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Preventive Health Care among Immigrant Sudanese Women in the Greater Hartford Area of Connecticut

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**Preventive Health Care among Immigrant Sudanese Women in the Greater
Hartford Area of Connecticut**

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of
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Masters of Public Health Thesis

Preventive Health Care among Immigrant Sudanese Women in the Greater Hartford

Area of Connecticut

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Chapter 1: Introduction

Researchers are story tellers supporting their stories with empirical data. They seek to enrich the scientific literature with their findings about how people think and behave. Qualitative research particularly emphasizes seeing the world from the eyes of the people under study. As Jacob and Ferguson (2012) have stated in their article about tips on writing and conducting interviews, “Researchers may use many different techniques, but at the heart of qualitative research is the desire to expose the human part of a story” (p. 1).

This thesis focuses on the story of Sudanese migrant women who reside in the Greater Hartford Area of Connecticut, United States (US). The thesis will present qualitative data on their adaptation to life in the US and attitudes and behavior toward preventive health services. The women who volunteered to be part of this study have migrated from Sudan as early as the 1990s and as late as 2014. Their life experience is a mixture of beliefs and traditions, mixed in with the changing roles of women in Sudan, which were brought with them from the country of origin, and blended with the needs and requirements of their new life in the US. The empowerment of these women, their migration experience and relations with their family, are examined in relationship to their adherence to preventive health care.

Beginning in the early 1990s, the US Department of State began implementing a congressionally mandated lottery program that gave the opportunity to diverse populations to live permanently in the US and to later become naturalized citizens (Logan & Thomas, 2012). Most of the current Sudanese immigrants in the greater Hartford area came to this country through this lottery program, while a smaller number came with other types of visas, such as student visas. As a result of the lottery program migrants from the northern part of Sudan began coming to the US motivated by their dreams of a better life for themselves and for their children.

Like other migrants, they usually settled down in states where they had contacts from friends and relatives (Agbemenu, Terry, Hannan, Kitutu, & Doswell, 2015).

For the most part, the families that came were middle class with male heads of households holding advanced education and professional jobs. These jobs could not be duplicated in the US due to the lack of recognition of their foreign credentials. As a result, these families have for the most part settled into a working class status with underemployed men taking low status jobs and women staying at home. Similar findings were cited in a Canadian study that examined the perceived links between the employment status and the health of unemployed and underemployed skilled African immigrants living in a high-risk neighborhood located in Mississauga, Ontario, Canada (Dean & Wilson, 2009).

Health care for Sudanese women must be viewed in light of both the services currently available to Sudanese migrant women, and the services they were accustomed to under the Sudanese health care system. In countries like Sudan, the focus is on curative health care with less emphasis on prevention. The World Health Organization (WHO) introduced multiple preventive programs and initiatives in Sudan [which became a member of the WHO on 1956] and other Sub-Saharan African countries starting in the mid twentieth century. Since then, global organizations have worked to reduce mortality, morbidity and disability, and improve health, especially of vulnerable populations (WHO, 2008). Despite these efforts by the WHO and non-governmental organizations (NGOs), continuity and maintenance of preventive efforts have always been a challenge.

Developing countries utilized immunizations against infectious diseases, programs focused on reproductive health counselling and child spacing services, tropical disease eradication programs, and maternal and child health initiatives to improve the health of their populations. However, these programs needed continuous funding and commitment from local

governments. This local and national support was challenged by the presence of civil wars and political unrest in addition to poverty and weak health systems. Further, much of the emphasis was on maternal and child care services to the exclusion of prevention in the realm of cancer and chronic diseases screening (Hasnain, Menon, Ferrans, & Szalacha, 2014). Even in the current expansion of Sudan's health care system expenditure, which has gone from 6.2% of GNP in 2008 to 15% by 2015, the emphasis has been on immunization, nutrition, maternal care, and other services that exclusively targeted expectant and new mothers and children, with little emphasis on the woman herself.

Migrant populations in the US face multiple health care challenges. One of these challenges, is transitioning from systems that focus only on curative care to those that also incorporate prevention, a shift that requires significant readjustment (Kawar, 2013; Khan, Ruterbusch, Gomez, & Schwartz, 2013). This affects the patients as well as the providers, who must care for these unique patient populations (Mojica, Morales-Campos, Carmona, Ouyang, & Liang, 2015). In order to optimize the health outcomes for all Americans, there are increased demands to understand the cultural backgrounds of different populations in the US. Despite the findings in the literature, there is still a need for additional studies on the barriers to cancer screening uptake, including socio-cultural barriers (Mansfield et al., 2016).

The aim of this research study is to understand the current situation of Sudanese migrant women in Hartford, with regard to adherence to preventive health care. This includes exploration of the socio-cultural factors that affect their health decision-making. Research shows that multiple factors affect migrant women's health decisions, including health beliefs and culture (Al-Amoudi, Canas, Hohl, Distelhorst, & Thompson, 2015); the migration experience and its effects on the attitudes of migrant populations (Buki, Yee, Weiterschan, & Lehardy, 2015; Forney-Gorman & Kozhimannil, 2015); religion (Shirazi, Shirazi, & Bloom, 2015); and

empowerment such as having independent sources of income (Gjerdingen, McGovern, Bekker, Lundberg, & Willemsen, 2000).

In this thesis, I will present findings from the literature on screening services and their utilization in the US, with elaboration on the reported factors that influence the women's decisions to screen for breast and cervical cancer. This background chapter will be followed by a description of the study population which will give an overview of the Sudanese people and their migration to this country, as well as describing their characteristics in the state of Connecticut. I will describe the methods used to implement this study and then present the findings. Women's preventive health which is the main component of the study findings, will then be presented in a separate chapter. Finally, the discussion and the recommendations in chapter seven elaborate on the findings and highlight recommendations based on the study.

Chapter 2: Background

Preventive Health Care in the United States

Preventive health care refers to the measures taken by individuals and organizations in order to prevent disease. It involves the identification of risk factors for disease, which are major contributors to the wellbeing of a population (CDC, 2009). Chronic diseases in particular impose a recognizable burden upon the US population, although they often are preventable. Almost half of the adults in the US had one or more chronic conditions in 2012, with women more likely to have two or more chronic diseases than men (Ward, Schiller, & Goodman, 2014). Among all causes of death, chronic diseases are responsible for two-thirds of the deaths worldwide (Bauer, Briss, Goodman, & Bowman, 2014). In the US, they are responsible for 7 out of 10 deaths each year, and account for 86% of the total health care expenditures (Xu, Murphy, Kochanek, & Bastian, 2016). Among all chronic diseases, the leading cause of death is cardiovascular disease, followed by cancer (Sentell, Braun, Davis, & Davis, 2015). Both disease categories are responsible for 48% of the deaths attributed to chronic diseases (Xu et al., 2016). This prevalence explains the ongoing need for preventive health services with the ultimate goal to avoid or delay the onset of chronic diseases and to promote early intervention. From a public health perspective, preventive health care is necessary to reduce the burden of diseases on the population and help mitigate long-term health care costs.

In the US, there have been several efforts to modify the focus from curative care towards a preventive care model. One example is the national campaign “Put Prevention into Practice” which has aimed at improving the delivery of preventive care such as screening tests, immunizations and mental health counseling since 1994 (Meyer, Yoon, & Kaufmann, 2013). Preventive services included early detection and early intervention of diabetes, hypertension, and cancer among other conditions. The CDC and other federal and local agencies have

initiated multiple efforts to address preventive services. Some efforts focus on general chronic disease prevention, while others focus specifically on cancer screenings; a result of the increasing burden of cancer on the general population. Cancer is expected to overtake cardiovascular diseases as the number one cause of death in the US (Trinh et al., 2016). Screening for breast, cervical and colorectal cancers remains the most cost-effective way to combat mortality from these diseases as compared to the recent advances in therapy (Smith et al., 2016). This thesis focuses on female-specific breast and cervical cancer screenings.

Why is the Focus on Women?

Studies have shown that women in general have a higher life expectancy than men but experience more illnesses. Although women as a group live longer than men, they experience higher morbidity, poverty, chronic illness, and depression through old age (Anderson, Blue, & Lau, 1991). Preventive services are mandatory in order to protect, promote, and maintain the health and wellbeing of women, while reducing the burden of disease, disability, and death (Stolp & Fox, 2015). Women who do not practice preventive measures can be more susceptible to life-long morbidity and a higher risk of early death.

Women's preventive health specifically consists of screening for breast and ovarian cancers in addition to "well-woman" visits which provide routine physical and mental check-ups to women at average disease risks. The National Health Agenda 2011, recently introduced the emerging term of women's comprehensive preventive care. The Institute of Medicine (IOM, 2011) recommended new guidelines for women's preventive care with a focus on comprehensive preventive services to include "well-woman" visits; gestational diabetes screening; Human Papilloma Virus (HPV) DNA testing; Sexually Transmitted Illnesses (STI) and Human Immunodeficiency Virus (HIV) screening and counseling; contraception counseling;

breastfeeding support; and domestic violence screening and counseling (Koh & Sebelius, 2010).

Women's Comprehensive Health in the United States

There is a need to understand the social factors that surround women's life and influence their health and overall wellbeing. Women's role as the primary caregivers within the family affects their attitudes when they seek health care for themselves. Women often make the health and wellbeing of their family members a priority rather than their own health (Kristiansen, Lue-Kessing, Mygind, Razum, & Norredam, 2014). In recent decades, women's health progressed from being narrow in scope to broader approaches due to great efforts from feminist groups and women's health advocates (Nichols, 2000). Women's health in the 1970s focused mainly on reproductive health. The definition of women's health recently has expanded to consider social issues, chronic conditions, infectious diseases, and injury and violence (Nichols, 2000). Multiple initiatives and advocacy movements raised awareness for the public and policy makers, and encouraged women themselves to prioritize their health and have greater control over decisions related to their bodies. Two initiatives highlighted the movement. One is the Boston Women's Health Book Collective, which published the award-winning book 'Our Bodies, Ourselves' in 1971. Another is the self-help movement which educated women on how to tackle everyday health concerns such as breast self-examination.

Health research also began to focus on women's health. For instance, the Nurses' Health Study which was initiated in 1976 (Belanger, Hennekens, Rosner, & Speizer, 1978). This long-term study of chronic diseases in American women, studied the health and lifestyle of more than 225,000 female nurses of diverse ethnicities and social background. The ongoing study focused on the development and treatment of heart disease, diabetes, and breast and ovarian cancers. It found an association between night work shifts and the risk of breast cancer, among

other findings (Schernhammer et al., 2001). Additionally, women's groups advocated to increase awareness of the lack of funding for women's diseases such as breast cancer (Nichols, 2000).

The Office of Minority Health was created in 1986 and was eventually reauthorized by the Affordable Care Act (ACA) in 2010. Its mission is to improve the health of racial and ethnic minority populations through the development of health policies and programs with a goal to eliminate health disparities. This increased the focus on women's health in general and the health of minority women in particular. This office was a significant outcome of the Heckler Report, which was released by the DHHS in the early 1980s. The report documented the existence of health disparities among racial and ethnic minorities in the US and called such disparities as described in this quote from the report "an affront both to our ideals and to the ongoing genius of American medicine" (Nickens, 1986).

The National Institutes of Health (NIH) established an Office of Research on Women's Health (ORWH) in 1990 to place women's health research on the national agenda. One year later, NIH established the Women's Health Initiative (WHI), a nationwide long-term study involving 164,500 women ages 50 to 79. It focused on discovering strategies to prevent chronic conditions of heart disease, breast and colorectal cancer, and osteoporosis in postmenopausal women (Hofmann & Hooper, 2001). The Black Women's Health Study in 1997 found associations between perceived discrimination and the incidence of breast cancer (Taylor et al., 2007). The US Department of Health and Human Services (DHHS) established the Office on Women's Health (OWH) in 1991 to improve the health of women through national leadership and coordination between federal, state and local entities. This step was remarkable in recognizing women's health and wellbeing as a priority. OWH provides a more advanced and comprehensive approach to address preventive health care in the midst of other priorities such as research, education and career advancement for women in the health and science

professions. In the 1990s, the Office aimed to establish women's health identity in the national health landscape with a greater focus on underserved women, addressing the disparities in health as stated by the Agency for Healthcare Research and Quality.

At the local level, the Connecticut Department of Public Health (CT DPH) also has established multiple women's health programs. One of these programs is Connecticut's version of the National Breast and Cervical Cancer Early Detection Program (Hofmann & Hooper, 2001). Through implementation of this program, women below the poverty level and the uninsured can access free services for screening, diagnosing and managing breast and cervical cancers. Cost of the service was one identified barrier to adherence to preventive health; however, there are other factors that influence women's decisions in utilizing recommended screening tests and health care visits (Van Hoof, Ho, Kelvey-Albert, Wright, & Meehan, 2013).

Screening for Breast and Cervical Cancers

Breast cancer is the most common cancer and the second most common cause of death from cancer among women in the US (Smith et al., 2016). The American Cancer Society (ACS) estimated that there will be 246,660 cases of invasive breast cancer diagnosed in US women and 40,450 deaths during the year 2016. Almost 13,000 women will be diagnosed with invasive cervical cancer and more than 4,000 women were estimated to die from the disease (Smith et al., 2016). Screenings for both cancers are being recommended in the US and are supported by guidelines developed by both the ACS and the US Preventive Services Task Force (USPSTF). ACS recommends routine screening for the most prevalent cancers, starting with breast and continuing with prostate, colorectal, skin, cervical, and lung cancers in that order.

Breast Cancer Screening Guidelines

Three methods are used to screen for breast cancer: breast self-examination which should be performed by the woman every month; clinical breast examination which is done by a

physician or a care provider during physical examination; and conducting a routine mammogram which is an X-ray of the breast. Mammography is the best way to find breast cancer early before it is big enough to feel or cause symptoms, and when it is easier to treat. The ACS recommends annual mammograms for women 45-54 years old (ACS, 2016). After that, the recommended frequency of the test shifts to biennial instead of annual. This guideline should not prevent older women from continuing annual testing if they are at high risk of developing the disease.

The USPSTF recommends mammography screening every two years for women 50 to 74 years with earlier screenings for women with a family history of breast cancer (Smith et al., 2015). Within all newly diagnosed breast cancer cases, 85% have no family history of the disease, which suggests that all women will benefit from routine screenings.

Cervical Cancer Screening Guidelines

The Pap test screens for cancer by identifying early cell changes in the cervix to be followed up by pre-cancerous treatment or the detection of cancer cells which can be addressed through early treatment. Another approach is to test for the presence of the Human Papilloma Virus (HPV) on the cervical smear. Both the ACS and the USPSTF recommend pap testing every 3 years between the ages 21 and 29 years. For women aged 30 to 65 years the Pap test should be done every 5 years in combination with HPV testing (ACS, 2016). After the age of 65, if women had normal results in previous screenings, then there is no need to continue the testing (Sentell et al., 2015).

Disparities in Breast and Cervical Cancer Screening

Healthy People 2020, a report from the US DHHS, indicates that Americans comply with only 50% of the recommended preventive health services. Despite the burden of breast cancer, the screening rate was 72.4%, which is below the Healthy People 2020 target of 81% by 2010.

The cervical cancer screening rate was 83% which is still below the target of 93%. Screening rates for both cancers remain sub-optimal for all women despite the efforts of the preventive health care sector in the US.

Disparities in preventive health care utilization in the US are widespread, especially for minority, low income, and recent migrant groups (Trinh et al., 2016). Studies involving breast and cervical cancer screening and management, in addition to other conditions such as infant mortality, HIV and STIs, indicate that women of color are less likely to receive adequate health care (King, Chen, Garza, & Thomas, 2014; Zhan & Lin, 2014). In general, minority women have poorer health profiles in comparison to white women (Forney-Gorman & Kozhimannil, 2015; Sweeney et al., 2015).

Preventive health in the US for women in particular is not a priority, especially among minority groups as reported by the CDC (CDC, 2015). White women have higher screening rates for both breast and cervical cancers compared to African American and other women of color. Factors identified as contributing to lower utilization of screening tests among minority women include: low socioeconomic status, race and ethnicity, religion, linguistic barriers, lack of enrollment in a health plan, and denial of the importance of personal health (Agbemenu et al., 2015; Al-Amoudi et al., 2015; Forney-Gorman & Kozhimannil, 2015).

Factors Associated with Lower Screening Rates

Health care access is one of the factors that affect the utilization of preventive services such as screening tests (Plescia, Wong, Pieters, & Joseph, 2014). Access encompasses having a health insurance and having a primary care provider (PCP). Access can also relate to the availability of obstetricians and gynecologists (OB/Gyns) who are more likely than other health care providers to provide recommended preventive tests for women. The implementation of the ACA of 2010 introduced notable expansions in preventive services and their coverage by health

insurance plans (Stolp & Fox, 2015). However, many minority, low income and migrant women continue to have poor access to preventive health and the health care system in general.

Cost of the Services

One of the most recognized barriers to preventive care practice is cost of the services (K. M. Anderson & Olson, 2016). Studies have found that removing costs from mammogram and other preventive services increased the likelihood of their utilization (Koh & Sebelius, 2010). Other studies that examined the influence of cost sharing on women's preventive health care found that even moderate co-pays for mammograms or Pap tests resulted in less adherence. A report by the Commonwealth Fund (2009) found that more than 50% of women delayed or avoided necessary care because of cost. In order to address these health disparities in service utilization, the ACA of 2010 required most health plans to cover recommended preventive services without cost sharing (K. M. Anderson & Olson, 2016). The CDC's National Breast and Cervical Cancer Early Detection Program (NBCCEDP) also provides screening and diagnostic services to uninsured and underserved women. Both ACA and NBCCEDP are likely to improve screening rates (Levy, 2012).

Women's Empowerment

Another contributor to women's preventive health care is empowerment (Ahmad-Nia, 2002). Studies from the US and Europe suggest that women's low self-esteem and lack of power to control their own bodies lead to disparities in preventive services utilization (Gandhi et al., 2015; Gjerdingen et al., 2000). Feminist scholars and advocates believe that historically women were subjected to suppression by men in their life and work environment. The British sociologist, Catherine Hakim, introduced the Preference Theory (Hakim, 1998), which explains and predicts women's lifestyle choices. This introduced a new scenario to the scientific community. Her theory was an outcome of conducting a research based on aggregate level

statistics in developed European countries. Hakim differentiated three groups of women based on lifestyle choices. Women who prioritize their career (a work-centered lifestyle) comprised 20% of her study participants. The second group consisted of women who prioritized family life and values (a home-centered lifestyle) and also comprised 20% of the sample. The third group, the majority of women in the study, lived an “adaptive” lifestyle. Women from this last group seek both a family and career, alternating their priorities in each phase of their life. Migrant women from Arab and Muslim countries have self-denial and give the priority to children and husbands. They tend to choose a home-centered lifestyle and often had several children along with no employment or only a small income.

Women’s empowerment was thought to influence health and wellbeing. Women of Arabic origin have less empowerment as shown in a variety of studies (Aroian, Templin, & Ramaswamy, 2010). For instance, studies in the U.S. have shown that characteristics among Arab and Latina minorities are associated with breast and cervical screening adherence that differ among underserved women due to socio-cultural backgrounds.

Sociocultural Factors and Migration

For African and Muslim women, their migration to the US is another factor that affects the decision making process for health care. However, multiple studies have shown that African-Immigrant groups in the US lack adherence to certain preventive services. A recent study described variations in mammography and Pap test rates across minority sub-groups, and found that length of residency in the US is one of the factors that influence cancer screening for recent immigrants (Shoemaker & White, 2016). Other studies defined the lack of culturally-competent approaches used by health care providers as one of the influences that affected adherence to preventive services, and called for more research that focuses on socio-cultural

characteristics of migrant groups (Agbemenu et al., 2015; Forney-Gorman & Kozhimannil, 2015; Sweeney et al., 2015).

Cultural and linguistic barriers have been less well reported as barriers to preventive care. The Health Disparities and Inequalities Report (CDC, 2013) did not include information about the language spoken at home as a marker of cultural difference. This was identified in the report as a gap in the understanding of the cultural backgrounds. Simultaneously, studies have recognized the lack of cultural competency as a barrier to access preventive health (Baron-Epel, Friedman, & Lernau, 2009). All of these variables are associated with poor health outcomes in minority groups (Chan & So, 2015). Findings showed that interventions to improve the number of screenings should be tailored for racial/ethnic groups (Rodriguez et al., 2015). Another author mentioned a “post-ethnic” America and how regulations for any health practice should accommodate different cultural backgrounds (Al-Amoudi et al., 2015).

Awareness of Services

Awareness of preventive services and their availability is one important factor in increased utilization of the services delivered to women. Many African immigrants are unfamiliar with the Pap test as a screening test for cervical cancer and its potential benefits. One study recommended more research on the impact of education and culturally specific care to address the disparity in cancer screening rates for African-born black women (Forney-Gorman & Kozhimannil, 2015). Another study in Massachusetts investigated knowledge and awareness of breast and cervical cancer screening practices among African-born immigrant women (Atlas et al., 2014). Apart from awareness, study findings revealed other factors that affect the decision-making in preventive care among this population included fatalism, stigma, and privacy. In general, the study emphasized the need for research to understand how the immigrant experiences affects health decision-making.

The population of this study consists of first generation migrant women who were born and raised up in Sudan, and currently live in the greater Hartford area of Connecticut. Their social determinants of health likely to differ from women of color who have been born in the US and raised in this society, as reported by studies (Callister, 2015). Researchers from the field identified multiple factors that could be attributed to the low utilization of preventive services available for such migrant women (Gauss, Mabiso, & Williams, 2013).

Chapter 3: Description of the Study Population

This chapter includes overview of immigrant population in the US, followed by description of main aspects of the study population. An exploration of the migration process will be presented consisting of an overview of the political and economic situation of Sudan, explaining the reasons and modes of migration. Then, a description is provided of the Sudanese migrants' community in the state of Connecticut with a focus on women.

Immigrants in the United States

Immigration to the US has been a major source of population growth and cultural change throughout the history of this country (Rytina, 2004). This ongoing process has produced generations with demographic and socioeconomic diversity. Different settlement patterns of immigrants from different countries of origin has affected their health and quality of life. Hence, information about migrant populations became a necessity.

The U. S. Department of Homeland Security keeps records of the migrant population through the years. A report by the Office of Immigration Statistics (2013) estimated the lawful permanent resident (LPR) population in the US, also known as “green card” holders, at 13.1 million. The report obtained data from administrative records to estimate the number of migrants. The majority (63%) of these migrants obtained the green card during or after 2000. Many surveys such as the decennial U.S. Census and monthly household surveys conducted by the Census Bureau include questions about country of birth and state of residence. However, national data on non-citizens and green-card holders is not readily available from any surveillance engine and must be estimated (Ahmed & Robinson, 1994).

Leading countries of origin include Mexico (25%), followed by China, Philippines and India. Sudanese-born migrants are counted as “African born” together with migrants from other African countries. There is lack of segregated data about the African-born migrants. Connecticut

contained only 1.2% of the total migrant population in 2013. The majority were residing in the states of California (25.2%), New York (12.6%) and Texas (10.1%) (Hoefer, Rytina, & Baker, 2011). Another category of migrants is refugees who come to this country as asylum seekers. Among nationalities of refugees to the US between 2011 and 2013, individuals originating from Sudan ranked 8th, just ahead of Ethiopia and Eritrea. Iraq was the country of largest number of refugees to the US.

Sudan Profile

Geography and Demographics

Sudan is a country located in northeast Africa. Egypt and Libya border Sudan from the north, Chad and the Central African Republic from the west, Ethiopia, Eritrea and the West shores of the Red Sea from the east, and Kenya, Uganda, Democratic Republic of the Congo, and South Sudan from the south. The size of the country measures 1,156,673 square miles, about one-fourth the size of the US. Both Sudan and South Sudan are spread over 2.5 million square miles and were together considered Africa's largest country. One of Sudan's major geographic landmarks is the Nile River and its tributaries. In 2009, the population of Sudan was estimated to be about 40 million people with a 2.6% growth rate and a fertility rate of 5.9. Vital statistics revealed a crude birth rate of 37.8/1000 and an infant mortality rate of 81/1000. The estimated life expectancy at birth in Sudan is 56.6 years (WHO, 2008).

History and Political Context

In ancient history, Sudan was known as the kingdom of Nubia ruled by joint Egyptian and Nubian leaders. During the sixth century, the region was religiously dominated by Christianity, until later when Muslim Arabs took over and controlled Sudan through an influx from Egypt and North Africa. About 100 years later, Black African tribes began to settle in the

south and maneuvered towards the north. By the end of the 19th century, Egyptians ruled Sudan again. In 1898, Britain took over Egypt and in conjunction ruled Sudan as well (Sharkey, 2003).

After 58 years of rule, Anglo-Egyptian Sudan gained independence in January of 1956. During the 20th century, Sudan was ruled by several parliamentary governments dominated by unstable military regimes, including the current one. The country went through long periods of civil conflict and political unrest. The war between the northern (Arab-dominated) and the southern (African tribal-dominated) areas created a massive burden for each side. A variety of factors led to the unease between each part of the country, including differences in religion, language, ethnicity, and political power. This war led to an estimated 2.5 million deaths and 4 million individuals displaced throughout the years (Deng, 2011). This led to the 2011 historic referendum in South Sudan with 98.8% of voters choosing independence from the north. South Sudan was then declared the 54th country of the African continent (Dagne, 2012).

Social Characteristics

Most residents of north Sudan are Muslims who are of African and Arab origins. Many social characteristics are shared between both ethnicities, such as religious practices, language spoken, and moral values. Similar values include respect towards males and the elderly; family as a dominant social institution where individuals inherit religion, class, and cultural affiliations; economic cooperation between family members and support in times of individual and societal stress; decision-making responsibilities mainly by a male as the head of the household; and a strong commitment to the family which can involve self-denial on the part of women for the sake of their children and husbands.

The civil war between the north and the south lasted for 22 years and ultimately exhausted the country. During this period, Northern Sudan was accused of human rights violations among other incidents that led to its isolation from the international community. In

1995, the United Nations imposed sanctions against Sudan, which were eventually lifted in 2001. Those consequences led to deterioration of the country's infrastructure and economy, which adversely affected the daily life of the Sudanese people. Many began looking for other safe and encouraging places to flourish and build their lives.

Context of Immigration from Sudan

People of Sudanese origin, living outside of Sudan, have been estimated to be between 1.2 and 1.7 million people. The US has the most recognized presence of Sudanese migrants from southern Sudan, as refugees. United Nations High Commissioner for Refugees (UNHCR) provides asylum status to groups dealing with conflicts of civil war from South Sudan and other countries.

Another component of Sudanese migrants includes those who have suffered from poor quality of life and migrated independently. These individuals most likely fell into the middle class and well-educated citizens (i.e. medical doctors, engineers, lawyers, accountants) who were provided with skilled visas to different parts of the world. These skilled professionals receive low wages in Northern Sudan compared to other parts of the world, so they seek a better quality of life and better education for their children which was not granted in their country (Hou, Lu, & Abada, 2012). In the present study, informants with professional backgrounds mentioned that countries favored by skilled migrants included Arab countries, European countries, Canada and Australia. The other set of Sudanese migrants are those that apply for the diversity visa program or other types of entry visas into the US. This group lives with the status of permanent residence and will eventually be transferred to naturalized citizenship.

Sudanese Migrants in Connecticut

The current study population is made up of Sudanese immigrants who first began coming to Connecticut in the 1980s as students looking for better education opportunities. A

decade after, Sudanese immigrants began to come to this country through the Diversity Visa Program. This is a congressionally mandated lottery program that selects applicants by a computerized lottery process, and issues a US Permanent Resident Card to those been selected. This multi-step process is known as the Green Card lottery. The Sudanese American Society in Connecticut reported that there were more than 150 adult individuals in the Hartford area and about 300 in the state. Awad Fudl, the president of the Sudanese American Society in Connecticut, started to establish this non-profit organization in 2006 with a meeting in his house in the city of New Britain. This meeting resulted in a formal, registered, organization in the state of Connecticut. But his efforts to help his fellow Sudanese in the Hartford area and the whole state had impacted far beyond that. His collaborative work with other earlier migrants provided social support and multiple services to newly comers. These services included bringing individuals and families from the airports, helping them find shelter, job opportunities, and health care settlement as some of what they were providing.

Now working as a Senior Maintenance Supervisor at the Department of Transportation (DOT), Mr. Fudl still continues to provide help and support to the Sudanese migrant community in CT. He estimated that there are 57 Sudanese families in the Hartford area, and more than 40 in the Greater New Haven area. Within this population in Hartford, the majority (over 30 families) reside in New Britain, whereas the rest are scattered in surrounding suburban towns such as West Hartford, Windsor, Manchester and Southington. Mr. Fudl reports that Sudanese migrants tend to prefer family-friendly towns when they choose where to establish their life. The preference of places where other Sudanese families reside was also one of the factors that influence the decision of where to live, in as well as availability of Muslims from other Arabic speaking nationalities. Another factors include increased job opportunities in specific locations, such as the availability of factories in New Britain in the 1990s and early 2000s, and the affordability of houses and apartments in specific towns. New Britain has a mean household

income of \$40,294 according to the US 2010 census, which is relatively low compared to the mean income in Connecticut as a whole, \$69,461(DeNavas-Walt, 2010).

Another social group, is the newly formed Social Network for Sudanese Women in Central Connecticut, an informal group focusing on women. It was founded in January 2015 by Huwayda Yassin, a US citizen who has lived in Connecticut and New York for more than twenty years. She lives in the city of New Britain where most of this population reside. The objective of her social group is to facilitate social networking between women in this community. With 33 members at the beginning of 2016, this group helped and supported Sudanese migrant women in the area in multiple ways. Notable support being provided in such instances as the case of the death of a close family member. In such situations, the group encourages donations from other families to support the affected family, in addition to providing emotional support. Another contribution is the coordination of routine social gatherings for the families and women in particular in arranged locations throughout the state. The women's group supports what the Sudanese American Society is providing, such as socialization and connection between families and individual members.

This kind of social work is needed to maintain the Muslim faith and Sudanese culture through religious and special occasions. Examples include celebrating "Eid Al Fitr", "Eid Al Adha", Ramadhan, and Sudan's national day on the first of January. Moreover, Sudanese migrant women in the area attend the Mosque regularly for prayers and bring their children to a weekend school run by the Mosque committee. Many women play leadership roles and possess the ability to communicate with people and organize community events, and are well-oriented about the ways of living in the new culture.

The Focus on Sudanese Women

The literature described migrant women in many ways. One common finding, that women are subjected to social stresses deriving from their status as part of multiple minority groups, including gender, persons of color, minority religion, and persons with a country of national origin other than the US (Agbemenu et al., 2015; Al-Amoudi et al., 2015; Baird et al., 2015) Compared to white women, the health profile of minority women is relatively low (Agbemenu et al., 2015; Forney-Gorman & Kozhimannil, 2015; Sweeney et al., 2015). Among the migrant groups, women considered themselves less empowered compared to men due to cultural factors (Elsheikh, Crutzen, & Van den Borne, 2015). Their decisions were controlled by men in their families and the ideology of patriarchy. Although for Sudanese women, paid employment outside of the home is not a new experience. In Sudan, women had explored variety of job opportunities especially in education and health care. Despite that, a clearly defined role of both men and women in the home culture, and the primacy of men, affects women's responses to different health risks in the new country as explained by a study of a Muslim migrant community in the US (Ammar, Couture-Carron, Alvi, & San Antonio, 2013).

Sudanese Men

Migrant men are also susceptible to multiple stresses as well as the women in their families, but for different reasons. For men, leaving their home country and the valued professions they earned for lower level jobs in the US that did not recognize their credentials is a major source of stress. This change in status affects men's self-image from their role as the prideful head of the household with a productive profession, to a struggling migrant who must work long hours for low wages. Their methods to cope with the stress vary, but the main concern is the reflection of these stressors on the relationship with women in their families and the family dynamics. Most men in this community work as drivers and factory workers despite

the professional and technical credentials they might have earned in Sudan. Both men working in low level jobs and women staying at home to support family without assistance of extended kin and prospects for education and jobs, create conditions that are problematic for family life and for women's health. This thesis will explore these issues in the Sudanese community.

Chapter 4: Study Design and Methods

Positionality of the author

This thesis examines the utilization of preventive health care among migrant Sudanese women who live in the Hartford area of Connecticut. As the author of this thesis, I am a migrant Sudanese woman as well. I had my basic education up to my Bachelor's degree in Medicine and Surgery MBBS, in Sudan. As with many skilled Sudanese workers, I found my way to a decent job and life in the Sultanate of Oman which is one of the oil rich countries in the Arabic Gulf. Life in Oman was reasonable but the dreams of having a better future for my children with good health care and education in the US were strong motivators for me and my family to move to this country. I applied repeatedly to the Lottery of the Diversity Visa Program until my family and I were finally selected, as happened with most of the study population. My migration experience was not so different from most of the Sudanese migrants here. My physician credentials were not recognized by this country and I ended up as a stay-at-home Mom. This was a huge source of stress and disappointment in my life. Somehow, I found my way and was admitted to the University of Connecticut's Master of Public Health Program (UConn MPH). I still remain close to my Sudanese migrant community, so it was natural that I would select a research study that targeted Sudanese women migrants, and this selection was supported by my major advisor, Dr. Stephen L. Schensul.

Research Goals

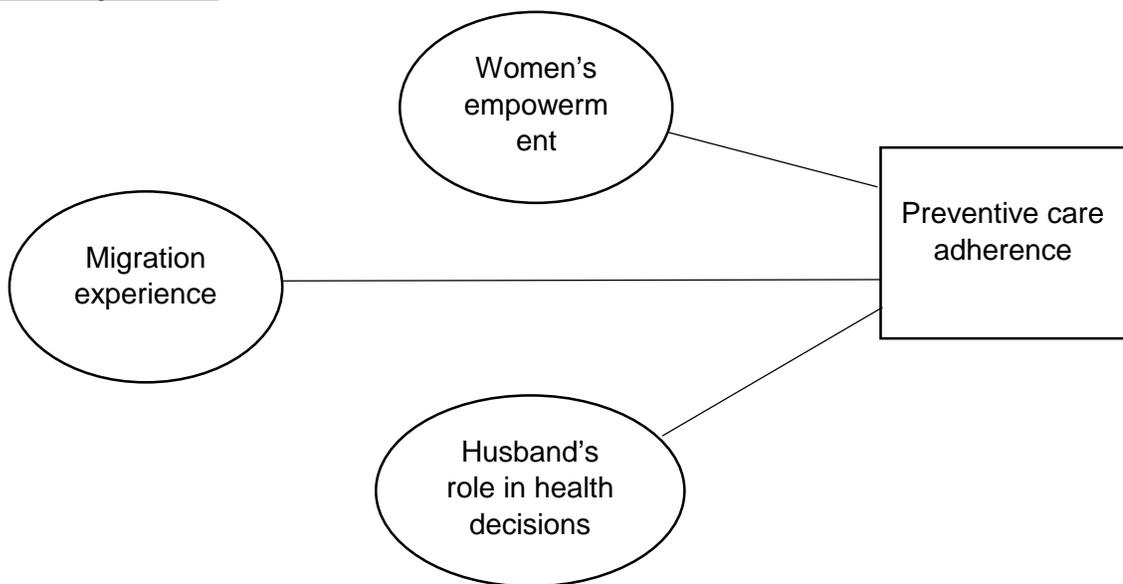
The goal of this study is to investigate the social factors that influence Sudanese women's decision-making with regard to preventive health behaviors. This information should support the planning of health interventions that aim to improve screening levels for chronic diseases among migrants, as well as other health concerns in the state of Connecticut. An

overall goal is to improve the health of women among the migrant populations and other minority populations in the US.

Logic Model

In the study model, the adherence to preventive care domain represented the dependent variable (DV). The other three domains represented the independent variables (IVs). This included; the migration experience; both women's empowerment in the form of having independent income; and the role of the husband in women's health decisions are considered mediator variables in this process.

Figure 1: The logic model



Definition of Domains

The study focuses on four primary domains:

(1) Migration Experience:

This is the first domain and includes detailed description of the migration experience such as reasons for migration and the overall difficulties in the settlement experience. Additionally, in this domain, socio-demographic characteristics were included such as

level of education before and after migration, age, and the current job, length of marriage and length of stay in the US.

(2) Women's empowerment:

This domain explores factors that affect women's empowerment such as independent income, and employment status. There are different levels of empowerment ranging from empowered women who studied and established a professional career in the new life to housewives who do not have a job. In this study, three elements were used as proxy to describe women's empowerment: having independent source of income; women's current occupation regardless of their former profession before migration, women's education after they had migrated to the US, regardless of their former educational level.

(3) Husband's role in health decisions:

In this domain we focused at women's decision-making with regards to screenings and other preventive health services, mainly, the role of their husbands in women's health decisions. As women of Arabic decent who follow the Muslim faith, the decision-making in general is governed by the decisions of men in the household such as the husband. This explains the need to understand the magnitude of the decision making, mainly regarding health issues.

(4) Preventive care adherence:

This final domain represents the outcome variable. This focal variable consisted of three components: having a Pap test on a regular basis, having a mammogram regularly every one to two years in cases where the woman is age eligible for the screening, and if the woman maintains regular physical checkups. This applies to conditions when she

initiates the checkup visit on her own. Situations where the woman receives screening services as part of another health care visit were not counted as indicators of preventive care adherence. Other markers of utilization of other preventive services, such as dental care and regular visits to OB/Gyns, were added to this domain.

Research Hypothesis

- This study hypothesizes that empowered Sudanese women who have independent income are more likely to adhere to preventive health care.
- The husband's role in women's health decisions, and the migration experience are contributors to women's adherence to preventive health care.

Study Design

The proposed study design is descriptive, using a case study approach which is an in-depth study of a person or a group of people that is used to describe an intervention or phenomenon and the real-life context in which it occurred (Jack, 2008). The unit of analysis can vary from an individual to a corporation, in this study it refers to a woman. Data come, mostly, from interviews, documentation, archival records, or direct observations. In health care research, case studies often involve in-depth interviews with participants and key informants, such as this study. Other possibilities include review of the medical records or observations.

Sampling

The sampling strategy used in this study was purposive sampling. Although there are debates on sampling approaches in qualitative research, most researchers agree that qualitative sampling is not based on extensive, statistical probabilities. The main focus in this type of research is to produce a deeper understanding of a particular situation or condition, or to understand human behaviors and attitudes.

Table 1: Inclusion and Exclusion criteria:

<i>N.</i>	<i>Inclusion criteria</i>	<i>Exclusion criteria</i>
1	Women of Sudanese origin.	Women from other native countries.
2	First generation migrant woman.	Women born and raised in the US.
3	Has lived in the US for more than one year.	Women who are new to the country who have less than one year of residence in the US.
4	Married, widowed or divorced.	Men
5	Age 25-65 yrs.	Younger than 25 or older than 65 yrs.
6	Lives in the Greater Hartford Area of Connecticut.	

Key informants

The study began by contacting key informants, who are members of the targeted population and who have leadership positions in this community and have special expertise concerning community information. Three key informants were older women and men who were among the earliest migrants from Sudan to reside in the State of Connecticut. One of them is the President of the Sudanese American Society in Connecticut, another is the founder of the Social Network of Sudanese Women in Central Connecticut, and the third is an attendee of a Mosque in New Britain. The three informants provided information about the community of concern, they described social networking and social support, estimations about the size of the community in Hartford area and in the state of Connecticut. Additionally, they gave history of Sudanese migrants in Connecticut and their mode of entry into the US.

Observation of Social Gatherings

In these social gatherings women come with their children to the assigned location (e.g., a rented hall, as in the most recent event) to socialize with each other. They bring food and drinks and enjoy the company of each other. In some meetings, especially during the month of Ramadan and the Eid, they organize competitions, developing quizzes about Sudan's culture and Connecticut cities and counties. One quiz asked about female Sudanese leaders in ancient and recent history. The winners were rewarded by simple gifts usually donated from volunteer women. The children also get rewarded for any kind of participation such as singing songs or reading verses from the Holy Quran. Men are less involved in these gatherings due to their restrictive working schedules. They usually participate in major events like the Eid celebrations.

Recruitment procedures

The author had been in contact with the social group which facilitated the announcement of the study in their routine social meetings. A meeting was held on Saturday, March 26th, 2016. During the gathering, there was an announcement of the study, a brief description of the study and distribution of the study flyers (see Appendix 2) to the women who attended this event. In order to approach women who were not enrolled in the social group, recruitment flyers were posted on the women's side of four of the local Mosques in the area, after receiving permission from the committee of each Mosque. The key informant attending one of the Mosques in New Britain facilitated the contact with other Mosques. Immediately after the event, the women started to contact the Co-Investigator by phone or text messaging to schedule appointments for the interviews.

In most cases, recruitment was conducted in person. In a few instances, it was done through telephone calls. During this process, an orientation about the study was given and questions were asked concerning inclusion and exclusion criteria. Study documents were

explained, in particular the information sheet and the informed consent (see Appendices 3 and 4, respectively). Copies of the recruitment materials were directly given to the participant when recruitment was done in person. When recruitment was conducted by telephone (two cases), the materials were mailed to the participant. The subjects were not paid and participation in the study was on a volunteer basis.

In-Depth Interviews

In-depth interviewing is a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives about a particular idea, program, or situation (Boyce & Neale, 2006; Jacob & Furgerson, 2012). Twenty-one women were selected for interviews. Interviewing was initiated in different locations in a four weeks period, starting March 28th and ending on April 22nd. The actual interviewees were 20 women, since one potential participant traveled outside the state during the interviewing phase of the study. The interviews took between 35 to 80 minutes. Verbal consent was obtained from the participants prior to interviewing.

There was no collection of any information that could be used as personal identifiers including name of cities or towns, considering the small number of potential residents in each location who may fall within this population. For instance, the number of Sudanese migrants who reside in certain cities/towns in the area might not exceed one or two people. In such a case, the disclosure of the name of the location was considered a form of personal identification of the study participants. Of the 20 interviews, 15 were conducted in English, while the remaining 5 were in Arabic. Handwritten notes were taken during each interview and the interviewer audiotaped herself after the interview on the same day to expand the notes. There was no tape recording during the interviews to protect the privacy and to ensure confidentiality

of the participants. Later, the audiotapes were transcribed into anonymous Microsoft Word documents.

The interview guide that was developed (see Appendix 5) was designed to explore the four domains in the research model. In the first domain, the migration experience and socio-demographic characteristics were asked. The interviews explored the participant's life story, particularly women's experiences before and after migration to the US. It then asked the following broad question: Could you talk to me about your migration experience and what brought you here? Probes were used to explore the effects of this experience on the woman's life, her attitudes towards the work or education, what motivates her and what contributes to her decision making, and the circumstances of her health and well-being after migration.

The domain of women's empowerment included questions about the presence of independent income, having an occupation, and educational or professional degrees gained after migration. The conditions of the husband were examined in detail by exploring the husband's current work and his former education and working experience before migration. Lastly, adherence to preventive care was explored with such parameters as Pap testing, mammograms, and maintaining regular health checkups, in addition to health insurance and health services utilization.

Potential Risks

The study involved a minimal risk of breach of confidentiality. Still, measures were taken to reduce such a minimal risk. This included anonymous documentation of the scripts. Each interview was labeled with a serial number which was not linked to a key. The study data were saved in a password protected file that could be accessed only by the study team. The data were first examined for the existence of any identifiable information before analysis. These precautions were mandatory to protect the confidentiality of the research participants. Although

key informants reported that few members of this population may have undocumented status, all the study participants had their migration status documented. Another risk was that the subjects might feel uncomfortable answering some questions, although the research topic of interest which is preventive health care was not considered sensitive.

Qualitative Data Management and Analysis

The interviews were transcribed and then uploaded into the Atlas.ti software Version 7 for Qualitative Data Analysis (QDA). This was followed by thematic coding of the data using a coding guide developed by the author. Furthermore, the codes were categorized in code groups called code families. There were eight code families and a total of 67 codes used for analysis purposes. The total number of quotations connected to the codes were 740 quotations. The responses in the IDIs were analyzed to answer the research questions and to test the study hypothesis.

Transcribing the interview

The interviews were accompanied by handwritten notes in English. The interviewer interpreted the Arabic spoken responses during the interviews. There were five women who did not speak English well and chose to be interviewed in Arabic. The interviewer is an Arabic speaking native herself. She audiotaped herself after each interview then later, transcription was done. All transcripts were in the English language.

In order to protect privacy of the research subjects, information that could lead to identification of the subjects was coded. Every word that could be used as a personal identifier was marked as four upper case x (XXXX). Examples of these personal identifiers include: names of persons; names of previous countries of residence other than Sudan; names of towns or cities in Connecticut; names of states of former residence; names of profession degrees obtained here or in Sudan; names of health insurance companies; and names of hospitals or

clinics. Instead, “city/town” were written instead of the actual town name. Words or comments between two brackets refer to the interviewer’s explanation of the respondent’s words. Words or sentences between quotes belong to the respondents, such as explaining a word or a concept with usually a change of voice tone or facial expressions which happened during the interview and had been noticed by the interviewer.

Coding

A coding guide was developed and utilized to assign codes to the data. This method was performed with reference to the publically available online Atlas.ti tutorials. The codes were assigned names in two parts (layers). The proximal layer of the code name represents the code family, and the distal layer reflects the sub-category. This is known as a Tree Diagram method¹ which is a visual depiction of relationships that starts with a central trunk that represents the main category that has been analyzed (Example: Migration), then followed by its own branches (such as reasons, experience, status, and patterns) which come off the trunk to the right-hand side. This might need additional subcategories in some studies which will form a third layer. This gives the diagram a tree-like structure. This coding approach promotes systematic analysis of the qualitative data.

Demographic Codes

The interviews were conducted in either English (15) or Arabic (5) with the interviewer served as the interpreter. All respondents were Muslim, and they were all married women. Age was categorized in groups in order to avoid identification of the research participants; 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, and 60-65. The socio-demographic information of each respondent was included at the beginning of each IDI transcript. This included age group, number of children, length of marriage, length of immigration, religion, interview date and

¹ <https://www.mindtools.com/pages/article/tree-diagrams.htm>

location, language of interview, occupation, highest level of education earned before migration, and independent income.

Migration Codes

The migration domain included seven sub-codes. These included necessary aspects of the migration process such as Reasons, Experience, Adaptation, and Connecticut. The last subcategory coded statements that explained why Connecticut was chosen by some of the interviewed women and their families as the place to reside. Migration patterns were identified in the data. These were coded into New-Family and Established-Family migration patterns, according to the characteristics of each pattern. In the New-Family pattern, women were married and brought immediately to this country by their husbands who had lived here for several years. In this situation, the length of marriage was the same as the length of stay. More significantly, the husband was more likely to have longer length of stay than the wife. The Established-Family migration pattern described couples who came to this country together for the first time. Women in this category usually had a longer length of marriage than their length of stay (See Appendix 6, code lists).

Empowerment Codes

The empowerment domain included eight codes describing women's occupation, independent income, education after migration to the US, and social networking with other women from the same population. Another factor that sought to affect women's empowerment and coded accordingly, was self-esteem, a theme that emerged during the interviews. Women showed considerable amount of disappointment due to lack of recognition of their former educational credentials as well as their husbands. This affected the daily life of the women due to long working hours of the husband and limited leisure time with the family. Another factor was the perception of the change of status from professional to working class level.

Husband's Role in Health Decisions Codes

This domain was assigned a family name "Husband", which was coded with six sub-codes: stress due to working conditions, education, and current occupation, as well as the husband's role in the decision making process of the women with regard to preventive health.

Health Codes

The health family which represents the "Preventive care adherence" domain was considered the largest code family which included 20 sub codes. This included codes to describe the availability of PCPs, health insurance coverage, and having an OB/Gyn doctor. Adherence to dental services were coded as well as women's preferences in being clients of community health centers which was repeated frequently. The preventive screenings were coded accordingly such as Pap test yes or no or mammogram yes or no. Maintain regular checkups was coded separately due to its role in identification of adherence level as designed by the author. Health awareness was also coded to reflect women's awareness (or lack of awareness).

Additional Codes

The interviews data were rich in information with emerged themes about personal experiences and women's attitudes and opinions about culture, and women's priorities. The new themes were assigned three code families. Quotations related to the newly added codes, included statements that described the psychological wellbeing and the amount of stress these women experience due to their role as housewives with former professions. The Culture family codes included: language, religion, and Sudanese norms. Connection to the American community was coded whenever the statement described communications in terms of watching local television channels or participating in neighborhood events and activities. Women's social networking was included in the Empowerment code family instead of the Culture code family due to the connection this factor showed in the data with the happiness and satisfaction women feel. This

social networking described connections with other women who share the same background. The Priorities family codes included: children, when to treat sickness, and beauty, variables that were cited repeatedly during the interviews. Finally, women's opinions regarding possible barriers to preventive care within their community were explored and they were given the opportunity to share their suggestions to improve the adherence levels. Opinions on the preference of having a Primary Care Physician were coded, opinions about the role of having independent source of income and their reflection on the interview were both coded in this category.

University of Connecticut IRB Approval

This research study was approved by the University of Connecticut Institutional Review Board (IRB) on March 22nd 2016. The initial submission was on January 29th 2016. The study complies with the Human Subject Protection guidelines required by the IRB (Appendix 1).

Chapter 5: Results

This chapter synthesizes the information obtained from the 20 In-Depth Interviews conducted with Sudanese migrant women living in the Greater Hartford Area of Connecticut. A characterization of the Dependent Variable (DV) and each of the Independent Variables (IVs) will be presented after exploring the socio-demographic characteristics of the study sample. Later, results of the qualitative analysis showing description of each of the independent variables and the dependent variable will be demonstrated. The results of this study showed several emergent factors that influenced the women's health decisions and adherence to preventive care, including psychological wellbeing, satisfaction with health care, socialization with other migrant women, stress perceived from the husband's job and working conditions, and engagement with the American community. Additionally, women's opinions and suggestions regarding possible barriers to preventive care within their community were explored. Inter-correlations between the IVs will be presented to conclude the chapter. Some IVs, migration patterns in particular, were found to have associations with the empowerment variable. This theme was notable in the qualitative data and will be described in the characterization of the migration sub-domain.

Sample Socio-Demographics

The median age group of the women who participated in the In-Depth Interviews was 35-39 years, with a minimum age group of 25-29 and a maximum age group of 50-54. All participants were currently married, with an average marriage length of about 14 years and a range from five to 28 years. Nineteen out of the twenty women had children, with an average of 2.8 children per woman. Number of children ranged from zero to four children per woman. The average length of stay in the US was 11 years with a maximum of 26 years and a minimum of two years. Regarding occupation, the majority, sixteen out of twenty, identified themselves as

housewives. The four women who currently work reported that their income is independent from the other family members. Two of them were professional workers who gained Associate degrees in the US, and the other two were factory workers. Of the 16 housewives, four reported a work history at some point in their lives after migration to the US such as working as a cashier, and three were conducting home-based jobs such as catering services and selling merchandise to other women from the same community.

Educational background was diverse. In terms of education before migration, 14 women in the study sample had a minimum of a bachelor's degree before they migrated to this country, mostly obtained from Sudan. Three in this category held professional degrees such as doctors of medicine or dentistry and had already begun a career in Sudan or in other Arab countries prior to migration. One woman had an associate's degree, and five had high school diplomas as their highest level of education. Two of the women indicated that they had left high school to get married.

After migration, the educational advancement changed. Only two from the sample received professional degrees, those were the two women who reported to have a professional job. For the remaining women, the migration experience presented obstacles that affected their ability to seek further education. Despite reporting great interest in going to school, only three women were enrolled in any educational entity at the time of interview. Those who had a history of going to school in the US were 11, mostly to community colleges to study English language or to gain professional certificates. Only four individuals reported having never gone to school or pursuing education in the US, regardless of their long years of stay. Three of these women were highly educated and had professional lives before coming to the US.

Regarding religion, all of the interviewed women identified themselves as Muslims. They all speak Arabic as their mother tongue. Five of the interviews were conducted in Arabic

language with the use of the interpretation services provided by the interviewer. The remaining participants preferred to be interviewed in English language.

Characterization of the Domains

Migration

The migration experience was found to have a considerable role in the health and the emotional wellbeing of these women. The 20 IDIs provided 108 quotations related to the migration. This domain described reasons for migration and the experiences women had after coming to this country.

Migration Reasons and Status:

The dominant migration process described involved being selected for entry through the green card lottery program which grants the winner a permanent residence status. Within this sample, 12 women came to this country after winning the green card lottery. The most frequently articulated reason for migration was looking for a better life for themselves and their existing or future families. The remaining women came to join their husbands who had migrated before them. They stated that joining the family was the main reason for them, while their husbands came looking for better income for themselves and to help their extended family in Sudan. The following quotes contain migration reasons blended with descriptions of migration status.

*My reasons for coming here were not financial reasons, since we were in a good condition in my country. The main reason that brought us here was children's education. I came for better life and education for the kids...
(40-44 yrs. old, Professional, Length of stay: 13 yrs.)*

*I studied XXXX and I got married when I was in school. My husband was coming here at that time since he won the lottery for the green card. You know people come to America for economic reasons. I was considered lucky among my friends that I will be travelling to America and live here (she laughed)...
(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)*

The main reason that brought me here is the children's education and the health care in this country which is very good compared to other parts of the world. Before that I was working in a country that paid me well and I had a very comfortable life to some extent but I was missing the good education for my kids. ...
(40-44 yrs. old, Housewife, Length of stay: 5 yrs.)

For him he came here after he won the green card lottery (Diversity Visa Program) to improve the life of his family in Sudan, and by having more income he would help them better, I think that is the reason for most of people coming from Sudan. The country is poor and people suffer there for basic life needs so the one who gets the chance to come here must find it very important to improve the life of their beloved ones. For me I came to join him that is the main reason...
(30-34 yrs. old, Housewife, Length of stay: 5 yrs.)

You know people come to America for better life and to make family and raise their kids in good situation. I had two boys at that time. Countries like Sudan have a lot of problems and people there have difficult time just to live normal life. So we came here and stayed with our friends...
(50-54 yrs. old, Housewife, Length of stay: 24 yrs.)

A few participants cited other reasons such as better health care or women's rights, which had been mentioned by two participants. More women mentioned looking for a better future and education for their children, especially girls, as a valuable asset in this country.

I came here mainly for better future and education for my children, also the health care here is better than other countries. I also care about human rights which are much respected here in America. Especially for women, I think of my daughters and that they will get good education chances regardless of their sex. In general, there is freedom here...
(45-49 yrs. old, Housewife, Length of stay: 11 yrs.)

Maybe people who live here don't appreciate what they have, other countries are mess. If they have good system, it will be a poor country, if it is a rich one it will be bad system with a lot of unfair rules and restrictions, especially for women. I love the idea that women rights are well respected in this country, people here still ask for more which is good, but it is better than in other places...
(40-44 yrs. old, Housewife, Length of stay: 5 yrs.)

Migration Experience:

Many women described the early migration years as a difficult period of their lives and highlighted issues of loneliness and missing their family in Sudan. Moreover, they experienced

obstacles with the family responsibilities such as raising children without the help of their mothers and other close relatives. A few cited depression and stress as their condition to showcase the extremity of the experience. Women articulated several difficulties that led to an increased amount of stress as illustrated below.

The most difficult thing here is that our families are away and no help for the child care, we can't afford the good day care, and I don't like to take my kids to any day care... (35-39 yrs. old, Technician, Length of stay: 6 yrs.)

I also feel that leaving my family in Sudan is still something difficult for me. I am the youngest in my brothers and sisters, my mom became sick and that make me so upset, that I can't go and visit her a lot because of the far distance from here to Sudan and the ticket is so expensive... (30-34 yrs. old, Housewife, Length of stay: 12 yrs.)

The lack of English language proficiency was cited several times as an obstacle for new migrant women in addition to the change in the culture.

It was new culture for me. As a Muslim I wanted a place to pray like Mosques and I didn't know where to shop or which doctor is best for my kids, things like that. I had one child at that time when I came. So schooling was important thing, and to keep the Arabic language for the kids was important too. Another thing is the cold weather here in Connecticut. Oh, my God, this was the most difficult for me to adjust because Sudan is hot compared to Connecticut. The whole experience was hard... (30-34 yrs. old, Housewife, Length of stay: 5 yrs.)

When I first came to this country, the language here was a big issue for me. I had no good English. The life here also is 180 degrees different from Sudan, so much different. There are many nationalities (native countries) for people who live here, this is something strange for me, and I was also new to the marriage experience and starting a new life with the sudden change in country. It was very difficult for me, psychologically. The life style here is far much different from Sudan. The ways of living and going out was really an issue for me. I had to explore anything by myself and without help. My husband was working for long hours. I was feeling frustrated when I needed him to translate everything for me. But I can't do anything at that time... (35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

I think it is more difficult, when I came here to live with him I had problems with the English language, it was hard to me, especially the accent, because in Sudan our English is almost British. Here the American accent is sometimes difficult to understand, I think. I went to school also to study ESL (English as a Second Language), but I did not continue because of the children. I had no one to help me with the child care... (35-39 yrs. old, Housewife, Length of stay: 10 yrs.)

When I first came to America I suffered a lot from the language. My English was not very good and I had to do everything by my own. Another thing is the different culture. I was raised up and lived most of my life in a closed country. When I came here I found the opposite, the country is very open and everyone is free to do what they want. That was strange for me. Also I had to learn how to drive, to depend upon myself, in addition to the English speaking. In my life before coming to America I used to depend on my husband for every single thing, now I am doing everything by my own. Big change... (40-44 yrs. old, Professional, Length of stay: 13 yrs.)

For many of the women, their husband's job as a low wage worker in the US differed from their former middle class life in their native country. This socioeconomic shift contributed to changes in daily life activities and increased the amount of stress on both partners. The change of class and the perception of the work level left negative emotions on the families.

One major factor for me is the big change in my level of life. I was in a good position with my job and my husband who also had a good profession, and we both lived as the educated kind of people. Although we did not have a lot of money. Here he is working as a driver, and I am staying at home with my kids which is totally opposite of what we are. I feel that we both have good skills and working experience but this is not appreciated here. We need to go into long years of studying and doing a lot of exams to have a decent job. For me going into the licensing exams are not bearable, I feel that I am too old for that. My husband also doesn't feel like he wants to study and go to school again. Even if he wants, it is difficult because he works every day for long hours. This situation put me in a lot of stress. Even when you get help from the state to support your family you will feel stressed because you lose your self-esteem. It is like a dilemma. And it is not easy to get out of it. Most of our community here have some of these feelings and they also can't do anything about it. Few couples found their way out, those are the ones who went to school and helped each other nicely to do something... (40-44 yrs. old, Housewife, Length of stay: 5 yrs.)

The long working hours of husbands created many daily life events that the wives had to manage alone. A few women reported that they did not expect this situation before their migration.

Oh, it was very difficult for me. I suffered a lot when I came first here. I was shocked because I had no idea that my husband will be at work all the time, and that I will be staying alone with no one to help me or even to talk to me. He told me that I will come and find a lot of help from the community (Sudanese community), but I found no one to help in the first period, I stayed for one month in somebody's apartment and then we moved after that to live in the same town where his friend live with his family. Then I had some relief because that lady became my friend and we both lived close to each other for couple of years. But my main struggle was when I had my first child. He just brought me from the hospital and left back to work at the same day. Can you imagine my

situation, and he didn't tell me about these difficulties in advance, I was mad at him. I was having a child for the first time in my life and I was young I had no experience with children. In Sudan, the parents and other family members like sisters or cousin usually help in such situations, but here I had to face everything alone, I was feeling sad most of the time and he was always at work. He can't take leave from work and we needed the money to start our life with a child, it was very tough. My first apartment was with no furniture, we were sleeping in the floor, and then, slowly we had everything later but not from the beginning...

(30-34 yrs. old, Housewife, Length of stay: 11 yrs.)

At the other end of the migration experience continuum, there were women with positive experiences associated with a supportive family and friend network. Logistics such as food and shelter were not a struggle for this subgroup. Women who had relatives or friends who had preceded them in migrating to the US, revealed a better migration experience for themselves.

My migration to the U.S. was not very difficult because we had family members and friends here. My husband's sister and two cousins were here before us. They all came here with the lottery (Diversity Visa Program), just like us. This make us comfortable and relaxed when we first arrived to the country, not like other people who come here without papers (undocumented). But leaving my family there was hard for me...

(35-39 yrs. old, Housewife, Length of stay: 12 yrs.)

The migration experience was not bad, since we used to live outside Sudan, and we had friends here in Connecticut. That is why we came directly to Connecticut to join our friend who is a very kind person. He helped us a lot and we stayed in his apartment for few months before we were able to rent our own apartment...

(40-44 yrs. old, Professional, Length of stay: 12 yrs.)

Migration Patterns:

The New-Family migration pattern for this population was one initiated by unmarried men who first migrated to the US to find work and establish a place to live, who then traveled back to their native country for marriage (mostly to young women just out of high school) and then returned to establish a family in their new country. In this pattern, women described their mode of entry to the country as a family visa, or stated that they came to join a family member who was the husband in these cases.

I came here because of my husband. He came here before me and stayed in this country for long time. When I came here first the main trouble to me was that I missed my family so much. I still miss my Mom and my sisters, it was the first time for me to

*travel away from them...
(30-34 yrs. old, Housewife, Length of stay: 8 yrs.)*

*For me, I came here to join the family, since my husband was working here before and he married me and applied for me for the visa to come and live with him here in America. For him, he came here after he won the green card lottery (Diversity Visa Program) to improve the life of his family in Sudan, and by having more income he would help them better, I think that is the reason for most of people coming from Sudan. The country is poor and people suffer there for basic life needs so the one who gets the chance to come here must find it very important to improve the life of their beloved ones. For me I came to join him that is the main reason...
(30-34 yrs. old, Housewife, Length of stay: 5 yrs.)*

*This is a long story. I never planned to come here, it just happened. My husband is my cousin. He came here first by the lottery and he was working here for few years before he goes back to Sudan and marry me. At that time, I didn't think that I will come here and stay with him, because you know, we have this common thing in Sudan that some wives are living there while their husbands are living abroad. They just meet in vacations, so I thought I was one of those women. Then immediately after the honeymoon I became pregnant with my first child. It happened so soon (she laughed). Then suddenly my husband told me that he will apply to get a family visa for me to come and join him here in America. The more surprising thing that I got the visa so fast. Usually it takes long time and the wife will be there waiting for the visa to be ready, but mine took only few months then I came here...
(30-34 yrs. old, Housewife, Length of stay: 11 yrs.)*

*I came here to join my husband who came here three years before our marriage. He won the green card lottery. After he stayed here for a while and worked hard as all other immigrant Sudanese men, he went home to Sudan and got married to me. Then I came with him with the family visa. This was 7 years ago. When I first came here I was very happy first to be with my husband, then I felt that the life is a little bit difficult for me, mainly because of the language, my English is not very good until now...
(25-29 yrs. old, Housewife, Length of stay: 7 yrs.)*

*My husband won the (green card) lottery and he was here before me. Then he went back to Sudan on a vacation and we were married, then I came here with him. We came here for better life for us and the children. I didn't have children at that time but we planned to have a family just like everybody else...
(35-39 yrs. old, Housewife, Length of stay: 10 yrs.)*

The Established-Family migration pattern includes couples who started their life together as families, with or without children, before migration. Some of these women came directly from Sudan and some came from other, often Arab, countries with better economic conditions and safety. In this pattern, the couples decided to pursue migration to the US seeking a better life

with focus on their children's education and the improved health system offered in America as motives.

Participants who fall under this category were mostly well educated with professional careers already established before coming here. Those were subjected to significant levels of disappointment regarding their life here and their husband's working status. Another observation is that this pattern was often correlated with the empowerment variable in particular. The following are quotes cited by women in this category.

I came to this country so early, maybe 24 years ago with my husband. This was 4 years after I got married. You know people come to America for better life and to make family and raise their kids in good situation...
(50-54 yrs. old, Housewife, Length of stay: 24 yrs.)

My husband and I came here after we won the green card lottery. We came for better life of course and to have better future for our children. At that time I was having only one child, my older daughter. This was 12 years ago. Before that I was also living a decent life. My husband was working in XXXX (country of former residence, which is not Sudan). He had a good job as XXXX but when we won the lottery we thought that the United States is better for the children's education, so we moved...
(40-44 yrs. old, Professional, Length of stay: 12 yrs.)

I came here after I won the green card lottery. This was 6 years ago. I applied to come here as a single female which was not highly recommended by my family, but the reason that made them accept is the fact that I have relatives here, a few cousins who also won the lottery before me and now most of them are American citizens. So I came here after I graduated from the University of XXXX and had XXXX degree. I wanted a better life and to have more education and also to work and help my family there who needed me. My husband was here before me and he also came with the lottery. Then we got married...
(35-39 yrs. old, Technician, Length of stay: 6 yrs.)

It was a smooth experience, I had no problem adjusting to a new country. I was living outside the Sudan when we moved here, and my English language is very good. I was in XXXX when I won the green card lottery; I stayed there for one year. I used to know people from different countries and different cultures. So coming here as a new immigrant was not really a problem for me...
(45-49 yrs. old, Housewife, Length of stay: 11 yrs.)

In the Established-Family migration pattern, the women were more empowered in terms of having a job or pursued their education after migration, compared to women from the New-

Family migration pattern. The two women in the sample who currently had professional jobs and independent incomes fell into this category. Generally, women with Established-Family migration pattern reported that they had stronger communication with their husbands and had more self-esteem.

I am so happy that I finally finished this study and I already started to work in the same profession. I did some internships before graduation. You know how it is to work and study and raise up your children here at the same time. And without help, only my husband, we did everything together...
(40-44 yrs. old, Professional, Length of stay: 13 yrs.)

My husband is very nice to me. Of course the change in his job was not easy at the beginning and instead of being XXXX before we come here, he worked in simple jobs at the beginning of our migration experience. He worked in valet parking and these kind of jobs. This is definitely frustrating for him, but can still care. I think one positive aspect of this experience that we both became closer to each other. He always gives me the support I need and help me to take care of our family and to take care of myself...
(40-44 yrs. old, Professional, Length of stay: 12 yrs.)

He studied XXXX in Sudan and when he came here he went to university to have a master degree. Now he has a decent job and stay in the weekends with us. He gave me motivation. Always he tells me to go to school and study...
(30-34 yrs. old, Housewife, Length of stay: 6 yrs.)

My husband is a very nice man. We have a wonderful relationship. He always respects me and care so much about what I want to do in my life. He encouraged me so many times to go to school and finish what I started. I think maybe because he is well educated and his family in Sudan also are all educated people...
(35-39 yrs. old, Housewife, Length of stay: 8 yrs.)

At the same time, women showed feelings of empathy and support for their husbands who suffered from difficult working conditions and other life stresses.

I think the Sudanese men are good but they have a very stressful life here. They all come to this country with big dreams and start to work in any job. Most of them are drivers, and for maybe long hours, so they come home after long stressful day, and they need rest. If they have other kind of job here (employed) they can take 2 or 3 hours to take their wives to doctor visits, which will be ok. Or if they have days without work so they take care of the family. But they (the husbands) are having hard situation here. Of course if the wife is sick they will leave anything and take her to the doctor. But if she is fine and have no pain and want just to make sure that she is ok, that is not a good reason for a tired man to drive her, or to take the day off...
(45-49 yrs. old, Housewife, Length of stay: 26 yrs.)

Empowerment

The findings showed different levels of empowerment within this population. The study sample included working women as well as housewives. There were different levels of educational attainment, but few studied and established a professional career in their new life, while others struggled to finish English as a Second Language (ESL) courses. The data revealed connections between women's education and self-esteem. Social networking with other women in the area was an emerging factor which was found to have an impact on the emotional wellbeing of these women.

Women's Independent Income

As mentioned above, seven out of 20 in the study group had independent incomes. This cohort included four women with paid jobs and three women who owned home based businesses. The remaining 13 women were housewives with no independent income of their own. Women appreciated having their own income as a source of freedom, as illustrated below.

*People think I am lucky because my husband and all my children are working, so they all can give me money. But the truth is nothing to the woman like her own money. I do some home based jobs sometimes like XXXX. This is not regular money but that is my own money...
(50-54 yrs. old, Housewife, Length of stay: 24 yrs.)*

*Every woman will benefit from additional income, especially if it is her own. Because we will have more freedom in spending the money. Some women have some work at home which will be good with someone with young children...
(25-29 yrs. old, Housewife, Length of stay: 7 yrs.)*

At the same time, women with paid jobs reported diverse perspectives regarding spending policies. A few cited that they had shared budgets with their husbands, but put the children and the house expenses as their priorities when spending money.

*My husband cares about me more than himself, and he lets me decide for myself. But we share everything, we have the same budget and we share the responsibilities...
(35-39 yrs. old, Technician, Length of stay: 6 yrs.)*

Let me tell you something; yes, co-payment will make difference. Especially if the woman is having her own income like me, I will think of other priorities like the kids' needs and sometimes the house need something. At that time I think of the co-payment because we (her and her husband) have one budget, same bank account and we share everything...

(40-44 yrs. old, Professional, Length of stay: 12 yrs.)

Alternately, one woman reported that her husband was not open to shared budget due to cultural norms that put the husband in the position of the head of the household.

I don't think so, because you know in Sudanese culture the men will not be comfortable taking money from their wives even if they work and have good income. They feel like it is their responsibility to feed the woman and the children in the family without the help of anyone, even the wife. This is most of the men in our culture think like that and keep this picture of Sudanese men, and they become proud of themselves...

(40-44 yrs. old, Professional, Length of stay: 13 yrs.)

One participant cited the words of her daughter as a means of encouragement to depend on herself instead of her husband.

But that is only small amount of money, I mainly depend on my husband. (She laughed) My younger daughter always tell me: Mom, the husband is not a financial plan. She said they tell them this in their school. Did you notice how girls are taken good care of here? Like my girl, in the school they encourage her to depend on herself in the future, not her husband...

(45-49 yrs. old, Housewife, Length of stay: 11 yrs.)

Women as Housewives

Despite the fact that four women worked in different professions. The majority of the respondents were housewives. Three of the housewives had multiple home-based jobs with inconsistent income. Another four reported having had a job in former years, but left work due to lack of support in child care. Yet they described the working experience as a source of happiness.

When I had no kids I worked in a XXXX. I was just XXXX (Doing minor jobs), I was feeling good, and then I had two kids. Of course I stopped working to take care of the kids that hold me back a little bit ...

(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

I also wanted to do a master's degree in a nearby university, but when I met with them they advised me to go back to the community college to get some courses in order to qualify for the master. My advanced certificate also helped me with the idea of doing a master degree. I felt good about that. But I didn't work at all since the child care is always something difficult to manage. Now I have a new baby which make my situation more difficult. I think I have to wait for few more years...

(30-34 yrs. old, Housewife, Length of stay: 11 yrs.)

I think it is good for every woman to have her job and money and to be able to do things by her own. Now I am searching for a job here in Connecticut, although when you have job there is no time for so many things. But still you can take care of yourself, especially now we hear all the time about a lot of bad diseases like cancers...

(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

Women experienced difficulties in coping with the change of position from working professional to stay-at-home mothers after migration. A considerable amount of stress from these difficulties was apparent in the quotes of those highly qualified women. The husband's working conditions also added more stress to the family life.

If the woman is having a job she will feel better and have self-confidence. This might lead to her decision of doing these tests and take care of herself. Because I always think that I don't have time for myself like go to yoga or to go out to any entertainment. But maybe this is because I am stressed and my husband is also stressed with his work and at the end we never go out or do anything for ourselves. Sometimes I think if I had a job I will do more things in my life and may be this is true. One thing is for sure, I will feel better...

(40-44 yrs. old, Housewife, Length of stay: 5 yrs.)

We got married soon after that, then I followed him few months after our marriage. But the difficult part is that I am now a house wife and not easy for me to have my work life again. The children are big responsibility and I cannot find anyone to help me so I can do other things. We cannot afford maid. It is very expensive to have a maid in America, not like in Sudan...

(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

In Sudan I studied XXXX and I also worked as XXXX, but when I came here I couldn't work in my profession which is very disappointing to me. It needs a lot of hard exams to get the license. Some ladies here work any kind of jobs; just simple jobs like cashier and things like that, but I can't, it is not because I have anything with these jobs but I can't work in jobs that are not suitable to me since I worked before as XXXX. I did not go to school to study again because I am already a qualified person and had a profession...

(30-34 yrs. old, Housewife, Length of stay: 5 yrs.)

Finally, I decided to study XXXX, starting a shift in the career and with three children at that time. It was 2009 then, I found studying XXXX is good with me and provide me with a decent alternative instead of sitting at home and lose all my previous life. Then soon after graduation I worked and I find it not bad at all, although it is not like working as a

*XXXX but still not far away from the field...
(40-44 yrs. old, Professional, Length of stay: 12 yrs.)*

Education after Migration and Women's Self-esteem

Another major contributor to the women's sense of empowerment was their level of self-esteem and the amount of disappointment associated with their failure to achieve further education. Of the 20 women, 14 gained at least a bachelor's degrees before migration, but their educational credentials were not recognized in the US. They ended up in their homes taking care of children despite their dreams of a better life.

*When he came here he did his best to study and work very hard, so he had a bachelor degree from here also in XXXX and a master on XXXX. But still, he can't find a decent job. He works now as a driver, so I talk to myself sometimes... ' even if I finish my study here I will still be sitting at home'. It is not easy to find professional jobs and we don't know important people to help us...
(35-39 yrs. old, Housewife, Length of stay: 8 yrs.)*

*Especially when I was depressed after my first child in my first year here. At that time, I was very unhappy and he was thinking that if I went back to school I will be better, and he was right. I went first to study English as a Second Language, ESL. I went for few months then I stopped after I had my first child. When I first came here I wanted to have something more than what we had in Sudan. I know people come here to have more things and to make their dreams in better life but I was shocked with the difficulties I had experienced...
(30-34 yrs. old, Housewife, Length of stay: 11 yrs.)*

*I was in a good position with my job and my husband who also had a good profession, and we both lived as the educated kind of people. Although we did not have a lot of money. Here he is working as a driver, and I am staying at home with my kids which is totally opposite of what we are. I feel that we both have good skills and working experience but this is not appreciated here. We need to go into long years of studying and doing a lot of exams to have a decent job. For me going into the licensing exams are not bearable, I feel that I am too old for that. My husband also doesn't feel like he wants to study and go to school again. Even if he wants it is difficult because he works every day for long hours. This situation put me in a lot of stress. Even when you get help from the state to support your family you will feel stressed because you lose your self-esteem. It is like a dilemma...
(40-44 yrs. old, Housewife, Length of stay: 5 yrs.)*

Women reported their desire to study and work, but the stressful and time consuming jobs of their husbands left them with no other choices. The husbands could not participate in

child care due to their working conditions, creating a major stressor that held some women back from pursuing educational and employment opportunities. This issue was further exacerbated by the costs associated with child care services.

The Husband

For all of the women interviewed, their husband's position as the head of the household was still maintained despite the changes in socioeconomic status while working in the US. His support of the health of his wife was cited several times, but his role as the dominant decision maker in general was clearly articulated repeatedly. Most of the women interviewed stated that they were able to make their own decisions in health matters and other issues, however, the husband was the final decision maker. This respect to the husband and to his contribution to the decision making was described in relation to religious beliefs, and what the women identified as Sudanese culture or norms. This was true regardless of women's former education or profession.

He doesn't believe that women should leave home when they have little kids and seek work. I have to respect that. In Islam the woman has to listen to her husband and obey him unless if he wants her to do something forbidden by God. The only way for me to have a job is when my kids are bigger

All our decisions are shared but mostly we go with his decision. But that is not because of the income, this is our religion and our culture. In Sudan women have to respect their husbands. This is how our parents raised us. But if I had income I think I can do few things of my own like buying stuff....

(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

I think he care so much about my health, if I have to do the tests he will encourage me and insist that I do them, even if we have to pay money for that. But regarding going out for work, I think he will not approve this now because my children are young and I have no one to take care of them...

But in our Sudanese community the husband always supports the health decisions of the wife and encourages her to take care of herself. Working outside the home is difficult for him to approve because of the other priorities, and I also agree with him. I can't leave my children neglected. I have to do all I can for them. ...

(25-29 yrs. old, Housewife, Length of stay: 7 yrs.)

The husband is supporting to the health of his wife and children, I think everybody will be supporting to that. But in case she wants to have her own decision, this will be different

for the men in our culture. They have to feel superior to us so if there are different points of views, he wins...

(40-44 yrs. old, Housewife, Length of stay: 5 yrs.)

The working conditions of the husband and the long hours of his absence from the home created additional stress and obstacles for the housewives especially. Some of them blamed the husband for the whole situation, but the majority showed sympathy for him and blamed the country for not making it easier to transfer educational credentials earned abroad.

These jobs are very tough and stressful because the person has to work for long hours and almost every day. Nowadays my husband stays home at Sundays, but before that he used to work in two jobs and every day. It took me a while to understand why he had to do this. He is a very hard worker. Sometimes he was working for 18 hours every day in two jobs...

(30-34 yrs. old, Housewife, Length of stay: 11 yrs.)

Sometimes I feel like I want to blame my husband; he should have more good planning to move forward in this country. I believe in America anyone can do good things and go to the highest level if they want to, the thing about men like my husband, even if I have good plans and want to try new things like have a job, he is not supporting me for that. He is always want to stick to the same job and if I try to work we both don't want to lose the health insurance since I have the kids and they need a lot of doctor visits and dental visits. If I get any simple job like cashier or something like that, we still can't afford the doctors costs...

(35-39 yrs. old, Housewife, Length of stay: 12 yrs.)

The husband is always busy with the kind of work he is doing, which is very much different from what he was doing in Sudan. He is a driver here and used to be a XXXX there. These things make our life really hard, because he works in a hard job like driving all day, and for long hours which put more stress and responsibilities on the wife, especially if there are kids...

(30-34 yrs. old, Housewife, Length of stay: 5 yrs.)

Because I complain too much maybe, I am frustrated and I feel trapped in this house doing all this work. My husband work for long hours and all the days of the week, I hardly go out with him to visit somebody, or take the kids somewhere, and this pain is making me upset and it is usually worse with the household work, I have to take pills to be okay. I tell the doctors all these feelings and they don't tell me anything new about my condition, but I feel there is something wrong with me, and I am not normal...

(30-34 yrs. old, Housewife, Length of stay: 12 yrs.)

These feelings appeared to be contributed to the husband's position in relation to adherence to preventive care, which was described by women as below:

My husband doesn't care; he wants me to be okay and healthy but whether I go for screening or after I have illness I think he never think of that. He is too busy to think of these things. But if one of the kids or myself became sick, of course he pays so much attention...

(30-34 yrs. old, Housewife, Length of stay: 11 yrs.)

He also let me decide for my own. But I have sympathy to him all the times because he works for long hours in this driving job now and he always been working hard...

(35-39 yrs. old, Housewife, Length of stay: 8 yrs.)

Some women don't drive and need their husbands to take them to the doctors or other appointments. But if there was arranged transportation for them I think they will consider doing these tests. If a woman asks her husband to take her to do a mammogram, he will not be willing to, after long day of work and stress...

... But they (the husbands) are having hard situation here. Of course if the wife is sick they will leave anything and take her to the doctor. But if she is fine and have no pain and want just to make sure that she is ok, that is not a good reason for a tired man to drive her, or to take the day off...

(45-49 yrs. old, Housewife, Length of stay: 26 yrs.)

The husbands sometimes care but in our culture the husbands only care if you are in pain. That is the only thing make them push you to go to doctor, and mainly because they want to sleep and don't need you to bother them with complaints (she laughed) ...

(30-34 yrs. old, Housewife, Length of stay: 8 yrs.)

At the opposite end of the spectrum there was a different pattern with women who reported a relaxed life situation and a better husband's working conditions. Those were men who started their life after migration working in a low level jobs, then pursued their education and had professional careers. They experience fewer stressors and had more leisure time with the family. A few men in this community have such a pattern.

He studied XXXX in Sudan and when he came here he went to university to have a master degree. Now he has a decent job and stay in the weekends with us. He gave me motivation. Always he tells me to go to school and study...

(30-34 yrs. old, Housewife, Length of stay: 6 yrs.)

My husband working now in a company. He is doing good compared to other Sudanese people (migrants), but he works really hard for us. He had a college degree from Sudan in XXXX, but he started after coming here from scratch. He did all kinds of jobs but because he is hard worker now he is doing better...

(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

Of course it took us both a while to be in the right track because we share the kid's care and responsibilities but we did it. He studied very hard and had a master degree in XXXX from a decent university and now he is working in his profession. We mostly did

*what we wanted to do when we first came here...
(40-44 yrs. old, Professional, Length of stay: 12 yrs.)*

Emerging Themes

Several themes emerged from the interview data and presented repeatedly in the women's responses, in addition to the earlier decided themes. They were recognized by the research team as possible contributors to Sudanese women's health decision making. These themes are:

I: Children as a Priority

Children were mentioned (201) times in the qualitative data. Almost all of the interviewed women articulated that children were on the top of their priority list, followed by the husband and household needs. The difficulties associated with child care were mentioned repeatedly from almost all of the participants. Increased child care costs and decreased quality when the women were able to afford the costs were some of the difficulties mentioned. This was cited repeatedly in previous quotes.

*No mother will put anything before her children. No one to take care of the children like the grandparents who will be in Sudan. The visas also from there to here is not easy. Sometimes we apply for relatives to come and help us for a while but the visa will be difficult to get, sometimes refused...
(30-34 yrs. old, Housewife, Length of stay: 6 yrs.)*

*My children are the most important thing in my life. When they were young I did not go to work or school. I was just taking care of them and give them all my time. Now I feel happy that they became successful people and can depend on themselves...
(50-54 yrs. old, Housewife, Length of stay: 24 yrs.)*

*Let me tell you something, for the kids we (Mothers) always take care of them nicely and without delay. They are in the top of our priority list. I always keep the children's regular checkups and dental appointments. I always do that. But when it is about my health, I am not always concerned that much...
(35-39 yrs. old, Housewife, Length of stay: 8 yrs.)*

*Another issue with us as Sudanese women, like many other women, we also put the kids as our priorities. So if we have limited money we give them to the kids' stuff, or even regardless of the money, we just think all the time about the kids and do everything for them...
(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)*

If we see our face or skin in a bad condition, you run to put some cream or go to the salon to take care of your appearance. But we don't care about our health. And the women always put other people in their family as priority, like the children and the house stuff, but the health of the woman herself come late. In one condition we care, if we have pain. (She laughed) ...

(35-39 yrs. old, Technician, Length of stay: 6 yrs.)

II: Social Networking

Women mentioned socialization with other Sudanese women as a positive coping mechanism. This was found to play a role as a form of empowerment and self-esteem.

Some of the women talk to me about their problems and they think I am a wise person. One thing is for sure, they know I will not disclose their information or problem with anyone, and they also know that I can help them if they want. Sometimes people need only advice about what to do. Most of these women are young and do not have good experience in life. Sometimes they are new to the country and they don't know how to deal with daily life situations. I help them as much as I can, and they respect me for that...

(50-54 yrs. old, Housewife, Length of stay: 24 yrs.)

I have contacts with other women from my community. They share the same things with me. They live in the same situation, we all want to have a job and at the same time find good solutions for the child care. The only thing we do is to help each other emotionally. If someone had a new baby or sick, we visit her and take gifts and sometimes food. Sudanese people always like to help each other...

(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

We always had good social relationships with other Sudanese friends and families. My husband is very social. We had to move to another town when we were in XXXX (the former state) in order to avoid so much social activities when I was going to school, I needed all the time. But still, we love to be connected to people. Now after coming to Connecticut we have few friends but I joined the social group of the Sudanese women in the area and that will help me to have more friends and to communicate with women who have the same background, which is something good I believe...

(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

I just know what is happening in the community from my husband, sometimes from my friends. Even if I heard something I don't talk to him about everything I hear. That is the way we are. But I am connected to other Sudanese women through the social group which help me to have fun for me and the kids when they have the regular events and especially for women like me. Because the husband is working every day, they will be my only way of getting out of the house and as you know I am not driving. Sometimes the ladies offer to pick me and my husband take us home at the end of the day. The kids also enjoy meeting with their friends...

(30-34 yrs. old, Housewife, Length of stay: 12 yrs.)

I usually stay connected to other Sudanese women. They are very helpful, and they pick me in their cars sometimes if there is an event or something, you know that I am not driving. Some women in my community also are helping us to communicate with each other and support each other. They organize these meetings and programs... (30-34 yrs. old, Housewife, Length of stay: 8 yrs.)

III: Connections to the American Community

Other information from the interviews points to how these women were attached to the American community. While most of the women relied on their husbands as their primary source of information, some showed strong involvement with this community through relations with neighbors and watching local television channels. The majority maintained a connection to Arabic culture by watching only Arabic television channels.

I usually watch T.V. at night when all the kids go to bed. I watch the talk shows. I like Ellen's show and I used to watch David Letterman before he retired. But this is occasionally when I am not very tired. I listen sometimes to the CNN news, especially the election news. My husband usually watches Arabic channels. We have both at home... (40-44 yrs. old, Housewife, Length of stay: 5 yrs.)

I used to listen to the television and listen to the news, until 2 kids everything was okay. Now my husband is the main source of information and my other contacts like my friends tell me what is happening in Connecticut. I also know about the weather from my phone... (35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

I usually watch the T.V., the local channels, mainly the news and I like talk shows also. Sometimes I call my husband and tell him what highway is having accident or blocked if I listen to that in the news. When he come home in the evening we both watch together the Arabic channels. But I watch the American channels more... (45-49 yrs. old, Housewife, Length of stay: 26 yrs.)

IV: Sudanese Norms

Throughout most of the interviews, women referred to concrete concepts that they considered as Sudanese cultural norms. Several themes emerged in this code family. Women often articulated the influence of Sudanese culture when describing certain attitudes about health care. These include describing the health system in Sudan as medical cure focused, the

illness or feeling the pain as a motive to seek medical care with no emphasis on preventive care, and the need to be treated by female practitioners for women specific tests.

*You know in Sudan we just go to the doctor if we are sick. There is no time there, and the doctors are very expensive. All the money goes to the food and the children's needs like the school and the girls want to dress up and have a lot of things all the time...
(50-54 yrs. old, Housewife, Length of stay: 2 yrs.)*

*In our Sudanese culture only when people are sick then they go to doctors. No one has time or money to go for checkup. I think only recently people in Sudan now are going for mammograms or other preventions, but not very popular. The economic status of the country also is a factor, because everyone is concerned of providing food and other necessary things for the family instead of going to the doctor just for checkup...
(30-34 yrs. old, Housewife, Length of stay: 11 yrs.)*

*This belief is part of our Sudanese culture that people don't go and find care until they become sick. Although it is different here in America, but we still need more time to adapt this way of thinking. We go to doctor if someone is sick but not to find out if we are ok...
(45-49 yrs. old, Housewife, Length of stay: 26 yrs.)*

*It is different culture there. Usually people who working the family take care of everybody, even the extended family like the grandparents. Sometimes uncles or aunts who did not marry will stay with their family members who take care of them nicely. So it is different in Sudan. Even anywhere Sudanese people migrate and build their life but never forget those who suffer in Sudan. They usually send money to help their family members, even if it is small amount of money...
(40-44 yrs. old, Housewife, Length of stay: 5 yrs.)*

Chapter 6: Women's Preventive Health Care Practices

This chapter presents results regarding the health conditions and preventive health actions of Sudanese migrant women in the Hartford area. Preventive health behavior was assessed by asking about obtaining regular mammograms and Pap tests, and getting regular health checkups. Other preventive health care indicators include coverage by a health insurance plan, having a primary care physician PCP or an OB/Gyn physician, and attending regular dental visits. Language as a barrier to care was mentioned on several occasions.

Health Insurance

More than half (11 out of 20) of the women in this study were Medicaid recipients. They stated their satisfaction regarding the availability of primary health services. Several considered being a Medicaid recipient an asset for maintaining their health, considering the fact that there is no co-payment in order to get the required screening tests and physical checkups.

The thing is I have the Husky (health) insurance, so I don't have to pay for the checkup or anything, so why not to take care of myself... And we have the Husky (health) insurance which make us free to do these tests without thinking of how we are going to pay for the cost. So I think if any woman is not having insurance she will not do these things...

(35-39 yrs. old, Housewife, Length of stay: 8 yrs.)

Because of my health condition I see a lot of doctors, like the primary doctor here in the community health center, and the specialty doctor in XXXX hospital, and my OB/Gyn doctor. I have the state health insurance (Medicaid), which is very good and it cover all the expenses of my health...

(45-49 yrs. old, Housewife, Length of stay: 26 yrs.)

I have the state insurance (Medicaid) which is very good with the kids and with my primary physician, but if I need to see specialist sometimes they don't accept this insurance. I have diabetes and sometimes I have some conditions that need the specialist care. I usually go to the hospital here in XXXX (city/town of current residence) I see the same doctor each time. I always request that...

(30-34 yrs. old, Housewife, Length of stay: 8 yrs.)

At the same time, two women reported that they had encountered difficulties with accessing specialty health services due to their insurance coverage. One cited the limited

number of OB/Gyn physicians who accept patients with Medicaid coverage. This was not in conditions when women had other private insurance plans.

*I always had health insurance. I have the state card (Medicaid) which is very good because if that is not the case no one will afford the doctor's visits and hospitals. It is very expensive in this country, but not every doctor accepts the state health insurance. I had a primary doctor and also obstetrician when I used to live in XXXX (former city/town of residence in CT), but now since we moved to XXXX (current city/town of residence) two years ago, I have a primary doctor in XXXX (adjacent city/town), and no obstetrician agreed to accept my health insurance card. Even in dental clinic not easy to accept Medicaid, with great difficulty I found dentist...
(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)*

Seven out of 20 women had private health insurance plans with co-payments. Another two were covered through Connecticare (Access Health Connecticut) recipients. The women with co-payments reported that the cost of services was not an obstacle for them, considering the importance of health care.

*I have a health insurance with co-payment. It is from my husband's job. We pay monthly for that and at the time of service we also pay...
(50-54 yrs. old, Housewife, Length of stay: 24 yrs.)*

*We went to the regular checkup for me and my husband. We discovered that we pay so much for the private health insurance that we have and never use it, that is why we went today for checkup. Actually this was a recommendation by the insurance company itself...
(35-39 yrs. old, Technician, Length of stay: 6 yrs.)*

*I have a private insurance with co-payment, but that is not a problem for me because my health is a priority for me and for my family too. For other women I think copayment could be a barrier to some of them...
(45-49 yrs. old, Housewife, Length of stay: 11 yrs.)*

Two women reported going several years without health insurance coverage. One of them currently covered by Medicaid, while the other woman benefit from a private health insurance plan. They both reported lack of eligibility to be enrolled in a health plan as one reason to be without coverage. In one case, the Affordable Care Act was considered a solution to the lack of health care access.

I actually have Connecticare now which is really good. Because when we first came here the policy was that all low income people get husky A once they have permanent resident card. So we had Husky for few months, then all of a sudden there was a new policy that only citizens or people who have residency for more than 5 years only can have the Medicaid if they are low income. So we became without insurance for few years, me and my husband. But good thing the children always had it. All these period we could not go to the doctors only for emergencies. Once I had a serious condition then I went to the hospital they treated me and helped with their budget that cover for patients with no insurance. But I had to pay small percentage of the bill, which was huge... (40-44 yrs. old, Housewife, Length of stay: 5 yrs.)

I have health insurance recently, the Husky or the state insurance (Medicaid). Before when I was holding the green card, I was not eligible for the insurance because of my status, but the kids have it. My husband also had it because he is American citizen since long time, but for me I had no insurance so I used to see a different doctor each time. Now I became citizen recently and have (health) insurance now, so I have my primary doctor and dentist now, just like the rest of my family... (30-34 yrs. old, Housewife, Length of stay: 5 yrs.)

Federally Qualified Health Centers

Many women preferred the community health centers in their local area for regular health visits. They cited fast appointments and good communication with the staff as main factors. One participant reported contact with a Planned Parenthood clinic within the community health center and recommended their services.

I usually go to the community health center here in XXXX (her town/city) that is easy for me because they give me appointments easily whenever I need to see the doctor and not keeping me waiting for long time... They have good doctors and the staff also is nice with the people... and had the check up, it was all done by a clinic called Planned Parenthood. They are awesome and it is very easy to get an appointment in that clinic. I love them... (35-39 yrs. old, Housewife, Length of stay: 8 yrs.)

I go usually to the community health center. They give me fast appointments. I usually see the same doctor but they rotate, I think. Because in the past 7 years I had seen three doctors... (45-49 yrs. old, Housewife, Length of stay: 26 yrs.)

OB/Gyns

More than half of the women (14 out of 20) had OB/Gyn doctors. That did not necessarily mean they adhered to regular OG/BYN visits. Many visited the OB/Gyns to receive a family planning services or for other health condition such as breast cysts.

*The first time it was the primary doctor who order the test, then I go for follow up regularly with the hospital. And the Pap test usually ordered by the OBG doctor. I had also once a breast cyst but the biopsy result came benign, thank God...
(45-49 yrs. old, Housewife, Length of stay: 11 yrs.)*

*I know about Pap test. I also do regular physical checkups just routinely. I also did Pap test many times. It is usually requested with my primary doctor (PCP) and my OB/Gyn doctor. I had long history with the OB/Gyn doctors, I had 5 times XXXX ...
(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)*

*I have the state insurance (Medicaid). I usually go to my primary doctor and do follow up visits every year. I usually ask for the checkups because I believe that early detection of any disease is good and the treatment will be easier if there is a need for that. I have this concept in everything in my life not only the illness, that if you deal with anything early and from the base of the problem, you will be okay. More than that I go to my OBG doctor who order the Pap test for me every year...
(40-44 yrs. old, Professional, Length of stay: 13 yrs.)*

*The test was recommended by my OBG doctors. She told me that by age 40 I have to do it annually. So I did it. I didn't expect it to be so horrible, but I said I will do it if I have to...
(40-44 yrs. old, Professional, Length of stay: 12 yrs.)*

*My primary doctor talked to me about that and that this test is very important, so she send me to the OBG doctor who did the test for me. I usually the kind of persons that get scared easily of becoming sick, so in case I have any complaint I take it serious and go to the doctor...
(30-34 yrs. old, Housewife, Length of stay: 11 yrs.)*

Primary Care Practitioners

Almost all Sudanese women acknowledged the importance of having a PCP, and 16 out of the 20 women had a PCP at the time of the interview. These without a PCP reported seeing a different physician each time they sought care.

*My primary doctor is here in XXXX (city/town of current residence). I also have a dentist...
(35-39 yrs. old, Housewife, Length of stay: 10 yrs.)*

*I have diabetes and sometimes I have some conditions that need the specialist care. I usually go to the hospital here in XXXX (city/town of current residence). I see the same doctor each time. I always request that...
(30-34 yrs. old, Housewife, Length of stay: 8 yrs.)*

*Because of my health condition I see a lot of doctors, like the primary doctor here in the community health center, and the specialty doctor in XXXX hospital, and my OBG doctor...
(45-49 yrs. old, Housewife, Length of stay: 26 yrs.)*

Dental Care

The majority (13 out of twenty) of the respondents cited dental appointments for their children as a top priority. For themselves, fewer reported that they had regular dental checkups despite having a dentist. Those who maintained routine dental care visits (7 out of 20) were mostly women who had Medicaid as their health insurance coverage.

*I never been in a dental clinic which is very bad but I can't afford that. Our plan doesn't cover dental care. I don't have a primary doctor till now...
(40-44 yrs. old, Housewife, Length of stay: 5 yrs.)*

*I didn't go to the doctor before, but I made an appointment recently to go for checkup. The girls told me that I need to do that...
(50-54 yrs. old, Housewife, Length of stay: 2 yrs.)*

Adherence to Preventive Care

The dependent variable consisted of three components: regular Pap tests, regular mammograms, and maintaining regular physical checkups. Women were less adherent to these preventive services, in general, despite successful prenatal follow-up, receiving family planning methods, and taking care of other health conditions.

Pap Testing

Of the 20 women, 18 reported receiving a Pap test at least once in their period of residence in the country. Since these tests were done during prenatal visits (11 women) or other purpose visits like having abnormal vaginal bleeding (seven), they were not considered adherent to preventive health services. Following our definition, the number of women who adhered to routine regular Pap testing was seven out of 20 women. Two women reported never

having received the test due to former lack of insurance coverage. Another woman, who did the test previously, stopped regular testing due to the embarrassment she felt during the test. She even stated that she asked the health practitioner to stop before the test was actually performed.

Before I used to go to doctors only when I am pregnant, but anyway I think it is important to have the same doctor each time. I did not do any mammogram before, but I did Pap test twice, when I was pregnant...

(30-34 yrs. old, Housewife, Length of stay: 5 yrs.)

We have the private insurance with my husband's name from the job. When I was pregnant I think I did the Pap test twice, and I did it a third time when I went to the doctor last year for other reason...

(35-39 yrs. old, Technician, Length of stay: 6 yrs.)

Of the seven women who reported being tested, they cited having other medical conditions that required frequent doctor's visits (three) or the test being requested by the physician during a family planning procedure (four).

I know about Pap test. I also do regular physical checkups just routinely. I also did Pap test many times. It is usually requested with my primary doctor (PCP) and my OB/Gyn doctor. I had long history with the OB/Gyn doctors. I had 5 times abortions (miscarriages)...

(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

Yes, I did Pap test like 4 times I think. Two times when I was pregnant and the other two because I had condition like ulceration in my cervix and the OB/Gyn doctor said it is better to do Pap test. I had a very bad infection at that time and they wanted to see why I get that. The OB/Gyn doctor explained to me that the test was for two reasons, to see the reason of the infection and to see if there is cancer. I also had a test like MRI (Magnetic Resonant Image) to check my uterus and the lower part of my abdomen...

(30-34 yrs. old, Housewife, Length of stay: 8 yrs.)

More than that, I go to my OBG doctor who order the Pap test for me every year...

(40 yrs. old, Professional, Length of stay: 13 yrs.)

Pap test I do it usually in the routine checkup every almost 1-2 years. That one is okay and not very difficult to do...

(40-44 yrs. old, Professional, Length of stay: 12 yrs.)

A few women described their Pap testing experience as unpleasant due to factors like difficulties with the procedure itself. Another reason mentioned was Female Genital Mutilation

(FGM), also known as Female Circumcision, which is a popular practice in Northern Sudan. FGM had been defined by the WHO as any procedure that involves partial or total removal of the external female genitalia or any injury to the female genital organs for cultural or non-therapeutic reasons (Akinsulure-Smith, 2014). This practice can have negative effects on the women's life including difficulties in performing Obstetrical and/or Gynecological procedures, both for the woman and the health care provider.

Regarding the Pap test, I didn't like it at all. It is embarrassing to me, and also difficult when they do the test, very painful sometimes. One reason could be because of the (female) circumcision we as Sudanese women had when we were young. The doctor herself finds some difficulties when doing the test, sometimes she call for someone else to help. I find all of that very embarrassing to me, I don't like it at all. I did the test only two times as far as I know. One I requested for the test by myself, with my doctor's recommendation, of course. But I was not sick, I went specifically just for the test... (45-49 yrs. old, Housewife, Length of stay: 26 yrs.)

I did it twice but I stopped doing this test for two reasons... The test itself is painful, they did not give me anesthesia. They promised to give me when they do it next time but it was hard for me. They have big instrument in the procedure and it hurts ... The other reason is that because we moved from ... then I had no doctor here... (35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

The Pap test as I understand is the test with the sample from the uterus from down. I did not do it although my doctor requested that. I really feel that I am not comfortable of doing that test, it is difficult for me... (50-54 yrs. old, Housewife, Length of stay: 24 yrs.)

Mammogram

For mammography, the women's stories were different. Women's age was associated with adherence to mammogram; more than half of the sample (12 out of 20) were not age eligible to receive a mammogram.

No, I actually requested to be screened after that visit with my mother in law but my doctor said I am not 40 years of age or above so I did not do it before in my life... (35-39 yrs. old, Housewife, Length of stay: 8 yrs.)

I didn't do mammogram. I am not yet 40 years old, but my doctor always give me breast examination when I do the pregnancy visits. But honestly, I did not have a regular primary doctor but now I have one... (35-39 yrs. old, Technician, Length of stay: 6 yrs.)

Among the eight women who were age-eligible for a mammogram, four did regular screenings and four did not. For the 12 women with age below the requirement for the test, four women under age 40 had received a mammogram due to extenuating circumstances such as a family history of breast cancer, or increased risk to develop tumors. While the remaining eight women had not received a mammogram for their life.

I did a mammogram before. I have a cyst in the right lobe of the thyroid gland. They told me it is a cold nodule. I went through surgery and the doctors took a biopsy. Good thing it was benign cyst. But in the surgery they took the right lobe and the isthmus of my thyroid. They call it partial thyroidectomy. The doctor told me that my body is liable to produce cysts, and although they are benign, but still this make me high risk patient. So they recommended that I do a mammogram when I was only 32 years old. This was overseas...

(45-49 yrs. old, Housewife, Length of stay: 11 yrs.)

Yes, I know that it is x-ray test to check if anyone have a breast cancer and they squeeze the breast multiple times. I did it once, when I had issues before many years and the doctor was worried that I might have a tumor somewhere in my tummy, so they did so many tests for cancer and one of them was mammogram...

(35-39 yrs. old, Housewife, Length of stay: 12 yrs.)

I did the mammogram in 2013. The reason for me was I had pain, because it is for older women and I am not yet 40 years old. I did the test only once, and it was not easy test. I think it was difficult and embarrassing...

(30-34 yrs. old, Housewife, Length of stay: 8 yrs.)

Regular Physical Checkups

Less than half of the study participants (nine) maintained regular health care visits for physical checkups. Some appreciated the role of preventive care and they requested to be tested and checked frequently. Others had been checked but for reasons other than routine checkups. Most (seven out of nine) of those who maintained regular physical checkups, reported regular Pap testing.

I usually do regular checkups, physical, with the OB/Gyn doctor. I did so many Pap tests, usually with the pregnancy and also in the checkup... I did not do mammogram; I think because I am still young ... I also have a dentist.

(35-39 yrs. old, Housewife, Length of stay: 10 yrs.)

I requested that because I have history of active glands in my breast. When I told her (the OB/Gyn), then she took a needle biopsy. Thank God it was clear. Then after the delivery I requested the mammogram. And they did it to me; it was okay. Again I requested the test after this delivery but my doctor told me there is no need to do it... (25-29 yrs. old, Housewife, Length of stay: 7 yrs.)

I have a health insurance with co-payment. It is from my husband's job. We pay monthly for that and at the time of service we also pay. I also have a primary doctor. I usually take care of my health nicely since my age became bigger I feel that I need to check on myself. I don't have any serious illness but I have high cholesterol in my blood and that make me afraid of getting other diseases. This is the life phase when people should take care of themselves... (50-54 yrs. old, Housewife, Length of stay: 24 yrs.)

I go sometimes to do some tests like checking my blood or just do a physical checkup with the doctor. Sometimes I just want to make sure that I am okay and don't have any serious disease. God forbidden, nowadays we hear about so many scary conditions... (35-39 yrs. old, Housewife, Length of stay: 8 yrs.)

Eleven out of the 20 women reported not being checked regularly. They might have had a checkup after reporting complaint to their PCP or another health care provider. Those women cited lack of health insurance (three), or being busy with child care (two) as some of the reasons for less routine checkups.

All these period we could never go to the doctors, only for emergencies. Once I had a serious condition then I went to the hospital. They treated me and helped with their budget that cover for patients with no insurance, but I had to pay small percentage of the bill, which was huge... (40-44 yrs. old, Housewife, Length of stay: 5 yrs.)

No I didn't. In my life I never went for checkup. You know in Sudan we just go to the doctor if we are sick. There is no time there, and the doctors are very expensive. All the money goes to the food and the children's needs like the school and the girls want to dress up and have a lot of things all the time... Here I didn't go to the doctor before, but I made an appointment recently to go for checkup... (50-54 yrs. old, Housewife, Length of stay: 2 yrs.)

Because I believe there is no need to that since I was receiving care regularly for the pregnancies and the deliveries that I had. Also I don't have time with all the need-to-do list for busy moms like me... (35-39 yrs. old, Housewife, Length of stay: 12 yrs.)

The Language Barrier

Many reported difficulties in communicating with health care providers, especially in English. Several specifically mentioned the difficulty in understanding the American accent. Nevertheless, language was not identified as a barrier for preventive care in particular, nor for health care in general. Women stated that they appreciated the availability of interpreters in most of the health care facilities when it was needed. A few of the women stated that their husbands usually served as interpreters in situations that required a proficient English speaking level. Although, many requested that health education materials should be available in Arabic language.

I don't think the language is a barrier here because we always find interpreter if my husband is not with me. This is something available here in the hospital or in the doctors' clinics. I think also the knowledge about the importance of these tests is not there, women don't know or don't always keep in mind these things. We always think of other stuff, like the children's needs and the husband...

(30-34 yrs. old, Housewife, Length of stay: 11 yrs.)

Since I came here my main problem is the English language. Until now. I don't know how to speak well with people, so my husband is the interpreter all the times when we talk to the doctor or the school. Sometimes he just takes the kids without me to appointments and do all the work. The accent is very difficult for me to understand. If somebody speak slowly I can get something, but if someone is speaking fast, I can't understand anything...

(30-34 yrs. old, Housewife, Length of stay: 12 yrs.)

Table 2: Summary of Preventive Health Care Practices

Category	Yes
Women who reported getting preventive services	9
Women who followed the guidelines in all three services	6
Women who demonstrated partial adherence (one or two)	3
Women with no adherence to preventive services	11
Had regular Pap test	7
Had regular physical checkups	9
Had regular mammogram when age eligible	4
Had Medicaid as health insurance	11
Had a PCP	16
Had an OB/Gyn	14

Women’s Opinions about Possible Barriers to Screening Tests

The qualitative data included women’s articulation of their opinion on possible factors that affect adherence to preventive health care. When asked about possible barriers to obtain screening tests, women described factors that they believe affects this practice. These factors included lack of awareness, Sudanese cultural norms, and a fear that their husband may start to look for a new wife in the event that they are diagnosed with a serious illness such as breast or cervical cancer.

*If I have to pay money and you know that in America the hospitals and doctors cost a lot of money. I would not be able to do that. I will not have enough money for these things and I am not sick, but maybe if I have some sickness or serious disease –God forbidden- I will definitely do whatever it takes...
(35-39 yrs. old, Housewife, Length of stay: 8 yrs.)*

I feel some women from my community could be ignored. They don't know why it is so important to do these tests. I also feel that (health) insurance could be the most barrier to this thing. Another issue with us as Sudanese women, like many other women, we also put the kids as our priorities. So if we have limited money we give them to the kids' stuff, or even regardless of the money, we just think all the time about the kids and do everything for them...

(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)

The Pap test, I didn't like it at all. It is embarrassing to me, and also difficult when they do the test, very painful sometimes. One reason could be because of the (female) circumcision we as Sudanese women had when we were young. The doctor herself finds some difficulties when doing the test, sometimes she calls for someone else to help. I find all of that very embarrassing to me...

(45-49 yrs. old, Housewife, Length of stay: 26 yrs.)

I believe that prevention is better than cure. I did mammogram before, and I didn't like it. It is very aggressive experience to me. I did it only once. It was painful, and after that I told my doctor that I will never do it again whatever it is the result. But they called me from the clinic and told me that they found something, and that I need to go and repeat the test. Can you imagine that? After great effort with my primary doctor, I said I will call you back to reschedule...

(40-44 yrs. old, Professional, Length of stay: 12 yrs.)

Maybe they are afraid of hearing a bad news. Some people believe that digging deep for these diseases will let them come to you fast. Also there is stigma maybe about the disease, or they feel it is shameful to be examined in these sensitive areas of the women body. In our Sudanese culture, it is not easy for people to disclose information about themselves, or about the diseases they have. Sometimes the way you have been raised will affect what you do when you grow up. I also believe that there is ignorance in Sudan about these issues. We don't have interest in prevention, and we just wait until we become sick. Few doctors only recently started to promote for mammogram with limited clinics that do it. One other reason could be that if the woman is sick, she will be afraid that the husband will seek another wife, which is possible with some men...

(45-49 yrs. old, Housewife, Length of stay: 11 yrs.)

Chapter 7: Discussion and Recommendations

Research Questions

Do Sudanese Migrant Women Adhere to Preventive Health Care?

The results of this thesis showed that this population varies widely in their adherence to preventive health care practices, including Pap testing, mammography, and routine regular checkups. Less than half of the Sudanese women in this study (seven out of 20) participated in routine Pap testing while in the US. Half the age eligible women (40 or older) did routine mammography. Nine out of 20 had regular physical checkups. Overall, six women reported consistent adherence to all three measures. Those who adhered to routine physicals were more likely to have the Pap test and mammogram.

What circumstances led to certain women being more likely to have a PCP or go regularly to OB/Gyns?

Those that had regular PCPs and OB/Gyns mostly held private insurance with co-payments. This co-payment was in contrast to the literature, which has shown that cost of the service can be a possible barrier to preventive care adherence. Women with less adherence to preventive care were mostly Medicaid recipients who had PCP and OB/Gyns, but did not consistently visit these doctors. Women who qualifies for Medicaid are in households significantly have less income, with husbands working long hours at low skilled jobs and experiencing many burdens that make their health a lower priority. These women were less likely to do routine Pap testing or routine checkups. They were more likely to visit the OB/Gyn for reasons such as prenatal checkups, family planning procedures or other gynecological conditions. They had at least one Pap test during previous prenatal visits but did not adhere to

routine screening nor initiate a regular visit to their care provider without any complaint. A few did not know what a Pap test was and confused it with testing for infections.

Women were more likely to have a dentist, but the interviews suggested most had poor dental care. Fewer than half of the women maintained regular dental visits. Where the rest were more likely to seek care only when they experienced pain or acute dental conditions. They did, however, pay more attention to children's dental visits and other routine checkups and required immunizations.

Does greater empowerment have a positive impact on adherence to preventive care?

Women's empowerment appeared to have a minimal relationship with adherence to preventive care. Working women who had a separate income did not necessarily show greater adherence to preventive health care. The qualitative data illustrated the income earned by those working women was part of a shared budget with the husband. Additional factors such as women's social networking, their attitudes toward their role as housewives, and their inability to pursue advanced education in this country, were sought to affect women's empowerment and were examined. Among these factors, social networking did not have direct relationships with the women's preventive health care behavior. However, women's frustration with inability to work and pursue advanced education were associated with lower preventive health care adherence. These two factors were related to the experience of migration. A few women showed strong communication with the American community such as relations with the neighbors and watching local television channels. While many had limited ties to the American culture and most of them were still encapsulated in the Arabic culture. These factors, however, did not appear to be associated with preventive care adherence and were not conclusive.

Does the Husband Influence a Woman's Decision to Adhere to Preventive Care?

In this study the findings on this issue were complex. Most of the women stated that they were able to make independent decision-making with regard to their health. However, for other decisions most of the women indicated that when they disagreed with their husband, the husband is the decision maker. A few women reported that they share opinions with their husbands with mutual ability to decide. Women cited their Islamic faith, which gives the leading decision making role in the family to the husband as a rationale for this attitude.

Notable is the correlation between adherence to care and the recognizable amount of stress associated with the husband's working conditions. Formerly skilled husbands find themselves in a low level working class positions, with long hours of strenuous work. The women showed sympathy to their husbands' situation and stressful life. The husbands' work situation affected the family dynamics with imposed responsibilities on the wives towards children's needs and limited leisure time. The study findings showed that women who experience such stressful conditions had less adherence to preventive care and did not put their health as a priority. We can conclude that the circumstances surrounding the husbands such as their working hours and the type of job had a strong relationship with women's adherence to preventive health care.

What is the role of the migration in adherence to preventive health?

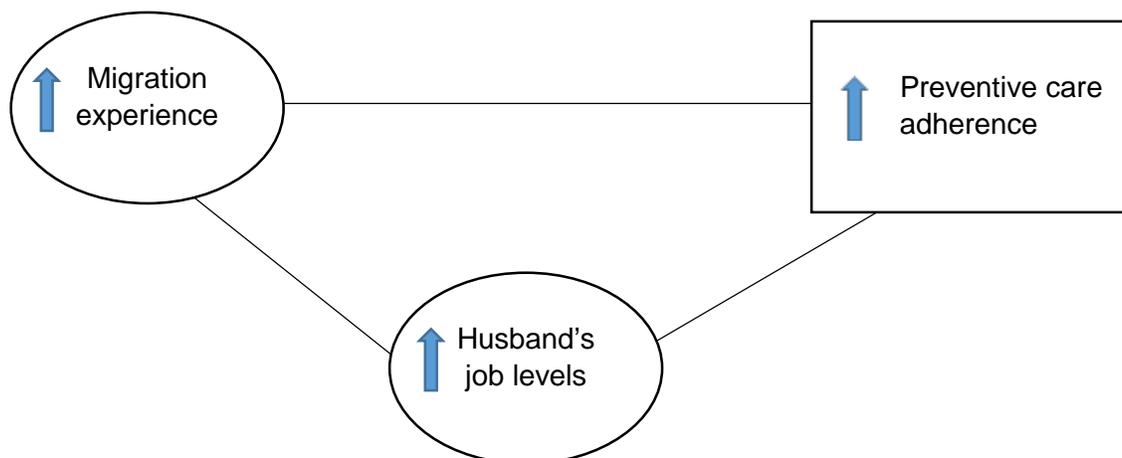
The migration experience turned out to be the focal variable in this thesis. The study findings showed strong relationships between the migration pattern and the women's adherence to preventive care. These patterns showed correlations with women's ability to gain educational degrees and have a job. Women with Established-Family migration who migrate with their husbands together after beginning their family life before migration were more likely to become adherent to preventive care than women with New-Family migration pattern who came to this

country to join a husband who migrated in an earlier period. The two patterns found to affect other factors such as women's social networking and psychological wellbeing.

The Final Logic Model

The study findings have led to a new Logic Model. where we find that adherence to preventive health care was directly associated to the husband's working conditions and the migration experience. Women who were frustrated due to their hard migration experience and/or to their husband's stressful work were less likely to maintain regular preventive services. Moreover, the hard migration experience was associated with disappointment due to inability to gain advanced education and ending up as a housewife after migration, despite having a former professional career. On the other hand, women with a better migration experience who had pursued further education showed more likelihood of doing the screenings than other women. Simultaneously, women's who described their husband's work as stable or professional were more likely to maintain regular preventive services than other women in the study. The shared factor in both IVs in this model is women's disappointment and its negative effects on preventive care utilization. Empowerment as an IV have been dropped off this final model despite being considered as one of the IVs in the primary model. This was due to minimal association with preventive care adherence as shown in the study findings.

Figure 2: The emerged logic model



Study Limitations

There were a few limitations in this study that needed to be mentioned. Although every effort was taken by the investigators to overcome these limitations. First the size of the sample was small, although this is not the main concern in a qualitative research, but additional participants would add to the rich information collected by the interview instrument. Putting in that the participation was voluntarily and there was no rewarding to those who decide to participate. Another limitation was the fact that the author of the study, who is the interviewer, is a member of this population and known to most of the participants. While this was an advantage, it could also be a limitation in that it may contribute to less openness on the part of the respondent. Finally, the interviews were not audio-taped and as a result, some of the information may have been missed or conveyed inaccurately. This decision was taken to ensure more protection of the confidentiality and privacy of the research subjects. Several participants cited more comfort with the interview not been recorded.

Women's Suggestions from the Interview Data

In the interviews, women were asked about their reflections on the process of being interviewed. Nineteen of the 20 women reported satisfaction with being interviewed and defined this study as form of recognition from local authorities. This showed their desire to be identified as part of the diverse population of the state of Connecticut. They expressed their hopes that the results of this study will improve their health and the services provided to them, among other women in the state.

I think the interview is good and the topic is very important. I also find it useful to us that you have this study about Sudanese women, a lot of people in Connecticut they don't know much about us. So this is good...
(30-34 yrs. old, Housewife, Length of stay: 6 yrs.)

I like it; it is good and nice topic and gives me more information about health issues. I am happy to help and please tell me about the research results later on...
(35-39 yrs. old, Housewife, Length of stay: 12 yrs.)

*I find it comfortable and easy, especially because there is no recording, I don't like the recordings. I am also happy that someone asked us and pay attention to us as Sudanese people (migrants) in this country...
(35-39 yrs. old, Housewife, Length of stay: 15 yrs.)*

*I really want to thank you for this interview I find it very good for my soul, and very spirit-lifting, I never had a chance to take a minute to think of what I did since I came to the country and my life journey here, I am now as if I took a break. Thank you and I also enjoyed this interview and nice talking to you...
(40-44 yrs. old, Professional, Length of stay: 12 yrs.)*

Conclusions and Recommendations

The purpose of this study was to describe the lives of Sudanese migrant women and their adherence to preventive care. The results have implications for improvement of health services to this population.

First, sociocultural competence is needed and should be included in health care practice for this cultural group. Cultural factors such as language and religion should be observed and addressed. Although women acknowledged that the language was not a barrier to health care services and they appreciated the availability of interpreters. They also stated the need for other measures of cultural competency in the health care practice. This includes training to health care providers regarding specific traditions or habits in this populations such as Female Circumcision. A health care provider, especially in OB/Gyn practice, would benefit from such training while treating Sudanese women or other women with similar cultural background. Another example is to provide Arabic language flyers to educate women about health topics in the waiting areas of hospitals and health clinics.

Second, awareness campaigns and activities that target the Sudanese community in CT will be helpful. The delivery of such services will require coordination between the health sector in the state, mainly state and local public health agencies, and Sudanese social groups in CT. The social gatherings that are being organized by the social groups in this community would provide

a suitable platform to educate women about the importance of preventive health care.

Collaboration will be needed from the health authorities in New Britain, due to the increasing number of Sudanese migrants in the city. Additionally, encouraging more civic involvement from this population will facilitate the organization of such awareness activities. This could be achieved by encouraging members of this community to participate on city boards and committees.

Third, there must be efforts to recognize foreign educational credentials and working experiences of skilled migrants in the US with focus on both women and men. The study population is highly educated and the change to low skilled work affects their lives and health. In these circumstances the recognition of former education and skills training will have a positive effect on the lives of migrants even if only partial credit for their advanced education is taken into account. For instance, placement of foreign graduated physicians as physician assistants with minimum certification requirements would be an important step or giving engineers the opportunity to work as technical workers or as engineering assistants. These opportunities could be accompanied by on-the-job training opportunities instead of requiring starting certification and training to start from the beginning.

The final recommendation calls for a second phase of this project as an intervention study that apply a multi-level intervention to benefit Sudanese women, in addition to other women in the area with similar culture such other Arab and Muslim women. The intervention should be based on peer-support approach. This would include peers from the same community such as women who achieved advanced education and started a career. Those peers should provide support to other women and help them to find opportunities to improve their migration experience. Such opportunities include guidance in the navigation of educational possibilities, search for home-based jobs, and affordable child care. These kind of support services could be mutual between women, especially for child care. Almost all of the interviewed women articulated that children

were on the top of their priority list, where the difficulties associated with child care and increased child care costs showed the need to address this issue. These women need a feasible support system to help with the child care putting in mind the lack of other family members who can support them since they are first generation migrants. Such a system would allow women to receive advanced education, access careers and establish two-income households or allow one spouse to work while the other upgrades their educational advancement. Another approach is advocacy for these issues through collaborative work with the social groups in this population. Overall, this intervention should aim at improved migration experience and less disappointment.

This study has demonstrated that it is important to explore the experiences and living conditions that contribute to health seeking behaviors among migrant sub-groups in the US. The development of health interventions that target screening services as well as other health priorities requires identification of commonalities between all groups in order to be beneficial and practically implemented. Additionally, identification of differences between sub-groups is also needed so that targeted interventions can address unique needs.

Women's health in general and preventive health specifically must be addressed in the context of a comprehensive understanding of the experiences and challenges of women's lives. This thesis has sought to tell that story and through that emerging understanding improve the lives of women and the health services they receive. Without the assurance of conditions that provide happiness and support to women's life, adherence to preventive care would not be achieved.

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Appendix (1): Approval from the UConn IRB

**UConn
HEALTH**

Institutional Review Board
Human Subjects Protection Program



To: Stephen L. Schensul, Principal Investigator

From: IRB Office

Date: March 22, 2016

Re: Final Approval of Exempt Research

IRB Number: 16-139-2

IRB Panel:

Project Title: Empowerment and Decision-making in Preventive Health Care among Immigrant Sudanese Women in the Greater Hartford area of Connecticut

Submission Reference#: 007029

Sponsor / Funding Agency: Principal Investigator

Approved Key Study Personnel: Fawatih Mohamed

Protocol Version: Version 1.2

Appendix (2): Study Flyer

A research Study is being conducted in the community

The title of the study is:

“Empowerment and Decision-making in Preventive Health Care among Immigrant Sudanese Women in the Greater Hartford area of Connecticut”

We are seeking to talk to people who answer yes to the following questions:

- ❖ **Are you a woman?**
- ❖ **Are you originally from Sudan?**
- ❖ **Do you reside in the greater Hartford area, CT?**
- ❖ **Do you live in the United States for more than one year?**
- ❖ **Are you 25-65 years old?**
- ❖ **Are you married, divorced or widowed?**
- ❖ **Did you hear about mammogram and pap test?**
- ❖ **Are you willing to share your opinion?**

We want to understand about the factors that influence Sudanese migrant women to use preventive health services with special focus on the pap test and mammogram. Your participation will involve about one-hour interview.

Study is being conducted by:

Fawatih Mohamed, Master of Public Health student at the University of Connecticut Health Center, who is a member of the Sudanese community, under the supervision of **Dr. Stephen Schensul**, Principal Investigator and Professor at the Community Medicine Department.

For further information, please call:

Fawatih Mohamed at: 616 606 5115

INVESTIGATOR INITIATED RESEARCH
Study flyer
Version # 1.0 (02/15/2016)

Appendix (3): Study Information Sheet

Research Study Information Sheet to Participate in Research

Study name: Empowerment and Decision-making in Preventive Health Care among Immigrant Sudanese Women in the Greater Hartford area of Connecticut

IRB number: 16-139-2

Principal Investigator (PI): Stephen Schensul, Ph.D.

Co-Principal Investigator (Co-PI): Fawatih Mohamed, Master of Public Health student.

Dear Participant,

My name is Fawatih Mohamed and I am a student in the public health program at the University of Connecticut. I am doing a research study that will be the basis of my graduation project. One of the program faculty and my major advisor, Dr. Stephen Schensul, is overseeing this project. You are being asked to take part in this research study because you are a woman of Sudanese origin who lives in the Hartford area of Connecticut. If you decide to participate in this study you will help us to understand about how Sudanese women use health care that can prevent and provide early identification of health problems in the State of Connecticut. Your participation in this study is completely voluntarily. There will be no compensation for participating in the study. If you decide not to participate, or decide to discontinue participation at any time you will not be penalized or lose any benefits for which you would otherwise be entitled. **The primary goal of the study is** to understand the factors involved in Sudanese migrant women accessing routine breast cancer screening in a procedure called a mammogram and pap test for cervical cancer.

Study procedures:

I will be doing interviews with about 20-25 Sudanese women in the Hartford area. The interview will take around one hour. The interview has questions about the health care services you use, your background from Sudan and the United States, what you do for living, and the relationship with your husband with regard to your health decision making. I also intend to ask about your experience in migrating to the United States. I will take written notes during the interviews to document your responses. No identifying information will be collected such as names or other forms of identification.

Study Location

This interview will be conducted in your home if you give permission. Otherwise, you can decide with me to choose an alternative place that you prefer to conduct the interview.

What are the risks for participating?

I am asking you to share some personal information and you may feel uncomfortable to answer. You also may feel sad remembering the migration experience to a new country. If at any time you do not want to answer a question, you can let me know and we will skip it. You can also stop the interview at any time without any consequences. You do not have to explain why you do not want to answer a question or stop the interview.

Confidentiality:

Every effort will be made to keep the information you provide confidential; that is not allowing unauthorized people to access the information you provide, no records will have your name or any other identifiable information such as zip code or other information that can link you to the data. The study information will be in my computer in a password-protected file. To further ensure that your name will not be identified, you do not have to sign any consent document; I will need only verbal consent from you to conduct this interview. There will be not more than minimal risk of potential breach of confidentiality.

A copy of the study documents will be stored with the PI at the Department of Community Medicine. Only the PI and Co-PI will have access to the written interviews which will not have names or personal identifiers. At the end of the study, I will write a document about the findings and use some of the quotes from the interviews. I will not use any names or personal identifiers when writing these findings.

I also want you to know that under the Connecticut child abuse and neglect laws I have to report situations of child abuse. If during our conversation I learn about any situation of child abuse, I will have to report it to the responsible agency which is the Department of Children and Families.

What are the benefits for participating?

There are no direct benefits to you for taking part in this study. The information you share will help us to understand how factors like culture and social characteristics affects the health decision making regarding preventive care in the group of Sudanese migrant women in this part of Connecticut.

What will happen at the end of the study?

The results of this study will be the basis of my graduation project, one of the requirements to finish the master of public health program. I am going to present a description of the results of this study to the University of Connecticut and to the Connecticut Public Health Association (CPHA). This report will not contain any information that can connect you to the study.

What if I Have Questions?

If you have any questions, I can answer it now or you can call me at [616-606-5115](tel:616-606-5115). If you have further questions, the Principal Investigator, Dr. Stephen Schensul, is willing to answer any questions you have about the research. You are encouraged to ask questions before deciding whether to join the study or not. You are also encouraged to ask questions during your study participation. If you have questions, complaints or concerns about the research, you should call the Principal Investigator at [860.679.1570](tel:860.679.1570).

If you have questions about your rights as a research subject, you may contact a coordinator at the Institution Review Board at [860-679-1019](tel:860-679-1019) or [860-679-4851](tel:860-679-4851). You may also call a coordinator at the Institutional Review Board if you want to talk to someone who is not a member of the research team in order to pass along any suggestions, complaints, concerns or compliments about your involvement in the research, or to ask general questions or obtain information about participation in clinical research studies.

INVESTIGATOR INITIATED RESEARCH
Information Sheet
Version # 1.2 (03/07/2016)

Appendix (4): Formal Consent

Research Study Consent Form to Participate in Research

Study name: Empowerment and Decision-making in Preventive Health Care among Immigrant Sudanese Women in the Greater Hartford area of Connecticut

IRB number: 16-139-2

Principal Investigator (PI): Stephen Schensul, Ph.D. (Phone #: 860.679.1570)

Co-Principal Investigator (Co-PI): Fawatih Mohamed, MPH student. (Phone #: 616-606-5115)

Dear Participant,

My name is Fawatih Mohamed and I am a student in the public health program at the University of Connecticut. I am doing a research study that will be the basis of my graduation project. One of the program faculty and my major adviser, Dr. Stephen Schensul, is overseeing this project. You are being asked to take part in this research study because you are a woman of Sudanese origin and lives in Hartford area, Connecticut.

The purpose of this study is to find out if women of Sudanese origin in the greater Hartford area are doing breast and cervical screenings for cancers as a form of prevention from the disease. We also intend to find out if other factors are involved in your decision-making regarding preventive health care. After going through the study information sheet with the recruiter, please read the following and decide if you are willing to participate:

Inclusion criteria:

1. Women of Sudanese origin.
2. Lives in the Hartford area, Connecticut.
3. First generation migrant woman.
4. Lives in the United States for more than one year.
5. Married, widowed or divorced.
6. Age 25-65 yrs.

Exclusion criteria:

1. Men.
2. Women from other native countries.
3. Women born and raised up in the United States.
4. Women who are new to the country who have less than one year of residence in the United States

By participating in this interview, you (the participant) acknowledge that you have read, or have had read to you, this informed consent document, have talked with research personnel about this study, have understood the information sheet attached to this document, have been given the opportunity to ask questions and have them satisfactorily answered, and voluntarily consent to participate in this project as described in the information sheet.

By reading this constructed form the individual obtaining consent, Fawatih Mohamed, is confirming that the above information has been explained to the subject and that a copy of this document, will be provided to the participant.

You do not have to sign any document since your signature could be the only way someone can connect you with the information you give me. If you wish you can sign this document. If you do so, you understand that your signature is the only link that connects you to this research.

Participant's Printed Name

Participant's Signature

Date

Researcher's Printed Name

Researcher's Signature

Date

Appendix (5): Interview Guide

Study Interview Guide

Study name: Empowerment and Decision-making in Preventive Health Care among Immigrant Sudanese Women in the Greater Hartford area of Connecticut

Domain 1-a: Demographic characteristics

1. How old are you?
2. What is your marital status?
3. What was your highest level of education before migrating to the United States?
4. Do you have children?

Domain 1-b: Migration experience

1. For how long have you been in the United States?
2. What was the reason you had as a motive to come and migrate to the United States?
3. How do you describe your migration experience?

Domain 2: Empowerment characteristics

1. Did you work before coming to the United States?
2. How can you describe your life after migrating to the United States?
3. Do you have an independent source of income, and how that affects your decision making?
4. Tell me about your communication with other women in your community?

Domain 3: Relation with the husband

1. Your husband what he used to do for living and what level of education he had in Sudan?
2. How your husband adapted in the U. S. especially the kind of job he currently has compared to what he used to do in Sudan?
3. How would you describe your relation with your husband and his position as the head of the household?
4. What will be his response if you would like to pursue a job or go to school?

Domain 4: Preventive health care

1. Do you know preventive health care? If yes, please describe that to me?
2. Do you practice routine mammography and pap testing? If yes, tell me about your experience.
3. What type of health insurance do you have?
4. Do you have a PCP?
5. What are your sources of health information regarding necessary health needs for you and for your children (if any)?
6. What –in your opinion- are possible barriers/factors affect women’s ability to do preventive care?

Appendix (6): Codes

Empowerment_Family rules	1
Empowerment_Independent income	8
Empowerment_Preference	23
Empowerment_Self esteem	22
Empowerment_Social networking	21
Health_Awareness	29
Health_Community health center prefere...	7
Health_Dentist_No	1
Health_Dentist_Yes	4
Health_Good care	13
Health_Hospital preference	1
Health_Mammogram_No	10
Health_Mammogram_Yes	9
Health_Medicaid insurance	18
Health_Neglect	5
Health_No insurance	2
Health_OBGYN_Yes	11
Health_Pap test_No	2
Health_Pap test_Yes	16
Health_PCP_No	6
Health_PCP_Yes	13
Health_Preventive care	23
Health_Private insurance	7
Health_Request checkups	4
Health_Sources of information	2
Husband_As source of information	5
Husband_Education	13
Husband_Frustration	17
Husband_Job	20
Husband_Relationship	29
Husband_Women's decisions	19
Migration_Adaptation	11
Migration_Connecticut	8