout the findings provided richer detail and adequate validation for the themes.

Perceived Susceptibility

Perceive susceptibility is the perception of the participant regarding the likelihood of acquiring breast cancer.

Interview Question 1: What internal or external factors do you think could increase the possibilities of a woman from getting breast cancer? The question was asked with an intention of eliciting the perception of the participants about the possible contributory factors to the susceptibility of acquiring breast cancer. The themes that emerged in this question, arranged in order of their being the most to the least referenced, include: (a) family history, (b) age, (c) diet, (d) pills (HRT and contraceptive), (e) lifestyle, (f) environmental factors, (g) obesity,(h) no pregnancy, (i) breast structure, and (j) early menarche. The theme that emerged as the most referenced in the data was family history with 41 references from 80% of the participants. Putting it in another way, more than two thirds of the participants recognized that heredity is a major contributory factor to the susceptibility of acquiring breast cancer. Inherited changes or a genetic mutation to BRCA1 and BRCA2 is one of the risk factors for breast cancer mentioned by CDC (2016).

Participant 6 realized that family history can increase the individual's susceptibility to breast cancer when she stated, "I think I have...high percentage of having breast cancer because I have family history of breast cancer." Similarly, participant 5 mentioned that, "I am at risk of acquiring breast cancer due to familial tendencies. My grandmother...that is on my mother side... she died of breast cancer. I am now on the lookout for any signs of the disease." Participant 20 also expressed, "Family history or genetic factors can put women at risk for acquiring breast cancer."

Participant 8, although mentioned some other factors, recognizes the role played by heredity in the development of breast cancer. She mentioned, "Stress is a factor

especially if one is away from family like us OFW's... or it can be related to work... there could be many... But I know heredity plays a major role in acquiring breast cancer."

Family history as a factor to breast cancer susceptibility might have instilled in the minds of some women because of the awareness instilled by prominent personalities. In response to interview question 1, Participant 16 stated, "Family history could be one factor... the reason why Angelina Jolie removed her breast even if she has no breast cancer yet. Her mother died of cancer...she might have inherited genes that make her prone to breast cancer."

Interview Question 2: What do you think are your chances of personally getting breast cancer? How does this perception of susceptibility to the disease influence your participation to breast cancer screening? The question aims to show how the participants' perceptions of personal susceptibility dictate their screening behavior. The themes identified from the data were classified into the following categories: (a) high perception of susceptibility- high probability of participation, (b) low perception of susceptibility- low probability of participation, (c) low perception of susceptibility- high probability to participate.

High perception of susceptibility- high probability of participation. The themes in this category reflect the direct influence of the participants' perception of the susceptibility to breast cancer to the adoption of the recommended breast cancer screening behavior. The category shows a direct relationship of perceived susceptibility and the adoption of health behavior. Participant 18 mentioned, "I have high chance of

acquiring because of my prolonged use of oral contraceptives. Also, I have early menarche. That is why I want to participate in screening."

Similarly, Participant 11, because of high perception of susceptibility, signifies willingness to participate to breast cancer screening despite the workloads. Participant 11 stated, "I am obese and I am at the age range considered as high risk to develop breast cancer. That is high... that is why I also want to undergo screening... like mammography. So far, I have not experienced undergoing mammography. I used to perform BSE, that is when I was still younger. Recently I got preoccupied with a lot of things while I am here in Saudi Arabia."

The influence of family history significantly influences perception of susceptibility as well as a good motivation for initiating health actions. Participant 14 said, "We never had any family member ...maternal and paternal side, sick with any type of cancer until recently two of my cousins were both diagnosed with breast cancer. Though I never underwent breast cancer screening, I am planning to have one very soon." Participant 5 also added, "I am at risk of acquiring breast cancer due to familial tendencies. My grandmother who is on my mother side, she died of breast cancer. I am now on the lookout for any signs of the disease. So given the chance, I will participate to breast cancer screening... one hundred percent." Participant 9 also realized that, with her family history coupled with advancing age, the probability of her acquiring breast cancer is high , and thus, she believed it is just but logical to participate in breast cancer screening. Participant 9 stated, "I have high percentage of developing breast cancer

because of my age and family history. This is the reason why I want to have breast cancer screening, probably mammography."

Low perception of susceptibility- low probability of participation. This category, despite showing the same direct relationship of perceived susceptibility to breast cancer and the adoption of breast cancer screening behavior, shows the opposite side of the relationship- that when perception of susceptibility is low there is also low motivation to perform a prescribed health action. Participant 15 stated, "Although I am older now... but I do not feel being at risk to breast cancer. The fact is breast cancer is not in my mind now. That is why I have no motivation to participate in screening. I just work, earn money, go home in the Philippines; I will worry about breast cancer maybe later, not this time."

Other participants showed the same negative side of the relationship of perceived susceptibility and adoption of health behavior. Participant 13 stated "I am positive of having no chance to have it. I have strong faith with God and I claim that He will protect me from those diseases. But breast cancer screening... that is good for us. I just do not see myself undergoing into one... especially mammogram; it takes a lot of processing before you can get one here in Saudi Arabia. Participant 1 likewise expressed, "As for me, I do not see it as a problem right now. I do not see myself developing breast cancer anytime soon. In fact, one of the causes of breast cancer is hereditary. We do not have breast cancer cases in the family. As to the screening process, I know how to do breast self-examination. I do not do it regularly, only when I feel like doing it." Additionally, Participant 2 stated, "I do not consider myself to have a high chance of getting breast

cancer at this moment, maybe when I am older. Because of this, I rarely perform BSE or submit myself to any diagnostic tests for breast cancer detection." Moreover, Participant 8 stated, "I do not feel it as a problem at the moment. Maybe that is the reason why I am not motivated to participate in breast cancer screening at the moment."

Low perception of susceptibility- high probability to participate. The themes in this category show the deviation to the direct relationship of perceived susceptibility to breast cancer and the adoption of screening behavior. Some participants, despite having low perception of susceptibility to breast cancer are indicating willingness to participate in breast cancer screening. Their motivations to participate in breast cancer screening are different from that of their perceived susceptibility. The practicality of the reasons of their willingness to participate in breast cancer screening can be observed from their responses. Participant 16 stated, "I think even that I have zero chance of having breast cancer I will still submit myself to breast cancer screening...Prevention is better than cure." Likewise, Participant 10 stated, "Maybe only about 15-20% or less because breast cancer does not run in our family. But even if I do not have history of breast cancer I will participate in it 100%, especially if it is free."

Some of the participants indicated their willingness to participate in breast cancer screening, not because of their perception of susceptibility to breast cancer, but because of their perception of the benefits of the breast cancer screening procedures. It is discussed separately in this chapter.

Perceived Severity

Perceived severity is the individual's beliefs regarding the seriousness of contracting the disease condition including its complications and consequences.

Interview Question 3: What do you think would make you personally at risk for breast cancer? The question is intended to obtain the participants' individual perceptions and beliefs of the seriousness of their personal risk of acquiring breast cancer. The themes that emerged include family history, age, contraceptive pills, foods, heredity, nature of work, and no pregnancy.

Just like their perception of susceptibility, most of the participants attributed the severity or their seriousness of contracting breast cancer from heredity or family history of the disease. Participant 17 mentioned, "Having both parents died of cancer gives me a high percentage of acquiring the disease." Similarly, participant 5, participant 6, and participant 7 considered heredity as the sole contributory to their perceived severity of contracting breast cancer.

Some participants, however, may have worst perception of severity taking into consideration the presence of more than one contributory factors of breast cancer. Participant 9 stated, "I have family history of breast cancer so I have high tendency to develop it also. Added to that, I am at my 50s. Therefore, that doubles my risk." Participant 4 also claimed to have more than one contributory factors when she mentioned "eating unhealthy foods and lack of exercise" as her personal risk factors to breast cancer. Participant 14 also mentioned two contributory factors when she said, "Contraceptive pills...I used it for 3 years... and obesity." Additionally, Participant 18

expressed perception of high severity to breast cancer for having more than one contributory factor when she stated "My early menarche at 11 years old, I used to take an oral contraceptive for 15 years, and my grandmother and my aunt died of breast cancer."

On the other hand, the perceived severity to breast cancer was attributed by some participants to factors related to their work. Participant 16 stated, "In my line of work as a dentist, we frequently subject our patients to X-ray, I maybe not directly receiving the primary radiation, but the X-ray room might have secondary radiation. These might give a slim chance of me having breast cancer."

Other participants mentioned varying causes of having high severity to acquiring breast cancer. Participant 10 mentioned that "not eating healthy food, like fatty foods" could trigger the occurrence of breast cancer. Participant 12 expressed high severity to breast cancer when she mentioned, "Maybe my age. I am getting older and many changes are happening in my body. I can feel it." Participant 3 also expressed having high severity to breast cancer when she mentioned "I never got pregnant. I think it ... made me at risk."

Conversely, some of the other participants just refused to acknowledge any risk to acquiring breast cancer. Participant 15 stated, "I am still young... just reaching 50. Maybe I am not yet at risk for breast cancer." Similarly, participant 19 mentioned, "My age maybe... breast cancer increases with age. But I am not that old yet."

Some participants may have failed to realize that breast cancer can be predisposed by several other factors like age. Participant 1 stated, "I do not see myself being at risk for breast cancer. I take good care of myself. Here in Saudi Arabia, that is just what we

do. We always stay at home after work. We are not exposed in a lot of things that causes breast cancer."

The failure of the participants to recognize other factors that may contribute to breast cancer could adversely affect the participants' development of appropriate screening behavior. All the participants are aging between 40 to 60 years old. According to CDC (2016), one of the risk factors of breast cancer is advancing age. In computing for the probabilities of developing female breast cancer using DevCan (Probability of Developing Cancer Software), DeSantis, Ma, Bryan, and Jemal (2014) found that women aging 40 would have 1 in 69 probability of developing invasive breast cancer in the next 10 years. Furthermore, those who are 50 years old will have 1 in 43; 60 years old will have 1 in 29; and those who are 70 will have 1 in 26.

The CDC (2016) stated that aside from advancing age, other risk factors for breast cancer include: (a) genetic mutations (inherited changes to BRCA1 and BRCA2 genes), (b) early menstrual period, (c) late or no pregnancy, (d) starting menopause after age 55 (long exposure to estrogen), (e) not being physically active, (f) obesity after menopause, (g) having dense breasts, (h) using combination hormone therapy, (i) taking oral contraceptives, (j) personal history of breast cancer, (k) personal history of certain non-cancerous breast diseases, (l) family history of breast cancer, (m) previous treatment using radiation therapy, (n) women who took the drug diethylstilbestrol, and (o) drinking alcohol.

Interview Question 4: How would you describe the personalized burden or consequences of breast cancer? The question intends to describe the participants'

perceived severity based on what they believed to be consequences and complications of breast cancer. Perceived severity is usually operationalized by measuring the perceived burden caused by the disease including personalized consequences such as alteration in appearance, psychological distress, and financial burdens (Sunil et al., 2014). The themes that emerged from the data that reflect the participants' perception of severity based on personalized burden or consequences of breast cancer include financial, emotional, physical stress, and role alteration.

Financial. The burden of breast cancer is magnified in some groups of women as evidence of the disparities in incidence and mortality rates. Villero et al. (2014) found that Filipino women have much higher incidence and mortality rates of breast cancer compared to other Asian subgroups. One of the factors that contributed to the disparity of survival to breast cancer is socioeconomic (Villero et. al., 2014).

In describing financial as the perceived burden or consequences of breast cancer, Participant 10 mentioned, "Definitely it would affect my career and cause financial burden to everyone in the family. The reason why we are here in the first place is to earn money for our love ones in the Philippines. Breast cancer can be a big blow to my family economically." The response of Participant 6 has similar intimation when she stated, "Financial burden because of series of treatment and hospitalization. If you are not fit to work here in Saudi Arabia, you will...go home in the Philippines. That means you will lose the means to earn a living. So, more like a double jeopardy."

Some participants expressed concerns directly on the financial aspect of the treatment regimen for breast cancer. Participant 19 said, "I cannot imagine the suffering

of a patient with cancer. The pain... the chemotherapy... for breast cancer the mastectomy... it will be costly." Participant 15 showed similar concern when she mentioned, "Breast cancer is big. The treatment and the surgeries; they are expensive. So that is a burden financially."

Emotional. Being diagnosed with breast cancer could be catastrophic for a woman. Most of the women who are newly diagnosed with breast cancer showed clinical or severe depressive manifestation (Li et al., 2015). The participant's high perception of the possible emotional burden or consequences of breast cancer reflect high severity. Participant 9 stated, "The emotional burden is unimaginable. I saw that in one of my relatives who died of breast cancer. All of us provided support, but you can just do that much." Participant 12 expressed the same perception of emotional burden when she said, "Anxiety and fear of what will happen next... that would be a very serious burden emotionally; you will be affected emotionally and you can no longer function normally as a person." Participant 13 mentioned the possible ultimate reasons of emotional burden that could be experienced by individuals diagnosed with breast cancer and the eventual alteration of body image. She stated, "Very scary. If you have breast cancer you will be considered as a future mastectomy candidate. The surgical operation, the alteration of body, chemotherapy, the loss of hair, I do not know how I can handle that. The emotional burden of one person facing death is unthinkable."

The perceived emotional burden of possible death with breast cancer is not without basis. According to the IARC (2016), breast cancer is the most frequent cause of cancer death in women in less developed regions with 324,000 deaths (14.3% of total),

and the second cause of cancer death in more developed regions with 198,000 deaths, or 15.4% of total deaths due to cancer.

Physical stress. The theme reflects the burden of physical symptoms or the frequency, severity, and distress that a symptom affects the physical aspect of an individual diagnosed with breast cancer. Symptoms could be the result of breast cancer itself, the treatment regimen, or co-morbid conditions. The symptoms are rarely experienced in isolation with emotional distress, sleep disturbance, fatigue, and pain that are co-occurring in many cancer patients causing deleterious effects on functional status and quality of life (Stefanic, Caputi, & Iverson, 2014).

Realizing the burden of physical stress that breast cancer could bring to an individual, Participant 12 said, "That is the worst thing that will happen to a woman, breast cancer. It can destroy you physically. The deformation with surgeries...would be devastating." Similarly, Participant 11 expressed, "The possible surgery will leave you literally scarred for the rest of your life." Participant 9 also stated, "When complications set in... it is very difficult... to see the suffering." Likewise, Participant 8 mentioned that being afflicted with breast cancer "will be debilitating; the impact on one’s life is unimaginable."

Realization of the physical stress of breast cancer comes as an effect of experiencing concrete situation to some. Participant 16 stated, "I am personally experiencing at present seeing a friend who is suffering from breast cancer. It was not easy...seeing a friend like that. All the members of her family have to adjust, not only for the food that they are serving in every meal. After surgery, the patient received

chemotherapy. The initial effect was too much. After several years of surviving from breast cancer, now...it metastasized to some other organs. "

Role alteration. The theme reflects the changes in role played by individuals diagnosed with breast cancer. The disease and treatment regimen usually take away normalcy and alter one's identity. The usual role of being a wife, a mother, or as a career person could suddenly change as self-image changes. It could be perceived as a detour in life, uncertain if there is a point to return to its usual path. The new roles assumed as a person diagnosed with breast cancer can add gravity to the feeling of uncertainty, knowing that as the disease progresses a more dependent individual emerges.

Recognizing the possible alteration of roles of women diagnosed with breast cancer, Participant 11 stated, "The effect of breast cancer can make difficult changes in life, like changes in your body; relationship with your husband will be affected." Participant 2 also said, "It could affect the person in all aspects. The disease will change you as a person... physically, emotionally, mentally & spiritually. There will be feelings of fear, anxiety & vulnerability. You will become more dependent from being a productive career person."

Perceived Benefits

Perceived benefits are the individual's belief in the positive outcome from adopting a particular health behavior.

Interview Question 5: What benefits of breast cancer screening are you going to consider being motivated to participate in the breast cancer screening programs? Interview Question 6: What do you think are the benefits of mammogram? The

questions intend to obtain the motivation of the participants based on their perception of the positive outcome of adopting the desired screening behavior. The benefits could either be the perceived reduction of the risk of acquiring the disease or the reduction of the potential consequences (Glanz & Bishop, 2010).

Interview question 6 is incorporated in interview question 5 because the question on the benefits of mammogram could facilitate the emergence of themes that could easily refect the entire screening in general. Nevertheless, the question on the benefits of mammogram was asked separately to elicit perception about it being the most common breast screening procedures to date (National Cancer Institute, 2016). The recurring themes that emerged were perceived benefits as a result of participating in breast cancer screening include: (a) early detection, (b) early treatment, and (c) decreases mortality.

Early detection. Early detection emerged as the major theme having 56 references from all 20 participants. The goal of breast cancer screening procedures like mammograms, clinical breast exam, breast self-exam, and MRI is to find it before it causes symptoms (ACS, 2016d). Recognizing the benefits of mammogram, Participant 14 mentioned, "Mammograms do not prevent breast cancer, but they can save lives by finding breast cancer as early as possible." Similarly, Participant 16 said, "It can detect breast cancer at early stage; even the smallest lumps can be seen." Likewise, in recognizing the benefit of mammogram, Participant 19 stated that mammogram can give "more detailed detection; it is more sensitive to even small lumps." Putting it into a more précised perspective of the benefits of mammogram, Participant 20 stated, "Mammogram can detect non-palpable lesions; assist in detailed diagnosis of breast cancer early."

Below are some of the responses describing perceptions of early diagnosis as one of the benefits of breast cancer screening.

It will be of help for early detection of tumor in the breast. (Participant 17)

Early detection of symptoms like lump. (Participant 18)

Routine BSE can immediately detect lumps. (Participant 20)

The early detection ...could be the number one benefit. (Participant 10)

Finding out that you have breast cancer early. (Participant 11)

Early detection before complications will occur. (Participant 2)

It can detect lumps and early signs of breast cancer. I think breast self-exam is the most inexpensive way and it can be done at the comfort of your home. (Participant 2)

Early detection of possible cyst or lump. (Participant 7)

Early treatment. The theme could be considered as a subsequent event that could occur as a benefit of early diagnosis. An increased mammographic screening coverage can subsequently lead into an equitable quality and timely cancer care (Seneviratne et al., 2015). In recognizing early treatment as one of the perceived benefits of breast cancer screening, Participant 16 said, "I do believe that if we can see signs of the disease within ourselves in its early stage... we can correct it easily and it may not be that expensive." Participant 7 also mentioned, "Possible cyst or lump can be treated in a less radical and less expensive way." Likewise, Participant 13 stated, "Early treatment; very important that breast cancer will be detected early; prevents complication... and the treatment can still manage and control the progress of the disease effectively."

Below are the responses of other participants who realized that screening could promote early treatment of breast cancer.

> If breast cancer can be diagnosed early, the disease can still easily be managed (Participant 10)
>
> It could increase the likelihood of success in treatment. (Participant 18)
>
> It can detect breast cancer at an early, curable stage. (Participant 4)
>
> Breast cancer can cause a lot of complications. If it is diagnosed early, the success of the treatment is great. (Participant 6)
>
> It is very important that breast cancer will be detected early. The treatment can still manage and control the progress of the disease effectively. (Participant 13)

Early treatment reflects one of the benefits of adopting an appropriate screening behavior. However, it is also one of the issues that individuals particularly those who have limited economic resources are dreading to face. Participant 16 stated, "I do believe that if we can see signs of disease within ourselves on its early stage... we can correct it easily; although the treatment can be expensive."

Decreases mortality. The participants' belief of the screening's reduction in mortality to breast cancer could be attributed to the positive effects of early treatment. The literature provided several evidence of the increasing probability of survival to breast cancer once an individual participate to breast cancer screening. Early detection of the disease with the use of the existing screening procedures can increase the survival to breast cancer (WHO, 2016). Providing reference to the theme, Participnat 14 stated, "Of all types of cancers, cancer of the breast has...chances of survival ... if detected early.

Mammograms... can save lives by finding breast cancer as early as possible." Similarly, Participant 3 said, "It can prolong life by facilitating proper treatment early."

Seneviratne et al. (2015) found that the greatest contributor to survival disparity is the stage at diagnosis. The delayed diagnosis leads to inappropriate treatment of breast cancer in some groups (Rajan et al., 2015). The screening procedures, however, can diagnose the disease at early stages promoting early management and control and increasing the potential for survival (ACS, 2016d; Cancer Research UK, 2014; Shah et al., 2014; WHO, 2016).

It is surprising to note, however, that despite the popular claim of literature regarding the increasing probability of survival when breast cancer is diagnosed early, only two participants (Participant 14 and Participant 3) provided references to the theme.

Perceived Barriers

Perceived barriers are the individual beliefs regarding obstacles to performing a behavior and the negative part of adopting a recommended health behavior.

Interview Question 7: What barriers or negative perceptions do you have that will serve as obstacles in your participating in breast cancer screening? Interview question 8: What do you think prevents Filipino women in Saudi Arabia from participating in breast cancer screening? The questions were intended to evoke the participants' perceived personal obstacles in adopting breast cancer screening. The description of the participants' perceived tangible or intangible barriers in participating to breast cancer screening facilitated one of the ways of understanding the participants'

screening behavior. Arranged in order from the most referenced to the least referenced, the recurring themes in the data are as follows: lack of time, language barrier, lack of awareness, fear of the outcome, limited mobility, cost, culture, and pain.

Lack of time. All the participants are working OFWs. Expats in Saudi Arabia usually work 8 hours for 5 to 6 days a week. Most of the participants, especially those who are working in the universities are working from Sunday to Thursday. Those who are working as staff nurses have only 1 day off in a week. Some participants are working with broken time in a day, taking a break in between two prayer time, from 12 noon to 4 o'clock in the afternoon when most of the shops are closed, then report back to complete the remaining hours of work in a day.

Citing lack of time as a barrier in participating to breast cancer screening, Participant 18 stated, "I just do not have the time to go have this kind of screening in hospitals. I just work. During the weekends, I spend it with laundry, cleaning the house, and then connect with the love ones back in the Philippines through the Internet. That is how I spend my time here in Saudi Arabia." In similar fashion, Participant 19 also cited lack of time as a potential barrier in participating to screening. She mentioned "Most OFW's that I know they just work, work, and work a lot. We have to earn money... so that we can support our family in the Philippines." Participant 5 expressed similar belief when she said, "Time-constraints; being in Saudi Arabia as OFW makes you focus more to your job." Likewise, Participant 19 expressed, "Maybe time. If I am on duty, I just do not have the time to do other things. If I am off duty I rest, do personal things like doing the laundry." Participant 13 also stated, "Sometimes you just cannot find time to go and

have screening in hospitals. Additionally, Participant 4 expressed inability of Filipino women OFWs to participate in breast cancer screening "...due to their busy schedule."

Language barrier. Most Filipino OFWs arrived in Saudi Arabia with little or no ability to speak Arabic. In alluding to language barrier as an obstacle in participating to screening, Participant 1 said, "It is very difficult to have breast cancer screening here like undergoing mammogram. Sometimes they cannot understand you and you cannot understand them. Some staff only speak Arabic." In similar fashion, Participant 12 stated, "Sometimes it is very difficult to deal with the staff in hospitals. You will be passed on from one staff to another, until you will have no more time to do what you intended to do. Interacting with the staff is difficult sometimes because of language difference."

Expressing the difficulty of interacting especially for those who are new in the country, Participant 5 said, "Here in Saudi, the number one barrier might be the language. Filipino women, especially those who are here only for few years have difficulty expressing in Arabic." Similarly, Participant 8 mentioned, "I think the difficulty of interacting with the staff. If you have difficulty speaking in Arabic you will have a problem interacting with other Arabic speaking expats in Saudi."

Lack of awareness. The theme reflects the sentiment of several studies found in the literature. Lack of awareness is one of the main reasons why some women are not utilizing screening services (Munyaradzi et al., 2014). The lack of awareness of the participants is not necessarily on the lack of knowledge about breast cancer and its screening procedures, but on how and where to access the screening services. Citing this theme as a barrier, Participant 15 mentioned, "I do not know where to avail the service. I

do not know how to go about it. I am not familiar with the health services here in Saudi Arabia." In agreement, Participant 10 said, "Maybe they do not know that there is a free mammogram, and where it is being offered." Participant 9 also expressed the same sentiment when she said "Maybe the lack of information campaign about breast cancer screening." In addition, Participant 4 stated that some Filipino women in Saudi Arabia are prevented from participating in breast cancer screening because "maybe others are unaware about it."

Fear of the outcome. Like all other cancers, breast cancer can cause burden not only to the person being diagnosed, but also to significant others. Fear of the outcome is usually associated with the cost and effect of treatment, the burden of the disease process to the person as a whole, and the dreadful experience of facing potential death. Below are some of the responses of the participants who indicated fear of the outcome as their perceived barrier in participating to breast cancer screening.

> My fear of knowing that I may have breast cancer. (Participant 4)
>
> Fear, uncertainty, also the risk of false alarm. (Participant 14)
>
> The risk of losing their present job when found positive of the disease. (Participant 16)
>
> Fear of knowing the truth. (Participant 17)
>
> Fear about the possible positive result. (Participant 20)
>
> The fear of knowing the truth in case I have breast cancer. (Participant 11)
>
> Fear to know the truth that I have breast cancer. (Participant 8)

Limited mobility. The theme reflects one of the limitations of women living in Hail City, Saudi Arabia. Women, although they are not technically banned by Saudi law from driving cars, they are prevented from obtaining licenses to drive (Di Giovanni, 2013). Because of the ban, women, both locals and expats are dependent on their husband, other male relatives, or chauffeurs for transportation. On the part of Filipino women, especially those OFWs without a husband, moving around the city entails making intricate arrangements with a group of friends or colleagues to bring them to their destination. Walking, however, is always an option.

Realizing limited mobility as an obstacle in accessing health services, Participant 20 stated, "The lack of mobility... limits accessibility to screening services." Participant 11also added that women in Saudi Arabia "are so dependent to the private cars they hired to bring them to work; the driver is not available all the time." She further stated that "although it is not forbidden to walk ... the difficulty in moving around might be the reason women would rather stay at home rather than go have a screening." Participant 12 similarly expressed that "the difficulty in moving around might be one of the reasons Filipino women here in Saudi would rather stay at home rather than go have a screening."

Making the same acknowledgement to the theme, Participant 6 said, "Women here cannot just go anywhere wherever they want to go because of the difficulty in moving around; especially when you are... alone; no husband to drive you to your destinations." Likewise, Participant 9 expressed the sentiment of being alone in Saudi Arabia when she said, "I am alone here in Saudi Arabia. My family is in the Philippines;

so moving around is difficult. I do not have a driver when I want to go elsewhere aside from going to work."

Cost. The cost of the screening, especially mammogram, is always an issue in breast cancer screening. Although Filipino women working in Saudi Government institutions have free medical services, several Filipino women are working in private institutions. Accessing medical services for these women requires them to shell out some of their earnings especially when they access health services from private health care facilities. Below are some of the responses of the participants who expressed concerns regarding the cost of participating in breast cancer screening.

> I will not submit myself to breast cancer screening because of lack of ...funds. (Participant 17)
>
> Findings that are more detailed... are expensive. (Participant 12)
>
> The breast cancer screening tests are expensive. (Participant 6)
>
> One of the barriers for the women to participate in breast cancer screening is the cost of diagnostic exams. Screening procedures like mammography is expensive. (Participant 7)

Culture. Filipino women are known to be conservative. They are reluctant to talk about their breast especially with other people (Simpson et al., 2015). The conservative nature of Filipino women is even more reinforced with the existing culture of Saudi Arabia where women are not allowed to expose their skin in public places.

Below are some of the responses of the participants who perceived culture as one of the obstacles in accessing breast cancer screening.

Being conservative can be a barrier, like if being examined by opposite gender. (Participant 16)

I think the culture. (Participant 1)

Maybe they are ashamed to undergo the test because they need to expose their breast. The culture here is very conservative. You cannot just expose your skin; more so your breast. (Participant 9)

Pain. Pain in breast cancer screening is associated with the performance of mammogram procedure. Simpson et al. (2015) found that pain associated with mammogram is the greatest obstacle in participating to screening. Participant 20 stated that some women are prevented from participating to breast cancer screening because of "fear of pain for mammogram." Participant 13 also mentioned, "I read somewhere that mammography is painful." Likewise, Participant 3 expressed concern regarding the "feeling of discomfort during the whole procedure."

Interview Question 9: If you are situated differently, how differently do you think you will behave about breast cancer screening? The question intends to get the participants' perceived more ideal situations that could lessen their perceived barrier. Recurring themes that emerged include accessibility, ease in interaction, insurance, ease in mobility, financial capacity.

Realizing the need for situations where health information are disseminated properly to improve accessibility, Participant 15 stated, "Maybe if I have more information on where and how to access the service...I might get screening when I need one."

Participant 9 expressed more willingness to participate if she is in other countries like the United States. She stated, "In the US these kind of health services are more accessible to people." Participant 11 also cited the United States as a better place to be situated in to participate in breast cancer screening. She said, "Maybe if I am in countries like the United States, I could be more active participating with breast cancer screening." She added, though, that one must have a medical insurance to ease access to this kind of services.

Participant 7 might have been thinking of the difficulty in communicating due to language barrier when asked of a situation where she could behave differently in relation to the screening. She said, "I think I will be more active knowing that...people in the hospitals are easy to interact with."

Participant 6 was concerned with the limited mobility of women in the region as the perceived barrier when she mentioned, "I might be more active to screening if I am in countries with ease in movement."

Participant 19 thought about the cost of the screening procedures when she said, "If I have lots of money I will have more chances... to do things for myself, like undergoing breast cancer screening."

Interview Question 10: How do you think education about the importance of breast cancer screening could influence your decision from getting breast cancer screening? The question was asked to determine the participants' perception of the importance of education in overcoming some of the barriers of adopting breast cancer. Increasing awareness through health education is mentioned in relevant literatures to be

vital in overcoming barriers in adopting breast cancer screening. Sadler et al. (2012) found that Asian women aged 40 and older and nonadherent for annual screening mammograms were more likely to submit for a mammogram after their knowledge of breast cancer screening program were enhanced through health education. Recurring themes that emerged in this question include: (a) guides decision making and (b) increases awareness.

Guides decision making. The theme reflects one of the main goals of providing health education. Health education provides information about a health program in order for the individuals to be guided in making informed health decisions. Providing reference to this theme, Participant 9 stated, "Education can give more information; could guide my actions and decisions on how to properly take good care of my breast. It could provide more reasons why women really have to undergo breast cancer screening. Knowledge can give you more confidence to do many things, including participating to breast cancer screening."

Participant 4 expressed the same sentiment when she said, "If I will be more educated about screening, I might be more active in participating. Enlightenment brings out best decisions; the knowledge serves as guidance in decision making." Participant 16 likewise stated, "Education can influence my decision to undergo screening." Participant 19 added that education could "increase knowledge that can help... make proper decision."

Below are the responses of some of the participants who provided references to the theme.

> It can motivate one to participate. You will learn about its benefits... then you will react positively... you go have mammogram... perform BSE. Education is good. It can change people's behavior. (Participant 13)
>
> Education is important. It can make you see what you cannot usually see. It will make you smarter with your decisions. (Participant 1)
>
> With education, we can be guided to make rational decisions like regularly participating in breast cancer screening. (Participant 3)
>
> It can guide me from making appropriate decisions... regarding breast cancer screening. (Participant 6)
>
> Education can make me realize more the benefits of breast cancer screening. It can guide my decisions about the procedures. (Participant 7)

Increases awareness. Increasing awareness about breast cancer screening could prevent the possible compounding of late detection and management of the disease. An effective educational program could increase awareness influencing the attitudes and practices of women toward breast cancer screening. Realizing the importance of education in increasing awareness, Participant 11 stated, "Education can clear misconceptions about breast cancer screening. Sometimes we hear things and we consider it as the truth; this kind of things can lead into misinformation, it will shy away people, they will no longer avail of the services. But with education, they could be enlightened...more aware."

Likewise, Participant 8 stated, "Education is a mind opener. I could be more informed about the benefits and how to go about it if there are more programs to increase

my awareness; increases knowledge about the screening; gives one better perspectives of things." Similarly, Participant 18 intimated, "Some of the information is hard to understand. Education about breast cancer screening can help increase awareness about it... so people will be more participative into it."

Below are some of the responses of participants expressing belief that appropriate health education program can increase awareness about breast cancer screening.

> Education can change people's perspectives and behavior. (Participant 14)
>
> It can increase awareness about screening. (Participant 17)
>
> It can increase my knowledge about breast cancer screening benefits. It can increase awareness. Then maybe it could convince to do screening regularly. (Participant 10)
>
> It can increase my awareness. I hope some information where to avail the service will also be included in educating the people. That will make life easier for people... (Participant 12)
>
> Education can increase my awareness about the screening. (Participant 14)

Self-efficacy

Self-efficacy is the confidence or the conviction of an individual that the behavior can be successfully executed.

Interview Question 11. Describe your confidence to successfully perform or participate in breast cancer screening. The question was asked to obtain description of the participants' belief of their ability to execute successfully or participate in breast cancer screening. Recurring themes were identified and classified into: (a) High

confidence and (b) Low confidence.

High confidence. The themes identified under classification reflect the participants' confidence in performing breast cancer screening procedures like BSE, and have enough confidence to participate. Participant 14 expressed high confidence when she stated, "I am most willing and confident to undergo a breast cancer screening at any given time." Similarly, Participant 18 stated, "Since I am already familiar with the examination procedure, the advantage, and its expected results, I am confident in performing it successfully." Participant 12 also expressed high confidence that is why she has "great chances of participating to breast cancer screening."

The confidence to participate can be developed with firsthand experience. Participant 3 indicated this when she stated, "I did not put in mind that the procedure could be painful or uncomfortable as what others are claiming. I just went to the surgeon to consult on what I have palpated accidentally and he then suggested for a mammogram. I undergo myself with such procedure and I am just keeping my pain tolerance high to overcome the discomfort."

Below are the responses of some of the participants who indicated high self-efficacy to participating in breast cancer screening.

I am willing to undergo breast cancer screening. (Participant 17)

Since I am already familiar with the examination procedure, the advantage, and its expected results, I am confident in performing it successfully. (Participant 18)

I am confident in performing BSE. (Participant 20)

I can perform BSE satisfactorily. (Participant 4)

I am very confident. I know how to perform BSE. (Participant 7)

Low confidence. The themes included in this classification indicated low self-efficiency in performing and participating to breast cancer screening. Expressing the lack of motivation to participate in breast cancer screening, Participant 9 said, "Maybe I am not that confident to perform self-screening. On undergoing mammogram, although it is free, being a government employee here in Saudi Arabia, there is just no motivation to go and have one." Participant 2 also expressed low confidence when she said, "Not so much confidence because of the lack of practice."

Participant 11 likewise expressed low confidence when she said, "I stop performing BSE. Maybe I am not very confident. I am not participating to mammography also. I am almost 50 and I do not know what is happening with my breast." Participant 13 also mentioned, "I am not very familiar on how to go about with mammogram in hospitals. I mean the paper works, like that. We have free medical services but I am not sure about mammogram."

Indicating lack of confidence to participate when unaccompanied, Participant 1 said, "Maybe if somebody will assist me that is the time that I will go and have mammography. It will be easier if you know somebody from inside."

Below are responses of participants who expressed confidence in performing screening procedure, though hesitant to participate further:

I am very confident, but I am just not motivated. (Participant 19)

I am confident in doing it. I am a nurse. But when you ask if I am doing it regularly? No. I do not perform BSE regularly. I just am not motivated. It is not

something that you can always remember if you are working here in Saudi Arabia. Maybe it is not my priority and I know it is a bad attitude on my part not to give attention to my health. (Participant 10)

I used to do BSE; mammography never. I know BSE but it has been a long time since the last time that I performed it. (Participant 5)

I am confident but I do not do it regularly; maybe no motivation to do it. (Participant 6)

I know BSE but I do not regularly perform it. Most of the time I miss the most appropriate time to perform it. I am a forgetful person. (Participant 8)

Interview Question 12: What recommendation can you make to improve your confidence in performing breast cancer screening like breast self-examination (BSE)? The question was asked to prompt the expression of the participants' belief on how to improve self-efficacy to breast cancer screening. The recurring themes that emerged include: (a) surfing the Internet, (b) government health information initiatives, and (c) regular practice.

Surfing the Internet. Majority of the participants recognized the importance of the social media when they indicated that surfing the internet can help improve self-efficacy to breast cancer screening. Below are some of their responses:

Go search online. Everything is in the internet. (Participant 19)

Access tutorials of BSE in the internet. (Participant 10)

Access tutorials in the internet. (Participant 11)

That is very easy. Just open the YouTube. Everything is in the internet already. (Participant 13)

Watching tutorials from legit sites (Participant 2)

Watching on you tube on how to properly perform BSE. (Participant 4)

Maybe watch how it is being performed in YouTube. (Participant 6)

Doing breast self-examination would be easier. I just have to make a way of being reminded to do it regularly. Also, tips on how to do it are available in the internet. (Participant 9)

Government health information initiatives. The participants, when indicating the role of the government in decimating health information were alluding to the Philippine government. Recognizing the role of the government in the delivery of appropriate health care services, Participant 15 stated, "Our government, Philippine government, should help us about this. They should give information. At least we know what we are going to do about our health while we are here. Leaflets maybe, saying, hey! You go there, you go here. Like that."

Participant 1 responded in similar fashion when she said, "I think more on the aspect of education. Our government should make the initiative." Participant 5 likewise responded with the same sentiment when she said, "Our Department of Health should provide health education program or tutorials that will provide step-by-step guidance on how to go about it."

Regular practice. Participant 20, Participant 8, and Participant 9 all recognized the importance of regularly practicing breast cancer screening especially BSE.

> Regularly perform BSE to improve confidence and establish pattern of behavior. (Participant 20)
>
> Maybe I can improve on my regularity to perform BSE if I will be serious about it and include it among the things that needs to be done regularly. Maybe log in an appointment in my cell phone. (Participant 8)
>
> Doing breast self-examination would be easier. I just have to make a way of being reminded to do it regularly. (Participant 9)

Cues to Action

Cues to action are those external and internal factors that could trigger the prescribed health behavior.

Interview Question 13: What external and internal factors do you think could encourage you to participate in breast cancer screening? The question was asked to give rise to the different factors that the participants believed to trigger the adoption of desired screening behavior. Cues to action could be the social impetus influencing an individual's health behavior, promoting awareness of a disease or health issue, and contributing to the overall readiness of an individual to adopt a particular health behavior (Sunil et al., 2014). Family and awareness to screening emerged as the major themes that could encourage the participants to participate in breast cancer screening. Among Filipinos, family is usually the source of driving force that trigger an individual to act. The cohesiveness of Filipino family makes decision making a shared responsibility. The close family ties of Filipinos and the shared decision making make either suffering or flourishing being shared among its members as a whole (Cura, 2015).

Recognizing the influence of family in triggering the prescribed breast cancer screening behavior, Participant 13 stated, "If I think of my family I want to live longer. If breast cancer screening prolongs life if you have breast cancer, go! I will not hesitate participating. My family makes me move. They are the reason for everything that I do here in Saudi Arabia." Similarly, Participant 8 said, "I think when somebody in the family or any significant others will tell me that I have to go for a screening. Most of the time people who are close to you gives the most sensible advise." Participant 9 responded in similar fashion when she said, "Family member who have breast cancer could be an effective motivator. The kind of suffering that I have seen before with a family member having breast cancer... motivates me to act and have a screening myself."

Below are the responses of some participants who believed that their families serve as a cue for them to act.

I think, breast cancer in the family. (Participant 18)

Maybe breast cancer cases in the family. (Participant 10)

Maybe a breast cancer case in the family... would be a great motivator. (Participant 12)

Maybe breast cancer in the family. (Participant 1)

Family... (Participant 5)

Interview Question 14: How do you think can social media help motivate you from participating in breast cancer screening? The question intends to obtain the participants' perception on how social media can serve as their cue to participate in breast cancer screening. The use of social networks is reshaping and remodeling the health

status of people with almost 90 % of those who are using the internet adopts the health information they obtained (Pistolis et al., 2016). Recurring themes that emerged include: (a) platform for exchanging health information, (b) information source, and (c) great influence.

Platform for exchanging health information. The social media, with its search engines and social networks, are currently the most powerful and accessible tool to exchange health information. Pistolis et al. (2016) found that 93% of the people were using the Internet to find health information. Perceiving this as a significant cue for action, Participant 19 stated, "Social media, like Facebook... is now the trend... for information campaign and dissemination of information between friends...all over the world." Similarly, Participant 15 said, "It can create a community...between friends... exchanging... breast cancer information."

Participant 11made a lengthy and timely response regarding the importance of social media when she said, "Social media connects people. Your friends usually shares information that you think is nonsense but eventually realize it makes sense. Like the one in Facebook where everybody challenges anybody to post black and white picture. That effectively increases awareness to breast cancer; or maybe you will see the pink ribbon associated with breast cancer. Then it reminds you that there exists a disease out there that kills women, you know... so you must do something about it before it strikes you."

Participant 12 and Participant 13 considered social media as an appropriate platform for Filipino OFWs. Participant 12 stated, "It will be a good medium to spread information. OFW's love to go online... their way of connecting back home; if you have a

friend who will post about breast cancer screening that will spread fast to other people." Participant 13 likewise said that "Facebook... is the modern way of spreading information. It can spread news fast... and most OFW's here uses Facebook. They use it a lot. That is one of their means to be updated of what is happening back home."

Below are the responses of other participants who indicated that social media can be an effective platform for exchanging health information.

> Dissemination of information through social media can help incur awareness to all walks of life. (Participant 17)
>
> Social media reaches more people. It could effectively spread awareness regarding this matter among larger populations. (Participant 5)
>
> Social media can be a good medium for information dissemination that may include the video of BSE. (Participant 7)

Information source. People usually turn to the Internet to look for accessible and significant health information. Social networks are currently being used in everyday life to seek information on health matters specifically surfing information for medical diagnosis and treatment (Pistolis et. al., 2016). Perceiving this as a source of information that can serve as a cue to action, Participant 16 stated, "If the source is reliable, social media can be a very good help." Likewise, Participant 18 said that social media "provide information about women's experiences with the screening when these are posted in their walls in Facebook."

Participant 10 also realized the importance of social media as a source of information when she said, "The social media especially Facebook can be a good source

of information about the availability of screening services. Friends of friends in Facebook sometimes are working in hospitals where screening services are offered for free. Somehow, they would post something about it in their wall."

Below are the other participants who considered social media as a good source for health information.

> The social media like the Facebook can help increase awareness. (Participant 1)
>
> It can increase awareness towards breast cancer based from the testimonies of others. (Participant 3)
>
> It helps me to have awareness about breast cancer or to be reminded to do BSE regularly. (Participant 4)

Great influence. Social media are currently influencing the everyday life of people. With the bulk of research concerning health issues, the social networks are greatly influencing health related behaviors (Pistolis et. al., 2016). Recognizing the great influence of social media in triggering individuals to seek the desired screening behavior, Participant 9 stated, "It can give constant reminder about breast cancer. It increases awareness of people. The pink ribbon associated with breast cancer can be seen often in the Facebook wall posts of friends. Those kinds of things give constant reminder to everyone that there is a dreadful disease that we need to fight." Participant 2 likewise recognized the great influence of social media when she stated, "The inspiring stories of breast cancer survivors posted in the social media can help alleviate fear and motivate women to participate in screenings." Participant 14 added that social media are "very

influential to the lives of most people; good information source for breast cancer awareness."

Participant 20 highlighted the overall perceived influence of social media when she said, "Social media plays an important role in our lives today."

Interview Question 15: What recommendations can you make to motivate women from participating in breast cancer screening? The question was asked to obtain the participants perceived intervention that could promote participation in breast cancer screening. The recurring themes that emerged include: (a) educational program and (b) health information campaign. Although educational program can be a part of health information campaign, they are classified separately in this section to consider the former as the one conducted in a structured setting like classroom seminars, while the latter is considered more of disseminating information through other means like social media or leaflets.

Educational program. Lack of participation to health programs are usually attributed to the low educational level of the people. Their level of knowledge could significantly influence a significant change in the perception of individuals to breast cancer and its screening procedures, and thus, the screening behavior. The lack of an educational program to address knowledge deficit to breast cancer can compound late detection and management of the disease. Individuals who participate in educational programs are found to be better educated, have higher health literacy, and found to adhere more to health promoting guidelines (Sadler et al., 2012).

Participant 20 recommended educational program when she stated, "I do highly recommend education to further increase awareness, maybe part of the seminars before leaving the Philippines to work as OFW here in Saudi Arabia." Participant 1 even went beyond just recommending educational program to motivate women from participating in breast cancer screening. She even recommended that educational programs should be delivered by Filipinos. She stated, "It is very difficult to raise questions if you have other nationalities. Fellow Filipino, they can easily understand because we have the same culture."

Below are the responses of other participants who expressed the same recommendation.

> Educate oneself about breast cancer and early detection. Being health literate is a great weapon to reduce any fear or anxiety that prevents women to participate in screenings. (Participant 2)
>
> Educational programs to increase awareness. (Participant 3)
>
> If I will be more educated about screening I might be more active in participating... enlightenment brings out best decisions, you know. The knowledge...serves as guidance in decision making. (Participant 4)
>
> Promote health education regarding breast cancer. There are a lot of people who are taking this screening for granted, even professionals. Education can spread awareness and makes one appreciate the benefits of breast cancer screening. (Participant 5)

More health programs. Maybe the Philippine authorities will include them in the seminars before coming to Saudi Arabia. (Participant 8)

Health information campaign. Dissemination of significant health information is a critical aspect in the improvement of health status of the people. Health information campaign may include details on how and where to access the screening services. Lack of access or not knowing where to avail the screening services, coupled with negative attitudes, are the main reasons why some women are not utilizing screening services (Munyaradzi et al., 2014).

Acknowledging the importance of adequate dissemination of health information in the success of screening program, Participant 9 stated, "Effective information campaign can help, although it is difficult to disseminate information here in Saudi Arabia. Maybe it can be done while in the Philippines. When OFW's are still preparing to come and every time they have their yearly vacations. It could be in the form of pamphlets given to returning OFW's."

Below are the responses of other participants who share the same recommendation.

Information campaign can help. Like giving flyers that is written in English regarding their breast cancer-screening program. (Participant 10)

Maybe information campaign can give... information about experiences of others. Like how they overcome breast cancer, their experience with breast cancer. At the same time, provide reading materials in strategic points; maybe in airports, for

those who travel a lot; when OFW's will travel to their respective country of destination. (Participant 11)

You just tell them the benefits. That should have been the responsibility also of the government. Spread good news about the screening so many will adopt it... I am talking about OFW's. Because when you are here... alone... you are on your own. You make decisions alone. (Participant 12)

Health information campaign can help people learn about the services, where to go. (Participant 15)

Increase awareness through health information dissemination. (Participant 16)

Make a breast cancer screening campaign through Facebook. (Participant 13)

Summary of Key Findings

The study was carried out by conducting individual interviews to 20 Filipino women participants. The participants described their perceptions, beliefs, and behaviors towards breast cancer screening during the face-to-face interviews. The themes that emerged recurrently from the interview transcripts were very helpful in understanding the factors that influenced their screening behaviors, and how their current screening behaviors affect the rate of participation of the group to breast cancer screening. The findings effectively provided the foundation on how to improve the screening behavior and address the current problem of disparity to breast cancer screening participation among the group.

Perceived susceptibility. The findings show that the participants are more likely to participate in breast cancer screening if they have a high perception of susceptibility

and high perception of severity. Perception of susceptibility of the participants is mostly influenced by family history of breast cancer. Conversely, some participants failed to recognize their susceptibility to breast cancer despite existing susceptibility factor like age. Some participants verbalized preoccupation of work while in Saudi Arabia, preventing them from perceiving other things like being susceptible to breast cancer. The poor perception of susceptibility and the lack of belief on the potential burden of breast cancer contributed to the lack of motivation of some participants to participate in breast cancer screening. Surprisingly, though, there are some participants who expressed willingness to participate in breast cancer screening despite having a low perceived susceptibility to breast cancer. One of the reasons cited for willingness to participate despite low perceived susceptibility is when the screening procedures like mammogram are provided free of charge.

Perceived severity. The perceived severity of the participants to breast cancer is influenced by the burden brought about by financial difficulties with the treatment of the disease, emotional and physical stress brought about by the disease process, and role alteration after diagnosis and during treatment. The participants' perception of a financial burden and the potential loss of capacity to earn a living for the family unsurprisingly emerged as the greatest factor that influenced the perception of severity among the participants. This is also the most influential factor that motivates them to participate in breast cancer screening. Furthermore, some participants believed that the burden brought about by breast cancer could be unimaginable. According to Lingyan (2015), most of the women who are newly diagnosed with breast cancer showed

clinical or severe depressive manifestation because of the emotional and physical burden brought by the disease. Moreover, the new roles assumed as a person diagnosed with breast cancer can add gravity to the feeling of uncertainty, knowing that as the disease progresses a more dependent individual emerges.

Perceived benefits. Almost all participants recognized the benefits of undergoing breast cancer screening. The majority of the participants believed that screening could lead to early detection of the disease and eventually facilitate early management. The success of treatment is gauged by participants regarding having less complication of the disease and fewer expenses on the part of themselves and their families. Only a few participants recognized that breast cancer screening could decrease the mortality of breast cancer. The study provided evidence of the influence of high perception of the benefits of breast cancer screening to their willingness to participate in the screening procedures.

Perceived barriers. The participants believed that lack of time, language barrier, and lack of awareness could be the major barriers that could be encountered in accessing breast cancer screening services. The participants are OFWs who are in the Hail, Saudi Arabia as workers in different institutions like hospitals and universities. Hospitals providing the screening services have staff who speak in the Arabic language of which most Filipino women have difficulty speaking. Although some participants show a lack of perception of the factors that contribute to the disease process of breast cancer, the lack of awareness of the participants was attributed mostly to the aspects of how and where to access the screening services, rather than on the aspect of not knowing the benefits of breast cancer screening. Despite the barriers, the participants believed that with adequate

health interventions their confidence to participate as well as their current screening behavior could improve. The findings indicated that with appropriate health education and effective health information campaign, the participants could gain the basis for appropriate health decision making about breast cancer screening.

Self-efficacy. Most participants expressed high confidence in performing screening procedures specially BSE. The participants, however, differ in their desire to participate in breast cancer screening. Most participants who expressed low confidence in performing and participating in screening indicated that lack of motivation on their part prevents them from performing and participating in screening. Most participants, however, recognized that constant practice and self-tutorial guided by educational videos from legit Internet sites could help them improve their self-efficacy to breast cancer screening. This finding confirms the study of Sadler et al. (2012), who stated that individuals who participate in educational programs are found to be better educated, have higher health literacy, and found to adhere more to health promoting guidelines. Also, the participants believed that social media could help improve their self-efficacy in performing and participating in breast cancer screening. Social media are currently showing great influence to people for being a good source of health information and an effective medium to share health information.

Cues to action. Participation in breast cancer screening of the participants is triggered by the motivation of families and increased awareness. It is not surprising that family plays a great role in motivating the participants to participate in the screening procedures. The finding of Cura (2015) on the cohesiveness of Filipino family, bringing

about decision making a shared responsibility, is evident in this study. Most of the participants expressed willingness to participate in breast cancer screening when a family member gives the advice to do so. Some participants are likewise motivated to participate because they want to live longer for their families or they do not want to burden their families with the high cost of delayed and complex treatment of the disease. Furthermore, some participants believed that they could be triggered to act when awareness increases about breast cancer screening. Chapter 5 presents the discussion, conclusions, and recommendations.

Chapter 5: Discussion, Conclusions, and Recommendations.

The purpose of the study was to examine the perceptions, beliefs, and behaviors toward breast cancer screening of Filipino women working as OFWs in Hail, Saudi Arabia. Filipino women are believed to have high mortality rate to breast cancer compared to their Asian counterparts (Ho et. al., 2010). One of the reasons cited in the literature is the low rate of participation of the group to breast cancer screening. Previous researchers have identified that the lack of awareness of individuals to breast cancer screening contributed to their low rate of participation to screening (Munyaradzi et al., 2014). Among migrant Filipino women, the disparity in awareness and participation of the group to breast cancer screening was also attributed to several other factors. These factors include the differences in culture, language barrier, and lack of trust in health care provider (Ho et al., 2010; Munyaradzi et al., 2014; Sadler et al., 2012; Villero et al., 2014). Examining Filipino women's perceptions, beliefs, and behaviors toward breast cancer screening could lead to the understanding of their screening behaviors. The understanding of their screening behaviors could facilitate the development of appropriate health interventions and could improve the survival and reduce mortality to breast cancer for this population.

This study was based on the following research questions:

1. How does the perception of susceptibility influence the behaviors of Filipino women toward breast cancer screening?
2. What are the factors that influence the participants' perceived severity to breast cancer?

3. What beliefs do Filipino women possess regarding the benefits of breast cancer screening?
4. How does the participation to screening procedures of Filipino women in Saudi Arabia being influenced by their perceived barriers?
5. How do Filipino women perceive their capability of performing the recommended screening procedures?
6. What perceived cues to action influence Filipino women into adopting the screening behavior?

A qualitative descriptive approach was used to address the research questions. Face-to-face in-depth interviews were conducted with 20 Filipino women OFWs residing in Hail City, Saudi Arabia. According to Sandelowski (2000), the goal of qualitative descriptive inquiries is a comprehensive summarization of events experienced by individuals or group of individuals in the everyday terms of those events. Investigators conducting qualitative descriptive inquiries stay close to their qualitative data and to the surface of words and events they are trying to examine (Sandelowski, 2000). Sandelowski stated that qualitative descriptive design is typically an eclectic but reasonable combination of sampling, and data collection and analysis, as well as representation techniques. Sandelowski (2000) further added that qualitative descriptive design is the method of choice when a researcher desires to conduct a study intending for straight descriptions of the topic under inquiry.

The interview sessions were audio-recorded to ensure accuracy in the verbatim transcription. NVivo11 was used for storage, management, and analysis of qualitative

data. The inductive coding approach was used to analyze the content of the data. The use of inductive analysis in the study enables the creation of a composite description of the topic under inquiry. The inductive analysis in qualitative research enables the systematic analysis using primarily detailed readings and interpretation of raw data that allow the emergence of themes or categories (Thomas, 2006). Inductive analysis warrants the qualitative researcher to begin with an area of study, facilitating the emergence of themes, patterns, categories and even a theory from the data (Patton, 2002; Thomas, 2006). This chapter presents the discussions of the interpretation of the findings based on the research questions that are guided by HBM as the theoretical framework. This is followed by the presentation on the limitations of the study, recommendations for further research, social change implications, and conclusions.

Discussion

Research question 1: How does the perception of susceptibility influence the behavior of Filipino women towards breast cancer screening? The interview of the participants showed that their perceived susceptibility to breast cancer depended on many factors including (a) family history, (b) age, (c) diet, (d) pills (HRT and contraceptive), (e) lifestyle, (f) environmental factors, (g) obesity, (h) no pregnancy, (i) breast structure, and (j) early menarche. The majority of the participants considered family history as the factor that influenced their screening behavior. Inherited changes or genetic mutations to BRCA1 and BRCA2 are one of the risk factors for breast cancer (CDC, 2016). An estimated 5-10% of all breast cancer cases are associated with the germline mutation, also

known as a genetic mutation, of highly penetrant cancer predisposition genes including, but not limited to BRCA1 and BRCA2 (Ewald et. al., 2014). According to Ewald et al. (2014), the BRCA1 and BRCA2 are tumor suppressor genes that when germline mutation occur can lead to an autosomal dominant disorder known as Hereditary Breast and Ovarian Cancer (HBOC) syndrome, predisposing those who are affected by the early onset of cancer and melanoma, including breast cancer.

Age comes second among the factors that influence the perception of susceptibility among the participants. DeSantis et al. (2014) found that advancing age increases the probability of developing invasive breast cancer among women. Women aging 40 will have 1 in 69 probability of developing invasive breast cancer in the next 10 years, those who are 50 years old will have 1 in 43, 60 years old will have 1 in 29, and those who are 70 will have 1 in 26 probability of developing invasive breast cancer in the next 10 years (DeSantis et al., 2014).

The perceptions of susceptibility of the participants to breast cancer are directly related to their screening behaviors. The higher the perception of susceptibility of the participants to breast cancer, the more willing they are to participate in breast cancer screening. Conversely, those who have a low perception of susceptibility have lesser motivation to undergo breast cancer screening. The findings provided evidence of validity to the HBM proposition that health behavior is influenced by the individuals' perceptions, expectancies, and value beliefs that are also the basis for the individuals in taking health-related actions (Glanz et al., 2015).

Research Question 2: What are the factors that influence the participants' perceived severity to breast cancer? The participants' perceived severity or the seriousness of contracting breast cancer are being influenced by factors similar to those that influenced their perception of susceptibility. The findings of the study provided evidence to the proposition of HBM that the higher the perception of severity of the disease the higher is the tendency of an individual to act on the prescribed behavior. The themes that emerged from the data that reflect the participants' perception of severity based on personalized burden or consequences of breast cancer include financial, emotional, physical stress, and role alteration.

It is not surprising that financial is the major theme that emerged taking into account the enormous amount of money needed to treat cancers in general. Furthermore, Filipino women working as OFWs in Saudi Arabia are mostly breadwinners in the family. Once afflicted with breast cancer, the participants perceived financial as a major consequence of the disease affecting not only themselves but also their families. Likewise, the emotional burden brought about by breast cancer and the costly and physically stressful treatment could easily bring severe depressive manifestations typical among women found to have breast cancer (Li et al., 2015). Furthermore, McKean, Newman, and Adair (2013) stated that the surgical treatment of breast cancer could lead to a sense of losing not just a breast but also other integral parts of the individual's identity. The new roles assumed as a person diagnosed with breast cancer can add gravity to the feeling of uncertainty, knowing that as the disease progresses a more dependent individual emerges.

Research Question 3: What beliefs do Filipino women possess regarding the benefits of breast cancer screening? A perceived benefit is the individual's belief in the positive outcome from adopting a particular health behavior. Glanz et al. (2015) stated that the benefits could be either the reduction of the risk of acquiring the disease or the reduction of the potential consequences. Sunil et al. (2014) found that the individual's motivation to adopt breast cancer screening is the belief that early detection would result in better health outcomes. The HBM proposes that it is very important to shift the individual's perspective by highlighting the beliefs of others about a behavior and its effect to influence the individual's perception of the benefits of a specific health action (Glanz et al., 2015).

In this study, all participants believed that breast cancer screening is beneficial. With 56 references from 20 sources, all participants recognized that screening could lead to early diagnosis of breast cancer. Detecting the disease early with the use of the existing screening procedures can increase the survival to breast cancer (WHO, 2016). According to ACS (2016d), the goal of screening tests for breast cancer is to find breast cancer before it causes symptoms. The screening procedures such as mammograms, clinical breast exam, BSE, MRI, and ultrasound can diagnose the disease at early stages. Early detection will promote early management and control; thus, it increases the potential for survival (ACS, 2016d; Cancer Research UK, 2014; Shah et al., 2014; WHO, 2016). Although most of the participants believed that early detection of breast cancer could lead to better treatment, only a few percentages of the participants recognized that breast cancer screening could increase survival and reduce the mortality to breast cancer.

Research Question 4: How does the participation to screening procedures of Filipino women in Saudi Arabia being influenced by their perceived barriers? The perceived barriers influenced the adherence to screening procedures (Sadler et al., 2012; Sunil et al., 2014). Being a recent immigrant can be a barrier as it decreases the appropriate utilization of breast cancer screening service (Hasnain et al., 2014). In this study, the socioeconomic and cultural background, as well as the context by which they exist, contributed to the participants' perception of the barriers to adopting the desired screening behavior. Emerging as the most referenced themes include lack of time with 62 references from 18 sources, language barrier that was referenced 30 times, and lack of awareness that was referenced in the data 29 times. The first three major themes came as no surprise taking into consideration that all the participants are working with only one or two days off that come during the weekends when laboratory services are limited to priority cases. Filipino is the primary language of Filipinos and English is their means of communicating with other nationalities, however, most expats and locals in Saudi Arabia have difficulty speaking in the English language.

Surprisingly, though, lack of awareness came in third despite the high educational level of the participants. Further analysis of the data shows that the lack of awareness of the participants is mostly attributed to the lack of information on how and where to access the screening services. Lack of access, coupled with a lack of awareness and negative attitudes, are the main reasons why some women are not utilizing screening services (Munyaradzi et al., 2014). Furthermore, in countries where culture is very conservative like Saudi Arabia, the hesitation to expose sensitive body parts prevents

women from participating in screening procedures. Adherence to breast cancer screening is affected by barriers such as embarrassment of discussing and exposing body parts during a physical examination, especially when the one examining is a male physician (Munyaradzi et al., 2014; Sunil et al., 2014). When asked how they would have behaved when situated differently, the recurring situations that could influence the participants' screening behavior included improved accessibility, ease of interaction, ease of mobility, and health insurance and financial capacity.

Research Question 5: How do Filipino women perceive their capability of performing the recommended screening procedures? The majority of the participants expressed confidence in performing the recommended screening behavior. It is especially true among participants with health-related professional backgrounds who believed that they could confidently perform BSE and expressed confidence in adopting the recommended screening behavior. Participants who believed that they have low self-efficacy to breast cancer screening attributed their perceptions to lack of regular practice, lack of motivation, forgetfulness, and lack of familiarity on how or where to undergo the screening process. When asked how they could improve their self-efficacy to the screening process, most of the participants believed that they could improve their confidence through surfing the Internet, government health education and health information dissemination initiatives, and the participation to screening services.

Changes in the level of knowledge could influence change in the perceptions of individual to breast cancer screening and in turn could change the screening behavior of individual (Sadler et al., 2012). The success of adopting the screening behavior through

health education program is influenced by culture and language in the delivery of health education, routine activities of daily living, financial capacity, and transportation means to screening facility (Sadler et al., 2012). Sadler et al. (2012) stated that individuals who participate in educational programs are found to be better educated, have higher health literacy, and found to adhere more to health promoting guidelines. Sadler et al. further stated that the lack of an educational program to address knowledge deficit to breast cancer screening can compound late detection and management of the disease.

Research Question 6: What perceived cues to action influence Filipino women into adopting the screening behavior? It is not surprising that family is the primary motivator of the participants to adopt the desired screening behavior. Cura (2015) stated that the close family ties and the cohesiveness of Filipino family are the reason why decision making among the group is a shared responsibility. A case of breast cancer in the family could easily become a triggering force for them to act rationally to avoid being placed in similar dreadful situations. Furthermore, the participants recommended that the Philippine government should come up with an educational health programs and information dissemination campaigns to improve awareness of the group to the benefits of breast cancer screening, and how and where to access the breast cancer screening services. Sadler et al., (2012) found that Asian women 40 years old and above and nonadherent for annual screening mammograms were more likely to submit for a mammogram after their knowledge of breast cancer screening program were enhanced. The participants further recognized that health information campaigns could be done through social media, which is currently gaining significant influence as an effective

platform for information dissemination and as a critical source of health information.

Limitations of the Study

Several limitations were identified in this study. These limitations are the usual concerns typical in conducting qualitative studies. The limitations include but not limited to a small sample size, sampling design, specific geographical location, and potential for bias. The limited sample size of 20 participants may limit representation of the findings to larger populations. The limitation was addressed by using all the available participants who met the inclusion criteria enabling the researcher to gather a rich and thick description of perceptions, beliefs, and behavior about breast cancer of the participants. The non-random sampling design restricts the ability of the study findings to generalize.

Furthermore, the restriction of the study to recruit participants only from Hail City may limit the representation of the geographical makeup of Filipino women OFWs outside of the study area. Despite the limitation, the available participants were able to provide rich and consistent information during the in-depth interview which increased the trustworthiness of the findings. Moreover, this study used subjective self-reporting by the participants; thus, there is a possibility of bias or misrepresentation of facts. However, the consistency of responses of the participants was strong that the results of the study are persuasive and reliable that could be used as a basis for a larger qualitative study on the issue of interest.

Recommendations

This study is by nature an introductory look into the current breast health issues of Filipino women OFWs in Saudi Arabia. The findings of this study could contribute to the

knowledge base of group's screening behaviors and the various factors that affect their participation in breast cancer screening. The examination of the participants' perceptions, beliefs, and behaviors toward breast cancer screening revealed a need for comprehensive health information dissemination as well as appropriate health education for Filipino women OFWs. There is a need among Filipino women in Saudi Arabia to be proactive in attaining the optimum status of breast health that specifically targets them.

The findings of the study indicated the need for improvement on the aspect of awareness of the participants. Lack of awareness is one of the main reasons why some women are not utilizing screening services (Cancer Research UK, 2014; Munyaradzi et al., 2014). Breast cancer screening awareness of Filipino women should be enhanced for them to develop and sustain appropriate screening behaviors while working in other countries like Saudi Arabia. The study recommended the development of an effective health education and information dissemination strategy addressing this concern. The study identified the Internet as an effective medium to disseminate health information among OFW's. Thus, an intervention policy considering the Internet as a platform should be developed.

Another recommendation is a follow-up study on how to improve health behaviors of Filipino women OFWs who are living in other countries where health and awareness are prerequisites for survival. The results of this study offer numerous areas for continued research in various aspects of breast cancer and breast cancer screening. The study provided significant information on what motivates them to adopt an appropriate screening behavior as well as the factors that serve as obstacles to achieving

it. The results of this study could provide a basis for further research exploring appropriate interventions to magnify the motivations and to minimize the barriers toward breast cancer screening. Also, a study should be conducted from a policy perspective to address health care reforms that will significantly influence breast health care for Filipino women OFWs.

Implications for Social Change

The results of this study have the potential to create positive social change, especially for underserved women population. The findings contribute to the existing information about the screening behaviors of Filipino women working as OFWs in Saudi Arabia. The finding could provide knowledge for health care providers in addressing inaccurate risk perception. According to Sanders et al. (2014), inaccurate risk perception can have an effect on subsequent health behaviors, decision making, as well as psychosocial and health outcomes. The findings have the capability to enhance understanding of breast cancer screening perceptions, beliefs, and behaviors that affect participation to breast cancer screening programs.

El Bcheraoui et al., (2015) stated that there is a low rate of breast cancer screening participation of women in Saudi Arabia. This low rate of participation can be addressed by using the knowledge gained from this study to develop educational interventions targeting to increase awareness of the risk populations. Health education guided by the findings of this study promotes positive social change as awareness about the screening benefits can create a positive perception and facilitates the development of appropriate screening behaviors among women. According to Cancer Research UK (2014),

appropriate screening behaviors among women could promote early diagnosis and treatment of the disease.

Furthermore, the social change implications of the study can also be promoted by using the findings of the study as a foundation in drafting evidenced-based policies that could promote and sustain appropriate screening behaviors. Policies addressing the barriers in adopting appropriate screening behaviors described in this study could be drafted to help minimize the obstacles encountered by individuals seeking breast cancer screening services. Policymakers could take a cue from the recommendations of the participants that to improve self- efficacy in performing and participating in breast cancer screening appropriate health education should be developed, and health information should be disseminated effectively. The consideration of the Internet as a medium to disseminate information as recommended by the participants in this study could create a social impetus taking into account that most of those who are using the Internet adopt the health information they obtained from the social media (Pistolis et al., 2016).

Moreover, to create greater social change, I intend to share the findings of this study to a larger audience using multiple venues including professional conferences and publishing in a peer-reviewed journal. I intend to submit my abstract to local and international conferences to share my findings for this purpose. I will also share the findings of the study to the Overseas Workers Welfare Administration (OWWA) of the Philippines, the agency under the Department of Labor and Employment to promote the improvement of policies that aim to protect and promote the welfare and well-being of Filipino women working overseas. By disseminating my study to a larger audience, it

will bring greater awareness from various influences to improve access to breast cancer screening services and create a greater consciousness of the breast welfare of women at large.

Conclusions

The study examined the perceptions, beliefs, and behaviors toward breast cancer screening of Filipino women OFWs in Saudi Arabia. The study provided evidence of validity to the HBM proposition that health behavior is influenced by the individuals' perceptions, expectancies, and value beliefs that are also the basis for the individuals in taking health-related actions. The study establishes the direct relationship between perceptions of susceptibility and perception of the severity of breast cancer and the desire to participate in breast cancer screening. The high perceptions of susceptibility and severity would bring about the high probability of participation. On the contrary, the low perceptions of susceptibility and severity, in turn, would result in a low probability of participation.

A universal consensus emerged among the participants that a family history of breast cancer increases the participants' perception of susceptibility and severity to the disease. The willingness to participate in screening services emerged from the desire to avoid repeated dreadful situations to occur in the family. The financial burden as a consequence of the disease was perceived to affect not only themselves but also their families. The participants believed that the emotional burden and the new roles assumed by a person diagnosed with breast cancer could add gravity to the perceived severity of

the disease, knowing that as the disease progresses a more dependent individual emerges. Thus, their desire to participate in screening services as a precautionary measure.

Moreover, the desire of the participants to participate is influenced by their appreciation of the benefits of breast cancer screening. The participant's motivation to adopt the desired screening behavior is the belief that early detection would result in better health outcomes. All the participants reported the perception of benefits that breast cancer screening can lead to early diagnosis, early treatment, and increase survival from the disease. Breast cancer screening could lead to early diagnosis that ultimately facilitates early treatment and management (ACS,2016c; Cancer Research UK, 2014; Shah et al., 2014; WHO, 2016). Most of the participants expressed that screening detects breast cancer at an early stage, thus avoiding the high cost of treatment. The benefits of breast cancer screening that are learned from the Internet were also some of the cues that trigger the desire of the participants to act and participate in breast cancer screening.

Furthermore, the socioeconomic and cultural background, as well as the context by which they exist contributed to the participants' perception of the barriers to adopting the desired screening behavior. Other factors including the lack of time, language barrier, and the lack of awareness served as barriers that limit the access of the participants to the screening services. The participants recognized that there should be an improvement on the aspect of accessibility to facilitate participation to breast cancer screening. Participation in the screening services can be facilitated through appropriate health education and effective information dissemination.

Finally, the findings of the study could contribute to the knowledge base of the various factors that influence the breast health decision making of Filipino women OFWs. The results of the study could further promote the development of appropriate health interventions to address the poor rate of participation of Filipino women to breast cancer screening. As part of the recommendations, health education about the benefits of breast cancer screening and improvement of accessibility of the screening services should be done to improve the self-efficacy of the participants. Additionally, the recognition of the participants of their limited mobility leads most of them to suggest the use of the social media appropriately as a platform to disseminate information. According to Pistolis et al., (2016), health information obtained from the social media could be effective cues to the action taking into consideration that most of those who use the platform adopt the health information they obtain from the Internet.

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Appendix A: IRB Approval

Notification of Approval to Proceed to Final Study Stage

workflow@laureate.net

Wed, Nov 16, 2016 at 3:46 AM

Reply To: workflow@laureate.net

To: cherryrose.fronda@waldenu.edu

Cc: vincent.agboto@waldenu.edu, precilla.belin@waldenu.edu

Congratulations! Your Walden Institutional Review Board application has been approved. As such, you are approved by Walden University to proceed to the final study stage.

If you have questions about the final study process, please contact research@waldenu.edu.

IRB Materials Approved Cherry Rose Fronda

Wed, Nov 16, 2016 at 3:46 AM

To: "Cherry Rose Fronda (cherryrose.fronda@waldenu.edu)"

Cc: Vincent Agboto

Dear Ms. Fronda,

This email is to notify you that the Institutional Review Board (IRB) has approved your application for the study entitled, "A Qualitative Description of Perceptions, Beliefs, and Behaviors towards Breast Cancer Screening of Filipino Women in Saudi Arabia."

Your approval # is 1115160407045. You will need to reference this number in your dissertation and in any future funding or publication submissions. Also attached to this e-mail is the IRB approved consent form. Please note, if this is already in an online format, you will need to update that consent document to include the IRB approval number and expiration date.

Your IRB approval expires on November 14, 2017. One month before this expiration date, you will be sent a Continuing Review Form, which must be submitted if you wish to collect data beyond the approval expiration date.

Your IRB approval is contingent upon your adherence to the exact procedures described in the final version of the IRB application document that has been submitted as of this date. This includes maintaining your current status with the university. Your IRB approval is only valid while you are an actively enrolled student at Walden University. If you need to take a leave of absence or are otherwise unable to remain actively enrolled, your IRB approval is suspended. Absolutely NO participant recruitment or data collection may occur while a student is not actively enrolled.

If you need to make any changes to your research staff or procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive confirmation with a status update of the request within 1 week of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for research activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research.

When you submitted your IRB application, you made a commitment to communicate

both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the researcher.

Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained at the IRB section of the Walden website:

http://academicguides.waldenu.edu/researchcenter/orec

Researchers are expected to keep detailed records of their research activities (i.e., participant log sheets, completed consent forms, etc.) for the same period they retain the original data. If, in the future, you require copies of the originally submitted IRB materials, you may request them from Institutional Review Board.

Both students and faculty are invited to provide feedback on this IRB experience at the link below:

Sincerely,

Libby Munson

Research Ethics Support Specialist

Office of Research Ethics and Compliance

Email: irb@waldenu.edu

Fax: 6266050472

Phone: 6123121283

Office address for Walden University: 100 Washington Avenue South, Suite 900 Minneapolis, MN 55401 Information about the Walden University Institutional Review Board, including instructions for application, may be found at this link: http://academicguides.waldenu.edu/researchcenter/orec

Appendix B: Interview Protocol

Interview Protocol

Date: _____

Location: _____

Name of Interviewee: _____

Interviewee Code: _____

Beginning Script

Before we begin the actual interview, I want to thank you for participating in this study. As indicated in the consent form that you have signed, this interview will be recorded but your identity will be kept confidential all throughout the study.

The following questions will be asked in order for the researcher to have a better description of your perceptions, beliefs, and behavior about breast cancer screening while working as OFW here in Saudi Arabia. The information that you will share could facilitate understanding of the current screening behavior of Filipino women in Saudi Arabia, guiding the development of appropriate health interventions that could promote and sustain the desired screening behavior.

Actual interview guide

Perceived susceptibility: (The belief of an individual of the likelihood of acquiring the disease.)

1. What internal or external factors do you think could increase the possibilities of a woman from getting breast cancer?

2. What do you think are your chances of personally getting breast cancer? And how does this perception of susceptibility to the disease influence your participation to breast cancer screening?

Perceived severity: (The beliefs about the seriousness of contracting the disease condition including its complications and consequences.)

4. What do you think would make you personally at risk for breast cancer?

5. How would you describe the personalized burden or consequences of breast cancer?

Perceived benefits: (The individual's belief in the positive outcome from adopting a particular health behavior.)

6. What benefits of breast cancer screening are you going to consider being motivated to participate in breast cancer screening programs?

7. What do you think are the benefits of mammogram?

Perceived barriers: (The beliefs about obstacles to performing a behavior and the negative part of adopting a recommended health behavior.)

8. What barriers or negative perceptions do you have that will serve as obstacles in your participating in breast cancer screening?

9. What do you think prevents Filipino women in Saudi Arabia from participating in breast cancer screening?

10. If you are situated differently, how differently do you think you will behave regarding breast cancer screening?

11. How do you think education about the importance of breast cancer screening could influence your decision from getting breast cancer screening?

Self-efficacy: (The confidence or the conviction of an individual that the behavior can be successfully executed.)

12. Describe your confidence to successfully perform or participate in breast cancer screening.

13. What recommendation can you make to improve your confidence in performing breast cancer screening like breast self-examination (BSE)?

Cues to Action: (Are those external and internal factors that could trigger the prescribed health behavior.)

14. What external and internal factors do you think could encourage you to participate in breast cancer screening?

15. How do you think can social media help motivate you from participating in breast cancer screening?

16. What recommendations can you make to motivate women from participating in breast cancer screening?

End of Interview Script

Unless you have additional information to share, that ends our interview. Thank you once again for your participation. So far, you have shared considerable amount of information that could be beneficial to the study. If you want to give additional information which you think could contribute more to the study; you can contact me in my phone and email address that are indicated in the consent form. However, I would like to make contact with you again in the future for confirmation of the findings of this study.