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Perception of cervical cancer screening among Immigrant African women residing in Houston, Texas

Esther Ifeomadiniru Orji
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral dissertation by

Esther I. Orji

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Review Committee
Dr. Vasileios Margaritis, Committee Chairperson, Public Health Faculty
Dr. Howell Sasser, Committee Member, Public Health Faculty
Dr. Suzanne Richins, University Reviewer, Public Health Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
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Abstract

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Esther I. Orji

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Dissertation Submitted in Partial Fulfillment

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Abstract

Disparities in cervical cancer screening participation still exist especially among immigrant and minority women compared to non immigrant populations. Research investigators through multiple studies have explored reasons for non participation in cervical cancer screening among immigrant and minority women. However, there was limited research specifically on how immigrant women of African descent could be empowered to overcome barriers associated with cervical cancer screening in Houston Texas. The purpose of this study was to explore and understand the perceptions of factors which are barriers to perform cervical cancer screening tests among immigrant women of African descent, as well as their beliefs on preventive medicine, and how immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening. The theoretical framework was based on the health belief model. The participants for the study were 20 immigrant women of African descent aged 21-65. A semi-structured interview schedule which comprised of open ended questions was used to collect data on the perspectives of immigrant women towards cervical cancer screening. Data was transcribed verbatim and analyzed thematically. The social change implications of the study can be that immigrant women could be more encouraged to seek access to the appropriate state of the art in cervical cancer screening which could contribute in reducing mortality, morbidity rate, and costs associated with cervical cancer.

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Dedication

I give glory and honor to God who is my present help in time of need. I dedicate this project to my father Rev Humphrey Onwudiwe Orji (Okosisi 1) who saw the virtue in me from cradle and nurtured me to the right path through love and discipline before yielding to the call from his Creator in 1992. To my mother Lady. Virginia Chinyere Orji (Nwunye Okosisi 1) a brilliant and intelligent woman whose philosophy “Is a question of time and life” and constant prayer propelled me to this height.

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Most importantly, I acknowledge the participants of this study for their interest, and willingness in providing information and sharing their experiences during the interviews. To my colleagues, friends and admirers too numerous to mention by names, I appreciate your immense contributions and support.

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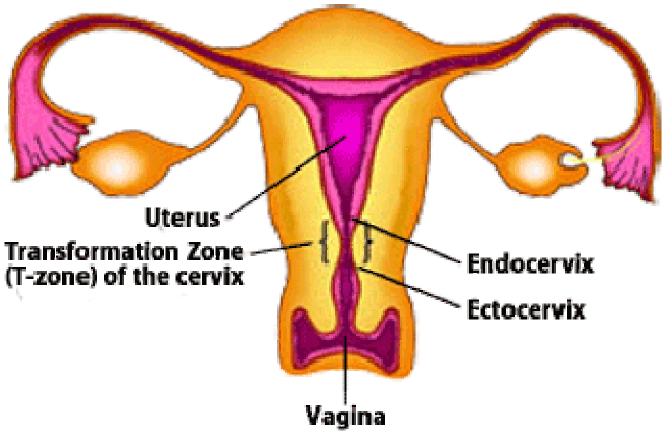
Chapter 1: Introduction to the Study

Introduction

Cervical cancer is a disease that is mostly caused by Human Papillomavirus (HPV) (Faridi et al., 2011). Osman et al (2013) observed that cervical cancer can be caused by other risk factors, such as; early onset of sexual activity, socioeconomic status, multiple sexual partners, pregnancy at young age, smoking and immunosuppressive diseases. Although cervical cancer is a slow-growing cancer and may not have symptoms but it can be found through regular Pap test (National Cancer Institute, 2015). Approximately 90% of cervical cancer is squamous cell cancers and it starts in the transformation zone which is where the cells of the ectocervix meet with the cells of the endocervix (World Health Organization, 2014). In the diagram below the transformation zone (T-zone) is succinctly showed which is the area where the cells meet and the location where abnormal or precancerous cells are likely to develop.



Source: National Cervical Cancer Coalition, available at http://www.nccc-online.org/index.php/cervicalcancer

Based on recent trends in incidence of major cancers and population growth globally, it is predicted that there will be 23.6 million new cancer cases worldwide each year by 2030 (Cancer Center UK, 2014). In the United States, cervical cancer is the 14th most common cause of cancer death among women and accounts for approximately 4,000 deaths per year (Greathouse, 2012).While in 2013, a total of 107,869 new cancer cases and 44,150 deaths from cancer were projected to occur in Texas (Texas Cancer Registry, 2015).

Apart from the HPV which was currently discovered as the major risk factor for cervical cancer, other risk factors for developing cervical cancer includes but not limited to: use of oral contraceptive, multiple sexual partners, socioeconomic status immunosuppressive disease and low socioeconomic status (Osman, Al-Naggar & Taha, 2013). The incidence of cervical cancer is significantly lower in developed countries such as the U.S and Western European countries due to access to screening and early detection through Papanicolaou (Pap) test (Cowburn et al., 2013; Unchalee, 2012), compared to developing countries such as Southern and Eastern Africa, India, Polynesia and Latin America were rate of invasive cancer are high (DeVita, Lawrence & Rosenberg, 2011).

Though cervical cancer is preventable through regular Papanicolaou (Pap) smear screening, it is the fourth most common cancer affecting women worldwide with 528, 000 new cases every year (International Agency for Research on Cancer, 2013).However Morrison et al., (2013) observed that there is discrepancy in cervical cancer screening among Somali immigrant women and the general population in North America.

Disparities in screening participation still exist especially among immigrant and minority women compared to non- immigrant populations (Harcourt et al., 2014). Research investigators through multiple studies have explored reasons for non-participation in cervical cancer screening among immigrant and minority women (Greathouse, 2012; Nguyen, 2012). However, there was limited research specifically on how immigrant women of African descent could be empowered to overcome barriers associated with cervical cancer screening in Houston Texas.

According to Houston Department of Health and Human Services (HDHHS) (2008), Houston is a diverse city with 60% of the population made up of Black or African American, Hispanic or Latino, and Asian residents. Blacks, which refers to people with origin from Black racial groups of Africa experience poor health situations such as heart disease, cancer, stroke, and diabetes more than any other racial or ethnic groups in Houston (HDHHS, 2008).

The incidence of cervical cancer is 61% higher among Black women, and they are nearly three times more likely to die from it than any other ethnic/racial group (HHDS, 2008). The Black population is made up of 11% foreign born and these immigrants are largely from African countries such as Nigeria, Kenya and a few from other African countries. Others come from Jamaica and Central American/Caribbean countries (HDHHS, 2008). The large population of immigrants from Africa which constitute a highly diverse and fast growing population in the U.S makes Houston ideal to study the perspectives of cervical cancer screening among immigrant women of African descent(The State of Health in Houston/Harris County, 2012). Additionally, blacks have the highest overall rate for new cancer cases and death compared to other ethnic/racial group (Cancer Prevention and Research Institute of Texas (CPRIT), 2012).

The potential implications of the study are that: immigrant women could receive culturally and linguistically sensitive information that could bring significant alteration in their behaviors, cultural values, patterns and norms about cervical cancer screening. Also they could receive these services at the community health centers were health insurance and socioeconomic status are not required criteria. They could also be more encouraged to seek for access to the appropriate state of the art in cervical cancer screening which could help in reducing mortality and morbidity rate and costs associated with cervical cancer due to late diagnosis of the diseases.

The major areas I addressed in this chapter are; the background of the study, problem statement, purpose, research questions, nature of the study, limitations and significance of the study.

Background

According to American Cancer Society (2013) of the more than 3 million foreign-born African Americans living in the U.S., 35% were born in Africa. Schleicher (2007) stated that most of these immigrant women come from countries where there is little or no access to cervical cancer screening and they see their coming to the US as an opportunity to utilize available access to healthcare services.

Harcourt et al., (2014) assessed the rates and factors associated with cancer screening behavior among African immigrant women in Minnesota. According to the findings of this study, ethnicity and the duration of residence in the U.S. were significantly associated with non- cervical cancer screening. The authors highlighted the need for addressing the barriers identified by the community which would help in providing programs that would enhance screening rates in this population.

Ralston et al (2013) assessed the knowledge of risk factors for cervical cancer, history of Pap smear testing, socioeconomic, acculturation and characteristics among Chinese immigrants in Seattle. Ralston et al (2013) argued that the high rate of mortality and morbidity among Chinese Americans is due to cervical cancer.

McDonald and Nelly (2009) investigated whether immigrant women in the U. S. were less likely to have been diagnosed with cancer recently and what factors might help in explaining identified differences. McDonald and Nelly (2009) argued that immigrant women from various ethnic groups were less likely to have been screened for cervical or breast cancer compared with their U.S –born counterparts.

Maree and Wright (2010) explored whether cervical cancer information presented in a non-stigmatizing manner, can enhance cervical cancer screening among women living in a resource poor environment in Tshwane South Africa. The authors observed that despite the limitations the findings of the study may be significant to the body of knowledge on presenting cervical screening information to women in a non-stigmatizing manner without apportioning blame to them on the causes of cervical cancer.

Garcés- Palacio and Scarinci (2010) examined the factors associated with perceived susceptibility to cervical cancer among Latina immigrants in two counties in Alabama. The findings of this study may be significant in developing interventions that target immigrant populations in the reduction of the prevalence of cervical cancer in immigrant populations

Xa et al. (2012) determined whether demographic, acculturation, healthcare access, knowledge and beliefs are associated with past history of cervical cancer screening among Vietnamese women. Physician recommendation for screening and health insurance were positively associated with prior screening because the authors highlighted the need to acknowledge factors that are associated with cervical cancer screening and development of culturally appropriate intervention strategies that would increase cervical cancer screening rates among immigrant women.

Parish et al. (2013) examined cervical cancer screening and determinants of screening for women with intellectual disabilities. Parish et al. (2013) observed that women with intellectual disabilities, who had gynecologist, reside in residential buildings or rural communities received more care than women in the general population with intellectual disabilities. The authors provided insight on the need for assertive measures required for improving cervical cancer screening among women.

Ndukwe et al. (2013) investigated the knowledge and awareness of breast and cervical cancer screening practices among female African-born immigrants residing in the Washington D.C metropolitan area. The authors highlighted the cultural differences that exist between African born immigrants and U.S born blacks in health-seeking behaviors which is critical in designing interventions programs.

Luque et al. (2010) explored knowledge, attitude and beliefs of human papilloma virus (HPV). Luque et al (2010) observed the need for beliefs, knowledge and attitude for cervical cancer screening assessment in specific subgroups. The authors also concluded that the findings can be used in enhancing informed decision making in terms of adopting new health behaviors.

A closer look at the array of information provided from previous research on cervical cancer screening showed that investigators mostly examined intervention programs that target all immigrant or minority women. Despite these interventions there was limited research pertaining to factors which are barriers to perform cervical cancer screening tests by immigrant women as well as to beliefs on preventive medicine and to how immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening.

Problem statement

Cervical cancer is globally the third most common cancer with a devastating human, social, and economic cost especially among women in their prime (Azerkan et al., 2011). According to World Health Organization (2013), although cervical cancer is preventable it is one of the world’s deadliest forms of cancer for women that accounts for approximately 270,000 deaths annually with 85% of these deaths occurring in developing countries.

The incidence of cervical cancer is significantly lower in the U.S due to access to screening and early detection through Papanicolaou (Pap) test (Cowburn et al., 2013), compared to developing countries especially in Africa where an estimated 53,000 women die of cervical cancer every year (WHO,2015). However, Morrison et al., (2013) observed that there is discrepancy in cervical cancer screening among Somali immigrant women and the general population in North America. Disparities in screening participation still exist especially among immigrant and minority women compared to non- immigrant populations (Harcourt et al., 2014).

There was research evidence on cervical cancer screening rates, factors affecting cervical cancer screening, knowledge of risk factors, and perceived susceptibility among immigrant women (Adeyemi, 2013; Garcés- Palacio & Scarinci, 2010; Harcourt et al., 2014; McDonald & Nelly, 2009; Ralston et al., 2013). However, majority of the studies focused on immigrants from Latin America, Asia, Mexico, Korea, Vietnam and Filipinos (Schleicher2007). Whereas American Cancer Society (2013) stated that 35% of foreign-born African Americans were born in Africa.

According to previous research there has been recorded success in the use of Pap smear for early dictation of cervical cancer and numerous intervention studies on cervical screening in immigrant populations (World Health Organization, 2013; Taylor et al., 2009). Despite these interventions there was limited research pertaining to factors which are barriers to perform cervical cancer screening test by immigrant women as well as to beliefs on preventive medicine, and to how immigrant women could be empowered in order to overcome barriers associated with cancer screening (Taylor et al., 2009). According to Schleicher (2007) most immigrant women come from countries (such as African countries) where there is little or no access to cervical cancer screening and they see their coming to the U.S. as an opportunity to utilize available access to healthcare services.

Despite various simple and effective cervical cancer screening procedures and intervention programs women still die of cervical cancer which is not a healthy situation for any nation. According to Azerkan et al (2012) low participation in cervical cancer screening among immigrant women could reflect differences in risk of cervical cancer. While Nguyen (2012) stated that an understanding into the causes of disparities in cervical cancer screening could provide insight into alleviating disparities in cancer mortality.

Purpose of the study

The purpose of this study was to qualitatively explore and understand the perceptions of factors which are barriers to perform cervical cancer screening tests among immigrant women of African descent, as well as their beliefs on preventive medicine, and how immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening. Findings from previously published studies on interventions to enhance cervical cancer screening indicated that; investigators either examined intervention programs targeting immigrant women from all minorities or ethnic groups (Fang et al., 2011; Lu et al., 2012; Sewali et al., 2014)

Garcés-Palacio and Scarinci (2010) stated that past or current perceptions of HPV/STI exposure were factors associated with perceived susceptibility to cervical cancer among Latina immigrants in Alabama. Also, Luque et al (2014) observed that improved methods for disseminating important health information are required for greater access to care among Mexican immigrant women in Southeast Georgia. There was limited research on the extent to which these research findings specifically apply to immigrant women of African descent residing in Houston, how immigrant women could be empowered to overcome barriers in cervical cancer screening in order to reduce the financial, emotional burden and mortality rates associated with cervical cancer. Researchers revealed that disparities are apparent among women when looking at specific cancer sites (CPRIT, 2012). For example Hispanic women have higher incidence rates of cervical cancer compared with other racial/ethnic groups, while black women suffer higher mortality rates for cervical cancer than any other racial/ethnic groups (CPRIT, 2012).

There was need to explore the perspectives of African immigrant women in accessing preventive measures for cervical cancer screening and how immigrant women of African descent could be empowered to take advantage of the various cervical cancer intervention programs available in the communities. This could help to reduce deaths and number of new cases of cervical cancer through screening and early dictation.

Research questions

1. What are the perspectives of African immigrant women in accessing preventive measures for cervical cancer such as screening for cervical cancer in Houston Texas?
2. What are the perceived barriers associated with cervical cancer screening among African immigrant women residing in Houston Texas?
3. Does a socioeconomic factor (e.g., country of origin, educational level, and annual income) affect the decision for cervical cancer screening among African immigrant women residing in Houston, Texas?

Theoretical base

The theoretical framework for this study was based on the health belief model (HBM). The HBM was originally developed in the 1950s by social psychologists in the United States Public Health Services to explain why people failed to participate in programs to prevent and detect diseases (Glanz et al., 2008; Hochbaum, 1958; Rosenstock, 1960, 1974). According to Glanz et al. (2008) the HBM contains several primary concepts that predict why people would take action to prevent, to screen for or to control illness conditions.

The HBM constructs according to Glanz et al. (2008) includes; perceive susceptibility: the belief about the chances of experiencing a risk, perceived severity: belief about the seriousness of a condition and its consequences, perceived benefits: belief in efficacy of advised action to reduce risk or seriousness of impact, perceived barriers: belief about the tangible and psychological costs of action, cues to action: strategies to activate readiness and self--efficacy: confidence in one's ability to take action (p.48).

The decision to use the HBM as a theoretical framework for the study was based on proven scholarship of the use of HBM in understanding and exploring women's perception and experiences in performing cervical cancer screening and decision making for cervical cancer practices (Learmonth, De Abreu and Horsfall, 2013). The research questions; what are the perspectives of African immigrant women in accessing preventive measures for cervical cancer such as screening for cervical cancer, what are the perceived barriers associated with cervical cancer screening among African immigrant women and does socioeconomic factors affect the decision for cervical cancer screening among African immigrant women are tied to the constructs of the HBM.

The HBM's constructs has been used in finding differences in specific perceptions regarding perceived susceptibility, perceived benefits and perceived barriers among racial or ethnic groups (Glanz, 2008). The model has also been frequently used as major conceptual frame work to guide research relating to preventive and treatment programs which include but not limited to; cervical cancer screening, tuberculosis, breast cancer screening, family planning and use of seat belts (Glanz et al., 2008; Julinawati et al., 2013). According to Glanz (2008), the exploratory power of the HBM constructs enable research investigators in finding differences by race.

There have been a body of research on the use of the HBM as a theoretical framework in examining the unique beliefs of black immigrant women or minority women in relation to cervical cancer and cervical cancer screening practices (Black, 2013; Ekechi et al., 2014; Moore de Peralta et al., 2011). However, there was limited research on the use of the model in examining cervical cancer screening tests among immigrant women of African descent residing in Houston Texas and to how the immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening so as to increase screening rate and reduce number of new cases in this vulnerable population. The HBM was considered appropriate for this study because the model is not only used in addressing individual behavior, but it is also effective in addressing health conditions that evoke care and concern such as cervical cancer screening(Glanz et al., 2008).

As enhancing perception is the pivot on which the HBM revolves (Glanz et al., 2008), I used the six constructs of the HBM which include perceived susceptibility to cervical cancer, perceived severity for cervical cancer, perceived benefits and barriers to engage in cervical cancer screening, cues to action and self-efficacy ability and confidence to engage in cervical cancer screening guidelines to analyz and conceptualize the directions of the study. I provided a more detailed discussion in the literature in Chapter 2.

Nature of study

The nature of this study was qualitative with ethnographic approach. The qualitative ethnographic methodology was useful in exploring the perspectives of African immigrant women on preventive measures for cancer such as cervical cancer screening. According to Talib and Travallaei (2010) ethnographic approach is used as a guide for researchers in interpreting and limiting the role of cultural biases in a study. Talib and Travallaei (2010) further stated that in ethnographic methodology data interpretations are based on theory and not on the researchers experience and insights. For the purpose of the study, qualitative interviews were conducted with African immigrant women in Houston, Texas, applying the principles of purposive sampling and saturation.

Qualitative interview survey was conducted with 20 immigrant women of African descent. A semi-structured interview schedule which comprised of open ended questions was used to guide the interview, this enabled the women to provide in-depth description of their perceptions of cervical cancer screening. Interviews were audio and manually recorded and transcribed verbatim. The qualitative thematic data analysis software Nvivo

10 was used for data management while the analysis was done manually. NVivo through a variety of analyzing tools helps to analyze and manage qualitative data (Creswell, 2013).

Definitions

Acculturation: Adoption of beliefs and behaviors of another cultural group (Ralston et al., 2013)

Ectocervix: is the part of the uterus that is covered with flat thin cells and extends into the vagina (National Cancer Coalition, 2015)

Human papilloma viruses (HPV): The HPV is a sexually transmitted virus that can be passed through genital or by skin-to-skin contact. The different types of HPV that can increase the risk of developing cervical cancer include types: 16, 18, 31, 33 and 45. Approximately 70% or 7out of 10 of the cancers of the cervix is caused by HPV types 16 and 18 (Cancer Research Center UK, 2014).

Incidence of cervical cancer: occurrence of new cases of cervical cancer among immigrant populations (Cowburn et al., 2013).

Papanicolaou (Pap) test: The Pap derived its name from the founder Dr. George Papanicolaou. It is a screening test that is performed on the cells of the uterine cervix and used for prevention of cervical cancer (Baka et al., 2013).

Assumptions

It was assumed that all the participants are fluent in speaking and writing English language. Hence the interview was conducted in English. It was also assumed that there will be immigrant women of African descent from countries in the north, east, west and south of Africa residing in Houston Texas since the city is culturally diverse. It was assumed that the participants will be sincere and informative in their responses.

Another assumption was that the principles of saturation will be met in determining the sample size for the study. The concept of saturation in qualitative research implies that participants will be continually recruited until the sample is large enough to ensure that all important perceptions are uncovered and collection of new data does not yield new themes on the phenomenon that is being investigated (Mason, 2010).

Menard et al (2010) in a study on barriers to cervical cancer screening among Haitian immigrant women stated that data saturation for the study was achieved after interviewing 15 women aged 41 and over 60 years. They further stated that the data saturation was also determined by the members of the partnership for the study. Mwaka et al., (2015) in a study on symptomatic presentation with cervical cancer to assess the pathways to diagnosis in a low income country interviewed 12 women in the first phase of the data collection. Mwaka et al., (2015) stated that data saturation was achieved after no new themes emerged from further interview with one participant in the second phase so this enabled them to stop further recruitment. Though saturation might not be the only acclaimed way to design or conduct qualitative studies, it should be the guiding principle for qualitative data collection (Mason, 2010).

Scope and delimitation

The study was limited to adult immigrant African women who were born in Africa, immigrated and residing in Houston for more than three months and above prior to the start of the study. The study participants were women who have no diagnosis of cervical cancer and have not participated in any cervical cancer screening procedure or program in Houston. The selection of the study participant was based on the researcher's discretion and research questions, the participants were selected from a subculture which is immigrant women of African descent (Creswell, 2013). This helped in gaining some perspectives on factors which are barriers to perform cervical cancer screening test by this high risk population group.

Limitations

Purposive sampling method was used in recruiting the study participants. This was a limitation because immigrant women from some African countries were underrepresented while others were over represented hence caution should be taken in extrapolating the findings of the study to all immigrant women of African descent.

Because of the inclusion and exclusion criteria the findings from the study might not be an adequate reflection of the opinions of all immigrant women of African descent residing in Houston Texas. However, despite these limitations findings from the study could provide information on how immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening and how the use of culturally, sensitive and linguistically appropriate cervical cancer screening programs can enhance the screening rate in immigrant populations. Also policy makers could be assisted in making recommendations for cervical cancer screening in immigrant populations.

Among the biases that were thought that could influence the outcome of the study are question bias and data interpretation bias (Creswell, 2013; Pannucci & Wilkins; 2010;

Šimundić, 2013). How the research questions are phrased can introduce bias and this could lead to study participants providing biased responses. The issue of question bias was controlled with the use of interview guide. With the interview guide I was able to check for biased questions and either eliminated or rephrased them. Since the researcher is the main instrument for data collection in qualitative research (Creswell, 2013) this gave me leverage for control for biased questions. Ethnographic approach was used to avoid data interpretations bias for this study because in ethnographic methodology data interpretations are based on theory and not on the researchers experience and insights (Talib & Travallaei, 2010).

The limitations that were derived from this qualitative study are that the findings could be subjected to social desirability bias due to self reporting of screening practices and self selection bias. Ekechi et al., (2014) in a study of the socio-demographic and ethnicity-related predictors of cervical cancer knowledge, cervical screening attendance and reasons for non-attendance among Black women in London observed that relying on self reported screening attendance could subject the findings of the study to social desirability bias. Further, the small size of group of women used in the study may lead to self selection bias into the study based on interest for cervical cancer by the women. Raymond et al (2014) highlighted this limitation in a qualitative study on culturally informed views of older and younger Somali immigrant women.

Significance

Although currently there are proven measures for preventing cervical cancer in developed countries yet cervical cancer remains a threat to mankind in developing countries especially in Africa where the disease accounts for the death of approximately 53,000 women annually (World Health Organization,2015). However, research investigators through multiple studies have tried to explore, describe or understand factors that culminate to non-participation in cervical cancer screening among immigrant women from Africa that are residing in developed countries such as the US (Adeyemi, 2013; Bigby et al., 2010; Harcourt et al., 2014; Ndukwe,2013; Raymond et al., 2014).

There was paucity of information on the perspectives of factors which are barriers to perform cervical cancer screening tests among immigrant women of African descent, as well as their beliefs on preventive medicine, and how immigrant women could be empowered in order to overcome barriers associated with cervical cancer. This was the gap that was filled with this study regarding cervical cancer screening as a preventive measure for reducing mortality rates due to late prognosis of cervical cancer. According to the Women in Government (2014) providing women all over the world, with benefits from the tools that have helped in making significant difference in the battle against cervical cancer in the U.S, and other developed countries would help in global eradication of this disease that is preventable.

With this study, information could be provided on how immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening and how the use of culturally, sensitive and linguistically appropriate cervical cancer screening programs could reduce the incidence of cervical cancer and enhance the screening rate in immigrant populations. Also policy makers could be assisted in making recommendations for cervical cancer screening in immigrant populations.

The potential social change implications of the study could be that; immigrant women could receive culturally and linguistically sensitive information that could bring significant alteration in their behaviors, cultural values, patterns and norms about cervical cancer screening. They could also receive services at the community health centers where health insurance and socioeconomic status are not required criteria for cervical cancer screening. They could also be more encouraged to seek access to the appropriate state of the art in cervical cancer screening which could help in reducing mortality and morbidity rate and costs associated with cervical cancer.

Summary

Cervical cancer is caused by uncontrolled and abnormal growth in the cervix which does not allow normal functions and organization of cells in the body (WHO, 2015). There was proven scholarship on the effectiveness and efficacy of the use of screening tests for prevention and control of cervical cancer (Lyimo and Beran, 2012). However cervical cancer still remain a burden and threat to women all over the world but more especially in developing countries such as Africa. For example in the US despite the unprecedented success that has been achieved in the rate of cervical cancer screening in the past decades, cervical cancer screening rates are still low among immigrant women (Bastani et al., 2011; Gall, 2012). Although factors that culminate to non-participation in cervical cancer screening among immigrant women that are residing in the US have been explored in multiple studies (Luque et al., 2014; Marvan et al., 2013), there was dearth of information specifically on the perspectives of factors which are barriers to perform cervical cancer screening tests among immigrant women of African descent, as well as their beliefs on preventive medicine, and how immigrant women could be empowered in order to overcome barriers associated with cervical cancer in Houston Texas. With this study I attempted to fill this gap in literature. There was research evidence that Texas is among the states with the largest number of African immigrants (American Immigration Council, 2012). Houston being the largest city in Texas and the fourth largest city in the country makes it ideal to study cervical cancer screening among immigrant women from Africa. Additionally, this population constitutes a highly diverse and fast growing population in the U.S (The State of Health in Houston/Harris County, 2012).

The aim of this qualitative study was to explore and understand the perspectives of immigrant women of African descent on preventive measures for cervical cancer and how to empower immigrant women to overcome the barriers associated with cervical cancer screening in Houston, Texas. An ethnographic approach was used. Qualitative interviews was conducted with African immigrant women residing in Houston, Texas, applying the principles of purposive sampling and saturation. The HBM was the theoretical base for the study because of the models' emphasis on the importance of perception and experiences.

With this study information could be provided on how immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening in order to reduce their risk for cervical cancer. Also policy makers could be assisted in making recommendations for cervical cancer screening in immigrant populations.

The potential social change implications of the study could be that; immigrant women could receive culturally and linguistically sensitive information that could bring significant alteration in their behaviors, cultural values, patterns and norms about cervical cancer screening.

In chapter 2, I discussed in detail the literature on cervical cancer screening among immigrant women both in developed and developing countries and the need to bridge the gap in literature in cervical cancer screening among immigrant women of African descent in Houston Texas.

Chapter 2: Literature Review

Introduction

Cervical cancer is a serious health condition that affects women both at prime and at later stages of their lives and is responsible for approximately 270,000 deaths annually worldwide (WHO, 2015). The burden of cervical cancer disease is disproportionately burn by women from developing countries with approximately 85% being associated with its mortality and morbidity due to lack of access to effective screening programs (Mupepi et al., 2011). In the US cervical cancer incidence rates are higher among immigrant women compared to US- born citizens (Ndukwe et al, 2013). Furthermore, it has been observed that women who recently immigrated into the US and without health insurance are less likely to have timely cervical cancer screening (ACS, 2014). Garcés-Palacio & Scarinci (2012) also posited that the cervical cancer screening rates of women who immigrated into the US for less than 10 years are 73% compared to 89% for women who were born in the US.

There was proven evidence that cervical cancer is preventable and treatable if dictated earlier using Pap smears screening and HPV vaccination (Grandahl et al., 2012;Unchalee,2012). Researchers at the National Institutes of Health in a recent study concluded that a negative HPV test infection has greater safety, assurance, against future risk of cervical cancer compared to a negative Pap test (National Cancer Institute, 2014).

Despite the innovative screening programs and unprecedented success recorded in cervical cancer there was still gap in the uptake rate for cervical cancer screening, reduction of mortality and morbidity rates especially among immigrants/minority populations in developing countries such as sub-Saharan Africa, and developed countries such as U.S and United Kingdom (Lee et al., 2014; Mupepi et al., 2011; Ndukwe et al., 2013, Wright et al, 2014).

The purpose of this study was to explore and understand the perspectives of immigrant women of African descent in preventive measures for cervical cancer screening. How immigrant women of African descent could be empowered to take advantage of the various cervical cancer screening programs available in the communities in order to increase screening rates, reduce number of new cases and high mortality rates associated with cervical cancer diseases in this vulnerable population. With this study, information could be provided on early dictation of cervical cancer which could help to reduce mortality rate associated with late diagnosis of the disease. The information provided could help in increasing awareness on the benefits of early dictation and treatment of cervical cancer before the disease gets to advanced stage. Reduce the financial burden incurred by individuals, families and communities due to expensive treatment from late diagnosis. Also policy makers could be assisted in making recommendations for cervical cancer screening in immigrant populations.

Cervical cancer in developing and developed countries

Cervical cancer is a significant international health concern as it is the most common malignancy in women worldwide (Ali, Kuelker & Wassie, 2012). In a systemic analysis of breast and cervical cancer in 187 countries between 1980 and 2010 global cervical cancer incidence increased from 378 000 (256 000–489 000) cases per year in

1980 to 454 000 (318 000–620 000) cases per year in 2010 reflecting an annual increase of 0.6% (Forouzanfar et al., 2011).

Though the analysis showed that cervical cancer death rates have been decreasing yet 200 000 (139 000–276 000) women died of the disease in 2010 of whom 46 000 (33 000–64 000) aged 15- 49 years were from developing countries (Forouzanfar et al., 2011).

According to the American Cancer Society (2015) in the US approximately 12,900 cases of invasive cancer will be diagnosed among women and of this number about 4,100 women will die of these diseases (ACS, 2015). In Europe 54,517 new cases of invasive cervical cancer are diagnosed annually with 24,874 deaths yearly from the disease (Colombo et al., 2015) and in Spain cervical cancer rate was 7.6 per 100,000 women in 2002 (Acton, 2013).

There has been remarkable success in reducing deaths associated with cervical cancer in developed countries partly due to the use of the Pap smear test which is a screening procedure that can dictate changes in the cervix before cancer develops(ACS, 2015; Acton, 2013). However, there are still disparities in cervical cancer among immigrants /racial ethnic minorities. In the US Hispanic women, African- Americans, Asians and Pacific islanders are most likely to get cervical cancer, while American Indians and Alaskan natives has the lowest risk of cervical cancer nationally (ACS, 2015).

In developing countries such as Sub-Saharan Africa, approximately 34.8 new cases are diagnosed per 100, 000 women annually with an estimated annual death of 22.5

per 100, 000 women compared with 6.6 and 2.5 per 100, 000 women in North America respectively (IARC, 2013). The results from the literature search revealed that globally 18 out of 20 countries with the highest mortality from cervical cancer and cumulative risk from cervical cancer respectively are from African countries. Seven out of twenty countries globally with the highest global mortality of cervical cancer by absolute numbers were also from Africa (African Coalition on Maternal Newborn and Child Health, 2014).

According to the WHO 98% of cervical cancer deaths will occur in developing countries by 2030 which is an indication of continued disparities between developed and developing countries (Barot, 2012). Giant strides has been made in developed countries in reducing cervical cancer burden on women due to early dictation through preventive measures such as Pap smear test and HPV vaccinations (ACS, 2013). Deaths caused by cervical cancer are still highest in countries where there are lack of access to appropriate screening test and treatments (Ali et al., 2012).

As cervical cancer is treatable and preventable at low cost, facilitating screening aimed at dictating precursor lesions coupled with appropriate diagnostic treatment and follow-up should be made available to all women (Maseko, Chirwa & Muula, 2015). Most women in developing countries often present with advanced and untreatable disease while few women had never screened for cervical cancer resulting in poor survival rates, higher mortality and morbidity rates (Denny, 2012; Wright, Aiyedehin, Akinyinka & Ilozumba, 2014).

Findings from previous studies on cervical cancer in developing countries showed lack of knowledge of cervical cancer, religious/cultural beliefs, socioeconomic status as among the factors that influence perceptions and views of women in developing countries. In a study in Zimbabwe of 514 participants 91% had never had cervical cancer screening, 81% had no previous knowledge of cervical cancer screening test, 80% expressed positive beliefs about cervical cancer screening test after an educational intervention. Women who were financially independent were 6.6% more likely to access cervical cancer screening more than those who depend on their husbands. The authors concluded that improvement on accessibility of screening would require planning and implementing programs that involve community leaders and culturally appropriate messages (Mupepi et al., 2011).

Rationale for screening programs

There has been a dramatic decrease in the incidence and mortality rate from invasive cervical cancer in developed countries in the past five decades due to the use of Pap smear test for early dictation and treatment of cervical cancer (Reis et al., 2012). The proven efficacy of the Pap smear test dates back to 1928 when Dr. George Papanicolaou discovered that cancerous cells could be dictated by examining the cytology of the virginal smear through a microscope (Shepard, 2011). Researchers revealed that it took decades before the Pap smear screening test was accepted by the medical science (Shepard, 2011), but today it is universally accepted as a standard cervical cancer screening that has positively turned the tide in cervical cancer death and survival for all women worldwide (McCarthy et al., 2014; Shepard, 2011).

In Sweden cervical cancer screening programs and inclusion of the Pap smear test for early dictation of precancerous cells have proven to significantly reduce the incidence of cervical cancer since its implementations in the 1960s (Olsson et al., 2014). Studies in British Columbia showed a record of 70% reduction in cervical cancer incidence over the past fifty years among most of the female population due to free and affordable cervical cancer screening programs (Black, 2013).

Marlow et al.,(2014) reported the effectiveness and overall coverage of cervical cancer screening for women aged 24-64 years in England as good. According to the American College of Obstetrics and Gynecology (ACOG) (2012), the incidence of mortality from invasive cervical cancer has dropped to more than 50% for the past thirty years in the US. It is also observed that survival rate for pre invasive cervical lesions and invasive localized lesions are close to 100% and 95% respectively with 5years post diagnosis (Nguyen-Truong, Lee-Lin, Leo, Gedaly-Duff, Nail, Wang & Tran, 2012). There is also proven scholarship on the efficacy of cervical cancer screening program in developing countries such as the sub-Saharan Africa with survival rate of 21% for cancer patients (Wright, Aiyedehin, Akinyinka and Ilozumba, 2013)

ACOG (2012) stated that cervical cancer occur mostly in women who have never screened or have not received adequate screening. This indicates the promise the Pap test holds in saving lives through early dictation, treatment and in significant reduction of mortality and morbidity associated with cervical cancer diseases especially in immigrant populations (Reis et al., 2012; WHO, 2005). According to WHO (2013) the implementation of cervical cancer prevention and control programmes contributes to the achievement of the Millennium Development Goals through universal access to sexual and reproductive health services to improve women's health,

Though it is generally agreed that lives could be saved through cervical cancer screening yet in 2012 approximately eight million women in US between the ages of 21 and 65 did not receive cervical cancer screening in the past five years (CDC, 2014). Studies related to cervical cancer among immigrants and minority populations have consistently shown staggering disparities in incidence and mortality rate for cervical cancer among this vulnerable population due to under utilization of screening services (Mahrotra, Gaur & Petrova, 2012). Similarly, Gauss et al (2013) observed that Black women experience higher mortality and morbidity from cervical cancer compared to white women. Gauss et al., (2013) further posited that Black women are twice likely to die of cervical cancer compared to white women and that this disparity increases with age.

Researchers have attributed the low uptake of rate of cervical cancer among immigrants to factors such as limited access to health care services, lack of knowledge about cervical cancer and Pap smear test (Lee et al., 2014; Oshima & Maezawa, 2013). Other factors that have been associated with low rates of cervical cancer screening include but not limited to; lack of health insurance, socioeconomic status, smoking, age, acculturation and obesity (ACS, 2014; Yoo et al., 2011).

In a study to assess the association between cervical cancer screening and insurance status in Oregon and California community health centers by using data from electronic health records Cowburn et al (2013), observed that insurance status was a significant predictor of cervical cancer screening. Cowburn et al (2013) further stated that despite the fact that cervical cancer screening services provided at community health centers are not based on insurance status disparities still exist in the association between insurance status and receipt of Pap smear test. Similarly, findings from another study revealed that Latinos without health insurance are less likely to have regular source of care which is a significant predictor for screening behaviors (Kingsley, 2010).

Kangmennaang, Thogarapalli, Mkandawire and Luginaah (2015) in a study on investigating the disparities in cervical cancer screening among Namibian women also observed similar results. According to Kangmennaang et al (2015) the findings from their study revealed that insured women (OR=1.89, p=0.001) and women who had access to health information through education and contact with a health worker (OR=1.41, p=0.001) were more likely to undertake screening compare to uninsured women and those without contact with health personnel. The authors concluded that for a large scale increase in cervical cancer screening in Namibia a universal health insurance scheme that ensures equity and empower women to demand health services should be adopted.

Another factor that has been associated with low rate of cervical cancer screening is socioeconomic status. According to the ACS (2014) financial issue can play significant role in women's decision to screen for cervical cancer. Women with lower incomes and those without health insurance are less likely to be screened compared to those that have health insurance (ACS, 2014). The ACS observation is in cognizance with the findings from a study on the analysis of world health survey on socioeconomic and health access to cervical cancer screening in low-income countries (Akinyemiju, 2012).

The data for the study was drawn from women ages 18-69 years and 40-69 (cervical cancer screening) and (breast cancer screening) respectively from 15 developing countries that participated in the 2003 World Health Survey (Akinyemiju, 2012). The results from the study revealed that 4.1% of women ages 18-69 years had received cervical cancer screening in the past three years while only 2.2% of the women ages 49-69 years had received breast cancer screening in the past five years in developing countries. The results further revealed that cancer screening rates varied by country. Cervical cancer screening rates ranged from1.1 % in Bangladesh to 67% in Congo and breast cancer screening ranged from 0% in Mali to 26% in Congo. The author concluded that household socioeconomic status, rural residence, country health expenditure and healthcare access were significant determinants of cancer screening.

According to Lofters et al (2011) age is among the variables that have been associated with lack of screening within and across world regions. Azerkan et al (2011) observed that in Sweden the degree of participation in cervical cancer screening for immigrant women generally decrease with increasing age at immigration to the country. Additionally, immigration at older age seemed to be an important barrier to cervical cancer screening and also indicated a high risk for cervical cancer (Azerkan et al., 2011). Lofters et al (2011) also suggested that efforts should be made to increase the enrolment of immigrant women in new primary care patient model. They further stated that in order to increase screening rates across immigrant groups effort should be made to ensure that women have access to regular source of primary care and access to female health professionals.

There was proven scholarship that smoking is associated with cervical cancer and it also interferes with the incidence of and prevalence of HPV infection (Fonseca-Moutinho, 2011). In a study to determine the correlation between smoking status among women and their compliance with cervical cancer screening guidelines, MacLaughlan, Lachance and Gjelsvik (2011) posited that women who smoke are at higher risk for developing cervical cancer but have a lower rate of screening for the disease. According to the authors the result of the study revealed that the overall prevalence of compliance with cervical cancer screening guidelines was 83.9%, while the rate of compliance was highest among former smokers compared to never smokers and current smokers respectively. The authors suggested that efforts to increase prevalence of Pap smear test should target current smokers. Consequently, Fonseca-Moutinho (2011) suggested the in order to prevent cervical cancer and improve therapeutic results there is need for practitioners to understand the negative effects of tobacco both on cervical carcinogenesis and current smoking women with cervical HPV infection or cervical intraepithelial neoplasia (CIN). There should also be in place active intervention programs that would enable women to quit smoking habits (Fonseca-Moutinho, 2011).

In another development Lee et al (2013) examined the association between acculturation and three types of cancer screening (colorectal, cervical and breast cancer) with a focus on the role of health insurance and having a regular physician. The authors conducted a cross-sectional study of 851 Chinese, Korean and Vietnamese Americans in Maryland. The authors stated that those who lived more than 20 years in the US were 2-4 times more likely to have screened for colorectal, cervical or breast cancer than those who lived less than 10 years.

The authors reported that the main findings from the study revealed that acculturation was strongly associated with cancer screening. They concluded that providing linguistically and culturally appropriate intervention or educational programs will help to raise awareness on the importance of cancer screening and provide information especially to less acculturated Asian immigrants on low cost and safety net clinics.

Findings from previous studies revealed that obesity might be one of the reasons for the disparities in screening rates among ethnic/racial and gender subgroups (Fang, Wender, Myers, & Petrelli, 2011). Research revealed that black men and women are more likely to be obese and to have a higher cancer mortality compared to their non-Hispanic white counter parts (Fang et al., 2011). Park, Park, Park and Cho (2012) assessed whether weight status is associated with screening rates for breast and cervical cancer in Korean women. The result revealed that overall screening rate for breast cancer was 51.3% and 50.1% for cervical cancer and screening rates for breast and cervical cancer were significantly lower in women with severe obesity. The authors concluded that obesity is associated with lower compliance with breast and cervical cancer screening guidelines in Korean women. There was glaring evidence from research that obesity is clearly associated with increased cancer morbidity and mortality irrespective of effect on screening, therefore it was important to understand and eliminate barriers to screening in obese individuals (Fang et al, 2011).

Considering the factors that are associated with cervical cancer screening among immigrants without exploring and understanding the perspectives of immigrant women of African descent towards cervical cancer screening and to how immigrant women could be empowered in order to overcome barriers associated with cervical cancer might pose a challenge in achieving the Healthy People 2020 objectives (Healthy People 2020, 2015).

Technological innovations and discovery of HPV as a causal agent for cervical cancer has helped in supporting the adoption of cervical cancer prevention guidelines that primarily focus on persistent infection (Schiffman et al., 2011). Researchers at the National Institutes of Health in a recent study concluded that a negative HPV test infection has greater safety, assurance, against future risk of cervical cancer compared to a negative Pap test (National Cancer Institute, 2014). Additionally, the US Preventive Services Task Force (USPSTF) currently recommends cytology (Pap smear) for women ages 21-65 years every 3 years and screening with a combination of cytology and HPV testing(co-testing) for women ages 30-65 years every 5 years (USPSTF, 2014). In the bid to bridge the gap in breast and cervical cancer mortality, morbidity and enhance screening rates in the country, the CDC through National Breast and Cervical Cancer Early Detection Program (NBCCEDP) provides access to breast and cervical cancer screening services to underserved women in all 50 states, the District of Columbia, 5 U.S. territories, and 11 tribes (CDC, 2015).

Given that cervical cancer is treatable and less expensive when dictated and treated early (ACS, 2014), understanding the perspectives of immigrant women towards cervical cancer screening and how immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening could be considered imperative. Because, it could help in shedding light into alleviating the disparities in cancer mortality rates among immigrants, racial and ethnic groups (Nguyen, 2012). It could also help immigrant women to reduce their risk for cervical cancer, increase survival rate and improve their quality of life. According to Karwalajtyas et al (2010) research that informs the core functions of the health care system such as preventive screening services must reach across diverse populations.

In this chapter I discussed in detail the literature on cervical cancer screening among immigrant women both in developed and developing countries and the need to bridge the gap in literature in cervical cancer screening among immigrant women of African descent in Houston Texas. I discussed in detail the Health Belief Model which was the theoretical foundation on which the study was built on and I also provided literature reviews that are related to the key variables and/or concepts

Literature search strategy

The search engines and databases that were utilized for the literature review includes but not limited to: ProQuest, Medline, Academic Premier, Google, PubMed, Medical Journals, Nursing Journals, Journal of Immigrant Minority Health, PsycINFO, Google books, books recommended by Walden University. I also sort for information relevant to the topic from organized sites such as: National Cancer Institute, American Cancer Research, and Center for Disease Control and Prevention. Other sites includes; World Health Organization, Texas Cancer Research Institute and Prevention.

The following keywords were used: *cervical cancer screening, immigrant women, immigrant African women, cervical cancer screening guidelines, empower, Pap smear, health belief model, perceptions, risk factors, attitudes, incidence and behaviors.* The identified keywords were used separately and in various combinations in order to find as much peer-reviewed articles as possible that were relevant to the study.

Theoretical foundation

The focus of this study was the perceptions of cervical cancer screening among immigrant women of African descent. Based on the focus of this study, the theoretical foundation was built on the HBM which is one of the theoretical models that have proven efficacy in assessing the beliefs of people regarding healthy behavior (Rajkumar, 2012).

The HBM was originally developed in the 1950s by social psychologists in the United States Public Health Services in a quest to explain why people failed to participate in free tuberculosis screening programs designed to prevent and detect diseases (Glanz et al., 2008; Hayden, 2009; Hochbaum, 1958; Rosenstock, 1960, 1974). The original concept of the HBM was built on the assumption that individuals take action concerning a health related problem based on personal beliefs or perceptions about the disease and the available strategies that are designed to decrease negative conditions (Glanz et al., 2008;Hayden, 2009; Hochbaum, 1958). The model was later extended to study people's response to symptoms, behaviors in response to diagnosed illness, and adherence to medical regiments (Glanz et al., 2008; Kirscht, 1974).

The HBM was built on the concept that people are likely to take action they belief will reduce their health risk if they regard themselves susceptible to a health condition, believe the condition would have potential consequences, believe a cause of action available to them might be beneficial in reducing susceptibility or severity of the condition and believe anticipated benefits outweigh barriers (Glanz et al., 2008). Though the HBM has been modified in various ways over time it contains several primary constructs that predict why people will take action to prevent, to screen for or to control illness condition (Glanz et al., 2008; Rawlett, 2011). The following perceptions are identified as the main constructs of the HBM

- Perceived Susceptibility: the belief about the chances of experiencing a risk
- Perceived Severity: belief about the seriousness of a condition and its consequences
- Perceived Benefits: belief in efficacy of advised action to reduce risk or seriousness of impact Perceived Barriers: belief about the tangible and psychological costs of action
- Cues to Action: strategies to activate readiness and
- Self--efficacy: confidence in one's ability to take action (p.48).

Research revealed that the constructs of the HBM can be used individually or in combination to explain health behaviors (Jones & Bartlett, n.d). In this study the research questions; what are the perspectives of African immigrant women in accessing preventive measures for cervical cancer such as screening for cervical cancer, what are the perceived barriers associated with cervical cancer screening among African immigrant women and does socioeconomic factors affect the decision for cervical cancer screening among African immigrant women are tied to the constructs of the HBM. The constructs of the

HBM and how it could influence the uptake of cervical cancer screening, reduce mortality and morbidity rates associated with cervical cancer among immigrant women of African descent is described below.

Perceived susceptibility to cervical cancer and cervical cancer screening

According to the HBM women will be more likely to adhere to cervical cancer screening recommendation if they feel that they are susceptible to cervical cancer (Rajkumar, 2012; Glanz et al., 2008). For example a woman have to belief first that there is possibility of her getting cervical cancer before she will be interested in going for a Pap smear test or HPV among vaccination (Glanz et al., 2008). In a study to examine the factors associated with perceived susceptibility to cervical cancer among Latina immigrants in Alabama Garcés-Palacio and Scarinci (2010) observed that greater knowledge about cervical cancer risk factors, current or past perception of exposure to HPV/STI having a relative with cancer reduced the uncertainty about perceived susceptibility to cervical cancer.

According to the findings from previous studies individuals who believed they had risk factors for developing cervical cancer and perceived susceptibility to an illness were more likely to take action to prevent a negative health outcome (Baskaran, Subramanian, Rahman, Ping, Taib, & Rosli, 2013).

Consequently the perception that one is not at risk of cervical cancer has been observed as a reason for not obtaining Pap smear test even when the services are provided for free (Baskaran et al., 2013; Rajkumar, 2012). It was reasonably assumed that the greater the perceived risk the greater the likelihood of engaging in behaviors that would decrease the risk (Jones & Bartlett, n.d).

One of the aims of this study was to find out how far this assertion is applicable to immigrant women of African descent. Exploring the importance of perceived susceptibility of cervical cancer could influence positive perception of the importance of preventive measures that could result to decrease in cervical cancer mortality among immigrant women of African descent.

Soleymanian et al (2014) observed that for change in behavior to occur there was need to understand individual's health beliefs and attitudes to specific health issues. Also reviews on health-related behavior have showed that generally individuals will not try to seek for diagnosis, prevention, or treatment for a condition unless they have minimal levels of related health motivation and information (Soleymanian et al., 2014).

Perceived seriousness of cervical cancer and cervical cancer screening

The construct of perceived seriousness deals with individual beliefs and attitudes about the seriousness of a disease. The belief could be based on knowledge, medical information or beliefs about the general consequences or difficulties that could emanate from a disease in a person’s live. This was found in susceptibility and seriousness score for cervical cancer screening behavior among students in South Africa. Students who had had a Pap test had significantly lower barriers to cervical cancer screening than those students who had not had a Pap test (Hoque, Ghuman Coopoosmay, & Hal, 2014).

Research evidence has shown that perceived threat occurs when perception of susceptibility is combined with perception of seriousness for a disease and that this could invariably lead to changes in behavior. From the literature review this notion was found to be opposite. Because in a previous study the participants perceived cervical cancer as serious disease yet they were not interested in getting a screening test because of their belief that cervical cancer is an incurable disease (Rajkumar, 2012).

In another study Latina women were the least likely to change their perception that Pap test is very painful despite the fact that they have the highest rates of morbidity and mortality from cervical cancer (Gauss, Mabiso, & Williams, 2013). However, in a randomized control trial study of health beliefs associated with cervical cancer screening the women believed that cervical cancer changes life and having a Pap test is important for healthy living which is consistent with the factors associated with HBM (Ma, Gao Fang, Tan, Feng, Ge, & Nguyen, 2013).

Perceived benefits for cervical cancer screening

This construct is concerned with individual's belief or opinion about the usefulness of a new behavior in reducing the risk of developing a disease. This entails that even if a person perceives personal susceptibility to a sever health condition (perceived treat) adopting a healthier behavior based on this perception will depend on the person's believe that the new behavior will decrease chances of developing an adverse health outcome.

Looking at it logically, people might not stop smoking if they belief that it is not beneficial or strive to eat five serving fruits and vegetables a day, yet we are confronted with the question why some people adhare to preventive measures and others do not? Previous studies have shown that perceived benefits play important role in adoption of preventive behaviors such as screening for cervical cancer, colon cancer, HIV voluntary counseling and testing (VCT) and mammography (Jones & Bartlett, n.d; Njau, Watt, Ostermann, Manongi & Sikkema, 2011; Schluterman & Greenberg, 2013; Tracy, 2013).

The result of a multiple linear regression on the predictors of women's intension to be screened for HIV during pregnancy showed that perceived benefits of screening was among the predictors that predicted women's intension to be screened (Natan & Kutygaro, 2014). In Ackerson et al.,(2015) it was observed that students who obtained routine Pap smears perceived greater benefits and fewer barriers to routine screening than the students who did not obtain routine Pap smears. Findings from another study revealed that utilization of cervical cancer screening was based partly on past experience of family member with HIV and the belief that early screening or testing can save lives (Fort et al., 2011). While in Tracey et al (2013), study participants did not view cervical cancer screening as a critical health care.

From the foregoing and as previously stated it could be observed that despite individuals' perceived benefits non- health related perceptions can influence behavioral decisions. Pointing to the question on what makes some people undergo cervical cancer screening and others do not despite the fact that early dictation could prevent precancerous stage, decrease unnecessary deaths and increase usage density especially among immigrant women?

Perceive barriers to cervical cancer screening

This is the belief about the tangible and psychological costs of action (Glanz et al., 2008). Perceived barriers are the negative aspects that could prevent an individual from adopting a specific health action (Rawlett, 2011). Findings from previous studies showed coverage and uptake of cervical cancer screening as major challenges among women and the importance of determining the perceived susceptibility, benefits and barriers to cervical cancer in order to overcome barriers that will enhance the adoption of new behaviors (Baskaran et al., 2013).

Perceived barriers to cervical cancer screening has been attributed to many factors such as: lack of knowledge about cervical cancer, language skills, cultural beliefs and attitudes, lack of access to health services, characteristics of health professionals, fear, cost, personal reasons and lack of female health professionals (De Abreu et al., 2013;Garcés-Palacio & Scarinci, 2010; Gauss et al., 2013; Olsson et al., 2014).

In a study by Were, Nyaberi Buziba (2011) using a cross-sectional survey to determine the perceptions on cervical cancer risk, barriers to screening and previous screening in non pregnant women. It was found that of the 219 women interviewed only 12.3% had had Pap smear tests before. Perception of being at risk was significantly associated with a felt need for screening while fear of abnormal results and lack of finances were the major barriers to screening.

Other barriers found to be responsible for lower cervical cancer screening for some ethnic groups includes low perceived risk, emotional barriers such as: fear, embarrassment and shame (Malow, Waller & Wardle, 2014). This is consistent with the findings from a study in Malawi which showed low knowledge levels, low perceived susceptibility and low perceived benefits from services as major barriers to seeking preventative screening (Fort et al., 2011).

It was assumed that for a new behavior to be adopted a person needs to belief that the efficacy of the new behavior outweigh the consequences of continuing the former behavior (Jones & Bartlett, n.d). Based on this assertion and given the paucity of studies focusing on immigrant women of African descent there was need to determine what barriers exist in cervical cancer screening which might be specific to immigrant women of African descent currently residing in Houston.

Given the association between perceived barriers to cervical cancer screening this construct helped in providing information on how to empower the women in accessing cancer screening services in order to reduce rates of new cases. Again racial and ethnic differences are thought to reflect disparities in access to screening and treatment (U.S Department of Health and Human Services, 2015).

Cues to action for cervical cancer screening

Cues to action are strategies that could be used to activate readiness for change in behavior. Cue to action are also events, people, things or activities that trigger people's interest to change their behavior or prevent adherence to healthy behaviors (Charkazi et al., 2013; Jones & Bartlett n.d). Although cues to action has not been studied systematically (Glanz et al., 2008), but previous studies have shown the efficacy of the construct on women in breast and cervical cancer screening behavior (Charkazi et al., 2013; Rajkumar, 2012).

Morema et al (2014) has investigated the role of cues to action on determinants of cervical cancer screening services among women. Based on the findings attendance to the clinic, provision of free services and health education were cues to action that might increase uptake of cervical cancer screening services among women. Other cues to action that were found in previous studies includes: symptoms of illness, mass media campaigns, churches, husbands, warning labels on products, news from radio and televisions and (Rawlett, 2011 Wardle, Robb, Vernon & Walle, 2015; Okudo, Ajayi & Atolagbe, 2015).

These results are compatible with the findings from study conducted by Kamberi et al (2015) where cues to action and its association with uptake of Pap test showed that 43.90% of women not screened reported that promotional campaigns on the television and radio are effective ways to increase knowledge and participation in screening.

Self-efficacy for cervical cancer screening

Self-efficacy is the confidence in one's own ability to perform an action. Although self-efficacy was not one of the original constructs of the HBM but it was included later in 1988 by Rosenstock, Stretcher, and Becker in order to measure the belief in one's own ability to perform certain behavior (Ma et al., 2012) Generally it is believed that people will not attempt to do something new unless they have the confidence that they can do it. Research findings showed that for a change in behavior to occur people must feel threatened by their current behavioral pattern (perceived susceptibility and severity), belief that acquiring new behavior will be beneficial(perceived benefits) and then belief they have the ability to take action (Rajkumar, 2012).

Findings from study conducted by Ma et al (2015) showed that self-efficacy has significant impact on Pap test behavior among Vietnamese women. Approximately three-quarters of the women who had had Pap test indicated that they have confidence to get a test, manage emotional distressed caused by a Pap compared with 15 % screening rate for those did not feel they were confident to get a test. While 50% of the women did not have the confidence to arrange a Pap test or manage the emotional distress caused by a test. A study conducted among students in South Africa also reported similar result (Hogue et al., 2014).

Rationale for choice of theory

The decision to use the HBM as a theoretical foundation for the study was based on proven scholarship of the use of HBM in understanding and exploring women's perception and experiences in performing cervical cancer screening and decision making for cervical cancer practices (Learmonth, De Abreu and Horsfall, 2013). The research questions; what are the perspectives of African immigrant women in accessing preventive measures for cervical cancer such as screening for cervical cancer, what are the perceived barriers associated with cervical cancer screening among African immigrant women and does socioeconomic factors affect the decision for cervical cancer screening among African immigrant women are tied to the constructs of the HBM.

The HBM's constructs has been used in finding differences in specific perceptions regarding perceived susceptibility, perceived benefits and perceived barriers among racial or ethnic groups (Glanz, 2008). The model has also been frequently used as major conceptual framework to guide research relating to preventive and treatment programs which include but not limited to; cervical cancer screening, tuberculosis, breast cancer screening, family planning and use of seat belts (Julinawati et al.,2013; Moore de Peralta et al.,2014).

Based on the notion that perception and experiences are the pivot on which the HBM revolves the use of the model in exploring and understanding the perspectives of African immigrant women and how the women could be empowered to overcome barriers associated with cervical cancer screening was appropriate. According to Glanz (2008), the exploratory power of the HBM constructs enable research investigators in finding differences by race. There has been body of research on the use of the HBM as a theoretical framework in examining the unique beliefs of black immigrant women or minority women in relation to cervical cancer and cervical cancer screening practices (Black, 2013; Ekechi et al., 2014; Moore de Peralta et al., 2011).

Exploring specifically the health beliefs of immigrant women of African descent using the HBM model helped to unveil the factors underlying screening disparities and mortality rates associated with cervical cancer in this population.

Research evidences showed that a number of cervical cancer screening promotions behaviors have addressed at least one construct of the model with proven significant effects on cervical cancer screening behavior outcomes (Rajkumar, 2012). Hoque et al (2012) in a cross sectional study conducted to elicit information about knowledge and beliefs, and screening history among university women in South Africa found the HBM model useful for explaining perceptions about cervical cancer screening behaviors.

The findings from a study on evaluating a theory- based health education intervention to improve awareness of prostate cancer among men also revealed that health educational interventions based on the HBM and TTM can widely promote health behaviors such as preventive cancer screening (Hale, Hale, Rutley, Aung, & Jolly, 2012). The HBM has guided interventions delivered through television campaigns, community based interventions and persuasive messages to change perceptions and reduce barriers to cervical cancer screening behavior practices (Rajkumar, 2012).

Literature review related to key variables/ and or concepts

Cervical cancer continues to be a major public health challenge both in developed and developing countries. The etiology of cervical cancer has been traced mainly to HPV16/18 which account for at least two-thirds of cervical carcinomas in the world (Colombo et al., 2012). But according to previous studies early cervical cancer screening can help detect intraepithelial grades 2 or 3 which are precancerous lesions and prevent women from developing invasive cervical cancer through early treatment and care (Maseko et al., 2015).

Previous studies have revealed that despite the fact that cervical cancer is preventable treatable if detected early cervical cancer screening rates among immigrant women are low compared to screening rates for US born women(Garcés-Palacio & Scarinci, 2012). The review of the literature showed that multiple studies have used different methodologies such as quantitative, qualitative or mixed methods to explore perceptions, beliefs, knowledge, attitudes and factors which are barriers to perform cervical cancer screening tests among immigrant/ minority women (Leung & Leung, 2010; Ndikom & Ofi,2012; Oscarsson, Qvarnstrom & Tyden, 2013; Ussher, Perz, Gilbert, & The Australian Cancer and Sexuality study team,2015; Maseko, Chirwa & Muula, 2015).

However, little was known through qualitative studies about immigrant women's perceptions of cervical cancer screening utilization in Houston Texas. Therefore, in this study qualitative ethnographic methodology and qualitative interview with individual interviews was used to explore the perspectives of immigrant women of African descent towards cervical cancer screening. According to Talib and Travallaei (2010) ethnographic approach is used as a guide for researchers in interpreting and limiting the role of cultural biases in a study. Talib and Travallaei (2010) further stated that in ethnographic methodology data interpretations are based on theory and not on the researchers experience and insights.

There was proven scholarship in the use of qualitative studies in accessing the perspectives, beliefs, attitudes, knowledge and barrier to cervical cancer screening among immigrant women through qualitative interviews. Oshima and Maezawa (2013) conducted a qualitative study on the perception of cervical cancer screening among Japanese university students who have never had a Pap smear. The authors conducted four focus-group discussions each with 15 female university students between November and December 2009. The focus group discussions were recorded and transcripts were analyzed to extract attitudes of young women towards cervical cancer screening.

The results showed that four themes describing attitudes towards cervical cancer screening emerged from thematic analysis which include : i) a low sense of reality about cervical cancer; ii) a lack of knowledge about both cervical cancer and Pap smears; iii) a lack of motivation to get screened, and iv) a reluctance to visit the gynecologist.

Participants who were interested in undergoing screening for cervical cancer cited the influence of conversations with friends and family, a diagnosis of cancer within their family, and relevant information from the media. The authors stated that the results indicated the importance of getting young women more interested in cervical cancer screening and overcoming their tendency to avoid visiting a gynecologist. The authors cited the inability to generalize the findings of the study to other larger populations as a limitation to the study because the study participants were selected from one university. However the authors concluded that the study offers new insights into Japanese university students' attitudes towards cervical cancer screening.

In another study Reis et al (2012) investigated the knowledge, behavior and beliefs related to cervical and screening among Turkish women. The study was performed in two cities in the East of Turkey between September 2009 and April 2010. A total of 387 women were recruited for the study and data was collected through interview form with the HBM Scale for cervical cancer and Pap smear test. The results showed that women in the research group have poor knowledge, inadequate health behavior and low/medium level false beliefs regarding cervical cancer screening. There was relation between health beliefs and characteristics of women particularly in education(F=10.80, p=0.01). Similarly, it was found that Pap smear barriers were influenced by demographic characteristics and that women with low-level education ($p = 0.001$), divorced women ($p = 0.05$), women with low-income ($p = 0.05$), women who had their first birth at 18 or younger ($p = 0.05$) and women not applying any contraceptive method at all ($p = 0.01$) were determined to have negative Pap smear barriers. The authors pointed out the traditional, social, cultural and economic differences that exist within the country as a limitation to the study. Despite the limitations they concluded that in order to design effective education strategies and to increase women participation in cervical cancer screening in a target group their knowledge, attitudes and beliefs should be evaluated. The authors also established that knowledge, cultural beliefs and structural barriers influence cervical cancer screening and HBM scale for cervical cancer and Pap smear test may help to develop strategies to enhance compliance with cervical cancer screening and follow-up.

Marlow et al (2014) used a qualitative interview study to explore perceived barriers to cervical cancer screening among ethnic minority women. Forty –three women aged 25-64 years from diverse ethnic populations and 11 White British women were recruited from community groups in seven London boroughs. The women were interviewed in English and in any other language of their choice. The results showed that 15 women had delayed screening or had never been screened. Ethnic minority women felt that there was lack of awareness about cervical cancer screening in their community and several other women did not recognize the term “cervical screening or smear test”. Barriers to cervical screening raised by all the women were emotional (fear, embarrassment and shame), practical (lack of time) and cognitive (low perceived risk and absence of symptoms). Emotional barriers seemed to be more prominent among Asian women, while low perceived risk of cervical cancer was influenced by beliefs about having sex out of wedlock and some women felt a diagnosis of cervical cancer might be considered shameful. Negative experiences were well recognized by all women and could be a barrier to repeat attendance. The limitations of the study are; many ethnic groups were under represented and women were not identified as non- attainders from outset and so most had attended cervical cancer screening previously. The authors concluded that interventions to improve knowledge and understanding of cervical cancer and the purpose of screening could be of benefit to ethnic minority women. They stated that emotional barriers and low perceived risk might contribute to lack of awareness about cervical cancer screening coverage for some ethnic groups.

The authors further concluded that interventions to improve knowledge and understanding of cervical cancer are needed in ethnic minority communities and investment in training health professionals may improve experiences and encourage repeat attendance for all women.

In another development, Lee et al (2013) conducted a qualitative study on barriers faced by Vietnamese immigrant women in Taiwan who do not regularly undergo cervical screening. This qualitative study employed a semi-structured individual in-depth interview of 17 Vietnamese immigrant women. Data were collected from February- July 2011 and analyzed using content analysis. The results from the findings showed that barriers to receiving cervical screening were lack of health literacy, lack of female healthcare providers, negative perceptions of cervical screening and personal reasons. The limitations of the study as indicated by the authors are; the study cannot be generalized to a larger population of Vietnamese immigrants, study participants were only those who are fluent in English and the study did not include women < 30 years of age. The authors concluded that health literacy should be taken into account when educating immigrant women about cervical cancer prevention. The findings could help healthcare providers in provision of effective healthcare services to improve cervical cancer screening rate of Vietnamese immigrant women. The authors further concluded that these findings can also serve as a guideline for development of culturally appropriate healthcare interventions and policies for immigrant women in other countries.

From the fore going it could be seen that inequalities exist among immigrants in accessing cervical cancer screening services. There was need to explore the factors that influence the perceptions of immigrant women's use of preventive services and to promote knowledge about and access to preventive practices for all women in order to reduce the unnecessary deaths associated with cervical cancer especially in vulnerable groups.

Summary and conclusion

Given that cervical cancer is treatable and less expensive when dictated and treated early (ACS, 2014), understanding the perspectives of immigrant women towards cervical cancer screening and how immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening could be considered imperative. It could help in shedding light into alleviating the disparities in cancer mortality rates among immigrants, racial and ethnic groups (Nguyen, 2012). It could also help immigrant women to reduce their risk for cervical cancer, increase survival rate and improve their quality of life.

Programs or interventions that are geared towards health behaviors are more likely to benefit individuals and communities if built on and guided by a HBM than programs or interventions developed without a theoretical base (Glanz et al., 2008). Research revealed that the HBM is one of the theoretical models that could be used to explain human behaviors (Pirzadeh & Mazaheri, 2012). Exploring the perspectives of immigrant women towards cervical cancer screening and the importance of preventive measures qualitatively with in-depth information about women and based on theoretical assumptions could help in decrease of cervical cancer mortality among immigrant women of African descent.

In Chapter 3, I discussed in detail the research design and rationale, my role as the researcher and the research methodology. I also discussed issues of trustworthiness and ethical considerations for the study.

Chapter 3: Research Method

Introduction

The purpose of this study was to qualitatively explore and understand the perceptions of factors which are barriers to perform cervical cancer screening tests among immigrant women of African descent. Findings from previously published studies showed that investigators have examined cervical cancer screening practices among ethnic groups, minority and immigrant populations in the U.S (Adeyemi, 2013; Chawla et al, 2015; Harcourt et al., 2014; Karwalajtys, 2010). However, there are limited studies pertaining specifically on the perception of cervical cancer screening practices and factors which are barriers to cervical cancer screening among immigrant women of African descent residing in Houston, Texas.

Garcés-Palacio and Scarinci (2010) stated that past or current perceptions of HPV/STI exposure were factors associated with perceived susceptibility to cervical cancer among Latina immigrants in Alabama. Also, Luque et al (2014) observed that improved methods for disseminating important health information are required for greater access to care among Mexican immigrant women in Southeast Georgia. There was limited research on the extent to which these research findings specifically apply to immigrant women of African descent residing in Houston and how immigrant women could be empowered to overcome barriers in cervical cancer screening in order to reduce the financial, emotional burden and mortality rates associated with cervical cancer. Researchers revealed that Hispanic women have higher incidence rates of cervical cancer compared with other racial/ethnic groups, while black women suffer higher mortality rates for cervical cancer than any other racial/ethnic groups (CPRIT, 2012).

In this chapter I discussed in detail the research design and rationale, my role as the researcher and the research methodology. I also discussed issues of trustworthiness and ethical considerations for the study.

Research Design and Rationale

The research questions designed by the researcher that guided this qualitative study are;

1. What are the perspectives of African immigrant women in accessing preventive measures for cervical cancer such as screening for cervical cancer in Houston Texas?
2. What are the perceived barriers associated with cervical cancer screening among African immigrant women residing in Houston Texas?
3. Does a socioeconomic factor (e.g., country of origin, educational level, and annual income) affect the decision for cervical cancer screening among African immigrant women residing in Houston, Texas?

Among all cancers, cervical cancer is the most preventable and treatable cancer if detected early through regular screening tests(CDC,2014; Mishra, Pimple & Shastri, 2011). In Houston/Harris County the estimated costs per year of live saved through cervical cancer screening is $9, 871-$12,878, however findings from previous studies revealed that 24% of women age 18 and older reported not having a cervical cancer screening within the past 3years(CPRIT, 2011; The State of Health Houston/ Harris

County, 2012). According to CDC (2015) from 1999 to 2013, cervical cancer death rates have decreased 31% for Hispanic females, 26% for non-Hispanic black females, and 16% for non-Hispanic white females. HRSA (2015) stated that the racial and ethnic differences in cervical cancer are thought to reflect disparities in access to screening and treatment. HRSA (2015) further reported that high death rate for Blacks implies lack of access to treatment. While the higher incidence rate infers that a significant proportion is immigrants from countries where screening and treatment are less accessible. However, as most cancers occur in women who have never presented for or rarely screened increasing the rate of screening remains a significant issue in the quest to reduce incidence rate, mortality and morbidity rates associated with cervical cancer especially in immigrant population (CPRIT, 2011).

The research tradition for this study was qualitative with ethnographic approach. The rationale for the chosen tradition was based on the notion that qualitative research unlike quantitative research is not concerned with statistical methods of inquiry and analysis of social phenomena (McRoy, 2015). Rather it draws on inductive process in which themes and categories emerge through analysis of data that is collected using techniques such as interviews, observations, videotapes, and case studies (McRoy, 2015). In qualitative research detailed descriptions from participants' perspectives are used as a means for examining specific phenomenon or issues under study. Qualitative research as in any order studies involves collection of data, soliciting for participants and formulating procedures (Rudestam and Newton, 2013). Qualitative studies are helpful in exploring a phenomenon, empower individuals to share their stories and hear their voices. Unlike quantitative studies where all individuals are leveled to a statistical mean and overlook the uniqueness of individuals in a study (Creswell, 2013). Research revealed that qualitative methods allow complex issues to be studied, can produce rich data on perceptions, beliefs, experiences and behavior that can enhance in-depth understanding of a problem and how it could be resolved(Gagliardi & Dobrow, 2011). Though Anderson (2010) observed that qualitative research has been criticized as being biased, small scale, lacking in rigor and anecdotal. However Anderson (2010) acknowledged that qualitative research is unbiased, reliable, credible, valid and rigorous when it is carried out properly. Qualitative research is also useful to policy makers because the settings in which the policy would be implemented are often described by the researcher. Abadir, Lang, Klein & Abenhaim,(2014) stated that considerable time and resources are allocated to carry out qualitative research. Lyons, Bike, Ojeda, Johnson, Rosales and Flores (2012) posited that qualitative research contributes to social justice when researchers advocate for the principles of equity, access participation and harmony for culturally diverse populations. Qualitative method has been used in exploring culturally informed views about cancer screening and differences between younger and older Somali immigrant women (Raymond et al., 2014). Malow, Waller and Wardle (2014) also utilized qualitative method to explore the barriers to cervical cancer screening among ethnic minority women.

Though there are different approaches to conducting qualitative research, Creswell (2013) identified five major qualitative research designs; narrative, phenomenology, grounded theory, ethnographic and case study. There was proven scholarship in the use of each of the five qualitative approaches in conducting qualitative studies (Creswell, 2013). However, the choice of ethnographic approach as more appropriate for this study than other approaches was that it provides in-depth description and analysis of how culture-sharing groups interpret their lived experiences and create meaning from their interpretations (Dharamsi, 2011). Park (2012) stated that the interpretation and description of individuals' cultural behavior is the aim of ethnographic research. Park (2012) further stated that a deep, diverse and complete understanding of a research problem cannot be achieved without considering the cultural dimensions of human behavior. According to Higginbottom (2013) ethnographic approach is a process of learning about people by learning from them and it is considered interpretative and descriptive in nature Through ethnographic approach researchers can use a variety of data collection methods and data sources to increase the validity of study findings (The City & Guilds Center for Skills Development, 2011).

The case study approach is concerned with in-depth understanding of a case, behavior of one individual or a small number of individuals (Creswell, 2013). This approach is considered less appropriate for this study because the intent of ethnography is to determine how the culture works in exploring the meaning individuals attach to their behaviors, their perspectives on a particular phenomenon and how they interpret situations rather than developing in-depth understanding of a single case or problem (Creswell, 2013).The narrative approach is a near fit for this study because research revealed that through narrative story telling researchers can identify with story characters in a way that leads to changes in health related issues, knowledge, attitudes, beliefs and behaviors(Frank, Murphy, Chatterjee, Moran, & Baezconde-Garbanati, 2015; Murphy, Frank, Moran, & Patnoe-Woodley, 2011).But the approach is not considered appropriate because this study is not about story- telling of participants' lived experiences that would be recorded and retold chronologically in a narrative(Creswell, 2013) rather it is understanding how live experiences and socioeconomic factors such as country of origin/ culture, educational level and annual income affect making informed decision about health issues.

Another possible close approach for this study is the phenomenological approach which describes the common meaning for single or several individuals of their lived experiences of a concept or phenomenon (Creswell, 2013). The phenomenological approach is deemed less effective for this study because its main purpose is to describe peoples lived experiences of a phenomenon without providing explanation for the causes of their actions (Creswell, 2013). The grounded theory approach is also considered not appropriate for this study because of its emphasis on theory development which is not the focus of this study. According to Hussien, Hirst,Slayers and Osuji(2014) the major difference between grounded theory and other approaches to qualitative research is its emphasis on theory development.

Role of the Researcher

In qualitative research the researcher is the main instrument for data collection (Creswell, 2013; Janesick, 2011). Based on this assertion my role was observer- participant. I was responsible for collecting data using techniques such as interviews, observations and text analysis. These techniques enabled me to isolate and define phenomenon or categories during the process of the research in order to comprehend and learn the participants live experiences (Fink, 2000). Through accurate observation of verbal and nonverbal expressions during formal informal conversations, and effective recording of words, meanings, and opinions of the research participants I was able to distance myself from personal opinions, judgments and any stereotypes that might inhibit the findings of the study (Clerk & Marie-Lau, 2011).

I built trust and rapport with the gatekeepers at the site by explaining to them from onset the purpose of the research, their responsibilities and mine. The gatekeepers in turn provided access to the participants or permission for the research to be carried out at the site without undermining the fidelity of the research tradition (Creswell). According to Clerk & Marie-Lau (2011) effective qualitative field researchers are those that build relationships easily and are sensitive to their surroundings. Clerk & Marie-Lau (2011) further stated that effective qualitative researchers have little or no reservations in asking questions that can enable them to learn new things without transgressing the social norms of the community. A semi-structured interview schedule which comprised of open ended questions was used to guide the interview. This enabled the women to provide in-depth description of their perceptions of cervical cancer screening without being restricted.

I didn’t have any personal or professional relationship with the participants that could involve power over the participants in terms of supervisory or instructor relationship. However, researcher biases that could affect this study are; my knowledge of the etiology of cervical cancer, my ethnicity and gender. The biases from my knowledge of the etiology of cervical cancer was guided by rephrasing any question or questions that could lead to confusion. Creswell (2013) stated that the main idea behind qualitative research is to learn about a phenomenon from the participants' perspectives by engaging in the best practice in obtaining required information. As an African American and female I have the privilege of knowing the participants cultural inclinations. I guided against my prior knowledge of the participants' cultural inclinations by adhering to professional standards bearing in mind that science is a cumulative enterprise in which new research builds on previous results and inaccurate results can lead to a waste of time and resources for other researchers who may want to replicate or extend the results. (National Academy of Science, 2009) Research revealed that researchers adherence to professional standards helps in building personal integrity in a research career (National Academy of Science, 2009). The study was not conducted within my work environment hence there was no conflict of interest or power differentials. The researcher's plan to use a $10 gift card as participant incentives to optimize participant response rate was voluntarily declined by the participants due to their interest and willingness to participate in the study. Though, it is a common practice to use participant incentives to boost response rates (Maxwell et al., 2009).

Methodology

Participant Selection Logic

The CDC Vital Signs Record indicated that in 2012, 8 million US women ages 21 to 65 years reported that they had not presented for cervical cancer screening in the last 5 years (CDC, 2014). CDC (2014) further reported that to prevent more deaths screening efforts must continue because missed opportunities can help get women ages

21-65 to be screened. According to the latest screening recommendations from the American Cancer Society, all women should begin cervical cancer screening at age 21, while women between 30 and 65 years should have both Pap test and HPV tests every 5 years (Simon, 2012). In a study on cervical cancer screening among women aged 18-30 CDC stated that for all women to receive maximal benefits of cervical cancer screening, efforts should be geared towards promoting and accepting the latest evidence-based cervical cancer screening recommendations (CDC, 2013).From the foregoing information, the study participants were adult immigrant women aged 21-65 who were born in Africa, immigrated, and residing in Houston Texas for more than three months prior to the start of the study. They were women who have no diagnosis of cervical cancer and have not participated in any cervical cancer screening procedure or program in Houston. They were able to communicate and write in English language at a basic level.

Based on the research questions and intent of the study, the sampling strategy was non-probability purposeful sampling using the principles of saturation. According to Wilmont (n.d) purposive sampling is one of the techniques commonly used in qualitative research. Wilmont further stated that with purposive sampling selection of participants are based on characteristics of individuals and is chosen to reflect the diversity and breadth of the sample population. Creswell (2013) posited that the idea behind qualitative research is to purposefully select participants or sites that will enable the researcher to understand the study phenomenon and research questions. According to Devers and Frankel (2002) purposive sampling strategies are designed to enhance understanding of experiences of selected individuals/groups or for developing theories or concepts. Hence researchers seek to accomplish this goal by selecting individuals, groups or behaviors that provide the greatest insight to the research questions (Devers and Frankel 2002).

The justification for the sampling strategy was based on the fact that qualitative inquiry focuses on in-depth or small samples selected purposefully unlike in quantitative method which depend on probability samples for generalization to a larger population (Moriarty, 2011). Researchers have demonstrated that the process of sampling in qualitative research is often iterative with new participants being selected to respond to new or unexpected features emerging from the research (Moriarty, 2011). Oscarsson, Qvarnstrom and Tyden (2013) used a purposive sampling to select women for a study to explore attitudes to cervical cancer screening and sexual behavior among HPV vaccinated young women in southern Sweden. The authors stated that purposive sampling was used in order to select information-rich participants who can learn a great deal about the issues that are of significance to the purpose of the research. In a descriptive qualitative study on the late effects of cervical cancer and its treatment, Ntinga and Maree (2015) employed purposive sampling in selecting participants treated at an academic hospital in Gauteng. In another study Yoo et al (2011) stated that purposive sampling was used to select college aged Korean Americans, Vietnamese Americans and Filipino American women because of the high rates of cervical cancer and lack of data on knowledge and behavior in these identified populations.

The participants for the study were immigrant women of African descent aged 21-65.They have resided in Houston Texas for at least more than three months before the start date of the study. They did not have diagnosis of cervical cancer and have not presented for cervical cancer screening. The participants were able to communicate orally and in writing in English language at least at a basic level. The selection of study participants was based on inclusion and exclusion criteria which includes issues such as age group, diagnosis, geographic location and ethnic background, country of origin, duration in the US and gender. The participants were recruited from churches, fellowship centers and community settings using convenience or purposive sampling methods.

Though there are no fixed rules about number of participants for a qualitative research (Tuckett, 2004). However sampling in qualitative research usually relies on small numbers with the aim of in-depth understanding of the study phenomenon (Tuckett, 2004). Baker and Edwards (2012) suggested that the number of people required to make adequate sample for a qualitative research should range from 12-60 with 30 being the mean. Creswell (2013) suggested that in ethnography numerous artifacts, interviews and observations should be collected until the working of the culture sharing groups are clear. According to Crouch (2006) researchers in a qualitative framework are required to be immersed in the research field, establish a fruitful and continuing relationship with the study participants for an in-depth study of the research problem. Crouch (2006) further stated that a small number of less than 20 will enable researchers to have close association with the respondents, enhance in-depth inquiry of the phenomenon in a naturalistic setting. Researchers have used different number of participants in elucidating specific information about a phenomenon. For example in a qualitative methodology based on feminist perspectives Curmi, Peters and Salamonson (2014) recruited nine women to explore the attitudes and practices that lesbians have towards cervical cancer screening. While Otero, Sanz and Blasco (2011) interviewed 10 primary care midwives in a qualitative study to analyze the discourses of primary care midwives on the access to utilization of cervical cancer preventive program in an area of low population density with a high proportion of rural population in Segovia, Spain, between 2008 and 2009.

Marshall, Cardon, Poddar and Fontenot (2013) in Patton (2002) stated inter alia that sample size depends on what the researcher wants to know, the purpose of the research, the issue at stake, what will be useful, what will have credibility and what can be achieved with available time and resources. The issue of sample size in qualitative research entails beyond the study of a few sites or individuals to collection of in-depth information about individuals or sites studied (Creswell, 2013). Creswell further stated that each of the five approaches; ethnography, phenomenology, grounded theory, case study and narrative study have specific sample size considerations. While Mason (2010) stated that a number of issues can affect sample size in qualitative research, he cautioned that the concept of saturation should be the guiding principle. Based on this principle, sample size used in previous studies and the aims of the study 20 participants were used for this study. Research reveals that sample size depends on the aim of the study which is the ultimate driver of the project design (Mason, 2010; Charmaz, 2006).

Purposive sampling was used to identify immigrant women of African descent in Houston Texas for this study. Research revealed that in ethnography researchers select members of the subculture or unit to be studied based on their judgment and research question or establish criteria for studying selected individuals (Creswell, 2015).

According to Suen, Haung and Lee (2014) researchers who use purposive sampling technique carefully select participants based on study purpose with the expectation that each participant will provide unique and rich information that would be value to the study. The participants were contacted and recruited through flyers that were placed at the various local church notice boards, community centers, face-to-face conversations and phone calls. The identified, contacted and recruited participants were given informed consent forms. The researcher intimated the participants with their rights and privileges prior to their participation in the study.

In qualitative research sample size is determined by data that are generated from the study and data analysis. Sargeant (2012) posited that in qualitative research sample size is not predetermined rather the number of participants depends on the number required to inform fully all important elements of the phenomenon being studied, while saturation is an end point because additional information from interviews do not result to identification of new concepts. According to Mason (2010) there is a point of diminishing return to a qualitative sample size as the study goes on collection of data does not necessarily lead to more information. Tuckett, (2004) stated that this point of data or information redundancy is comparable to data saturation.

Instrumentation

Creswell (2013) categorized data collection methods in qualitative research into four categories as; observations, interviews, documents and audio-visual materials. The data collection instruments for this study are face-to-face interviews, telephone interviews and semi-structured interviews. The interviews were used to explore the perspectives of immigrant women of African descent towards cervical cancer screening and how immigrant women could be empowered to overcome barriers towards cervical cancer screening in order to increase screening uptake and reduce rate of new cases. The interviews were unstructured with open ended questions geared towards eliciting in-depth information about the study phenomenon from the participants (Creswell, 2013). Research revealed that the purpose of interviews in research is to explore the perspectives, experiences, beliefs and motivations of individuals on specific issues(Gill, Stewart, Treasure & Chadwick, 2008). The decision to use semi-structured interview format against structured interviews was that it enables the participants to express and use their voices without out being restricted by predetermined response from a structured interview. Again with this type of interview approach the researcher has the leverage of phrasing and rephrasing questions and allows flexibility to take precedence based on perceived prompts from participants (Tuner, 2010).

There was proven efficacy on the use of semi-structured interviews in exploring perceptions, attitudes, beliefs and factors that influence cervical cancer screening decisions(Curmi et al, 2014; Kim, Ati , Kols , Lambe , Soetikno , Wysong , Tergas , Rajbhandari , & Lu, 2012; Otero et al., 2011; Torres et al., 2012). While some aspects of the research topics were sufficiently covered with the interview approach others were observed by the researcher in the field. Observation is one of the data collection methods in qualitative research which researchers use to observe the behaviors and activities of participants in the natural setting as a neutral or participant observer (Creswell, 2013).Observation as a data collection instrument in qualitative study is useful because it provides opportunity to gain information from informal conversation and situations that people may find difficult to comprehend. In this study the researcher used observation notes to record experiences of the participants which could serve as a scientific record for future reference. The researcher used the observation notes to write reports on formal or informal statements made by the participants about cervical cancer screening and it was used as a significant source for the data analyses

According to Clerck, Marie-Lou, Roos, Christiane, & Jorgen (2011) writing good observation notes requires regular detailed and accurate observation. Clerk et al (2011) further stated that the more accurate and complete the notes are the easier it would be for the researcher to use them. Another data collection instrument that was used is tape recorder. It was used to record questions and answers during the interview. Research revealed that researchers use audio or video tapes to record information from interviews (Creswell, 2013). Data collected through these instruments helped in answering the research questions, inform the participants on the need to utilize cervical cancer screening programs and avoid expensive treatment due to late prognosis.

Procedures for Recruitment, Participation, and Data Collection

Semi-structured interview was used to collect data from 20 immigrant women of African descent aged 21-65 years on their perspectives in accessing preventive measures for cervical cancer screening (RQ1). The specific qualitative research questions that were used to form the axon of the interview are; Please could you tell me your thought about cervical cancer screening? What do you think are your chances of getting cervical cancer? Research revealed that interviews are useful for getting the stories behind participants' experiences and in-depth information about a study phenomenon (Valenzuela, & Shrivastava, n.d). According to Janesick (2011) interview as a major part of qualitative research provides rich and substantive data for the researcher. An interview protocol was used to guide the interview. The information on the interview protocol include but not limited to; informed consent form, interview questions, interviewing procedures, the aim of the study, what to say at the beginning and at the conclusion of the interview. Interview protocols are procedural guide for directing qualitative researchers through the interview process (Jacob & Furgerson 2012). Using the semi-structured interview with open- ended questions the researcher collected data from 20 adult immigrant women of African descent aged 21-65 years residing in Houston, Texas. Twenty interviews were conducted and each interview session lasted for approximately 50-60 minutes. The data were recorded with digital tape recorder and notebooks during interview sessions.

The data collection instrument that was used to collect data from 20 adult immigrant women of African descent aged 21-65 years on perceived barriers associated with cervical cancer screening were semi-structured interview questions and observation .(RQ2). The specific qualitative research questions that were used to form the axon of the interview are; Describe any of your experiences with a health care provider that could prevent you from getting a Pap smear or HPV. Could you tell me your concerns about cervical cancer screening? The interview lasted between 50-60 minutes. The researcher audio recorded the interviews and in addition used notebooks to record observed experiences, physical gestures, statements made by participants during formal and informal conversations and researcher's subjective expressions. In order to avoid loss of memory the shorthand observation notes were transcribed into detailed descriptions on the computer at the end of each observation activity. Clerck, Helene Marie-Lou,(2011) posited that researchers should not rely only on memory in reconstructing field notes because memory is selective and recall diminishes after 24 hours even on important topics.

Interviews were used to collect data that provided answers to the third research question; Do socioeconomic factors (e.g., country of origin, educational level, and annual income) affect the decision for cervical cancer screening? The researcher used face –to-face or telephone interview with open- ended questions to collect data from 20 adult immigrant women of African descent aged 21-65 residing in Houston, Texas. (RQ3). The specific qualitative research questions that was used to form the axon of the interview is; Could you tell me how the following; country of origin, educational level and annual income make it difficult for you to get screened for cervical cancer? The interview lasted between 50-60 minutes. Telephone interviews were used as a follow-up contact to reach out to participants who did not show up during any of the interview sessions and the interview lasted between 50-60 minutes. The researcher used field notes to record data during the interview sessions.

The follow-up plan if recruitment results to few participants included but not limited to; use of incentives such as: $10 gift card. Research revealed that optimizing participant response rate is important for obtaining representative samples, timely completion of studies and it is a common practice to use participant incentives to boost response rates(Maxwell et al., 2009), reminder phone calls to potential participants who had indicated interest earlier, collaborating with gate keepers and repositioning flyers at conspicuous positions.

Based on the hallmark of good qualitative research which was stated earlier, there is a moral and ethical imperative to enter into the dialogue of closure with study participants (Morrison, Gregory, & Thibodeau, 2012). Yin (2015) stated that since there is no one particular strategy for exiting a study the researcher has the discretion to choose how participants exit the study. The participants exited the study through debriefing that was conducted by the researcher. This involved semi-structured verbal conversation and emerged themes from the study. The participants were given opportunity to ask questions about the research findings. According to Morrison et al (2012) the quality and duration of researcher- participant relationship, rapport and trust building are potential indicators for exit strategy.

Data Analysis Plan

A semi-structured interview schedule which comprise of open ended questions was used to collect data on the perspectives of immigrant women towards cervical cancer. The open-ended questions enabled the women to provide in-depth description of their perceptions of cervical cancer screening. Observation notebooks were used to record observed experiences, physical gestures, statements made by participants during formal and informal conversations on perceived barriers associated with cervical cancer screening. Telephone interviews were used to collect data when face-to- face interviews were not possible.

According to Creswell (2013) forming codes or categories is one of the overarching goals of qualitative analysis. Coding means applying codes to structured text(Gläser & Laudel,2013) The text and image data in qualitative study are so dense and rich that it will be difficult for the researcher to include every information in the data analysis (Creswell). Hence researchers use "winnow", open or "lean coding" to look for distinct concepts and categories in the data(Creswell). The importance of this process is to aggregate data into small number of themes. The researcher used codes segments to describe information and develop themes which Creswell referred to as broad units of information that consist of several codes aggregated to form a common idea. Another type of coding that was used is axial coding which is a direct approach of looking at data in order to ensure that all important aspects of the data have been identified. The Qualitative thematic data analysis software Nvivo 10 was used as the computer assisted software to manage the data while the analysis was done manually. NVivo through a variety of analyzing tools helps to analyze and manage qualitative data (Creswell, 2013). Discrepant cases are data that provide variant perspective and it is easy for a researcher to adopt an initial hunch and fail to examine counter evidence (Glaser & Laudel, 2013). Discrepant results were highlighted and discussed. The analysis of data was made more reliable by setting checks in place and another researcher was allowed to check for consistency of coding (Glaser & Laudel, 2013).

Issues of Trustworthiness

One of the strategies that have been used in establishing credibility of a qualitative study is triangulation. Research revealed that triangulation entails using multiple data sources in an investigation to produce greater understanding of a phenomenon (Pandy, 2014). The researcher used multiple data sources such as interviews, observations and field notes in exploring the perspectives of immigrant women towards cervical cancer screening. According to Tracy (2010) multiple types of data, researcher view-points, theoretical frames, and methods of analysis allow different facets of problems to be explored, increases scope, deepens understanding, and encourages consistent interpretation. The credibility of the study was established through member checking. The participants were provided with a copy of the interview transcripts and audio tape records of the interview to enable them verify the accuracy of their responses and contributions during the interview. Carlson (2010) stated that member checking as a procedure for establishing trustworthiness should incorporate the researcher, participants and an external reader. Carlson further stated that these are the three entities the researcher needs in seeking approval for the trustworthiness and interpretation of their research work. Finally, to have the best possible reliability and validity of the results, codes and themes were reviewed by my dissertation committee chair to establish an acceptable inter-coder agreement.

The researcher being a key instrument in qualitative research makes reflexivity an important strategy to establish credibility (Creswell, 2013).The researcher's personal reflections from the reflexive journal were used to provide subjective account of each research activity. Detailed information on how the researcher's personal reflection might bias the findings of the study are stated. The researcher's reflexive journal not only reminds the researcher of prejudices and subjective influence in interpreting research activities but it also informs the researcher of the impact of these influences on the credibility of the research outcome (Roller, 2015) Transferability refers to the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings (Trochim, 2006). The researcher used information from interviews and observed field work to provide thick description of the participants live experience on their perspectives towards cervical cancer screening. The barriers to cervical cancer screening and how participants could be empowered for uptake of cervical cancer screening and reduce the number of new cases in the immigrant population. Shanton (2004) posited that in order to allow transferability researchers provide sufficient detail of the context of their field work for a reader to be able to decide whether the prevailing environment is similar to another situation with which he or she is familiar with and whether the findings can be justifiably applied to other settings. According to Satu Elo et al (2014) dependability which is qualitative counterpart for reliability refers to the stability of data over time and under different conditions. The researcher maintained daily journals or reflexive journals of activities, insights and methodological designs of the study. These records were used as part of audit trail and a reminder to issues that are related to the researcher’s values and interest (Chesnay, 2015; Lincolon & Guba, 1985). The confirmability of the study which is the qualitative counterpart for objectivity was established through reflexivity. The researcher also acknowledged personal bias and potential influence on the findings of the study. Creswell and Miller (2000) suggested that reflexivity is an appropriate strategy to enhance trustworthiness in any qualitative research regardless of approach. Creswell and Miller (2000) further stated that reflexivity is a critical part for managing research reactivity and bias.

Ethical Procedures

Research involves collection of data from people and about people hence researchers need to protect their research participants, promote the integrity of research and guide against ethical misconduct (Creswell, 2014). The researcher seeked approval from the Walden University Institutional Review Board (IRB) prior to conducting the study and the approval number is 12-21-15-0334736. The university states equivocally that it will not accept responsibility for any research that is conducted without IRB approval. The researcher used the informed consent form provided by the Walden University IRB to gain access to the study participants. I have recieved training on treatment of human participants as required by the National Institute of Health (NIH). I sort and received institutional permission and approval on every aspect of the research as required by the IRB. On ethical concerns relating to recruitment materials such as; flyers and research questions, the researcher ensured that the wordings on the flyers were culturally appropriate and within the language reading level of the participants. The researcher also explained the research questions and the participants indicated that they understod the questions. According to the National Bioethics Commission (2001) people should participate in research only when the study addresses important questions, justifiable risks and an individual's participation is voluntary and informed. As required by the Walden IRB, I sort and received approval before data collection and analysis commenced. Creswell (2013) stated that if a study is on sensitive topic and participants refuse to participate or withdraw from the study the researcher should present general information and not specific information about the topic. I also constantly reminded the participants of the voluntary nature of their participation in the study

As stated in the consent form, data collected from participants was kept confidential. The researcher did not use participants' personal information for any purposes outside of this research project. Data was secured by the researcher in a lock and safe cabinet. Backup copies of computer files were also used to store data and the anonymity of participants were protected by masking their names in the data (Creswell, 2013) Data will be kept for a period of at least 5 years, as required by the university

Summary

As most cancers occur in women who have never presented for or rarely screened increasing the rate of screening remains a significant issue in the quest to reduce incidence rate, mortality and morbidity rates associated with cervical cancer especially in immigrant population (CPRIT, 2011). Qualitative approaches that document cultural context, through the integration of multiple perspectives, address process instead of outcome are important for providing in-depth accounts of individual attitudes, behaviors and knowledge about cervical cancer and cervical cancer screening. Although quantitative approaches provide useful information on standardization and are important for predicting patterns and trends it captures fragmented and incomplete information on individuals. Qualitative research as in any order studies involves collection of data, soliciting for participants and formulating procedures (Rudestam and Newton, 2013) and draws on inductive process in which themes and categories emerge through analysis of data collected through techniques such as interviews, observations, videotapes, and case studies (McRoy, 2015). Data collected through these instruments with the researcher as the key instrument for data collection(Creswell, 2013; Janesick, 2011) could help in exploring the perspectives of immigrant women towards cervical cancer screening , inform immigrant women of African descent on the need to utilize cervical cancer screening programs in order to avoid expensive treatment due to late prognosis.

In Chapter 4, I discussed the study setting, demographics and characteristics of participants relevant to the study. I also provided information on data collection and analysis, evidence of trustworthiness and finally discussed in detail the results of the findings from the study.

Chapter 4: Results

Introduction

The purpose of this study was to qualitatively explore and understand the perceptions of factors which are barriers to perform cervical cancer screening tests among immigrant women of African descent, as well as their beliefs on preventive medicine, and how immigrant women could be empowered in order to overcome barriers associated with cervical cancer screening in order to increase screening uptake and reduce mortality rates due to cervical cancer.

For this purpose semi-structured interviews with open ended questions were collected from 20 immigrant women of African descent age 21-65years residing in Houston Texas (See Appendix 1).

Demographics

The participants were a convenience sample of 20 immigrant women of African descent aged 21- 65 years residing in Houston Texas for at least three months and have not had a cervical cancer screening. The participants were recruited purposefully through recruitment flyers placed at churches, community and fellowship centers in Houston Texas (See Appendix, 3). The demographic data relevant to the study that was obtained from the participants are presented in Tables 1 and 2 below. This includes; country of origin, age, role in the family, educational status and number of years lived in Houston Texas. There was no specific question concerning the participants’ marital and employment status respectively. But through informal discussions I gathered information on their marital status. Out of the 20 women interviewed 16 were married while four were single and they were all gainfully employed

Table 1
Country of Origin and Age of Participants

Participant Number	Country of Origin	Age
1	Nigeria	45
2	Burkina Faso	23
3	Nigeria	37
4	Ghana	56
5	Eritrea	60
6	Ghana	43
7	Togo	55
8	Liberia	56
9	Nigeria	42
10	Nigeria	38
11	Sierra Lone	31
12	Togo	53
13	Cameroon	48
14	Sudan	54
15	Liberia	44
16	Cameroon	51
17	Cameroon	35
18	Libya	48
19	Zimbabwe	55
20	Nigeria	63

Table 2
Role and Educational level of Participants

Participant Number	Role	Educ.	Duration
1	Head of household	Graduate	15years
2	Daughter	Student	2years
3	Head of household	Graduate	5 years
4	Mother	High School	10 years
5	Mother	Graduate	12 years
6	Wife	High School	7 years
7	Head of household	Post graduate	25 years
8	Mother	Graduate	13 years
9	Mother	High School	8 years
10	Daughter	Graduate	11 years
11	Head of household	Graduate	10 years
12	Mother	High School	15 years
13	Mother	Graduate	6 years
14	Mother	High School	2 years
15	Head of household	Post graduate	9 years
16	Mother	Post graduate	18 years
17	Mother	High School	5 years
18	Wife	High School	3 years
19	Head of household	Graduate	6 years
20	Mother	Post graduate	21 years

Data collection

Semi-structured interview was used to collect data from 20 immigrant women of African descent aged 21-65 years. Approval for the conduct of the study was sort and received from Walden University Institutional Review Board (IRB) and the approval mumber is; 12-21-15-0334736. Following IRB approval for the conduct of the study, the various identified churches, community and fellowship center leaders were contacted and asked to place the recruitment flyers on their notice board or distribute them to the target population. The data collection started from December 27th 2015 through January 19th 2016. The eligibility of the study participants was ascertained through face- to- face or telephone interviews. The recruitment interview questions can be located as; Appendix 1. The recruited participants were given Consent Forms (See Appendix 4) to enable them understand their rights and privileges before deciding to or not participate in the study. The researcher intimated the participants of the voluntary nature of their participation, assured them of the confidentiality of their information, and encouraged to ask questions or stop the interview if they feel uncomfortable. For the purposes of confidentiality, the interview dates, time and location was chosen at the participants' discretion. The participants were offered opportunity for a face-to-face or telephone interview and their permission was requested to audio tape/ records the interview. Using semi-structured interview with eleven open ended questions the researcher collected information from twenty immigrant women of African descent and each interview session lasted for approximately 50-60 minutes. Seventeen interviews were digitally recorded while three were manually recorded. The interviews were transcribed into a Word document on the computer for coding. There was no variation in data collection as described in Chapter 3.

Data analysis

The six constructs of the HBM was used to form the axons of the qualitative survey, while the themes emerged from the interviews. This is succinctly presented in Table 3 below. The participants responded individually to eleven specific qualitative interview questions that were used to form the axons of the interview questions. The questions were categorized under the HBM constructs of perceived susceptibility, perceived seriousness (severity), perceived barriers, perceived benefits, cues to action, and self-efficacy in an attempt o describe the lived experiences of their perceptions towards cervical cancer screening

Table: 3

Themes developed from the interview questions

Axons and correspondent questions	Themes
Perceived susceptibility to cervical cancer and cervical cancer screen	
1. What do you think are your chances of developing cervical cancer?	Belief system
2. Please could you tell me your thoughts about cervical cancer?	Behaviors
Perceived seriousness(severity) of cervical cancer and cervical cancer screening	Susceptibility
3. What factors do you think could increase the chances of a person developing cervical cancer?	
Perceived barriers	
4. Describe your concern about cervical cancer	Cultural beliefs
5. Describe experience with health care personnel that could prevent you from getting Pap smear or HPV test	Lack of knowledge
6. Could you tell me how the following things; country of origin, education and annual income can make it difficult for you to screen	Socioeconomic status

for cervical cancer?	
Perceived benefits	
7. How would you describe the consequences of cervical cancer?	Acceptance
8. What do you think are the benefits for participating in cervical cancer screening?	Perceived knowledge
Cues to action	
9. How would you prefer to receive information about cervical cancer screening?	Awareness
10. What are the things that could motivate you to go for cervical cancer screening?	Increase knowledge
Self-efficacy	
11. Given the opportunity to receive Pap smear or HPV test, what would likely increase your chances of getting the test based on recommended guidelines?	Availability of health care services

Description of the results

Eleven qualitative interview questions categorized under the constructs of ; perceived susceptibility, perceived seriousness (severity), perceived barriers, perceived benefits, cues to action and self-efficacy were used in an attempt to describe the lived experiences of immigrant African women perceptions towards cervical cancer screening.

Research Question I

What are the perspectives of African immigrant women in accessing preventive measures for cervical cancer such as screening for cervical cancer in Houston Texas?

Qualitative interview questions 1, 2, and 3 categorized under the constructs of ; perceived susceptibility, perceived seriousness (severity) were used to answer the first research question

Perceived susceptibility to cervical cancer and cervical cancer screening

Qualitative interview question 1: What do you think are your chances of developing cervical cancer?

This question was asked in order to determine the participants' perceived susceptibility to cervical cancer. The main theme that emerged from the participants' responses is their belief system towards cervical cancer and cervical cancer screening. The participants said that not going for checkups and not going for Pap smear screening, having sex with multiple partners, and child birth increases one's chances of developing cervical cancer.

Some examples of the responses from the participants

"If I don't go do screening if I don't do my Pap smear my chances of developing it is 80-100%" (Participant # 1)

"My chances are high because I don't think I am getting the proper screening that I am supposed to get" (Participant# 3)

"When you don't go for checkups, and when you don't have knowledge of what it is all about" (Participant #4)

“If I don’t clean up, If I have sex randomly, If I don’t take care of myself” (Participant #14)

“If a woman had a baby, doesn’t see the doctor” (Participant #6)

The participants also reported that age and being a woman can increase one’s chances of developing the disease “I think any age can have it, it is not age limit” (Participant# 12) “Is a disease of womanhood whether it runs in the family or not” (Participant #8) These statements are in consonance with the HBM construct of perceived susceptibility which states that a woman have to belief first that there is possibility of her getting cervical cancer before she will be interested in going for a Pap smear or HPV test (Glanz et al., 2008). Some of the participants see themselves invisible to developing cervical cancer and as such they do not belief that they can develop the diseases this indicates a gap in service as evidenced from the participants’ responses to the question Participant #13 stated:

“Well I don’t think I have any chances because I don’t know any particular reason why I should have a chance of developing any” Participants # 19, 15 and 17 expressed similar reactions Participant # 19 “I am not at risk, I don’t have history of cervical cancer in my family”. Participant # 15“My chances are slim is not in my family and I take care of myself”.Participant #17 “Em because I am spiritual my chances are zero, for me God is protecting me” In contrast participant # 20 not being sure of what her chances are viewed cervical cancer as a disease that could be developed by chance as she stated; “Em I wouldn’t wana say if I have a chance or not because nobody knows just go for the screening to catch it as early as possible". For this participant developing cervical cancer is a matter of chance occurrence, it depends on life events

Interview question 2: Please could you tell me your thoughts about cervical cancer screening?

This question was asked in order to elicit the participants' thoughts about cervical cancer screening as a preventive measure. The key theme that emerged from the participants' responses is adherence to recommended guidelines. Other sub themes included; affordability of health care services and not having insurance. The participants convincingly pointed out the importance of cervical cancer screening as a preventive measure for cervical cancer. This is reflected in some of their responses to the interview question.

Participant #8 said:

"It is very, very important. It would lead to early dictation and treatment can be preferred". "I think everywoman should go, it gives you peace of mind prevention is better than cure" (Participant #4) "You will be aware of your health and how to make healthy choices, early dictation helps in treatment of cervical cancer"(Participant #10) "I think it is ok, anything that would protect a person especially a female like me I believe is good" (Participant # 15).

In contrary one participant viewed it as a deviation from cultural norms as she said "as Africans is not something that we are used to, culturally we don't feel comfortable doing it" (Participant #9). While another participant raised objection to cervical cancer screening due to fear of the unknown another participant described her lived experience based on spiritual inclination

From the fore going it could be seen that some immigrant women of African descent belief that not going for checkups, Pap smear screening having sex with multiple partners and child birth hereditary, age and not taking care about their health issues can make them susceptible to cervical cancer. Based on this awareness the importance of perceived susceptibility of cervical cancer could influence positive perception of the importance of preventive measures that could result to decrease in cervical cancer mortality among immigrant women of African descent.

Perceived seriousness (severity) of cervical cancer and cervical cancer screening

Qualitative interview question 3: What factors do you think could increase the chances of a person developing cervical?

This interview question was asked in order to explore the participants' lived experiences on perceived seriousness of cervical cancer screening. The participants responses to the interview question reflects their awareness on perceived seriousness of cervical cancer and cervical cancer screening

For example Participant #2 said:

"I would think that having sex with a person without protection and having sexual intercourse from one man to another" Participants #10, 18, 15, and 6 held similar views on the risk factors for cervical cancer. These responses are in line with the construct of perceived seriousness (severity) which deals with individual beliefs and attitudes about the seriousness of a disease. However, beliefs and cultural background could be an impediment despite the perceived seriousness of the disease. Participant #9 said"We

Africans we don’t like going to the hospital, due to our belief and culture, if it is not there why looking for it, if you don’t have symptoms why going to the doctor?

Research Question 2

What are the perceived barriers associated with cervical cancer screening among African immigrant women residing in Houston Texas?

Qualitative interview questions 4, 5, 7and 8 categorized under the constructs of perceived barriers to cervical cancer screening were used to answer RQ2.

Perceived barriers to cervical cancer screening

Qualitative interview question 4: Describe your concerns about cervical cancer

This interview question was asked to determine participants concerns about cervical cancer screening. The participants had varied opinions and concerns about cervical cancer screening. Prominent opinion that was expressed from the response is negative attitude of health care personnel. Other sub themes includes time constrains, language barrier, fear and cultural backgrounds. The participants expressed serious concern on the attitude of health care personnel and handling of equipment Participant # 19 stated with disgust “My concern is on hygiene on the part of health care workers, proper handling of equipment behaviors of health care staff, sanitation and sterilization” Another participant told a story of how she asked a doctor to change his gloves before examining her. Participant # 13 expressed concern on the possibility of one being infected through the testing instrument. Participants’ description of the attitude and qualification of health care personnel as perceived barrier for cervical cancer screening is an indication that emphasis on behavior change should be on both immigrant women and health care personnel in order to make cervical cancer screening a preventive measure for cervical cancer. Rawlett (2011) observed that perceived barriers are the negative aspects that could prevent an individual from adopting a specific health action. Qualitative interview question 5: Describe your experiences with a health care provider that could prevent you from having a Pap smear or HPV test

The participants were asked to describe their lived experience with a health care provider that could prevent them from presenting for Pap smear or HPV test. Language barrier, attitude of health care personnel, time constrains and not having insurance was among the themes that emerged from the participants' responses to the research question. Participant # 3 told a story of how her concerns were ignored by health care personnel. She said "you are treated as a number not really a patient". Lack of knowledge from the health care personnel was described as inability to explain the procedure for the screening and the importance of the screening to the clients before the actual service. One of the participants said "I like to receive education before the service and not I am going to do cervical cancer screening for you today" (Participant #5) .Other issues that were raised by the participants was time constrain which the participants described as long waiting period at the clinic or hospital before receiving any service. Participant #6 used herself as an example to establish her point concerning time constrain. Lack of insurance or rejection of a type of by the health care personnel was also another lived experience that participants described as an experience that could prevent them from presenting for cervical cancer screening

Research Question 3

Does a socioeconomic factor (e.g., country of origin, educational level, and annual income) affect the decision for cervical cancer screening among African immigrant women residing in Houston, Texas?

Qualitative interview question 6: Could you tell me how the following things; country of origin, educational level and annual income make it difficult for you to get screened for cervical cancer?

This interview question was posed to the participants to explore their perspectives as immigrants on how the following things; country of origin, educational level and annual income make it difficult to get screened for cervical cancer. Participant # 20 pointed out that all of the three could make it difficult. She said"It is not known in Africa, majority of Africans are on budgeted income"

Participant # 10 held similar opinion

"In my country we don't have the screening, If you are not educated you will not be able to make good health choices, annual income if you don't have high family income you will not have good health services If you are not educated you will not know the seriousness of the diseases, Money without which is a zero chance in my country is a zero chance because we are not educated on it"

Though the participants acclaimed the importance of cervical cancer screening as a preventive measure yet they are cut up between avoiding a health risk and upholding a cultural obligation. They see it as a violation of their privacy. A participant in her mid fifties said in my country that part of your body is not supposed to be seen by anybody outside your husband (Participant # 18). The participants suggested that educational awareness could help in demystifying this notion among immigrant African women .The participants also said that lack of access to health care services and affordability due to cost, insurance and language are all tied to country of origin, educational level and annual income

Perceived Benefits

Qualitative interview question 7: How would you describe the consequences of cervical cancer?

The participants were asked to describe the consequences of cervical cancer. All the participants described the consequences of cervical cancer as deadly. They kept on repeating death as a major end for cervical cancer. Participant #10 added shortening of life span through radiation and chemotherapy and lack of self actualization. While participant #18 expressed that it is a killer and difficult to handle if not treated early. Participant#5 explained that the diseases can metersized and affect other organs and will eventually lead to death. Participant # 14 expressed fear, damage of the cervix and terminal illness as consequences for cervical cancer. Interview question 8: What do you think are the benefits for participating in cervical cancer screening? This question was asked to determine the participants perceived benefits for participating in cervical cancer screening. The participants heralded early dictation, increase in knowledge and empowerment through education as major benefits for participating in cervical cancer. This was expressed in various terms by the participants. “It gives you peace of mind that nothing is going on inside of you” (Participant #13). Participant # 16 said “it leads to increase in knowledge, early dictation, the earlier the better". Participant # 20 and participant #14 said with the knowledge they have gained from this interview they felt empowered to go into their communities and educate other women on the benefits for cervical cancer screening. Previous studies have shown that perceived benefits play important role in adoption of preventive behaviors such as screening for cervical cancer, colon cancer, HIV voluntary counseling and testing (VCT) and mammography (Jones & Bartlett, n.d; Njau, Watt, Ostermann, Manongi & Sikkema, 2011; Schluterman & Greenberg, 2013; Tracy, 2013).

Cues to action

Qualitative interview question 9: How would you prefer to receive information about cervical cancer screening?

This question was asked in order to elicit from the participants lived experiences action, events or people that could trigger their interest about cervical cancer screening. The themes that emerged from the interview included receiving information through email, face-to-face discussions, workshops, campaigns, mass media and church group. Other themes were family discussion, social groups, work place, doctor, seminars and training Participant # 20 laid emphasis on the need to utilize avenues like organizing marathons, mobile units, and coupons, TV and health care providers which has helped so much in breast cancer screening to send out information on cervical cancer screening. Participant # 18 showed interest in undergoing a training and learning more about cervical cancer screening. The use of email was a predominant avenue expressed by the participants as one of the quickest ways for receiving information. Participants # 3, 11, 9, 14 and 15 preferred one-on-one and face-to-face discussion on risk factors and stories from survivors of cervical cancer patients. Interview question 10: What are the things that could motivate you to go for cervical cancer screening?

The rationale behind this interview question is to determine from the participants' perspectives what events, people, things or activities that could motivate them to go for cervical cancer screening. The theme that emerged from the participants' responses were free services, to stay healthy, live longer and enjoy life, accessibility of services and insurance. The participants expressed concern on proximity which is described as nearness of the screening location, and attitude of health care staff. The participants' motivations were predominantly based on staying healthy for themselves and loved ones and saving lives. Other prominent views form the participants' response were quest for knowledge and the need for awareness. Participant #13 said that her motivation is knowing her health status, hearing stories from survivors, and having peace of mind. On the contrary participant # 7 expressed that she really doesn't know what could motivate her to go for screening. This is a pointer that denial and ignorance could militate against cervical cancer screening.

Self-efficacy for cervical cancer screening

Qualitative interview question11: Given the opportunity to receive Pap smear or HPV test, what would likely increase your chances of getting the tests based on the recommended guidelines? This question is aimed at exploring participant's experience on adherence to recommended guideline for cervical cancer screening. The participants were asked to describe the things that could likely increase their chances of getting Pap smear or HPV tests based on recommended guidelines. The theme that emerged from the individual interviews were age, accessibility to services, proximity, availability of resources, cultural appropriate messages, free screening, fear of the unknown, being an example to others, increase in knowledge attitude of health care workers and correct equipment. There were recurring views on age from the participants. Participant # 10 said “I will go because every woman is within the age bracket”. Participant #20 is of the view that since it is recommendation from the government there must be a reason for women to go for Pap smear from age 18 and 30-65 for HPV and Pap smear test. Comments from the participants showed confidence in their own ability to present for cervical cancer based on the recommended guidelines.

Evidence of Trustworthiness

Triangulation was one strategy that was used to establish credibility of the study. Research revealed that triangulation entails using multiple data sources in an investigation to produce greater understanding of a phenomenon (Pandy, 2014). The researcher used multiple data sources such as interviews, observations and field notes in exploring the perspectives of immigrant women towards cervical cancer screening. The credibility of the study was also established through member checking. The researcher read manually recorded interview transcripts and played back the audio tape records of the interview to the participants. This enabled the participants to verify the accuracy of their responses and contributions during the interview. Transcribed interview transcripts, axons and themes were reviewed by my dissertation committee chair to establish an acceptable inter-coder agreement.

Transferability was established by using the information from interviews and observed field work in providing thick description of the participants live experience on their perspectives towards cervical cancer screening. Participants were constantly referring to attitude of health care personnel, cultural beliefs as barriers in describing their perspectives towards cervical cancer screening. Participant# 3 shared her experiences on how she was treated during a regular appointment for her son. She said “the health care staff did not listen to my concerns and felt I was treated like a number and not a patient”. Dependability was established by maintaining reflexive journals of activities such as manually recorded interviews, transcribed interview transcripts and audio tape records of the interviews. The confirmability of the study which is the qualitative counterpart for objectivity was established through reflexivity as suggested by Creswell and Miller (2000). My bias was contended by listening attentively to the audio tapes several times before and during transcription of the interviews, reading and constantly reflecting on my notes and ensuring that the experiences and ideas of the participants were viewed from theoretical assumptions and not my own views and preferences.

Summary

In Chapter 4, I discussed the study setting, demographics and characteristics of participants relevant to the study. I provided information on data collection and analysis, evidence of trustworthiness and finally discussed in detail the results of the findings from the study. Eleven qualitative interview questions categorized under the HBM constructs of; perceived susceptibility, perceived seriousness (severity), perceived barriers, perceived benefits, cues to action and self-efficacy were used to answer the three research questions respectively. RQI: What are the perspectives of African immigrant women in accessing preventive measures for cervical cancer such as screening for cervical cancer in Houston Texas? Qualitative interview questions; 1, 2 and 3 were used to answer RQ1.The main theme from the participants' responses were based on belief system, behaviors and susceptibility towards cervical cancer screening. The findings of the first research question is that the participants see themselves invisible to developing cervical cancer and as such they do not belief that they can develop the diseases this indicates a gap in service as evidenced from the participants' responses to the qualitative interview questions. Qualitative interview questions; 4, 5, 7 and 8 provided answers to RQ2: What are the perceived barriers associated with cervical cancer screening among African immigrant women residing in Houston Texas? The key theme from the participant's responses were cultural beliefs, lack of knowledge, acceptance and perceived knowledge towards cervical cancer screening. The findings from the second research question is that although the participants acclaimed the importance of cervical cancer screening as a preventive measure yet they are cut up between avoiding a health risk and upholding a cultural obligation. While qualitative interview questions 6, 8, 10 and 11were used to address RQ3: Does a socioeconomic factor (e.g., country of origin, educational level, and annual income) affect the decision for cervical cancer screening among African immigrant women residing in Houston, Texas? The main themes that resonated from the participants' responses are; socioeconomic status, awareness, increase knowledge and availability of health care services. The finding from the third research question is that the participants are ready to learn more about cervical cancer screening and information is expected to increase screening uptake and reduce mortality rates due to cervical cancer

In Chapter 5 I will discuss in detail the interpretations of the findings, limitations of the study, recommendations, implications and conclusion.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to explore and understand the perspectives of immigrant women of African descent in preventive measures for cervical cancer screening. How immigrant women of African descent could be empowered to take advantage of the various cervical cancer screening programs available in the communities in order to increase screening rates, reduce number of new cases and high mortality rates associated with cervical cancer diseases in this vulnerable population. The nature of this study was qualitative with ethnographic approach.The qualitative ethnographic methodology was useful in exploring the perspectives of African immigrant women on preventive measures for cancer such as cervical cancer screening. Studies related to cervical cancer among immigrants and minority populations have consistently shown staggering disparities in incidence and mortality rate for cervical cancer among this vulnerable population due to under utilization of screening services (Mahrotra, Gaur & Petrova, 2012). Exploring the perspectives of immigrant women towards cervical cancer screening and the importance of preventive measures qualitatively with in-depth information about women and based on theoretical assumptions could help in decrease of cervical cancer mortality among immigrant women of African descent. With this study, information could be provided on early dictation of cervical cancer which could help to reduce mortality rate associated with late diagnosis of the disease. The information provided could help in increasing awareness on the benefits of early dictation and treatment of cervical cancer before the disease gets to advanced stage. Reduce the financial burden incurred by individuals, families and communities due to expensive treatment from late diagnosis. Also policy makers could be assisted in making recommendations for cervical cancer screening in immigrant populations.

Key findings of the study

The key findings of the study are; (i) the participants' susceptibility to cervical cancer and cervical cancer screening are based on belief system and behaviors. Based on this awareness the importance of perceived susceptibility of cervical cancer could influence positive perception of the importance of preventive measures that could result to decrease in cervical cancer mortality among immigrant women of African descent; (ii) though the participants acclaimed the importance of cervical cancer screening as a preventive measure yet they are cut up between avoiding a health risk and upholding a cultural obligation; (iii) the participants are ready to learn more about cervical cancer screening and information is expected to increase screening uptake and reduce mortality rates due to late prognosis of cervical cancer.

Interpretation of the Findings

The interpretation of the findings are based on the peer- reviewed literature and constructs of HBM the framework on which the study was built.

Perceived susceptibility to cervical cancer and cervical cancer screening

The participants perceived that not going for checkups, having sex with multiple partners and child birth hereditary can make them susceptible to cervical cancer. They also agreed that other health issues that could make them susceptible to cervical cancer includes; family history, age, not taking care about their health and being a woman. The participants acknowledge that not presenting for Pap smear screening could make them susceptible to cervical cancer. This confirms the assertion from previous studies related to cervical cancer among immigrants and minority populations that consistent staggering disparities in incidence and mortality rate for cervical cancer among this vulnerable population are due to under utilization of screening services (Mahrotra, Gaur & Petrova, 2012). On the other hand, some of the participants perceived cervical cancer as foreign disease and is not popular or often discussed like other cancers such as breast cancer. So they perceived themselves invisible to developing cervical cancer. These findings are in consonance with the HBM construct of perceived susceptibility which states that a woman have to belief first that there is possibility of her getting cervical cancer before she will be interested in going for a Pap smear or HPV test (Glanz et al., 2008). In a study to examine the factors associated with perceived susceptibility to cervical cancer among Latina immigrants in Alabama Garcés-Palacio and Scarinci (2010) observed that greater knowledge about cervical cancer risk factors, current or past perception of exposure to HPV/STI having a relative with cancer reduced the uncertainty about perceived susceptibility to cervical cancer. It was reasonably assumed that the greater the perceived risk the greater the likelihood of engaging in behaviors that would decrease the risk (Jones & Bartlett, n.d). This assertion was found to be applicable to immigrant women of African descent indicating that exploring the importance of perceived susceptibility of cervical cancer could influence positive perception of the importance of preventive measures that could result to decrease in cervical cancer mortality among immigrant women of African descent. Soleymanian et al. (2014) observed that for change in behavior to occur there was need to understand individual's health beliefs and attitudes to specific health issues. Also reviews on health-related behavior showed that generally individuals will not try to seek for diagnosis, prevention, or treatment for a condition unless they have minimal levels of related health motivation and information (Soleymanian et al., 2014).

Perceived seriousness (severity) of cervical cancer and cervical cancer screening

The participants consistently referred to culture, life style, weight, age, lack of access to health care services and insurance as factors that could increase their chances of developing cervical cancer or prevent them from presenting for cervical cancer screening. Their views are not different with findings from previous studies. Researchers have attributed the low uptake of rate of cervical cancer among immigrants to factors such as limited access to health care services, lack of knowledge about cervical cancer and Pap smear test (Lee et al., 2014; Oshima & Maezawa, 2013). Other factors that have been associated with low rates of cervical cancer screening include but not limited to; lack of health insurance, socioeconomic status, smoking, age, acculturation and obesity (ACS, 2014; Yoo et al., 2011). The construct of perceived seriousness deals with individual beliefs and attitudes about the seriousness of a disease. The belief could be based on knowledge, medical information or beliefs about the general consequences or difficulties that could emanate from a disease in a person’s live. This was found in susceptibility and seriousness score for cervical cancer screening behavior among students in South Africa. Students who had had a Pap test had significantly lower barriers to cervical cancer screening than those students who had not had a Pap test (Hoque, Ghuman Coopoosmay,

& Hal, 2014). Research evidence showed that perceived threat occurs when perception of susceptibility is combined with perception of seriousness for a disease and that this could invariably lead to changes in behavior (Hayden, 2014). From the findings in this study this notion was found to be opposite. The participants acclaimed the importance of cervical cancer screening as a preventive measure yet they perceived cervical cancer as an incurable disease, and cervical cancer screening as aviolation of their privacy and moral ethics. They see their body as sacred and should not be exposed as evidenced from this response "In our country is a no go area" (Participant # 3). Therefore they are cut up between avoiding a health risk and upholding a cultural obligation. This was also confirmed in a previous study were participants perceived cervical cancer as serious disease yet they were not interested in getting a screening test because of their belief that cervical cancer is an incurable disease (Rajkumar, 2012). However, in a randomized control trial study of health beliefs associated with cervical cancer screening the women believed that cervical cancer changes life and having a Pap test is important for healthy living which is consistent with the factors associated with HBM (Ma, Gao Fang, Tan, Feng, Ge, & Nguyen, 2013).

Perceived barriers to cervical cancer screening

The participants described how the following factors; lack of knowledge about cervical cancer, language skills, cultural beliefs and lack of awareness could be an impediment to their ability to access cervical cancer screening services. They also included fear, transportation, immigration status, socioeconomic status and insurance among the barriers to cervical cancer screening. The participants expressed their feelings on how previous experiences with health care professionals could affect their ability to present for cervical cancer screening. Kangmennaang, Thogarapalli, Mkandawire and Luginaah (2015) in a study on investigating the disparities in cervical cancer screening among Namibian women also observed similar results. According to Kangmennaang et al. (2015) the findings from their study revealed that insured women and women who had access to health information through education and contact with a health worker were more likely to undertake screening compare to uninsured women and those without contact with health personnel. The authors concluded that for a large scale increase in cervical cancer screening in Namibia a universal health insurance scheme that ensures equity and empower women to demand health services should be adopted. Perceived barriers to cervical cancer screening has also been attributed to many factors such as: lack of knowledge about cervical cancer, language skills, cultural beliefs and attitudes, lack of access to health services, characteristics of health professionals, fear, cost, personal reasons and lack of female health professionals (De Abreu et al., 2013;Garcés-Palacio & Scarinci, 2010; Gauss et al., 2013; Olsson et al., 2014). The participants acknowledged other factors such as emotional embarrassment, poor sanitation and equipment as barriers to cervical cancer screening. One of the participants shared her experience of feeling embarrassed, ashamed and refused to undergo a medical procedure because it was to be done by a male doctor. This is in consonance with the findings that barriers found to be responsible for lower cervical cancer screening for some ethnic groups includes low perceived risk, emotional barriers such as: fear, embarrassment and shame (Malow, Waller & Wardle, 2014). It was assumed that for a new behavior to be adopted a person needs to belief that the efficacy of the new behavior outweigh the consequences of continuing the former behavior (Jones & Bartlett, n.d). Based on this assertion and given the association between perceived barriers to cervical cancer screening this construct helped in providing information on how to empower the women in accessing cancer screening services in order to reduce rates of new cases

Perceived benefits for cervical cancer screening

What do you think are the benefits for participating in cervical cancer screening? This question was asked to determine the participants perceived benefits for participating in cervical cancer screening. The participants heralded early dictation, increase in knowledge and empowerment through education and awareness as major benefits for participating in cervical cancer screening. This was expressed in various terms by the participants. “It gives you peace of mind that nothing is going on inside of you” (Participant #13). “It leads to increase in knowledge, early dictation, the earlier the better” (Participant # 19). They also indicated that based on the knowledge they have gained from this interview they felt empowered to go into their communities and educate other women on the benefits for cervical cancer screening. Oshima and Maezawa (2013) in a study on the perception of cervical cancer screening among Japanese university students who have never had a Pap smear concluded that participants who were interested in undergoing screening for cervical cancer cited the influence of conversations with friends and family, a diagnosis of cancer within their family, and relevant information from the media. Previous studies have shown that perceived benefits play important role in adoption of preventive behaviors such as screening for cervical cancer, colon cancer, HIV voluntary counseling and testing (VCT) and mammography (Jones & Bartlett, n.d; Njau, Watt, Ostermann, Manongi & Sikkema, 2011; Schluterman & Greenberg, 2013; Tracy, 2013). The views of the participants of this study are also in line with the constructs of perceived benefits which is concerned with individual's belief or opinion about the usefulness of a new behavior in reducing the risk of developing a disease. This entails that even if a person perceives personalsusceptibility to a sever health condition (perceived treat) adopting a healthier behavior based on this perception will depend on the person's believe that the new behavior will decrease chances of developing an adverse health outcome

Cues to action

Events, people, things or activities that trigger people's interest to change their behavior or prevent adherence to healthy behaviors are referred to as cues to action (Charkazi et al., 2013; Jones & Bartlett n.d). What are the things that could motivate you to go for cervical cancer screening? These questions were asked in order to elicit participants lived experiences action, events or people that could trigger their interest about cervical cancer screening. The participants' predominant response to the question includes; receiving information through email, face-to-face discussions, workshops, campaigns, mass media and church group. Other responses were family discussion, social groups, work place, doctor, seminars and training The participants also laid emphasis on the need to utilize avenues like organizing marathons, mobile units, and coupons, TV and health care providers which has helped so much in breast cancer screening to send out information on cervical cancer screening. The participants expressed concern on proximity which is described as nearness of the screening location, and attitude of health care staff. The participants' motivations were predominantly based on staying healthy for themselves and loved ones and saving lives. Other prominent views form the participants' response were quest for knowledge and the need for awareness. Morema et al (2014) has investigated the role of cues to action on determinants of cervical cancer screening services among women. Based on the findings attendance to the clinic, provision of free services and health education were cues to action that might increase uptake of cervical cancer screening services among women. Other cues to action that were found in previous studies includes: symptoms of illness, mass media campaigns, churches, husbands, warning labels on products, news from radio and televisions and (Rawlett, 2011 Wardle, Robb, Vernon & Walle, 2015; Okudo, Ajayi & Atolagbe, 2015). These results are compatible with the findings from study conducted by Kamberi et al (2015) where cues to action and its association with uptake of Pap test showed that 43.90% of women not screened reported that promotional campaigns on the television and radio are effective ways to increase knowledge and participation in screening.

Self-efficacy for cervical cancer screening

The participants were asked to describe the things that could likely increase their chances of getting Pap smear or HPV tests based on recommended guidelines. The theme that emerged from the individual interviews were age, accessibility to services, proximity, availability of resources, cultural appropriate messages, free screening, fear of the unknown, being an example to others, increase in knowledge attitude of health care workers and correct equipment. There were recurring views on age from the participants.

Generally it is believed that people will not attempt to do something new unless they have the confidence that they can do it. Research findings showed that for a change in behavior to occur people must feel threatened by their current behavioral pattern (perceived susceptibility and severity), belief that acquiring new behavior will be beneficial(perceived benefits) and then belief they have the ability to take action (Rajkumar, 2012). Findings from study conducted by Ma et al (2015) showed that self-efficacy has significant impact on Pap test behavior among Vietnamese women Garcés-Palacio and Scarinci (2010) stated that past or current perceptions of HPV/STI exposure were factors associated with perceived susceptibility to cervical cancer among Latina immigrants in Alabama. Also, Luque et al (2014) observed that improved methods for disseminating important health information are required for greater access to care among Mexican immigrant women in Southeast Georgia. These assertions could be said to apply to immigrant women of African descent residing in Houston. Exploring specifically the health beliefs of immigrant women of African descent using the HBM model helped to unveil the factors underlying screening disparities among immigrant women and how they could be empowered to overcome barriers in cervical cancer screening in order to reduce the financial, emotional burden and mortality rates associated with cervical cancer.

Limitations of the Study

The limitation to trustworthiness that arose from the study was transferability which refers to the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings (Trochim, 2006). The use of purposive sampling method in recruiting the study participants was a limitation to the study because immigrant women from some African countries were underrepresented while others were over represented hence caution should be taken in extrapolating the findings of the study to all immigrant women of African descent.

Based on the inclusion and exclusion criteria the findings from the study might not be an adequate reflection of the opinions of all immigrant women of African descent residing in Houston Texas. However, despite these limitations the use of information from interviews and observed field work to provide thick description of the participants live experience provided an insight on their perspectives towards cervical cancer screening. The study also provided answers on how immigrant women could be empowered, increase uptake of cervical cancer screening and reduce the number of new cases. Also policy makers could be assisted in making recommendations for cervical cancer screening in immigrant populations.

Recommendations for Research and Practice

I recommend that future qualitative studies should sample a larger population of this culturalgroup and include those who have presented for cervical cancer screening and non-English speaking immigrant women to determine if their perceptions would differ. For example immigrant women who have presented for cervical cancer screening or cervical cancer survivors and non-English speaking may share different opinions about their perceptions towards cervical cancer screening. For practice I recommend creating awareness on the importance of cervical cancer screening through culturally and linguistically appropriate educational programs and materials as well as ensuring that health care providers use these materials in encouraging screening uptake in immigrant populations. Findings from this study and previous studies decried the attitudes and skills of health care providers as an impediment to cervical cancer screening (Karwalajtyas et al, 2010). I also advocate inclusion of churches, fellowship and community centers as venues for educating the women on the availability of various health care facilities that are affordable and accessible in the communities.

Social Change Implications

The positive social change implications of the study can be that; immigrant women could receive culturally and linguistically sensitive information that could bring significant alteration in their behaviors, cultural values, patterns and norms about cervical cancer screening. They could also receive services at the community health centers where health insurance and socioeconomic status are not required criteria for cervical cancer screening. They could also be more encouraged to seek access to the appropriate state of the art in cervical cancer screening which could help in reducing mortality and morbidity rate and costs associated with cervical cancer. Findings from this study showed that belief system, cultural inclination, lack of educational awareness, socioeconomic status, insurance and skills of health care providers were the major factors that affect uptake of cervical cancer screening among the immigrant population The participants' belief and cultural inclination towards their perception of cervical cancer screening could be addressed through; culturally appropriate educational programs and materials. Churches, fellowship and community centers which are seen as natural settings for the immigrants could be used as venues for educating the women on the availability of various health care facilities that are affordable and accessible in the communities. Mupepi et al., (2011) in a study on cervical cancer screening concluded that improvement on accessibility of screening would require planning and implementing programs that involve community leaders and culturally appropriate messages (Mupepi et al., 2011). The women could be empowered by encouraging them to form social groups were cervical cancer and cervical cancer screening could be freely discussed as any other health issues. The social media should sensitize the public on the need for cervical cancer screening like breast cancer while significant reduction in mortality and new cases has been recorded due to social media campaigns (Leeks et al., 2012). One of the women stated "the cervix is part of the woman's body that should be cared for just like the breast" (Participant #20).

Conclusion

As most cancers occur in women who have never presented for or rarely screened increasing the rate of screening remains a significant issue in the quest to reduce incidence rate, mortality and morbidity rates associated with cervical cancer especially in immigrant population (CPRIT,2011). Therefore creating awareness on the need for cervical cancer screening through culturally and linguistically appropriate educational programs and materials is imperative for enhancing cervical cancer prevention efforts among immigrant women of African descent.

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Appendix 1

The specific qualitative interview questions that will form the axons of the interview based on the research questions and the HBM constructs are;

Perceived susceptibility to cervical cancer and cervical cancer screening

1. What do you think are your chances of developing cervical cancer?
2. Please could you tell me your thoughts about cervical cancer screening?

Perceived seriousness (severity) of cervical cancer and cervical cancer screening

3. What factors do you think could increase the chances of a person developing cervical cancer?

Perceive barriers to cervical cancer screening

4. Describe your concerns about cervical cancer screening
5. Describe your experiences with a health care provider that could prevent you from having a Pap smear or HPV test
6. Could you tell me how the following things; country of origin, educational level, and annual income make it difficult for you to get screened for cervical cancer?

Perceived benefits for cervical cancer screening

7. How would you describe the consequences of cervical cancer?
8. What do you think are the benefits for participating in cervical cancer screening?

Cues to action for cervical cancer screening

9. How would you prefer to receive information about cervical cancer screening?
10. What are the things that might motivate you to go for cervical cancer screening?

Self-efficacy for cervical cancer screening

11. Given the opportunity to receive Pap smear or HPV test. What would likely increase your chances of getting the tests based on the recommended guidelines?