

MATERNAL HEALTH EXPERIENCES AND HEALTHCARE UTILIZATION OF AFRICAN
IMMIGRANT WOMEN

by

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(Under the Direction of Pamela Orpinas, Ph.D.)

ABSTRACT

African immigrant women underutilize maternal healthcare compared to local populations in the United States. The purpose of this study was to examine the factors that facilitated or hindered the use of health services for African immigrant women in Clarkston, Georgia. The study also assessed the health literacy of the participants to complement the results from the interviews. This research was conducted in two phases. Three African immigrant women responded to interviews in Phase 1 of the study that informed the interviews for Phase 2 of the study. Phase 2 of the study explored the maternal health experiences of African immigrant women regarding healthcare utilization using a mixed-method design. Fourteen African immigrant women responded to the interviews in Phase 2. The Newest Vital Sign survey was administered to the participants to assess health literacy. An adapted version of the Andersen healthcare utilization model was used to explain the way individual and contextual factors impact the use of health services.

Eleven themes resulted from the interviews. The themes are; (1) community social structure, (2) community health beliefs, (3) health organization concerning the use of WIC, (4)

social support at the individual level, (5) limited English proficiency, (6) need for better health education, (7) perception of care, (8) health financing, (9) long wait times and lack of transportation, (10) fear of medication and of obstetrical interventions and (11) impact of female genital mutilation. This study makes some important contributions to science and practice. First, resettlement communities for immigrants facilitate social support and the use of maternal health services. Second, health providers require training on the cultural norms of African immigrant women to address barriers to care. Third, African immigrant women required education and tailored care that addresses the fear of pain medication, obstetrical interventions, female genital mutilation and the need for family planning. Fourth, African immigrant women need education on health insurance and transportation for maternal healthcare. Finally, structures that will address limited English proficiency and low health literacy are required to facilitate the use of health services. Tailored interventions should address barriers to maternal healthcare utilization that African immigrant women face.

INDEX WORDS: Maternal health, pregnancy care, health literacy, health utilization, African immigrants, the United States

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DEDICATION

I dedicate this dissertation to The Almighty God, my source, inspiration and strength in all things. To my parents, your love, wisdom, and example have guided me to this point. I am proud to be your daughter. To my brothers, sisters, and all the members of my family, I appreciate your love, prayers, and support.

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Finally, I dedicate this project to women, mothers, families, and immigrants everywhere.

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CHAPTER 1: INTRODUCTION

Adequate health care is very important during pregnancy for all women, as inadequate care is associated with higher pregnancy complications and poor birth outcomes for both mothers and infants (Zolotor & Carlough, 2014). Experts recommend that pregnant women start prenatal care in the first trimester of pregnancy with a recommendation of 10 to 14 prenatal care visits (Alexander & Kotelchuck, 1996; Alexander & Kotelchuck, 2001; Stout, 1997). The reduction in maternal and infant mortality globally in the 20th and 21st centuries is greatly due to advancements in maternal care (Feijen-de Jong et al., 2011). The prompt initiation of prenatal care and adherence to care during pregnancy are linked to the advances in maternal and infant health in economically developed nations, such as the United States (Feijen-de Jong et al., 2011; Zolotor & Carlough, 2014). This advancement in maternal and infant health due to improved prenatal care shows the importance of adequate maternal health utilization.

Despite the worldwide trend of improved prenatal care, immigrant women in the United States are at an increased risk for delayed initiation of prenatal care that is linked to the inadequate use of health services (Kentoffio, Berkowitz, Atlas, Oo, & Percac-Lima, 2016; Khanlou, Haque, Skinner, Mantini, & Kurtz Landy, 2017). Women who are recent immigrants from low-income to high-income countries have an increased health risk for poor maternal and child health outcomes (Almeida, Caldas, Ayres-de-Campos, Salcedo-Barrientos, & Dias, 2013; Almeida, Casanova, Caldas, Ayres-de-Campos, & Dias, 2014; Mukasa, 2016). Economic, social, linguistic, and cultural adjustments are some of the barriers immigrant women face when

accessing appropriate health services (Ali, McDermott, & Gravel, 2004; Balaam et al., 2013; Ganann, Sword, Black, & Carpio, 2012). As a result of these barriers, immigrant women rate community health services as poor or inadequate compared to local populations and are likely to receive less care for health problems and less frequent preventive care (Ganann et al., 2012).

The disparity in poor health outcomes intensifies for African immigrant women, who are often at greater risks than other populations. Migrant women from Africa living in more developed countries like the U.S, Canada and Australia have a higher risk of postpartum depression, maternal death, preterm birth, and other adverse birth outcomes when compared to the local population (Almeida et al., 2013; Gagnon et al., 2009; Philibert, Deneux-Tharaux, & Bouvier-Colle, 2008). This risk could be linked to prior or existing diseases and to cultural practices, such as female genital mutilation (Carolan, 2010). African immigrant women experience high rates of infant mortality and morbidity following their migration that is not explained by maternal risk factors alone (Carolan, 2010; Mehta et al., 2017). African immigrant women also have a higher risk of poor pregnancy outcomes due to lower rates of obstetric interventions (Almeida et al., 2013; Gagnon et al., 2009; Wanigaratne et al., 2016). Women who emigrate from Africa need targeted research and interventions to reduce their overall poor health outcomes.

1.1 Health Literacy

People make complex health decisions that are influenced by their level of health literacy. The Institute of Medicine in 2004, defined health literacy as the extent to which people can acquire, process, understand, and apply the basic health information and services they need to make suitable health decisions (Institute of Medicine Committee on Health, 2004). Health literacy covers the capability to understand public health written documents (print literacy),

quantitative information (numeracy), spoken words and listen effectively (oral literacy) and apply these skills to health situations (Berkman et al., 2011; Kickbusch, 2001; Nutbeam, 2000). People with low health literacy may face barriers as they try to access health care services or analyze health risks and benefits. They also find it difficult to locate health information, calculate dosages, interpret test results to evaluate information for credibility and quality, and communicate with healthcare providers (National Network of Libraries of Medicine, 2018). Part of the Healthy People 2010 goals were focused on improving health literacy because of the connection between low health literacy and adverse health outcomes (Dewalt, Berkman, Sheridan, Lohr, & Pignone, 2004; DeWalt & Hink, 2009). More recently, one of the five overarching goals of the healthy people 2030 is to “eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all” (Healthy People 2020, 2019).

Health literacy is particularly important in maternal health because pregnancy could be the first encounter with the health system that some women have, especially those living in low-income situations (Ferguson, 2008). During the gestational period, women must process and apply health information, and this ability could be critical to the health of the mother and the baby. Even after pregnancy, mothers still require more health information related to infants and children, such as immunization and healthy feeding habits. Mothers with low health literacy may find this task challenging and may be confused over the intricate details concerning pregnancy, infant and child care (Corrarino, 2013; Ferguson, 2008; Frasso, 2011; Wilson, Brown, & Stephens-Ferris, 2006). African immigrant women with low health literacy find it difficult to apply the required information to make appropriate health decisions. This problem can adversely

impact the way they use maternal health services (DeStephano, Flynn, & Brost, 2010; Jacoby, Lucarelli, Musse, Krishnamurthy, & Salyers, 2015).

Although some studies have focused on immigrant women's maternal healthcare experiences (Almeida et al., 2013), research on the experience of African immigrant women remains an emerging field of inquiry. The African continent is very large and diverse and the few available studies have investigated mostly Somali populations in the United States (Herrel et al., 2004; Hill, Hunt, & Hyrkas, 2012; Jacoby et al., 2015). Therefore, there is a critical need for an investigation into the contextual factors, individual factors, and health behaviors that facilitate or impede healthcare utilization in this population of childbearing women.

1.2 Purpose of the Study

This mixed-methods study investigated the maternal health experiences and use of health services of African immigrant women. This study examined the individual and contextual factors that facilitate or impede the maternal healthcare utilization of African immigrant women. The study also investigated the influence of health literacy on the use of maternal health care. An adapted version of the Andersen healthcare utilization model was used to explain the way health behaviors, along with individual and contextual characteristics, impact the use of health services of African immigrant women (Andersen, 1995; Andersen, Davidson, & Baumeister, 2014; Andersen & Newman, 2005). Interpretive phenomenology, a qualitative research tradition, was used to explore the experience of healthcare utilization in the women. Results of the study will contribute to the design of tailored interventions to address barriers to maternal healthcare utilization among African immigrant women in the United States.

This research inquiry had two phases. Phase 1 of the study was conducted as the pilot-phase to pretest the questions in the semi-structured interviews that were administered to the

African immigrant women invited for the study. The results of the pilot phase were used to inform the semi-structured interviews for the second phase of the study. In Phase 2 of the study, semi-structured interviews examined the maternal health experiences of African immigrant women living in Clarkston, Georgia. The interviews were administered to 14 women. Participants also answered a demographic survey and the Newest Vital Sign (NVS) survey (Weiss et al., 2005) to assess health literacy and its impact on healthcare utilization.

1.3 Research Questions

This research study had four research questions regarding the maternal health experiences of African immigrant women living in Clarkston, Georgia. The research questions were:

1. What are their maternal health experiences regarding healthcare utilization?
2. What contextual and individual factors facilitate or hinder maternal healthcare utilization?
3. How do their maternal health experiences influence healthcare utilization?
4. How does health literacy affect maternal health care utilization?

CHAPTER 2: LITERATURE REVIEW

This chapter has five sections. The first section delineates the challenges and barriers to health care among African immigrants in the United States. The second section describes maternal, infant and child health with a focus on African immigrant women in the United States. The third section explains the Andersen healthcare utilization model (Andersen, 1995; Andersen et al., 2014; Andersen & Newman, 2005) as it conceptualizes the factors delineated in specific studies that facilitate or hinder maternal healthcare utilization among African immigrant women. The fourth section describes studies that use phenomenology in maternal healthcare. The final section of this chapter is a summary of the literature review.

2.1 African Immigration: Barriers to health care

Over the past several decades, the number of immigrants from African countries to the United States has risen steadily. Immigration from Africa has doubled every decade between 1980 and 2010 and increased by 29% in the following 5 years because of people seeking economic opportunities in high-income countries and refugees from unstable regions of Africa. African immigrants are one of the fastest growing groups of immigrants to the United States and this increasing population tends to resettle in Washington D.C., New York City, Minneapolis-St. Paul, various cities in Texas, and Atlanta. The number of African immigrants living in the United States in 2009 alone was about 1.5 million. This number of African immigrants constituted 3.9% of all immigrants to the United States in that year. Two-thirds of the total African immigrants to the United States are from Eastern Africa (countries such as Kenya, Uganda, Somalia, Eritrea,

and Ethiopia) and Western Africa (such as Nigeria, Ghana, Gambia, and Liberia). Most African immigrants to the United States were from Nigeria, Ethiopia, Egypt, Ghana, and Kenya (Capps Randy, McCabe, & Michael, 2012; McCabe, 2011).

Africa is a continent with diverse ethnicities, religions, levels of wealth, beliefs, and cultures, and research comparisons among African immigrant groups can be very tasking. The lack of consistent recording of national origin and language in medical settings is a significant barrier to obtain information about the health status and practices of African immigrants (Venters & Gany, 2011). The use of standard identifiers, such as “foreign-born Black,” “African-born Black,” and “non-Caribbean Black,” “Black or African American” limits the interpretation of data. Classification standards that consider the diversity of this population is required to adequately describe the health status of African immigrants. Research that examines the healthcare needs and practices of African immigrants is necessary due to the growing number and diversity of persons born in Africa (Siegel, Horan, & Teferra, 2001; Venters & Gany, 2011).

African immigrants face barriers to health that can be discussed under the following: (1) underinsurance (2) acculturation and (3) discrimination

2.1.1. Underinsurance

Immigrants tend to have lower rates of health insurance and reduced use of health services. They are more likely to receive lower quality of care than individuals born in the United States (Derose, Escarce, & Lurie, 2007). Previous assessments of the health status, health behaviors, and healthcare utilization show that African immigrants to the United States are underinsured and lack access to a regular source of primary healthcare (Siegel et al., 2001). African immigrants may not seek treatment for medical problems because of their limited access to health insurance (Venters & Gany, 2011). Although African immigrants have high rates of

secondary, college and graduate level education, they are more likely to lack access to health insurance through their jobs because their jobs do not provide health insurance. This problem could be because large numbers of them work in unskilled labor or service labor jobs compared to the general workforce. The lower rates of health insurance among African immigrants may contribute to a greater reliance on hospital emergency services for primary healthcare (DeShaw, 2006; Venters & Gany, 2011).

2.1.2. Acculturation

Acculturation refers to the cultural and psychological changes that occur due to the interaction of a minority culture with a dominant one (Hunt, Schneider, & Comer, 2004). Acculturation can be used to describe changes in cultural values, attitudes, and behaviors when two formally autonomous populations encounter each other, such as an immigrant group and the host society. Immigrants who are more acculturated to the host culture display better health outcomes than those who are less acculturated (Agbemenu, 2016). Recent immigrants from lower-income countries to higher-income countries often experience challenges with access to health services due to the effect of acculturation. One explanation is that they lack the social networks that would be beneficial as they resettle into their new country (Edberg, Cleary, & Vyas, 2011; World Health Organization, 2007). Limited attention has been given to African immigrants, although they are a particularly vulnerable population (Derose et al., 2007). Research on acculturation and health behaviors of African immigrants in the United States is also limited (Agbemenu, 2016).

Okafor, Carter-Pokras, Picot, and Zhan (2013) examined the association between language acculturation and self-rated health status in a sample of African immigrant adults. Poor health self-ratings were associated with limited English proficiency, shorter length of stay in the

United States, and being older at the time of immigration. Sofolahan-Oladeinde, Iwelunmor, Tshiswaka, and Conserve (2014) reviewed the influence of acculturation on the health perceptions, health behaviors, and health outcomes of African immigrants in the United States. They highlighted the need to examine protective and contextual factors, such as culture and religion, regarding their influence on the health of immigrants. (Sofolahan-Oladeinde et al., 2014).

2.1.3. Discrimination

Another challenge and cause of health inequity among immigrant populations is the problem of discrimination regarding healthcare. The barriers that minorities of color experience in the United States are exacerbated for African immigrants. Foreign-born persons of color reported more incidents of discriminatory practices by healthcare professionals than persons of color born in the United States. These discriminatory practices could be harmful to health outcomes (Pavlish, Noor, & Brandt, 2010; Smedley, Stith, & Nelson, 2003). Discrimination affects the maternal health of women negatively. Racial discrimination negatively impacts the health system engagement and prenatal care utilization for women of color. Being a Black woman in the United States is associated with higher odds of discrimination due to race, language, or culture (Gadson, Akpovi, & Mehta, 2017). Following this trend, Herrel et al. (2004) state that African immigrant women have the general perception that health care providers discriminate against them because of race and are not sensitive to their needs. African immigrant women also believe that they face discrimination because of language barriers. Health providers need to understand the cultural differences and health needs of African immigrant women to meet their health and medical needs.

2.2 Maternal, Infant, and Child Health

Maternal health refers to the health of a woman before, during, and after pregnancy. The maternal health care of a woman comprises activities related to family planning, preconception, prenatal care, and postnatal care (World Health Organization, 2018). As a significant public health goal in the United States and around the world, public health professionals work to improve the health and well-being of mothers, infants, and children (Healthy People 2020, 2018; World Health Organization, 2018). Reducing child mortality and improving maternal health are among the United Nations millennium development goals for the year 2015 (United Nations, 2014). These goals are one important component of the new agenda of the United Nations called the Sustainable Development Goals (SDGs) to achieve good health and well-being for all people and reduce inequalities (United Nations, 2018). The maternal health and well-being of women has a significant impact on the health of the next generation and predicts future public health challenges for families, communities, and the health care system (Almeida et al., 2014; Ferguson, 2008; Pavlish et al., 2010).

Migrant women have a higher incidence of co-morbidity in some populations and reduced access to health facilities. This reduced access to health facilities increases the risk for serious complications during and after pregnancy. Several environmental and social factors affect maternal health behaviors and health status. Some of these factors are: access to healthcare, early intervention services, educational, employment, and economic opportunities, social support, and availability of resources to meet daily needs. The growth of the African immigrant population increases the need for research into the maternal health of this population. As the few available studies have shown, African immigrant women are at risk for reproductive health disparities and do not use gynecologic services adequately (Almeida et al., 2013; Almeida

et al., 2014; Mehta et al., 2017; Mukasa, 2016; Venters & Gany, 2011).

African immigrant women constitute a large, diverse and increasing number of immigrants to the United States (Carroll, Epstein, Fiscella, Volpe, et al., 2007; Pavlish et al., 2010). Women are particularly vulnerable to the challenges resulting from migration (Almeida et al., 2013; Almeida et al., 2014). Women who immigrate from African countries have an increased risk of pregnancy complications, based on preexisting disease and other adverse medical conditions (Carolan, 2010; Carroll, Epstein, Fiscella, Gipson, et al., 2007; E. B. Johnson, Reed, Hitti, & Batra, 2005) and health providers need to be equipped to tackle these challenges.

For African immigrant women, the problem of female genital mutilation remains a challenge as the practice continues in about 30 African nations. Approximately 168,000 women in the United States either have undergone female genital mutilation or are at risk for this procedure (Nicoletti, 2007). Some women who have already experienced the procedure feel that doctors are not respectful or well-informed when they address their maternal health concerns. This perception can affect the health utilization practices of these women. Policies and programs have been developed to tackle the problem of female genital mutilation by addressing the effects and criminalizing the procedure in the United States but more still needs to be done (Venters & Gany, 2011). Research concerning the health of immigrant women is valuable because of the significant role that women play in promoting not only their personal health but that of their families and communities (Pavlish et al., 2010).

2.3 Andersen Health Care Utilization Model

The theoretical framework that informs this study is an adapted version of the Andersen healthcare utilization model that explains the predisposing factors, enabling factors, need factors, and health behaviors that influence the use of healthcare in African immigrant women

(Andersen, 1995; Andersen et al., 2014). Figure 2.1 shows the adapted version of this model.

Andersen (1968) applied the original model to understand how families use health services as a function of their demographic, social, and economic characteristics.

The Andersen healthcare utilization model outlines the influence of contextual and individual characteristics on the use of health services (Figure 2.1). *Contextual characteristics* refer to the external circumstances and environment of healthcare. The model emphasizes contextual factors by acknowledging the importance of community characteristics, health organization, and provider-related factors. *Individual characteristics* refer to the personal characteristics that affect the use of health services. The contextual and individual characteristics have three main constructs: factors that predispose an individual to use health services, factors that enable the use of health services, and the need for care (Andersen, 1995; Andersen et al., 2014; Andersen & Newman, 2005). Table 2.1 defines and provides examples of predisposing, enabling and need factors at the contextual and individual levels.

Health behaviors are personal practices that influence the health of individuals and the use of health services. The health behavior of individuals and their use of health services is the final focus of the model. Examples of health behaviors are adherence to medical routines or treatments, self-care, and lifestyle practices. The initiation and adherence to prenatal care services and other maternal health practices of African immigrant women can also be examples of health behaviors. Medical care, such as ambulatory care and hospital inpatient services, predicts the use of health services in the model (Andersen et al., 2014).

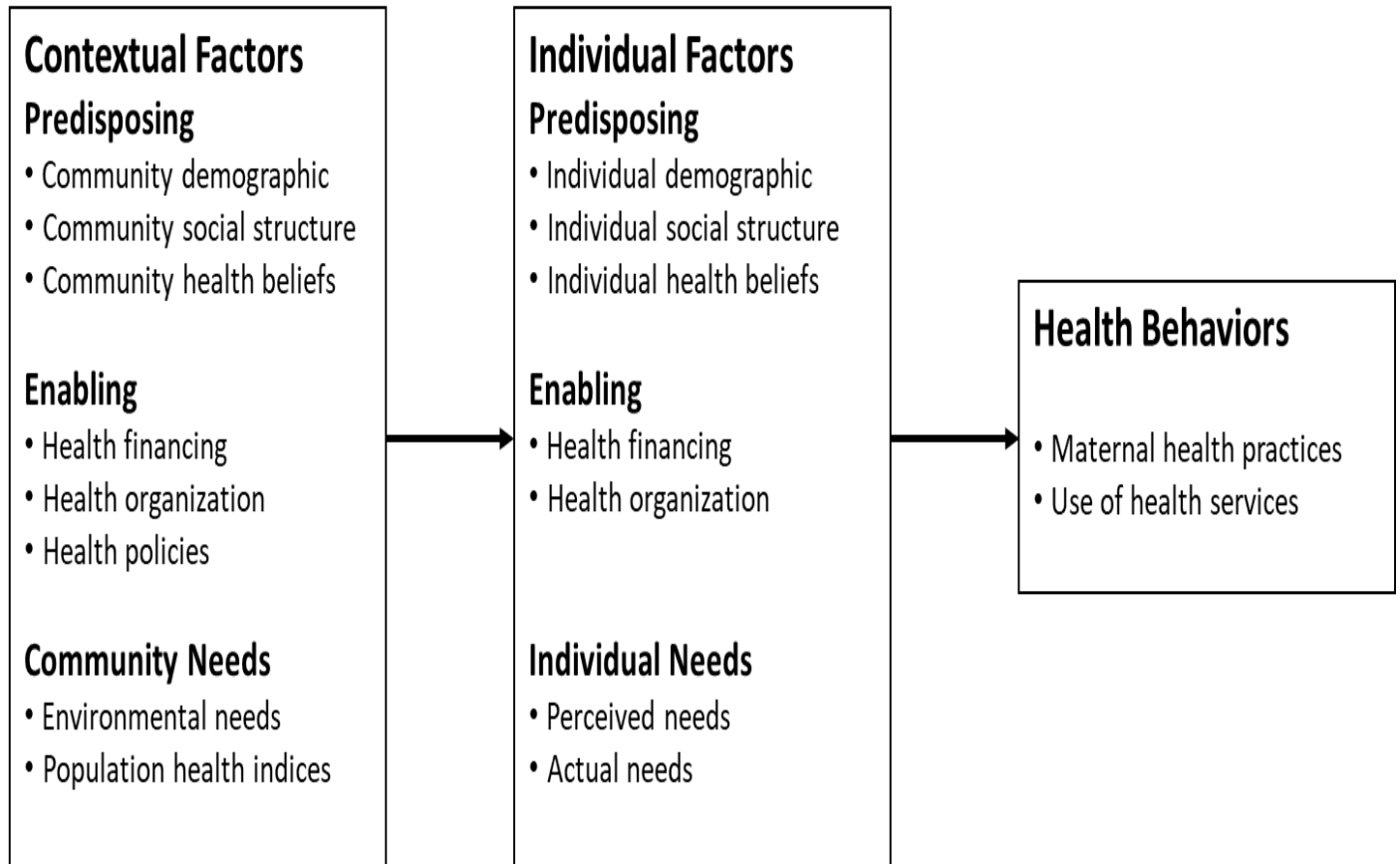


Figure 2.1: Andersen Healthcare Utilization Model

Note: Adapted from the Andersen Healthcare Utilization Model (Andersen, 1968, 1995; Andersen et al., 2014)

Table 2.1: Healthcare Utilization Model: Definitions of Constructs and Examples

Construct	Definition	Examples of Content
CONTEXTUAL OR COMMUNITY CHARACTERISTICS		
Predisposing characteristics	Factors from the community that inclines people to use or not use services.	<p>Community demographic: Community with many young mothers, a community with many African immigrants.</p> <p>Community social structure: Communities where people live, and work that may be supportive or detrimental to their health and access to health services. Relevant measures include educational level, ethnic and racial composition, measures of spatial segregation, employment level, and crime rate, strong religious influence, NGOs that provide help to pregnant women.</p> <p>Community health beliefs: community or organizational values and cultural norms and prevailing political perspectives regarding how health services should be organized, financed and made accessible to the population. Beliefs about the roles of physicians, midwives, and other healthcare providers.</p>
Enabling characteristics	Factors from the community that facilitates or impedes the use of services.	<p>Health policy: Recommendations, plans, and actions that are managed at the community level (public policies made in the legislative, executive, or judicial branch of government, at all levels from local to national) to achieve maternal health care goals in this population.</p> <p>Health financing: Community measures that suggest resources potentially available to pay for health services, including per capita community income and wealth.</p> <p>Health organization: The amount and distribution of health services facilities and personnel to offer maternal services to African immigrant women. Examples are the ratios of physicians and hospital beds to population, office hours and location of service, provider mix, utilization, and quality control, oversight, and outreach and education programs.</p>
Need characteristics	Factors from the community that laypeople and/or	Environmental needs: Refers to health-related measures of the physical environment, among them the quality of housing, water, and air.

professionals recognize as requiring medical treatment.

Population health indices: The number of pregnant African immigrant women in the community, or the prevalence of existing or pre-existing conditions that affect the maternal health of African immigrant women.

INDIVIDUAL CHARACTERISTICS

Predisposing characteristics

Factors from the individual that incline the person to use or not use services.

Individual demographic: The ethnicity, age, education level, income level, marital status, the occupation of the African immigrant woman.

Individual social structure: Family and other personal support or social networks that provide help for pregnant women.

Individual health beliefs: Attitudes, values, and knowledge that people have about health and health services that might influence perceptions of need and use of health services such as health knowledge, religious beliefs, health literacy, and personal beliefs about maternal health care.

Enabling characteristics

Factors from the individual that facilitate or impede the use of services.

Health financing: Personal income, wealth or health insurance that facilitates access to health care.

Health Organization of health services for the individual describes whether or not the individual has a regular source of care or medical home and the nature of that source (private doctor, community clinic, or emergency room). It also includes means of transportation, reported travel time, and waiting time for care.

Need characteristics

Conditions that laypeople (perceived needs) and/or professionals (evaluated needs) identify as requiring medical treatment.

Perceived need can refer to how people experience and emotionally respond to symptoms of illness, pain, and worry about their health condition.

Evaluated need represents professional judgment and objective measurement of a patient's physical status and need for medical care (blood pressure readings, temperature, and blood cell count etc.).

These factors can refer to the status of pregnancy, the presence of female genital mutilation, and existing or preexisting conditions of ill health.

The next sections summarize the contextual and individual characteristics that influence the use of health services. These characteristics are stated according to the predisposing, enabling, and need factors of the Andersen health care utilization model.

2.3.1. Contextual Characteristics

Predisposing Factors. Five studies examined factors from the community that inclines African immigrant women to use or not use health services. All of them focused on the construct of community health beliefs. None of the studies examined the community demographic or the social structure of the community.

Hill et al. (2012) described the health care experiences of Somali immigrant women and their beliefs regarding pregnancy and childbirth. The women stated that people from the Somali culture regard pregnancy as a normal part of life and not an illness that needed medical care. This belief prompted women to seek healthcare only if they felt ill during their pregnancy but not as a necessary health requirement. Similarly, Higginbottom et al. (2013) studied Sudanese women who migrated to Canada and stated that the women regard pregnancy and childbirth as a normal process of life, as a community event. Women are trained to know how to care for babies and deal with pain even prior to experiencing childbirth by caring for the babies of other women in the community. The women from the Sudanese community believe that this training is adequate preparation for pregnancy and childbirth, and they may not visit health centers due to the widespread belief that the doctors will perform a cesarean section on them.

Pavlish et al. (2010) examined the factors that influenced the health experiences of recently resettled Somali immigrant women. The health beliefs of Somali women in the study differed from the biological model found in conventional medicine. Somali women believe that relating well with self, family, and God (Allah) are important to the health and well-being of a

person. Engaging in productive activities, constantly watching their children and avoiding violence were also among the contextual descriptors of health. Somali women believed that doctors misunderstand their explanations of ill-health and offer solutions perceived as irrelevant to their problems, such as telling a woman to open her legs for examinations when she complains of backaches. The women from this community believed that doctors often make the situation worse. The health beliefs of Somali women concerning healthcare during pregnancy influenced their interactions and expectations with health providers and often led to multiple frustrations and unmet expectations. Somali immigrant women believed that healthcare providers must create an environment where patients can express their expectations and explain their health concerns.

Carroll, Epstein, Fiscella, Volpe, et al. (2007) investigated concepts of health promotion and experiences with preventive healthcare. The participants in the study stated that good sanitation, adequate nutrition, exercise, traditional remedies and rituals, religion, and access to healthcare and medications were important in their beliefs about health promotion. The women stated that they do not seek medical care early, unless they are very ill. This practice came from their home country where they were already accustomed to difficult access to health services and not well-informed about the use of health services in the United States. However, they appreciated the ease of access to healthcare in the United States. Also, people from this community believe that they should only seek health care when the symptoms are severe. The women who participated in the study stated that doctors need to respectfully inquire about female genital mutilation as part of their medical history because of the prevalence of this problem in the population. The women also described their cultural traditions and treatments for ill health. They stated the role of indigenous herbal remedies and religious healing ceremonies. Public health education programs can build on their current knowledge of healthcare. Herrel et al. (2004)

concluded that healthcare providers need to do more to educate African immigrant women about the delivery process, pain medications, prenatal visits, interpreters, and roles of hospital staff. Somali immigrant women preferred to receive maternal health education through videotapes, audiotapes, printed materials, and birth center tours.

Enabling Factors. None of the studies reviewed examined contextual enabling characteristics that facilitate or impede the use of health services. No studies examined health policies regarding the functioning of the health system, health financing, and health organization.

Need Factors. None of the studies included in this review examined health-related measures of the physical environment such as housing, water, air quality or other community need factors for maternal health utilization in African immigrant women.

2.3.2. Individual Characteristics

Predisposing Factors. Several studies in the review examined the individual factors that incline African immigrant women to use or not use health services. Some of the individual characteristics that affect how African immigrant women use health services are health literacy, health beliefs, and health knowledge (Carroll, Epstein, Fiscella, Gipson, et al., 2007; Carroll, Epstein, Fiscella, Volpe, et al., 2007; DeStephano et al., 2010; Herrel et al., 2004; Hill et al., 2012; Pavlish et al., 2010).

DeStephano et al. (2010) assessed health education, health literacy, and prenatal care education in a sample of African immigrant women to determine effective ways to tackle low health literacy and low priority in seeking prenatal information. The researchers concluded that video format for prenatal education was appropriate, in addition to materials tailored to the Somali language.

Carroll, Epstein, Fiscella, Gipson, et al. (2007) studied the factors linked with satisfactory treatment when resettled African immigrant women receive preventive healthcare services in the United States. The researchers assessed the positive and negative experiences that the participants had with primary healthcare service providers. The women in the study provided information about their beliefs regarding respectful and disrespectful treatment, and their experiences of racism, prejudice or bias. The researchers stated that the assistance of female interpreters at health centers may promote effective communication and access to healthcare services.

The review also included other studies that evaluated the experiences of African immigrant women with primary healthcare services, their ideas about access barriers, and strategies for improving healthcare services (Hill et al., 2012; Jacoby et al., 2015). The results of these studies showed that access to primary healthcare providers, healthcare services, and community programs that promote maternal health literacy are associated with effective healthcare experiences (Hill et al., 2012; Jacoby et al., 2015).

Enabling Factors. Six studies in this review outlined personal factors, such as health financing and organization, that facilitate or hinder the use of healthcare for African immigrant women to the United States. Personal income, health insurance, access to resources, access to transportation, and low waiting time at health centers enabled African immigrant women to use health services (Carroll, Epstein, Fiscella, Gipson, et al., 2007; Herrel et al., 2004; Hill et al., 2012; Jacoby et al., 2015; Mehta et al., 2017; Wojnar, 2015).

Mehta et al. (2017), in a study with Congolese and Somali immigrant women, noted acculturation barriers for African immigrant women can be alleviated through increased support for social and economic assistance programs as well as community-based education about

insurance eligibility. Transportation, social mobility, childcare, insurance coverage, and financial resources affected the way African immigrant women use health services. Language was not a barrier to the use of healthcare in the women.

Carroll, Epstein, Fiscella, Gipson, et al. (2007) also stated that access to a consistent source of healthcare, adequate resources for daily needs such as food, water, spirituality, traditional practices, and functioning well at home was very helpful for the women in this study. Somali immigrant women require assistance with reminder telephone calls, transportation, and childcare to increase their attendance at prenatal appointments. Recent African immigrant mothers found it difficult to access health care services, especially because of the lack of transportation. To address this challenge, they are willing to walk to the health centers to receive the required maternal health care (Herrel et al., 2004; Hill et al., 2012). Enabling factors such as support from a spouse, family, or friends were also important to increase healthcare utilization practices, as shown in other studies (Jacoby et al., 2015; Wojnar, 2015).

Need Factors. Several studies discussed the individual perceived and evaluated need factors for care, such as response to pain, illness and the state of their health. African immigrant women have expressed dissatisfaction with obstetric interventions due to cultural beliefs and preconceived notions about such interventions (Brown, Carroll, Fogarty, & Holt, 2010; DeStephano et al., 2010; Higginbottom et al., 2013; Ogunleye, Shelton, Ireland, Glick, & Yeh, 2010).

Brown et al. (2010) assessed resistance to prenatal and obstetrical interventions in resettled refugee Somali women. The results of the study showed that the women were afraid of cesarean sections and were resistant to other obstetrical interventions due to the fear of death. Also, their religious beliefs were important when deciding about obstetrical interventions, as they

believed cesarean sections were bad and pregnancy and childbirth were best left in the control of God. The study showed that health professionals need to be knowledgeable about Somali women's fears. The researchers also showed the need for educational programs on common obstetrical interventions to improve maternal care for the women.

Ogunleye et al. (2010) reported the fear of obstetrical interventions and the use of pain medication in African immigrant women in a study comparing the labor and delivery practices of pregnant African immigrants and US-born patients. African immigrant women had fewer obstetric interventions and used less pain medication during childbirth (Ogunleye et al., 2010). The fear of obstetric interventions (caesarian sections in particular) was also reported by Jacoby et al. (2015) in a mixed methods study with Somali immigrant women. The women expressed their reservations about cesarean sections and expressed concerns that doctors in the United States may not know how to deal with the problem of infibulation due to female genital mutilation. Somali women often delayed going to the hospital until they were experiencing labor. This delay often results in chaotic and frustrating experiences for the women and their health providers.

The effect of female genital mutilation, the condition of the health of the woman during pregnancy and the preference for a female doctor, are also shown to impact the way African immigrant women use healthcare. (Herrel et al., 2004; Hill et al., 2012; Jacoby et al., 2015; Mehta et al., 2017; Ogunleye et al., 2010). Mehta et al. (2017), in a study with Congolese and Somali immigrant women, noted that the women preferred female providers who were familiar with female genital mutilation in gynecologic care. Somali women who experienced female genital cutting have an increased risk of perineal lacerations due to the consequences of the procedure. Doctors need to ascertain from the patients who have undergone this procedure what

they want to be done with their genitalia during the birthing process. African immigrant women require that healthcare professionals are well-informed about the presence and the impact of female genital mutilation and adopt strategies to tailor adequate maternal care (Carroll, Epstein, Fiscella, Volpe, et al., 2007; Mehta et al., 2017; Ogunleye et al., 2010).

2.3.3. Health Behaviors and the Use of Health Services

Maternal health practices—such as adherence to medical routines and treatments or preventive care, self-care, and lifestyle practices—influence the use of maternal health services. African immigrant women are at increased risk of delayed or inadequate prenatal care. The societal beliefs of African immigrant women included in the review (such as Somali and Sudanese women) do not value prenatal care as essential and only visit the doctor when they are ill or when the baby is due (Higginbottom et al., 2013; Hill et al., 2012). This population also fears obstetrical interventions during childbirth (Brown et al., 2010; Higginbottom et al., 2013; Ogunleye et al., 2010). Differences also exist in the use of pain medication, cutting of the umbilical cord, and feeding with formula. Somali and Sudanese women preferred not to have their partners cut the umbilical cord compared to women born in the United States. African immigrant mothers prefer breastfeeding their babies compared to women born in the United States. Compared to U.S-born women, African immigrant women from Sudan and Somalia were less likely to use epidural analgesia for pain relief during pregnancy (Ogunleye et al., 2010). The content and delivery of prenatal care that African immigrant women receive need to be adequately tailored to their needs for the effective use of health services (Carroll, Epstein, Fiscella, Gipson, et al., 2007; DeStephano et al., 2010; Hill et al., 2012).

2.4 Phenomenology

Phenomenology is a qualitative research methodology that describes phenomena as they

appear to the individual experiencing the phenomena. Phenomenology could be descriptive or interpretive. Descriptive phenomenology is the study of a phenomenon that arises from the experience of being in the world. Interpretive phenomenology is the study of how the world is interpreted based on lived experience (Giorgi, 2012; Moran, 2002; Wojnar & Swanson, 2007). The rich descriptive context and the interpretation of the context of an individual's experience are addressed through interpretive phenomenology. Interpretive phenomenology is employed in qualitative research inquiry to articulate a combination of meanings and understandings of the participant and researcher (Dowling, 2007; Van Manen, 1990; Wojnar & Swanson, 2007).

In the application of interpretive phenomenology, it is important to discuss the significance of four key concepts: being-in-the-world (Moran, 2002; Wojnar & Swanson, 2007), fore-structures, life-world existential themes, and hermeneutic circle (Horrigan-Kelly, Millar, & Dowling, 2016; Tuohy, Cooney, Dowling, Murphy, & Sixsmith, 2013; Van Manen, 1990; Wojnar & Swanson, 2007).

2.4.1. The concept of "being in the world"

Heidegger, a leading scholar in phenomenology stated that the context of an individual's experience is very important in describing and understanding the meaning of the experience. His work, focused on interpretive phenomenology, stated that the concept of "being-in-the-world" refers to the behavior of people, that is, how they exist and are involved in the world (Dowling, 2007; Tuohy et al., 2013; Van Manen, 1990). Heidegger stated that worldly activity influences the understanding of phenomena. He depicted the world as the interconnectivity of the defined worlds (Tuohy et al., 2013). Interpretive phenomenology addresses the concept of a person "being in the world" or "Dasein" as it relates to the social, cultural, and political contexts (Wojnar & Swanson, 2007). Husserl's work on descriptive phenomenology stated that a process

called bracketing is necessary and ensures that interpretation of phenomena is free of bias. Bracketing refers to a process that helps the researcher ignore any prior understanding or preconceptions about the phenomenon under investigation to achieve neutrality (Wall, Glenn, Mitchinson, & Poole, 2004; Wojnar & Swanson, 2007). Interpretive phenomenology differs from this school of thought because of the understanding that phenomena do not occur in a vacuum. The understanding and co-creation of the phenomena by the researcher and the participants are essential to meaningful interpretations (Dowling, 2007; Wojnar & Swanson, 2007).

2.4.2. Fore-structures

Fore-structures refers to a prior awareness or previous understanding of the investigated phenomena; what is known or understood before interpretation. They often result from past experiences on the subject (Tuohy et al., 2013). Heidegger assumed that the concept of fore-structure is intricately aligned with the understanding of the world. He also believed that this kind of understanding is connected with the interpretation of reality (Wojnar & Swanson, 2007). A core aspect of interpretive phenomenology is that the researcher is not separated from the assumptions and preconceptions about the phenomena under investigation. These assumptions and preconceptions must be acknowledged and integrated into the research findings (Tuohy et al., 2013). The knowledge researchers may already have about the topic of interest can be a valuable guide to the investigation. The idea of co-constitutionality (Flood, 2010) assumes that participants' and researchers contribute to meaning in qualitative research. Researchers need to acknowledge and identify any previous understanding of the topic of inquiry so that any influencing factors and the context of the study are adequately explained (Dowling, 2007; Tuohy et al., 2013; Wojnar & Swanson, 2007).

2.4.3. Life Themes

Phenomenologists use life themes to reflect on how people experience the world. Life themes are important because previous life experiences can influence present and future experiences. People can experience the world through four central life themes: lived space, lived time, lived body, and lived human relation (Tuohy et al., 2013; Van Manen, 1990, 2016). *Lived space* refers to any space or place that human beings are located, which can be as large as a country or as specific as the size and type of building. The influence of a personal space such as a home or family location will be different from the way a person is affected at work, business, or other formal locations (Tuohy et al., 2013; Van Manen, 1990). *Lived time* is subjective and depends on the phenomena or the perspective of the individual with the lived experience. Events that occur at a certain time can influence the way individuals interpret those events. Positive experiences with a concept or event during childhood may influence the understanding or interpretation of that concept or event during adulthood (Van Manen, 1990). *Lived body* refers to the fact that human beings exist in a body and experience things in their bodies. The interactions people have with other individuals influence body language, which can change to become animated or reserved depending on the circumstances (Van Manen, 1990). *Lived human relation* refers to relationships of people and it takes into consideration the shared interpersonal space. Nobody experiences the world as an isolated entity. The communal experience that individuals share as they experience the world is understood as the lived human relation (Tuohy et al., 2013; Van Manen, 1990).

2.4.4. Hermeneutic Circle

Heidegger stated that the interpretive process is circular. The researcher moves back and forth between the fore-structure of understanding and the information acquired through the

investigation. This process, defined as the hermeneutic circle of understanding, shows that the meanings of the phenomena combine the understanding of the researcher and the participants (Dowling, 2007; Koch, 1995; Wojnar & Swanson, 2007). Researchers ask relevant questions to participants to determine the meaning of being. This reciprocal process involves back-and-forth questioning that leads to the hermeneutic circle of ideas (Dowling, 2007; Tuohy et al., 2013). The hermeneutic inquiry aims to identify the participant's perceptions and interpretation of a phenomenon from the researcher's understanding of the phenomenon, information from participants, and data obtained from other pertinent sources (Wojnar & Swanson, 2007).

2.4.5. Use of Phenomenology in Maternal Health

This section summarizes the use of phenomenology in seven maternal health studies. Researchers conducted studies in different countries: Denmark, Australia, Sweden, Canada, the United States, and Ghana. The participants in the studies were comprised of local and immigrant populations. Phenomenology was employed to understand the lived experience of the women in the study and enable rich descriptive and meaningful information from the results of the data.

Lindhardt, Rubak, Mogensen, Lamont, and Joergensen (2013) used a phenomenological approach to understand the maternal experience of a sample of obese Danish women, in their encounters with healthcare professionals during pregnancy. The researchers identified two salient themes: judgmental behavior from healthcare professionals and inadequate information on how being obese and pregnant might affect the health of women and their babies. Using interpretive phenomenology, Knight-Agarwal et al. (2016) conducted a similar study on the perspectives of a sample of obese Australian pregnant women receiving antenatal care in health facilities. Significant themes were lack of knowledge, poor communication with health care providers, and a history of obesity.

Adolfsson (2010) used interpretive phenomenology to describe women's experiences of miscarriage in a study in Southwestern Sweden. The researchers interpreted the interviews taking into consideration Heidegger's concept of "being and time." This experience was examined according to the time frames of the past, present, and future. The results of the study showed that past experiences of miscarriage, pregnancy, and births influenced women's feelings and opinions. The relationships of the women, working situation, and living conditions were among the factors in their lives that contributed to the experience. Healthcare providers, caregivers, and society did not adequately interpret the impact of a miscarriage in a woman's life. The women believed that only women who had experienced a miscarriage could understand this complex experience and the profound effect it had on them.

In the United States, Wojnar (2015) used a phenomenological approach to explore the perspectives of Somali couples on care and support received during pregnancy. The themes that emerged were feeling vulnerable, feeling uninformed and misunderstood, the desire for respect, and the need to receive effective healthcare. The researchers encouraged respect for cultural expectations and health information needs to improve childbirth outcomes in this population. A similar study, Lee et al. (2014) explored the experiences of Chinese immigrant women in Canada regarding access to maternity care and the utilization of maternity health services. Themes from the study showed that participants preferred healthcare providers that were linguistically and culturally competent. Owens, Dandy, and Hancock (2016) explored the perceptions of health care for refugees and migrant women in Australia. The women had diverse culture and language; they participated in a community-based antenatal program concentrating on the maternal care of multicultural women. The resulting themes were social support, knowledge acquisition, holistic service, and new opportunities.

Aziato, Ohemeng, and Omenyo (2016) explored the experiences and perceptions of Ghanaian midwives regarding labor pain, religious beliefs, and practices influencing their care of pregnant women in labor. Interpretive phenomenology helped the researchers elicit rich descriptions of the experience and perceptions of care and understand the meanings ascribed to such descriptions. The researchers concluded that healthcare workers should consider the religious beliefs and practices of pregnant women to create effective strategies for managing labor pain.

2.5 Summary

The Andersen healthcare utilization model can be used to understand the factors that impact the maternal health utilization of African immigrant women by explaining the predisposing, enabling, and need factors for care. Community-based interventions can be improved upon and designed based on the Andersen healthcare utilization model. Only a few studies have applied the Andersen model to evaluate the factors that impact maternal healthcare utilization in immigrant populations (Beeckman, Louckx, & Putman, 2011; Mukasa, 2016). More research is needed that applies this model to explain factors that impact maternal health utilization, especially in African immigrant women.

Wojnar and Swanson (2007) in their research on phenomenology stated that the experiences of caring, healing, and wholeness cannot ignore the lives people live outside of being ill or well. The context of family traditions, community values, and the broader social and environmental context are significant to the experience of health (Wojnar & Swanson, 2007). Although studies have applied interpretive phenomenology to investigate maternal health as shown in the literature review, this methodology has not been applied to explore the experiences of African immigrant women and their use of healthcare.

In a recent review of the maternal health of African immigrant women, poor maternal health outcomes in immigrant and refugee women were associated with knowledge gaps in maternal health during pregnancy (Khanlou et al., 2017). African immigrant and refugee women of childbearing age who do not adequately use maternal healthcare are less likely to be insured or do not have a regular source of healthcare (Austin, Guy, Lee-Jones, McGinn, & Schlecht, 2008; Mehta et al., 2017). Programs that assist recent immigrants and refugees from low-income countries or countries experiencing conflict have been organized by resettlement agencies (Mehta et al., 2017) but more needs to be done to understand the experiences of African immigrant women to aid these programs and ease acculturation barriers.

The review of the literature shows that African immigrant women face several challenges in terms of maternal healthcare. Previous literature reviews on the maternal health of recent immigrants from low to higher income countries support this conclusion (Almeida et al., 2013; Carolan, 2010; Small et al., 2014). However, the studies included in the review were largely based on Somali immigrant women. A limited number of studies on other African immigrant populations is one of the limitations of this review because of the developing field of research inquiry. This review shows the gaps in the literature and the critical need for research on the maternal experiences of African immigrant women and healthcare utilization.

CHAPTER 3: METHODS

This chapter has six sections. The first section states the research questions and research design, including the philosophical approach and assumptions of the qualitative research design. The third section presents an overview of the participants in the study, the inclusion criteria for the study, and the recruitment procedures. The fourth section explains Phase 1 of the study in detail, and the fifth section describes Phase 2, including the interviews, surveys, the procedures, and the plans for data analysis. The last section is the subjectivity statement that explains my background as a researcher in relation to the study. The University of Georgia's Institutional Review Board approved all aspects of this study.

3.1 Research Questions and Design

This research study was guided by four research questions regarding the maternal health experiences of African immigrant women living in Clarkston, Georgia. The research questions for this study are:

1. What are their maternal health experiences regarding healthcare utilization?
2. What contextual and individual factors facilitate or hinder maternal healthcare utilization?
3. How do their maternal health experiences influence healthcare utilization?
4. How does health literacy affect maternal health care utilization?

This study explored the maternal health experiences of African immigrant women regarding the use of health services using a mixed-method design. The first part of this section describes the overall research design and the second part presents the characteristics of the

qualitative research design.

3.1.1. Overall Design

This research inquiry had two phases. The purpose of Phase 1 was to inform semi-structured interviews for the second phase of the study. In Phase 2 of the study, 14 African immigrant women responded to semi-structured interviews focused on their maternal health experiences. The Newest Vital Sign (NVS) survey instrument (Weiss et al., 2005) and a demographic survey were administered to the participants to assess health literacy and its impact on healthcare utilization. A concurrent nested mixed method design (Hanson, Creswell, Clark, Petska, & Creswell, 2005) was employed in the second phase (Figure 3.1).

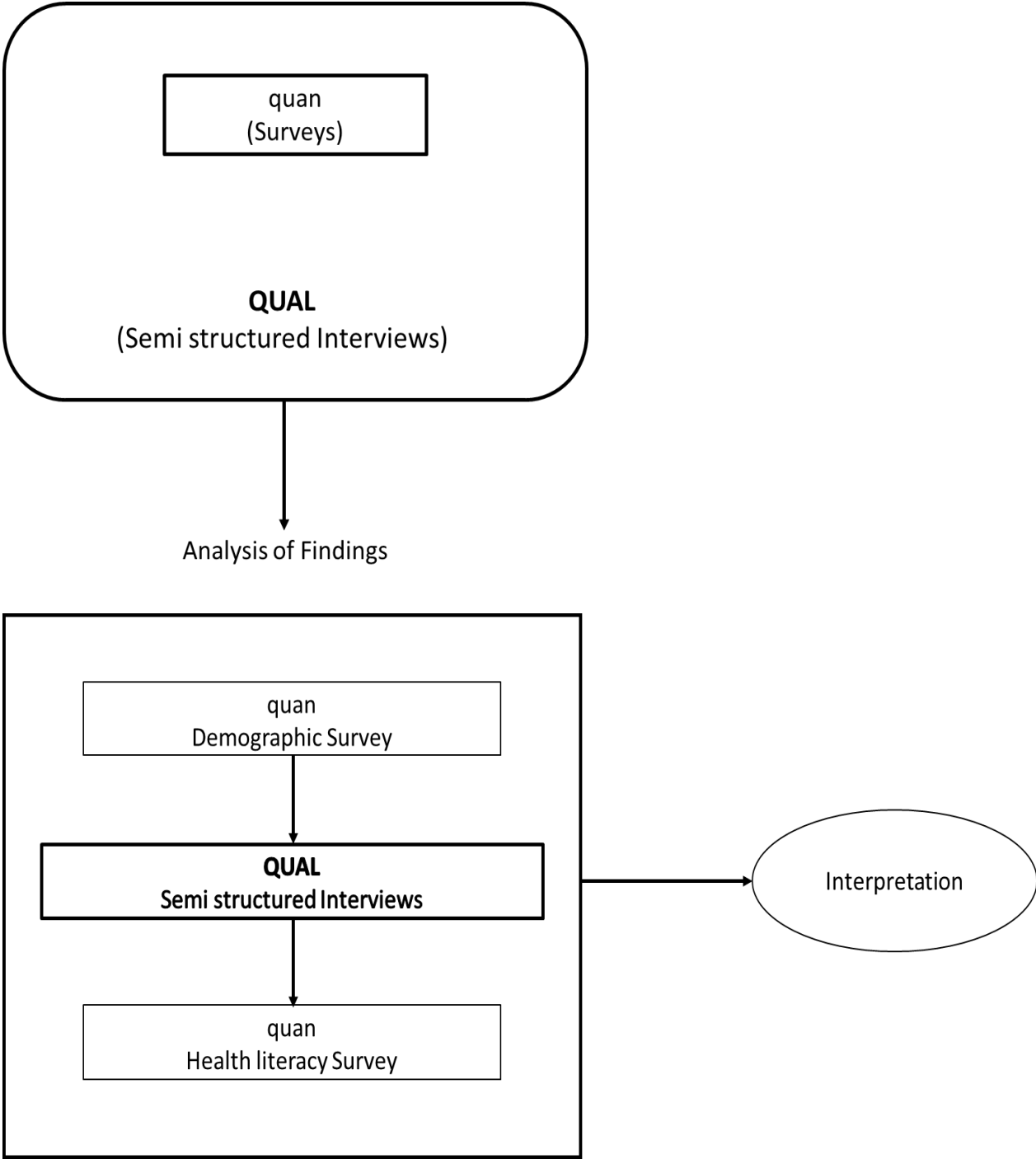


Figure 3.1: Concurrent Nested Mixed Method Design (Hanson et al., 2005)

This design, also called convergent-embedded design, allows for the collection of qualitative and quantitative data at the same time in a single study. The design is nested because one of the approaches to data collection is dominant. In the case of this research inquiry, the qualitative approach is dominant, and the quantitative approach plays a smaller role in the research inquiry. Complementarity is the rationale for using this approach as different methods are used to assess different aspects of inquiry in the study. (DeCuir-Gunby & Schutz, 2017; Greene, 2007; Greene, Caracelli, & Graham, 1989).

The definition of mixed-method research is still emerging and experts in the field have posit several definitions to describe this research approach (R. B. Johnson, Onwuegbuzie, & Turner, 2007). Considering this advancing dialogue, I define mixed method research based on a combination of definitions by scholars in the field of mixed methods inquiry. Mixed-method research designs involve a combination of methodological traditions and techniques to collect, analyze and characterize phenomena. The design uses both quantitative and qualitative research approaches in the research questions, methods, data collection, and analysis in a single research inquiry (Creswell & Plano Clark, 2017; Greene, 2007; Greene et al., 1989; Tashakkori & Creswell, 2007; Tashakkori & Teddlie, 2010). This method is used to comprehend the breadth and depth of understanding in a study. This method allows using multiple tools and perspectives to address the research questions in this study (DeCuir-Gunby & Schutz, 2017; Tashakkori & Creswell, 2007; Tashakkori & Teddlie, 2010).

3.1.2. Qualitative Research Design

In qualitative research, the philosophical approach informs the methodology and provides a context for the foundation of its logic and principles (Crotty, 1998). Interpretive phenomenology was applied in this research inquiry to understand the experience of healthcare

utilization in recent African immigrant women to the United States residing in Clarkston, Georgia. The interpretive phenomenological approach is appropriate because this qualitative research tradition explores the meaning of lived experiences through understanding and interpreting the participant's experiences. The researcher and the participants in the study influence the process by fore-structures of understanding that is the result of their individual backgrounds. The understanding of the phenomenon being studied is made clear through interaction and interpretation of the participants and the researcher in the study (Dowling, 2007; Van Manen, 1990, 2016; Wojnar & Swanson, 2007). The application of this type of phenomenology facilitated the understanding of the maternal healthcare experiences of African immigrant women. The next section discusses three philosophical assumptions qualitative research designs: philosophical paradigm, ontological stance, and epistemological stance.

Philosophical Paradigm

The philosophical paradigm applied in this research is interpretivist. Interpretivism is based on the school of thought that knowledge concerning the social world starts from human interpretation. The interpretivist point of view—also known as a constructivist paradigm—is the situation where reality and knowledge are created through interaction, practice, and communication (Prasad, 2015; Tracy, 2013).

Ontological Stance

The ontological stance in qualitative research inquiry refers to the study of reality. The ontological stance, focused on the nature of existence, is the study of the reality of being. In this qualitative research, the ontological stance is based on multiple realities, it is subjective and is a socially-constructed reality (Crotty, 1998; Tracy, 2013). Introducing it into the framework of the study, the realities of the participants in the study is subjective, as each person experiences the

phenomenon and interprets it from their own perspective and biases. In the understanding of the maternal health utilization of the African immigrant women invited for the study, it is important to note that while the women in this study experienced similar situations, their explanations and perspectives of the situations differed based on their background.

Epistemological Stance

This concept refers to the study of knowledge and the understanding of the subject of inquiry (Crotty, 1998; Tracy, 2013). In studies employing an interpretivist paradigm such as in interpretive phenomenology, the epistemology is subjective. Knowledge is often co-created because of the close interaction between the researcher and the participant. This situation creates an opportunity for the researcher to influence how the participants reflect on the topic of inquiry. A situation where the researcher can relate to the experience of the participants can impact how the participants reveal information because of the trust that is built as a result of shared experiences or backgrounds (Crotty, 1998; Tracy, 2013). During the data collection process, the women responded to semi-structured interviews. This process created the opportunity for close interaction with the participants and enabled the co-creation of knowledge in their experiences.

3.2 Setting and Participants

This study was conducted with the assistance of a community-based organization in Clarkston, Georgia working with African immigrant women. This community in Georgia is a resettlement area for a considerable number of recent immigrants, especially individuals from African countries. Data from the American Community Survey (ACS) conducted by the US Census shows that Clarkston is a city in DeKalb County, Georgia, with a population of 12,594, median age of 28 years, median household income of \$33,486 with a poverty rate of 36%. The population of Clarkston, GA is 58% Black, 24% Asian, and 8% White. Clarkston, Georgia has a

large population of immigrants and is the home to a large number of resettled refugees; about 61% of them are citizens of the United States. In 2016, the most common birthplace for the foreign-born residents of DeKalb County was Ethiopia, followed by Mexico and Myanmar. Country of origin for most African immigrants' resident in Clarkston was listed as Ethiopia, Eritrea, Sudan, Somalia, and the Congo.

Clarkston also has a large population that are non-English speakers (about 50%). The most common foreign languages in Clarkston are African Languages; approximately 13% of the population of Clarkston (1,657 speakers) speak their native African language (Data USA, 2016). A basic google search shows that there are about 20 Churches or places of worship serving the Clarkston community. Also about 30 Non-profits and NGO's work with the immigrant and refugee populations resident in Clarkston Georgia and Dekalb County (Georgia coalition of refugee stakeholders, 2018).

A convenience sample of recent African immigrant mothers who have experiences with the use of health services in the United States participated in this study. The inclusion criteria were the following: (1) immigrant women from Africa, (2) between the ages of 18 to 45, and (3) who migrated to the United States within the past 6 years. The women were invited to participate in the study with the assistance of a community organization in Clarkston, Georgia, working with African immigrant women. Participants were also invited for the study with the use of flyers (Appendix A) at designated locations in the community. The women responded to semi-structured interviews and the NVS health literacy survey at the office of the community-based organization located in Clarkston. The environment was suitable for the collection of data and the data collection was confidential. Language translators assisted in the collection of the data when necessary. Interviews were audio recorded, transcribed, and analyzed.

3.3 Phase 1 – Pilot

In Phase 1 of the study, three recent African immigrant women responded to semi-structured interviews to pretest the quality of the questions.

3.3.1 Procedures

The interviews were conducted at the office of the community-based organization assisting with the invitation of the study participants. This location was safe, suitable and confidential for the women and the research inquiry. Following the signing of the informed consent, the interviews were administered to the participants. The interviews were audio-recorded, and the names of the participants were kept confidential as the women were assigned pseudonyms for analytical purposes. The women who participated in the interviews received a \$20 gift card.

3.3.2 Data Analysis

After interviewing the participants, I transcribed the interviews. The first step to analyze the data was to thoroughly read the transcripts of the interview from all the participants. I proceeded to identify meaningful statements relevant to the object of analysis. I perused through the interview of each participant and removed the repetitive or irrelevant statements to the purpose of the research. I analyzed the transcripts of the interview for the emergence of themes.

Thematic analysis was used to analyze the three interviews. Through its theoretical freedom, thematic analysis provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data (Braun & Clarke, 2006). Themes from the statements relevant to the lived experience of inquiry were developed into descriptions of the experience (Roulston, 2010b).

3.4 Phase 2 – Full Research

Phase 2 of the study consisted of a convenience sample of women between the ages of 18 to 45 years. In Phase 2 of the study, 14 women responded to semi-structured interviews and surveys focused on the maternal health experiences of African immigrant women living in Clarkston, Georgia.

3.4.1. Interview and Surveys

The **semi-structured interview** consisted of 23 broad open-ended questions (Appendix C). Interviews have a history of effective use in qualitative research. They offer the researcher the possibility to generate rich data that confers insight into experiences, thoughts, feelings, and interpretations of the participants. Semi-structured interviews are useful for understanding concepts and for describing the phenomena. Interviews can effectively gather and explore data resulting from lived experiences (Bhattacharya, 2017; Tracy, 2013; Van Manen, 1990). Interviews collect data that can explain and clarify experiences that are subjective to the viewpoints of the participants (Roulston, 2010a, 2010b; Roulston, DeMarrais, & Lewis, 2003; Tracy, 2013). Each interview lasted for about 45-60 minutes.

The **demographic questions** (Appendix D) assessed the age, marital status, education, income, employment status, use of health services, and prenatal care of the participants.

The **Newest Vital Sign (NVS)** (Appendix E) is a 3-minute survey that assesses health literacy. The survey consists of a nutrition label followed by 6 questions. The reliability of the instrument is (Cronbach's alpha = 0.76 in English). Participants receive 1 point for each correct response; thus, scores can range from 0 to 6. Scores 0 and 1 indicate limited literacy, 2 and 3 indicate possible limited literacy, and 4 to 6 indicate adequate literacy. (Weiss et al., 2005).

3.4.2. Procedures

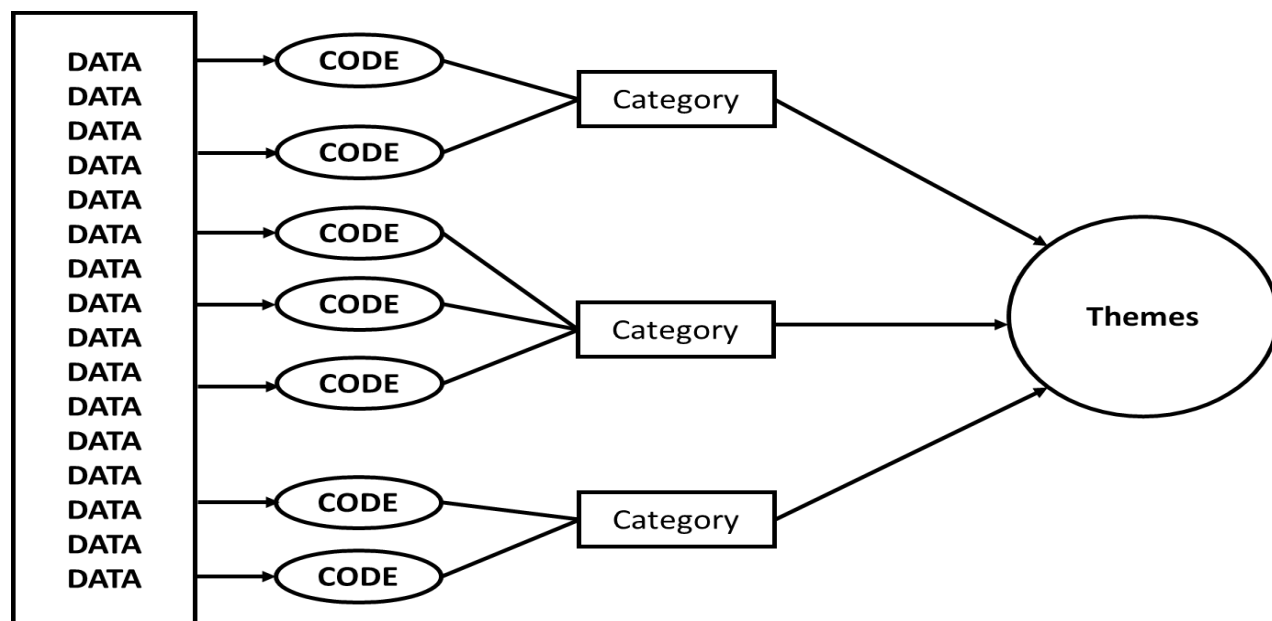
Phase 2 of the study was conducted after the pilot phase of the study. The goal was to interview 15-20 women but I stopped conducting interviews after saturation (Roulston, 2010a; Roulston et al., 2003). Fourteen interviews and surveys were conducted in Phase 2 of this study.

The interviews and surveys were administered at the office of the community-based organization assisting with the invitation of the study participants. This location was safe, suitable and confidential for the women and the research inquiry. Following the signing of the informed consent, the interviews and surveys were administered to the participants. The interviews were audio-recorded, and the names of the participants were kept confidential as the women were assigned pseudonyms for analytical purposes. The women who participated in the study received a \$20 gift card.

3.4.3. Data Analysis

Data analysis using a phenomenological approach in qualitative research aspires to identify meaningful statements, relevant to the object of analysis. The data from the research is reduced to its essential meaning. Statements from the data that are repetitive or are not relevant to the study of a lived experience of inquiry are eliminated during the data analysis. Themes from the statements relevant to the lived experience of inquiry are developed into descriptions of the experience (Roulston, 2010b; Tracy, 2013). The interviews were analyzed with the aid of the NVIVO software program. The interviews were uploaded into the program after they were transcribed. The data were reduced to create codes that generated structured categories and subsequently concepts or themes following thematic analysis (Figure 3.2) (Saldaña, 2016). The quantitative data were entered into a Microsoft Excel spreadsheet and then imported into SPSS for descriptive purposes. The themes resulting from the analysis of the interview illustrated the maternal health experiences of African immigrant women. The results will also be used to

answer research questions two and three. The health literacy scores from the NVS survey will complement the interview results understand how health literacy affects maternal health utilization.



Note : Analytic process in qualitative inquiry , Adapted from Saldana (2016 p. 14)

Figure 3.2: Codes to categories to themes model for qualitative inquiry.

The concept of **trustworthiness** in a study means that the results are credible, transferable, dependable, and confirmable. For the results to be credible it means that they must be convincing. During data analysis, the transcripts of the interview were coded to ensure that no significant information was omitted, and the interpretations were accurate. Member checking was used to address credibility in this study (Thomas & Magilvy, 2011). Member checking is also called participant verification. It can also refer to informant feedback, (Saldaña, 2016) respondent validation and applicability (Creswell, 2013; Harper & Cole, 2012; Morse, Barrett, Mayan, Olson, & Spiers, 2002).

Member checking was a quality control process to improve the accuracy, credibility, and validity of what has been recorded during the interviews. Two participants in the study were randomly chosen for member checks. Summaries of the results of the study were sent to these participants for review to ensure their lived experiences had been accurately captured. (Thomas & Magilvy, 2011). Transferability means the research can be transferred to other contexts. Transferability was achieved by obtaining rich descriptions of the lived experiences of the African immigrant women participating in this study. Dependability refers to the results that are consistent and repeatable. Dependability was achieved using memos during the research process and with the NVIVO software during data analysis. Memo's provide a mechanism for recording my perspective during the research inquiry for critical review or confirmation after completing the process. With the use of memoing, my thought process during all stages of the research were recorded to facilitate an understanding of the reason for decisions (Birks, Chapman, & Francis, 2008). Confirmable refers to results that are supported by the data (DeCuir-Gunby & Schutz, 2017; Lincoln & Guba, 1985). Confirmability is addressed in this research because the findings of the study are based on the data that is collected during the research inquiry.

3.5 Subjectivity Statement

I am an experienced public health professional from an African country, and I have spent several years working on problems that affect the vulnerable in society, especially women's health and maternal and child health problems. I grew up in Nigeria, a developing country with challenges in maternal and child health. The country's high rates of maternal and child morbidity and mortality (Babalola & Fatusi, 2009) inspired my interest in improving maternal and child health outcomes. I have also seen small-scale programs that use women's health as a channel to

improve the lives of women and families. I hope to conduct research and interventions that impact such populations on a broader scale.

My previous experiences and current training as a public health professional has equipped me with the required skills for conducting qualitative research using interviews, participant observations to explore the participants' lived experiences and how they have generated meaning regarding the use of maternal health services. My experiences as a public health professional have been in Nigeria and the United States, where I received my master's degree in public health. I am currently completing my doctoral degree in health promotion and behavior.

As a researcher exploring the maternal health experiences of African immigrant women, I regard my positionality as very important and understand that my subjectivity could influence all the facets of the research process (Kilbourn, 2006; Peshkin, 1988). As an African woman, I can relate to living in a country different from my birth country with different customs and social norms. This shared experience is an area where my subjectivity is important. My background as a person of African origin was beneficial in building trust and rapport with the women invited for the study. I was able to do this because of a shared understanding of certain cultural and social concepts. Differences in the experiences that I have in relation to the study participants based on education, language, and country of origin may cause them to regard me as an outsider. I took steps to mitigate these differences to achieve the goals and objectives of the research inquiry. I expect to use my research to understand the maternal health problems of women from the African continent and my familiarity with African issues could be beneficial in this study.

CHAPTER 4:

RESULTS

4.1 Phase 1 – Pilot

This section describes the results from Phase 1 in three sections. The first section is a description of the participants in Phase 1. The second section examines the major themes that emerged from the analysis of the interviews. The third section is a reflection on this phase of the study.

4.1.1 Description of Participants

Three African immigrant women participated in Phase 1 of the study with the assistance of a community-based organization working with African immigrant women in Clarkston, Georgia. For confidentiality, each woman received a pseudonym.

Amina is originally from Sudan. She is 36 years old and she immigrated to the United States 4 years ago as a refugee. She had some high school education from her home country and was currently attending adult education classes in the United States. Amina is married. She is a full-time homemaker and her family income is less than \$20,000 per year. She had two children but only her youngest child was born in the United States and that child was a year old. The interview with Amina was very cordial, and she seemed to be a very congenial person. She had difficulty understanding and responding to the questions because of her limited proficiency with the English language. She required the use of an interpreter for the interview. She seemed happy to participate in the interview, and the interview went well. Although Amina needed an interpreter for most of the interview, her responses were not as descriptive or rich as I hoped they

would be, but I was still able to use her data.

Binta is originally from the Congo and has been a resident in the United States for about 4 years. She has an elementary level of education and came to the United States as a refugee. She is married and is the mother of a one-year-old child. She seemed very eager to participate in the interview. I also experienced some challenges while trying to communicate with her, but the communication was not as difficult as it was with Amina. She stated that her family income was less than \$20,000 per year. Binta spoke extensively about her problems with the cost of healthcare and the challenges she had with childbirth concerning previous miscarriages. She was very open about her struggles and challenges in her maternal health. I observed that she was in a hurry to complete the interview and get home to her baby so that her husband could leave for work. The need to complete the interview with enough time to get back to her husband and baby may have affected the quality of the interview and her responses to the questions.

Chika is originally from the South of Sudan and has been living in the United States for 2 years. She is a full-time stay-at-home mother and stated that her family income is less than \$20,000 per year. She has two children but only her youngest child was born in the United States. Her youngest child is a three-month-old baby. Although I also experienced language barriers during this interview, I noticed she was very confident and engaged in the conversation. Despite the limitations with language proficiency, I was able to apply the data from her interview to the results of the study.

4.1.2 Themes

Participants in the three interviews responded to questions to the best of their abilities but needed frequent probing questions. Three themes resulted from the interviews: (1) *social support*, (2) *enabling resources and environment for care*, and (3) *need factors for healthcare*. I

will discuss the themes in this section.

Social Support

All the women spoke about the significance of social support during their pregnancy and the impact of social support on their use of health services. They received help from friends and family members during their pregnancies. Two out of the three women indicated that their husbands were usually present during doctor visits and assisted them with getting to the hospital to receive care. For example, Amina stated; “It would have been difficult for me to get to the hospital without the help of my husband.” Binta’s financial struggles made it difficult for her family to provide the support she needed to use health services during her pregnancy. She had very difficult pregnancies and her doctor discouraged her from working when she was pregnant. Binta stated that her husband needed to work extra hours to support the family and he could not be available to support her during her visits to the doctor.

Enabling Resources and Environment for Care

Enabling resources for care such as health policies, health financing and the organization of services around care was important to all the participants. The women stated that their overall maternal healthcare experience was positive. The environment in terms of doctor-patient interaction was also suitable for them. They had access to interpreters when they experienced communication barriers, which facilitated their use of maternal health services. They were grateful for the policies and resources that created such enabling environments at the hospital.

The women stated that access to health insurance affected how they used health services. Access to health insurance in the form of Medicaid during pregnancy facilitated access to healthcare and the use of health services. The Medicaid coverage was only for the baby during

the pregnancy and did not cover the mother after pregnancy as shown in the following excerpts from the interviews:

I have Medicaid, but I don't have currently now because it is finished. It was when I was pregnant that I got the Medicaid and the Medicaid finished after the pregnancy. After the last day of my Medicaid, I never got sick (Amina).

Binta was worried about access to health insurance as it was a major complaint during the interview with her. From the start of the interview, she spoke about her challenges with health insurance and her inability to access health care during her second pregnancy. Binta stated:

I was pregnant, and my baby is fifteen months, now I have a pregnancy of three months. I filed for Medicaid, maybe two months ago and now I didn't get it. I have been feeling so bad and was having headaches... it was too much, and my blood pressure is too much; 137 they say it is. It is too much headache. I don't go to the hospital because I don't have insurance because I cannot pay the money.

All the women spoke of problems with the bus system for transportation. Some of them had to walk long distances during their pregnancy because the bus system was not reliable. They had money to pay for the bus but chose to walk instead because of the long hours of waiting. The women did not feel walking home was a problem but regarded it as a form of exercise.

Need for Healthcare

Health needs, such as pre-existing health conditions for care, were discussed in the interview for only Binta. She had a difficult pregnancy, as she was often ill during pregnancy and had several previous miscarriages prior to her last pregnancy. She spoke about having elevated

blood pressure levels during pregnancy and lacked access to care, which was a major problem in utilizing maternal care. Although none of them mentioned female genital mutilation as a preexisting health condition that would affect the way they used health services, in my conversations with the women, they seemed uncomfortable with the topic; therefore, this topic requires further exploration.

All three of the women experienced adequate prenatal care during their pregnancies except for Binta, who complained about not being able to start prenatal care in the third month of her pregnancy due to lack of health insurance. The general behavior pattern of the women toward healthcare was to go to the hospital only when they were pregnant or ill. The women value medical examinations or preventive care. Their decision was influenced by the availability of funding for medical care. An example of this behavior pattern is shown in the following quotes from Amina: “I only go to the hospital when I am sick, and I do not go for checkups because I cannot pay for it. If I fall sick and need to go to the hospital, then my husband will pay for it.” Even without barriers to health financing, the women did not practice health behaviors that promoted use of health services for preventive care.

4.1.3 Reflection

The reflection guidelines by Roulston in the paper on “Learning to Interview” (Roulston et al., 2003) was very helpful in my assessment of the three interviews.. Before starting the interview, I explained the purpose of the interview and the informed consent.

The interview protocol served to guide the interview process. By explaining the purpose of the interview and starting the interview with the question, “Can you tell me about yourself?”, I was able to build rapport with the participants before delving into the actual questions of the interview. I asked open-ended questions during the three interviews. I only asked closed-ended

questions a few times in the interview when I wanted to get a definite answer and verify the information I was receiving as shown in the excerpts from the interview with Amina, in response to my question: How did having health insurance or not having health insurance affect your access to maternal health services?

I have Medicaid, but I don't have currently now because it is finished. It was when I was pregnant that I got the Medicaid and the Medicaid finished after the pregnancy. After the last day of my Medicaid, I never got sick.

I had to explain some questions, probe further or rephrase the questions when the interviewee did not understand the question. An example is in the interview with Chika:

Interviewer: Okay so what was your experience like with the birth of your last child or how did you feel when you had your last child?

Chika: What?

Interviewer: Your last child is how old?

Chika: Three months

Interviewer: okay so you had your last child three months ago, what were some of the things you remember from being pregnant and having your child?

Chika: em... yes ...I remember I am pregnant, and my child is moving inside and only one month, I am going to the hospital to check up the baby.

The English proficiency of the participants was low, and this difficulty in communication was a barrier to getting rich descriptive responses that are required in a phenomenological interview (Roulston, 2010b). I suggested to one of the participants that we ask someone to interpret for both of us to get a better outcome for the interview and she agreed a few minutes into the interview. I interviewed the other two participants without an interpreter and this process

was very tasking because of the language barrier. I had to figure out strategies during the interview to break down the questions into formats that they could understand and use of probes to get data beneficial to the study.

The interview questions were guided by my research questions. I did not start the interview questions by asking why the women performed a task or behavior because this could confuse the participants. These questions may be perceived as an accusation or relay negativity and cause the participants to be defensive. I tried to steer the conversation without influencing the responses or putting possible responses to the questions. This process was difficult because of the language limitations, as I had to explain the questions to the participants in detail to elicit their responses. When I was sure I had received all the information on a question, I followed up with a question to confirm my understanding of that question. Sometimes I had to ask more than one question, especially when I was trying to clarify or explain a question. After the interview, I expressed appreciation to the women for being actively engaged and taking the time to speak with me.

This phase of the study gave me the opportunity to conduct an interview to pretest my full research questions and sharpen my skills to interview, transcribe and analyze qualitative research data. I was able to pretest my questions to figure out which ones were more easily interpreted than others. During this process, I acquired skills to probe further and rephrase questions.

4.2 Phase 2 – Full Research

This section presents the results from Phase 2, and it is organized into four sections. The first section describes each of 14 the participants. The second section presents the results from the demographic survey and the health literacy survey. The third and fourth sections examine the

major themes that emerged from the analysis of the interviews under the contextual and individual characteristics of the Andersen healthcare utilization model.

4.2.1 Description of Participants

Fourteen African immigrant women participated in Phase 2 of the study. Participants in all the interviews responded to questions to the best of their abilities but needed frequent probing questions. The interviews went well and the information from the interviews was useful in answering my research questions.

Six of the 14 women who participated in the study (49.2%) were originally from Sudan, three were from Congo, two from Eritrea, one from Egypt and one from Nigeria. Information on the level of education showed that 6 of the participants (42.9%) had less than high school education, 7 participants (50.0%) had some high school education and were resident in the United States on average for 4.5 years. Most of the participants (57.1%) had a family income level of less than \$20000 and the average age for all the participants was 35.2 years. In response to the use of health services in the last year, 85.7% of the women rarely visited the hospital (less than 1 visit/yr.) and 14.3% occasionally visited the hospital (less than 2 visits/yr.). Most of the women (71.4%) initiated prenatal care in the first or second month of their pregnancy and 28.6% initiated prenatal care after their first trimester. Tables 4.1 and 4.2 summarize the demographic information of the participants.

Table 4.1. Phase 2 - Demographic Characteristics (n=14)

Pseudonym	Country	Age	Income/yr.	Education	Language	#Years in the US
Agnes	Congo	32	<\$20000	Elementary	Swahili	2
Asha	Sudan	36	\$20000-\$34999	Some HS	Arabic	4
Basi	Sudan	33	<\$20000	Elementary	Arabic	5
Emma	Togo	44	<\$20000	Elementary	Ewe	6
Fana	Sudan	38	\$20000-\$34999	Some HS	Arabic	6
Karima	Sudan	43	<\$20000	Elementary	Arabic	6
Khadi	Sudan	37	<\$20000	HS diploma	Arabic	5
Nefi	Egypt	38	<\$20000	Some HS	Arabic	3
Nina	Congo	35	\$20000-\$34999	HS diploma	Swahili	4
Noma	Congo	33	<\$20000	Elementary	Swahili	3
Lola	Nigeria	34	\$35000-\$49999	Some College	English/ Yoruba	6
Ruki	Sudan	23	\$20000-\$34999	Some HS	Arabic	2
Salem	Eritrea	36	<\$20000	Elementary	Tigrinya	6
Semira	Eritrea	28	\$20000-\$34999	Some HS	Tigrinya	5

Note. HS = High School

Table 4.2 Demographic Characteristics

	N	%
Age		
18-24	1	7.1
25-34	5	35.7
35-49	8	57.1
Education		
Elementary	6	42.9
High School	7	50
College	1	7.14
Income		
< \$20000	8	7.1
\$20000-\$34999	5	35.7
\$35000-55000	1	7.1
Use of Health Services		
in the last year		
Occasionally (< 2 visits/yr.)	2	14.3
Rarely (< 1 visit/yr.)	12	85.7
Prenatal care initiation		
Month 1-2	10	71.4
Month 3-4	2	14.3
Month 5-6	2	14.3
Mean Age = 35.2		
Mean # years in the US = 4.5		

Agnes immigrated to the United States 2 years ago as a refugee from Congo. She was 32 years old, married, and lived with her family in Clarkston, Georgia. She has some elementary school education from her country and had at least one child under the age of 6 years born in the United States. She was employed part-time for up to 20 hours a week and her husband was employed full time. Her family income was less than \$20,000 per year. Her English proficiency was very low based on her responses and health literacy assessment. Thus, the interview was conducted with a Swahili interpreter.

Asha immigrated to the United States 6 years ago as a refugee from Sudan. She was 36 years old, married, and lived with her family in Clarkston, Georgia. She completed high school education in her country and had no diploma from the US. She worked part-time for up to 20 hours a week and her husband was employed full time. Her family income was between \$20,000 to \$35,000 per year. Her youngest child was born in the United States. She was able to understand and respond to the questions because her proficiency with the English language was average. She did not require the use of an interpreter for the interview.

Basi immigrated to the United States from Sudan 5 years ago as a refugee. She was 33 years old, she is married, and she lived with her family in Clarkston, Georgia. She had elementary level education from her country. Both she and her husband were employed full-time. Her family income is less than \$20,000 per year. She had at least one child under the age of 6 years born in the United States. She required the use of an interpreter for the interview because of her low English proficiency. She responded to the questions to the best of her ability and the interview went well.

Emma immigrated to the United States from Togo 6 years ago as a refugee. She was 44 years old, married, and she lived with her family in Clarkston, Georgia. She had elementary level

education from her country. She was employed full-time up to 40 hours a week and her husband was employed full time. Her family income was less than \$20,000 per year. She had at least one child under the age of 6 years born in the United States. She was able to understand and respond to the questions although her proficiency with the English language was below average. She did not require the use of an interpreter for the interview. She was very lively and gave detailed and animated responses to the questions.

Fana immigrated to the United States from Sudan 6 years ago as a refugee. She was 38 years old, married, and she lived with her family in Clarkston, Georgia. She had some college education from her country but did not have a diploma from the US or her home country. She was employed part-time for up to 20 hours a week and her husband was employed full time. Her family income was between \$20,000 to \$35,000 per year. Her daughter, who is also her last child was born in the United States. She was able to understand and respond to the questions because her proficiency with the English language was average. She did not require the use of an interpreter for the interview.

Karima came to the United States from Sudan 6 years ago as a refugee. She was 43 years old and she was married. She completed her elementary education in her country. She was employed full-time for up to 40 hours a week and her husband was employed full time. Her family income was less than \$20,000 per year. She had at least one child under the age of 6 years born in the United States. She was unable to understand and respond to the questions without an interpreter because her proficiency with the English language was very low. She required an interpreter for the interview. She responded to the questions to the best of her ability and the interview went well.

Khadi relocated to the United States from Sudan 5 years ago as a refugee along with her family. She was 37 years old, married, and she lived with her family in Clarkston, Georgia. She had a high school degree from her country. She also attends adult education classes in the evenings to improve her English and vocational skills. She was not employed, and her husband was employed full time. Her family income was less than \$20,000 per year. She had at least one child under the age of 6 years born in the United States. She was able to understand and respond to the questions because her proficiency with the English language was above average. she was very confident and engaged in the conversation. She was very congenial and eager to discuss her maternal health experiences. She did not require the use of an interpreter for the interview.

Lola is originally from Nigeria and she relocated to the United States 6 years ago through marriage. She was 34 years old, married, and she lives with her family in Clarkston, Georgia. She had a Bachelor's degree from her country and is currently enrolled in college education in the United States. She had at least one child under the age of 6 years born in the United States. She was employed full-time for up to 40 hours a week and her husband was employed full time. Her family income is between 35,000 to \$49,999 per year. She responded well to the questions in English because her proficiency with the English language was very high. Her interview was very easy to conduct, and she gave very detailed responses to her interview.

Nefi is originally from Egypt and she relocated to the United States 3 years ago as a refugee. She was 38 years old, married, and she lived with her family in Clarkston, Georgia. She had some high school education from her country. She at least one child under the age of 6 years born in the United States and she was pregnant during the interview. She was employed part-time for up to 20 hours a week and her husband was employed full time. Her family income was less than \$20,000 per year. She was not able to understand and respond to the questions because

her proficiency with the English language was very low. She needed an interpreter for the interview. She responded to the questions to the best of her ability and the interview went well.

Nina immigrated to the United States from the Congo 4 years ago as a refugee. She was 35 years old, married, and she lived with her family in Clarkston, Georgia. She had some high school education from her country. She was employed part-time for up to 20 hours a week and her husband was employed full time. Her family income was between \$20,000 to \$35, 000 per year. She had at least one child under the age of 6 years born in the United States. She required the use of an interpreter for the interview because her proficiency with the English language was low. She spoke some English, but her preferred language is Swahili.

Noma was originally from the Congo and she immigrated to the United States 3 years ago as a refugee. She was 33 years old, married, and she lived with her family in Clarkston, Georgia. She had some elementary school education from her country. She had at least one child under the age of 6 years born in the United States. She was employed full-time for up to 40 hours a week and her husband was also employed full time. Her family income was less than \$20,000 per year. She was not able to understand and respond to the questions in English because her proficiency with the English language was very low. She needed an interpreter for the interview.

Ruki was from the South of Sudan and moved to the United States as a refugee 2 years ago. She is not employed, and her husband works full time to provide for the family. Her family income is less than \$20,000 per year. She had at least one child under the age of 6 years born in the United States. She had some high school education from her home country but no diploma. She had difficulty understanding and responding to the questions because of her limited proficiency with the English language. She required the use of an interpreter for the interview. Her responses to the interview questions and surveys were helpful.

Salem immigrated to the United States from Eritrea 6 years ago as a refugee. She was 36 years old, married, and she lived with her family in Clarkston, Georgia. She had some elementary education from her country. She was employed part-time for up to 20 hours a week and her husband was employed full time. Her family income is less than \$20,000 per year. She had at least one child under the age of 6 years born in the United States. She required the use of an interpreter for some parts of the interview Her proficiency with the English language was low. She spoke some Arabic and Tigrinya (Eritrean dialect). She responded to the questions in Arabic and English to the best of her ability and the interview went well.

Semira immigrated to the United States from Eritrea 5 years ago as a refugee. She was 28 years old, married, and she lives with her family in Clarkston, Georgia. She had some elementary education from her country. She was employed full-time for up to 40 hours a week and her husband was employed full time. Her family income is between \$20,000 to \$35, 000 per year. She had at least one child under the age of 6 years born in the United States. . She required the use of an interpreter for some parts of the interview because proficiency with the English language was low. She spoke some English, Arabic, and Tigrinya (Eritrean dialect).

4.2.2 Health Literacy Survey Results

According to the NVS health literacy survey, participants with a score of 4 or higher have adequate literacy. Participants with fewer than 4 correct responses are likely to have limited or low health literacy (Weiss et al., 2005). Results from the NVS health literacy assessment indicated that 11 participants (78.6%) showed a high likelihood for low literacy, and 3 participants (21.4%) showed a high likelihood for adequate health literacy. The mean NVS health literacy score for all the women was 1.86. The health literacy scores were paired with the results from the demographic survey and interviews, which showed that participants with low

health literacy levels also showed lower levels of English proficiency (Table 4.3)

.

Table 4.3 Health Literacy Survey Results

Name	NVS Score	NVS Level	English proficiency
Agnes	0	Low	Low
Asha	1	Low	Medium
Basi	2	Low	Low
Emma	1	Low	Medium
Fana	4	Adequate	Medium
Karima	2	Low	Low
Khadi	5	Adequate	High
Nefi	1	Low	Low
Nina	0	Low	Low
Noma	0	Low	Low
Lola	6	Adequate	High
Ruki	2	Low	Low
Salem	0	Low	Low
Semira	2	Low	Low
Mean NVS- Score	1.86		

*NVS = Newest Vital Sign

*HL = Health Literacy

*Adequate HL Score = Scored above 4 on the NVS

*Low HL Score = scored below 4 on the NVS-HL Survey

*English proficiency rated on a scale of low, medium, & high (low and medium required interpretation, high did not require interpretation)

4.2.3 Themes from the interviews

This section summarizes the themes resulting from the interviews under the contextual and individual characteristics that influenced the use of health services. Table 2.1 listed all the constructs from the Andersen health care utilization model, but not all of them were observed during the interviews. Table 4.4 summarizes the eleven themes that emerged and organizes them using the constructs from the model.

Two themes resulted from the interviews under the predisposing factors: (1) *community social structure*, (2) *community health beliefs*. One theme resulted under the contextual enabling factors – Health organization concerning the use of WIC. The results of this study did not provide any information on health-related measures of the physical environment such as housing, water, air quality or other community need factors for the use of health services.

All the women talked about the impact of individual predisposing factors on the use of health services. Four themes resulted from the interviews under the predisposing factors: (1) *social support* (2) *limited English proficiency* (3) *need for better health education* (4) *perception of care*. Individual enabling factors were discussed under two salient themes: *health financing (Medicaid and work health insurance facilitated access to healthcare)* and *health organization barriers such as long wait times and lack of transportation*. The salient themes under individual need factors resulting from the interviews are (1) *fear of medication and of obstetrical interventions* and (2) *impact of female genital mutilation*.

Table 4.4. Themes from the interviews

Construct of Model	Themes
Contextual or Community Characteristics	
<u>Predisposing</u> : Factors from the community that inclines people to use or not use services.	<p><i>Community social structure</i> of Clarkston with many immigrants, NGOs, and churches that help the community</p> <p><i>Community health beliefs</i> preference for female physicians and lack of support for preventive care</p>
<u>Enabling</u> : Factors from the community that facilitates or impedes the use of services.	<i>Health Organization-WIC</i> was valued for maternal and child care
Individual Characteristics	
<u>Predisposing</u> : Factors from the individual that incline the person to use or not use services.	<p><i>Social support</i> provided by family, friends</p> <p><i>Limited English proficiency</i> that reduced understanding of medical personnel and required translators</p> <p><i>Need for Better Health Education</i> from healthcare providers about the progress of pregnancy and breastfeeding</p> <p><i>Perception of care</i> with regards to dismissive treatment from health care providers.</p>
<u>Enabling</u> : Factors from the individual that facilitate or impede the use of services.	<p><i>Health financing</i> such as Medicaid and work health insurance facilitated access to healthcare</p> <p><i>Long wait times and lack of transportation</i> that limited access to care</p>
<u>Need</u> : Conditions that laypeople (perceived needs) and/or professionals (evaluated needs) identify as requiring medical treatment.	<p><i>Fear of medication and of obstetrical interventions</i> in terms of opposition to the use of medications such as epidurals during labor and obstetrical interventions</p> <p><i>Impact of female genital mutilation</i> and the effect on pregnancy and the ability of health providers to deal with the effects during pregnancy</p>

Community Social Structure

The women stated that living in Clarkston was beneficial to them as recent immigrants regarding access to health services. Living in an area with large numbers of immigrants gave them access to support from members of their community as shown in the following excerpts from the interview with Fana, who highlighted the value of meeting immigrants from her country and the help she received from the existing Sudanese community:

Clarkson is a very good place; I like Clarkson because it has different people from different countries. And you can find healthcare. When we came here, we didn't know anybody here. Only my husband went to the mosque here, and he found one Sudanese person there, and he showed us Sudanese people's houses, and he took us to shop and he helped us a lot. This means a lot to me. And when we want to go to the place they have for the refugee when they come, they give you help.

(Fana)

The women also received support from community-based organizations, NGOs (Non-governmental organizations) and churches that provide help to pregnant immigrant women. Fana highlighted the value of the NGO "Friends of Refugees" when she was pregnant. Similarly, Emma discussed the help she received from "Mommy and Me," a program from "Refugee Family Literacy" at Clarkston:

They help the pregnant woman and baby. If you have a baby or you're pregnant, they help. So, the lady came to me, "Emma, I'm from 'Mommy and Me' school. I know that you are there. I just come and check all the pregnant women here and greet them. How are you doing? If you need my help, I'll take you to the market.

(Emma)

Community Health Beliefs

Some of the women expressed beliefs about the roles of physicians, midwives, and other healthcare providers. They expressed their preference for female doctors and barriers to preventive care based on the values that are practiced in their home country. Nefi and Ruki talked about the preference for female doctors because of their religious and cultural beliefs as shown in their interview excerpts. Nefi stated, “I prefer a female doctor, it is difficult when the doctor is not a woman, he comes to check you inside, it feels shameful for my religion.” Similarly, Ruki indicated, “I like woman doctor more than a man doctor because women do not show themselves to men in my culture.”

Several women disregarded the importance of preventive care and only visited the health center when they had a health problem. Basi explained her views about preventive care by stating that she did not visit the doctor often for medical check-ups except when she required treatment. She stated, “Sometimes I go to the hospital but not all the time. Sometimes once a year, sometimes after a year and three months, but only if I am sick or have to take care of my baby.” Salem felt that visiting the hospital was only important during ill-health. Pregnancy was not considered as ill-health in her culture and the use of prenatal or post-natal care would only be important if the woman or baby were ill. Lola also disregarded preventive care as important and limited the use of healthcare to when she experienced a health problem. She explained her views about the use of preventive care when she said: “I only go to the hospital for a check-up when I am ill... It’s just not something that was practiced back home.”

Health Organization – WIC

The women did not give much information concerning contextual enabling characteristics that facilitated or impeded their use of health services. However, all the women except Lola

discussed the impact of government programs such as WIC. This special supplemental nutrition program for Women, Infants, and Children (WIC) provides assistance for foods, health care referrals, and nutrition education to low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children (USDA, 2019). An example is shown in the interview excerpt: “

Yes, I'm still on WIC. After every three months, I go there and they give for the baby [and for me] to buy vegetables, milk, good stuff to buy for the baby. When you're pregnant you have for you and the baby, they give you two. After one year, they cut for you because they say after one-year baby eats and after this, only for baby. (Asha)

Social Support at the Individual Level

Individual social structures—such as family members, friends or social networks—facilitated the use of health services for all the women who participated in the interviews. The women talked about support from friends, family members and their spouses that facilitated access to transportation and food, which made it easier for them to manage their pregnancies. Newly-made friends from the country of origin were an important resource, as Nina explains: “My friends from the Sudanese community helped me when I was pregnant. My husband and two to other family members helped me also even after the baby had come.” Asha also received help from friends in her community and the health center, as she explained: “All my friends helped me a lot. At the hospital, the nurse helped me too.” Emma also discussed the help she received from friends during her pregnancy when she said:

The doctor told me that the baby will come on the 28th. So, I prepared myself... I call my friend who is a White lady. So, the lady took me to Farmers Market, retail

Farmers Market. We started to buy all the things that I will need for pregnancy and baby.

A few women lacked this social structure, as Agnes explains: “I don’t have too many friends and we came here not too long now, so only my husband helped me.”

Limited English Proficiency

Limited English proficiency was a barrier to the use of health services for most of the participants. This problem led to communication problems between the women and their health providers, particularly due to the limited understanding of medical language, which led to the need for translators.

Seven of the participants in the interviews (Agnes, Basi, Karima, Khadi, Emma, Nina, and Semira) talked about the impact of their low English proficiency on their healthcare utilization. Basi discussed her communication problems with healthcare providers when she said: “Yes, I understand because they know already, I’m a refugee, my English is low, they know. If they tell me one thing and I didn’t understand, they should try to explain to me.”

Khadi spoke about the problem with large English words as shown in excerpts from her interview: “Big words. And I didn’t understand the meaning. Because I only understand small words in English. And I said, what is that? They make me worried a lot because I don’t know the meaning.” Nina also expressed discomfort with the use of English words that were difficult for her to understand when she stated: “The doctors do not talk to me, but the nurses say words that are hard to understand.”

Four of the women (Fana, Basi, Salem, and Ruki) also stated that access to interpreters at the hospital was helpful in their interactions with healthcare providers during their pregnancy and lack of interpreters was a barrier in their use of health services. An example is shown in the

excerpts from the interview with Ruki who stated: “I don’t understand the nurse, so they bring an interpreter.”

Need for Better Health Education

The women discussed barriers with access to health information from health providers at the healthcare centers during their pregnancy. The women spoke about difficulties with getting access to information from the doctors as barriers to the use of health services. Nefi stated: “It is not about the language because they bring interpreter too, for me, if something important they would tell me, they would tell the interpreter too, but they didn't tell me.”

Five women (Asha, Emma, Fana, Karima, Khadi) talked about the need for information on pregnancy prevention and contraceptives because their last pregnancies were not planned, and this made healthcare during and after their pregnancies very difficult for them.

The women also stated that they required information about how to handle problems with breastfeeding after pregnancy. Some of them had problems with breastfeeding and access to health information about how to care for themselves when they were breastfeeding their babies. One of the participants, Karima, stated that she had problems when she tried to breastfeed after the birth of her last child. She explained that she was healthy after her pregnancy but was not able to produce milk for her baby and the doctors and nurses at the hospital did not give her any information about how to tackle this problem.

Perception of Care

Two of the participants discussed what they perceived as different treatment from health care providers. Fana expressed her discomfort with the perceived dismissive behavior from the doctors and nurses at the hospital when she went to receive care during her last pregnancy. She

felt the healthcare providers did not attend to her properly because she could not speak English properly and did not have access to an interpreter. Excerpts from the interview with Fana indicate:

When I come new and my child, he was sick, and I don't know how to say anything, and they told me you must stay in here sitting down until you find somebody to talk to you...to translate to you... They behave this way because they don't understand me, and I don't understand them. I called my agency and they have one man who speaks Arabic and he translated to me...They don't have a translator in the clinic.

Khadi explained that the doctors and the nurses were indifferent to her during her visit to the hospital. She stated:

One time it happened. I said, "Excuse me," I wanna talk to them. And it's like a doctor and nurse together. They came to see me, and they just looked at me like this. Nobody touched me, nobody asked me no question. They just turned around and they're talking together. And I said, "Excuse me, excuse me." Nobody wanna hear me. They hear me what I'm saying, but they don't wanna talk to me. They wanna finish their talking first. After that, he turned to me and said, "Okay, sorry. What did you say?" And after that, I get mad. The nurse, she did that a lot of times... I said, better for you to go. Don't sit here, because you're not helping anybody.

Health knowledge about the progress of pregnancy was facilitated by access to ultrasounds and the detailed explanation of the meaning of the procedure to the participants.

Asha stated in her interview: "Oh. When I go here every month, you can see the baby, only with

something like a headphone... After five months they sent me to another doctor... because this doctor's office doesn't have that.”

Health Financing

The women stated that access to health insurance was important in the way they used health services. Most of the women had access to health insurance in the form of Medicaid during pregnancy. Medicaid covers the mother and baby during the pregnancy but does not cover the mother after pregnancy. Lola had access to private health insurance through the company insurance from her husband. Ruki and Salem also had access to health insurance from their husband's company and support from Medicaid.

Other women like Noma talked about the difficulty with access to health insurance, which was a barrier to the use of health services as shown in her interview excerpts: “I started prenatal care when I was 6 months pregnant because I don't have health insurance before. The organization helps me get Medicaid.” Two of the women, Emma and Khadi, expressed their dissatisfaction with the way the hospital organized the billing for their health insurance. The women referred to inconsistencies with the way their bills were processed as financed under personal billing/health insurance or Medicaid as shown in the excerpts from their interviews:

The insurance is important for me because I went to the hospital last time, the doctor tells me, "Your insurance is at the job you worked before the past three months... because we are not working there anymore, we cut it off. "So now go pay \$80." I say, "Okay...Last time my nail, then my leg is swollen, I went to the hospital, the doctor says, "You'll pay \$280." I pay \$280, they see me. After I went back home, they sent me \$364 again, I pay. So, if you don't have insurance in America is killing people, I'm telling you... Also, they say I should pay \$223

every month before they will help me pay the rest. If I work my money over that they will take back from me. What is this? Are we going to survive it? (Emma)

Khadi stated “They charged me with the Cigna, and I have like five bills. They came to me, and I don't have money. I went to the doctor and told him, this came from your office.”

Long Wait Times and Lack of Transportation

Women spoke about practical barriers to receive maternal healthcare. Two of the women spoke excessive hospital wait times and problems with transportation. Ruki, for example, stated, “The bus comes late too much, sometimes 30 minutes late and I have to walk then” and I walk.”

Asha also complained about problems with the transportation system in the area, she stated:

When you come new, they help us to go to the doctor and after that, we go by ourselves. You know after three months or, they say everything now you have to do everything by yourself and I go with MARTA, you know MARTA bus is not always on time.

Khadi summarized what others had said about the hospital wait time when she stated:

I just go there to the hospital, and the first time I go there, and the nurse asks me what happened? And I say my water broke. And just she told me, excuse me, go get a chair and wait... And they put the stuff on me, and they told me, give me your ID and give me your stuff. And I gave it to them. And after that, she told me, "You can go out. Somebody will meet you there and I am I just there sitting and waiting.

Fear of Medication and Obstetrical Interventions

Some of the women referred to pregnancy as a normal process and were opposed to the use of medications such as epidurals during labor and obstetrical interventions. Four of the women who participated in the interviews (Asha, Basi, Emma, and Fana) discussed the individual perceived need factors for care, such as response to pain and the use of obstetrical interventions during labor. Asha, Basi, Emma, and Fana expressed dissatisfaction with the use of pain medication and fear of obstetric interventions during the birthing process. Asha and Basi had a cesarean section during their pregnancies and agreed to the procedure after much personal contemplation and advice from doctors. Asha had low blood pressure during her pregnancy that caused her to require obstetrical intervention during the birthing process. Emma was strongly opposed to the use of pain medication or induced labor during pregnancy; she believed it was not normal and had side effects that were detrimental to women after having their babies. Excerpts from her interview are shown below:

I don't need it [the pain medication]. I know that if you born baby you have to feel pain. When you born your baby... I don't like to get the injection for my back to reduce the pain. After that, you got a problem tomorrow. I think so. I don't like.

One lady in my apartment complains every day, "My back is paining me."

Fana was uncomfortable with pain medication during the birthing process and felt that the doctors did not understand her discomfort, as shown in her interview excerpts:

The pain [made it difficult to manage the pregnancy]. And they asked me to take the medicine for the pain; I told them I don't want that medicine because it's not good. The medicine they give you in the back, I tell them that is not good.

When asked to expand on why she believed that the medicine was not good, Fana explained:

Some people tell me; my friends tell me that would affect your health. You will be like, you cannot walk. Sometimes you have pain in your feet and in your back always you have that pain if you get that medicine.

Impact of Female Genital Mutilation

Three of the women who participated in the interviews (Asha, Khadi,) discussed the impact of female genital mutilation and the effect on pregnancy. Asha and Khadi talked about the impact of female genital mutilation as a condition that requires medical attention and a need factor for care during pregnancy. They discussed ability of health providers to deal with the effects during pregnancy. Asha said that she had undergone the process as a child, but she did not experience any problems due to the procedure during her last pregnancy. Khadi explained that she never experienced female genital mutilation, but she had friends who suffered from the procedure and had problems during their pregnancies. Khadi further stated that friends from her community that experienced the procedure were weary of dealing with doctors because the doctors did not know how to deal with the problem and often recommend c-sections during the birthing process.

CHAPTER 5: DISCUSSION

The purpose of this study was to examine the individual and contextual factors that facilitated or hindered the use of health services for African immigrant women in Clarkston, Georgia. The study also investigated the impact of health literacy on the use of maternal health care to complement the results from the interviews. An adapted version of the Andersen healthcare utilization model was used to organize the results explaining the way individual and contextual characteristics impact the use of health services of African immigrant women. This research inquiry had two phases. Semi-structured interviews administered to participants in Phase 1 of the study informed the interviews for the second phase of the study. Phase 2 of the study explored the maternal health experiences of African immigrant women regarding the use of health services using a mixed-method design. In Phase 2 of the study, 14 African immigrant women responded to the interviews. The Newest Vital Sign (NVS) survey instrument (Weiss et al., 2005) and a demographic survey were administered to the participants to assess health literacy.

This study is the first investigation conducted on the maternal health experiences of African immigrant women living in Clarkston, Georgia. The study is an important addition to the limited research on the maternal health of African immigrant women and healthcare utilization in the United States. The results of the interviews highlighted several factors that influence maternal healthcare for African immigrant women.

First, social support was fundamental to pregnant women and new mothers for the use of health services. Social support refers to the provision of psychological and material resources from an individual's social networks to help cope with stress. Social support can be instrumental (material support), informational (advice or guidance), and emotional (reassurance, care, empathy) (Cohen, 2004). Social support serves as a buffer for stress and helps to improve overall health outcomes (Holt-Lunstad & Uchino, 2015). Social support reduces the risk of emotional distress and adverse outcomes for women during pregnancy (Glazier, Elgar, Goel, & Holzappel, 2004). Researchers have used social support interventions to improve the healthcare utilization for women at risk for poor health outcomes (Oakley, Rajan, & Grant, 1990).

Social support provided by the community was valuable in the maternal healthcare that the women sought and received. Living in Clarkston Georgia, a community with large numbers of African immigrants facilitated access to community-based organizations, NGO's and other relevant support in the community for the maternal health of the women. Government programs such as WIC were a source of support to the women in the study and access to these programs should be encouraged for the people who need them. A recent study on the challenges or barriers to providing services for immigrant maternal care concluded that policy on maternal care for immigrant women will benefit from the expertise of non-profit organizations working with immigrant women (Khan & DeYoung, 2018). Community-based organizations and non-profit organizations facilitate maternal care for immigrant mothers in the form of individualized care, education as empowerment, client capacity building and community integration (Khan & DeYoung, 2018). Previous research on the maternal health of African immigrant women has not reflected on the impact of community social structure as shown in the Andersen healthcare

utilization model. Community support for African immigrant women is valuable so that they are not isolated and have people to assist them to navigate the healthcare system.

Social support at the individual level also affected the maternal healthcare utilization of the participants in the study. The women received support from friends and family members that facilitated access to transportation for the use of health services. Some of them faced barriers in terms of social networks because of problems due to acculturation. Acculturation barriers for African immigrant women can be reduced through social and economic assistance programs (Mehta et al., 2017). Previous studies show the importance of support from a spouse, family, or friends on the increase of maternal healthcare utilization for African immigrant women (Jacoby et al., 2015; Wojnar, 2015). Following the Andersen healthcare utilization model, the factors that affect the use of health services in a community with many African immigrants or Foreign-born populations are different for a community with mostly White population or women born in the United States. This study shows that resettlement communities for immigrants should be encouraged as this facilitates social support, access to healthcare and the use of maternal health services, especially for recent immigrants.

Second, cultural and religious beliefs about pregnancy and maternal health affected the women's predisposition to use maternal health services and resulted in barriers to care based on the values from their countries of origin. Pregnancy is considered a normal life process, and this leads to the aversion to the use of medication and obstetrical interventions during the birthing process. The women who participated in the study expressed beliefs about the roles of physicians, midwives, and other healthcare providers. They preferred female doctors because of cultural and religious beliefs. This narrative reinforces the perspective that African immigrant women strongly prefer female providers for gynecologic care (Mehta et al., 2017). With respect

to the roles of healthcare providers, some women perceived the treatment from healthcare providers as poor. The women perceive that they receive dismissive or disrespectful treatment because they are immigrants and have difficulty expressing themselves to the doctors and nurses. Previous research by Herrel et al. (2004) shows that African immigrant women have the general perception that health providers discriminate against them because of their race and language and that they were less sensitive to their needs. Health providers require more training to understand the cultural norms of African immigrant women to facilitate the use of health services and address barriers to care.

Third, inadequate health information from providers because of language mismatch were also barriers to healthcare utilization. Most women interviewed had limited English proficiency and limited health literacy. Access to interpreters was also very important in reducing the language barrier and understanding cultural differences. These results support previous studies on the maternal health of African immigrant women that show health literacy and health knowledge as factors that affect how African immigrant women use health services (Carroll, Epstein, Fiscella, Gipson, et al., 2007; Carroll, Epstein, Fiscella, Volpe, et al., 2007; DeStephano et al., 2010; Herrel et al., 2004; Hill et al., 2012; Pavlish et al., 2010). The assistance of female interpreters at health centers will promote effective communication and access to healthcare services for African immigrant women (Carroll, Epstein, Fiscella, Gipson, et al., 2007).

African immigrant women require health education and information that addresses the fear of medication, obstetrical interventions, family planning and breastfeeding. This problem needs to be addressed at the community level and individual level. One of the highlights of the study was the need for education regarding pregnancy prevention. The participants in the study addressed the need for education on family planning to avoid the difficulties that arise due to

unplanned pregnancies. African immigrant women's narratives of pain have not been adequately addressed by conventional medicine as presented in western societies (Finnström & Söderhamn, 2006; Murray, Windsor, Parker, & Tewfik, 2010). Previous research regarding obstetrical interventions shows that African immigrant women felt that doctors were dismissive of their labor practices and recommend obstetrical intervention—like a cesarean section—too often especially for women who have experienced female genital mutilation (Brown et al., 2010).

Concerning the problem of female genital mutilation, doctors need to tailor maternal healthcare to the needs of African immigrant women that have experienced this problem. Doctors may not be equipped with adequate knowledge for safely delivering a baby when the woman has undergone female genital mutilation, particularly the most severe forms of this problem. This problem was difficult to discuss for the women in this study as is often the case with women from African immigrant communities because of the stigma attached. Previous studies on the problem of female genital mutilation show that African immigrant women who have experienced the procedure feel that doctors are not well-informed when they address their maternal health concerns. More training is required for doctors and nurses to manage the pregnancy of women with female genital mutilation.

Fourth, health financing (in the form of health insurance) and health organization (transportation services, hospital wait times) affected the use of health services. Not surprisingly, lack of health insurance was a barrier to the use of health services and access to health insurance facilitated the use of health services. Offering transportation and reducing wait times were important facilitators. This study reinforces the findings from previous research that access to health insurance, access to transportation, and low waiting times at health centers enabled African immigrant women to use health services (Carroll, Epstein, Fiscella, Gipson, et al., 2007;

Herrel et al., 2004; Hill et al., 2012; Jacoby et al., 2015; Mehta et al., 2017; Wojnar, 2015). Lack of information about existing services and cost of health services was also a barrier to care.

These barriers are common to other immigrant groups in the United States. Research with Latino populations living in low-income communities showed that healthcare utilization barriers are due to problems with limited public transportation, language and the cost of services (Calva, Matthew, & Orpinas, 2019). African immigrant women require information to navigate the health system especially regarding access to health insurance and transportation.

Finally, the study emphasized the problem of health literacy as a barrier to maternal healthcare utilization. Of the 14 participants in the study, only three had adequate health literacy, as measured with the NVS. The women with medium and low English proficiency (as observed during the interviews) also had low health literacy levels. Research shows that people with limited health literacy are less likely to be knowledgeable about their health problems (Arnold et al., 2001; Davis et al., 1996; Williams, Baker, Honig, Lee, & Nowlan, 1998) and are hospitalized more compared to persons with higher health literacy (Baker, Parker, Williams, & Clark, 1998). The results of this study are aligned with the results of previous research on health literacy and healthcare utilization in African immigrant women. African immigrant women with limited health literacy face problems when they need to use health information to make appropriate health decisions and use of maternal health services (DeStephano et al., 2010; Jacoby et al., 2015). Information on the health literacy of African immigrant women can be used to address the health literacy barriers in this population by presenting health information that is tailored to their needs.

This study had some limitations. Interviews were used to examine the maternal health experiences of the participants. During this process, the researcher as an instrument could be a

problem for trustworthiness (Chenail, 2011). Steps were taken to mitigate the problems that could result from researcher bias as explained in the section on trustworthiness. Challenges could occur during the interview process such as how to phrase and negotiate questions, concerns with the actions and biases of the interviewer, unanticipated behaviors from participants, poor recollection of information. (Chenail, 2011; Roulston et al., 2003; Tracy, 2013). The participants could also have been careful in their responses to the interview questions due to the sensitive issues discussed in the interview. The lack of English proficiency and the language barrier in most of the participants may have affected the quality and participant honesty in interviews because of the use of interpreters. The women could have been uncomfortable discussing sensitive issues such as female genital mutilation when an interpreter is present. Information on the contextual factors that affected the use of health services was collected on an individual level from the participants in the study. Also, the barrier to maternal care due to low health literacy could be attributed to poor English proficiency. More research needs to be done on the impact of health literacy and healthcare utilization in African immigrant women.

5.1 Conclusions

This study makes some important contributions to maternal and child health research and practice. First, social support at the community and individual level facilitated the use of maternal health services. Resettlement communities for immigrants facilitate access to social support as living in Clarkston, Georgia was beneficial to the women in the study. Second, health providers require training on the cultural norms of African immigrant women to address barriers to care. Third African immigrant women required education and tailored care that addresses the fear of pain medication, obstetrical interventions, female genital mutilation and the need for family planning. Fourth, African immigrant women need education to navigate the health system

regarding health insurance and transportation. Finally, structures that will address limited English proficiency and low health literacy are required to facilitate the use of health services.

This study is an important contribution to science as one of the few research efforts to examine the maternal health experiences of African immigrant women. This research is the first investigation into the factors that facilitate or hinder the use of maternal health services for African immigrant women living in Clarkston, Georgia. This study is also one of the few research inquiries to apply the Andersen healthcare utilization model to study the risk and protective factors for maternal healthcare utilization. The long-term goal of this research is to design tailored interventions that will address barriers to the use of maternal health services for African immigrant women in the United States.

The health of migrants is critically important to the health of future communities and populations. Access to health services and maternal healthcare utilization is important as the population of African immigrants to the United States is steadily increasing. Maternal health and well-being of women influence the health of the next generation and predict future public health challenges for families, communities, and the health care system (Almeida et al., 2014; Ferguson, 2008; Pavlish et al., 2010). Women who emigrate from Africa need targeted interventions to influence the contextual and individual factors that impact their maternal healthcare and overall health outcomes. Future studies will benefit from employing the Andersen healthcare utilization model to address the multiple factors that impact the use of health services for African immigrant women. The design of more effective and culturally responsive interventions will help to address barriers to the use of maternal health services for African immigrant women.

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APPENDIX

Appendix A: Recruitment Flyer

Maternal Health of African Immigrant Women Study

Please consider participating in this study. The study aims to understand what helps and what hinders the health care for African immigrant mothers and infants. The information will be used to propose programs to improve maternal and infant health of African immigrant women.

You can participate in this study if you are: (1) A woman born in Africa, (2) between the ages of 18 to 45, (3) migrated to the United States within the past 6 years, (4) have experience using maternal health services in the US, AND (5) reside in Georgia.

If you agree to participate, you will complete an interview, a health literacy survey and a demographic survey (about 45-65 minutes) about your maternal health experiences and the use of healthcare services in the United States.

You will receive a \$20 gift card for participating in the study. You will need to sign a receipt for the card and this information will be handled confidentially.

**If you are interested please contact Ehi at
(706)-502-7622 or ea64818@uga.edu**



Ehiremen Azugbene MPH, CHES (706.502.7622; ea64818@uga.edu) is a researcher of African origin conducting this study, under the direction of Pamela Orpinas, Ph.D., (706.542.4372; porpinas@uga.edu) at the Department of Health Promotion and Behavior, University of Georgia.

Appendix B: Consent Form 1

We are inviting you to take part in a research study, entitled “Maternal Health Experience of African Immigrant Women.” The objective of this study is to understand the experience of new immigrant women from Africa in relation to what helps them and what impedes using health care for maternal and infant health. The information will be used to propose programs to improve maternal and infant health of African immigrant women.

You can participate in this study if you were born in Africa, immigrated to the United States within the past 6 years, are between the ages of 18 and 45 years, have experience using maternal health services in the US, and reside in Georgia.

If you agree to participate, you will complete an interview (about 45-60 minutes) with Ms. Ehiremen Azugbene about your maternal health experiences and the use of healthcare services in the United States. You will receive a \$20 gift card for participating in the interview. **You will need to sign a receipt for the card and this information will be handled confidentially.**

The study risks and discomforts are minimal. Some women may experience discomfort sharing challenging or difficult experiences. However, participation in this study is voluntary. You can refuse to participate, skip any questions, withdraw from the study at any time, or request that all the information from the interview be destroyed. **Your decision to participate in this study will not impact your relationship with or the services you receive from Women Watch Afrika.**

Reports resulting from this study will not include names or other identifiable information. Researchers will not release identifiable results of the study to any other individuals without your written consent unless required by law.

The interview will be audio recorded with your approval, and we will delete this audio after analyzing the data. To increase confidentiality, you will select a fake name.

I understand that my signature below indicates that I have read (or someone read to me) this entire consent form, I have had all my questions answered, and I received a printed copy of this form.

Name of Researcher	Signature	Date
Name of Participant	Signature	Date

Ehiremen Azugbene MPH, CHES (706.502.7622; ea64818@uga.edu) is the main researcher conducting this study, under the direction of Pamela Orpinas, Ph.D., (706.542.4372; porpinas@uga.edu) at the Department of Health Promotion and Behavior, University of Georgia. Please contact them if you have any questions. Additional questions or problems regarding your rights as a research participant should be addressed to: The Chairperson, Institutional Review Board, University of Georgia, Athens, GA 30602; Telephone (706) 542-3199; Email address: IRB@uga.edu.

Maternal Health Experience of African Immigrant Women

Appendix B: Consent Form 2

We are inviting you to take part in a research study, entitled “Maternal Health Experience of African Immigrant Women.” The objective of this study is to understand the experience of new immigrant women from Africa in relation to what helps them and what impedes using health care for maternal and infant health. The information will be used to propose programs to improve maternal and infant health of African immigrant women.

You can participate in this study if you were born in Africa, immigrated to the United States within the past 6 years, are between the ages of 18 and 45 years, have experience using maternal health services in the US, and reside in Georgia.

If you agree to participate, you will complete an interview (about 45-60 minutes) with Ms. Ehiremen Azugbene about your maternal health experiences and the use of healthcare services in the United States. **You will also complete a health literacy survey and a demographic survey (about 5 minutes).** You will receive a \$20 gift card for participating in the interview. You will need to sign a receipt for the card and this information will be handled confidentially.

The study risks and discomforts are minimal. Some women may experience discomfort sharing challenging or difficult experiences. However, participation in this study is voluntary. You can refuse to participate, skip any questions, withdraw from the study at any time, or request that all the information from the interview be destroyed. Your decision to participate in this study will not impact your relationship with or the services you receive from Women Watch Afrika.

Reports resulting from this study will not include names or other identifiable information. Researchers will not release identifiable results of the study to any other individuals without your written consent unless required by law.

The interview will be audio recorded with your approval, and we will delete this audio after analyzing the data. To increase confidentiality, you will select a fake name.

I understand that my signature below indicates that I have read (or someone read to me) this entire consent form, I have had all my questions answered, and I received a printed copy of this form.

Name of Researcher	Signature	Date
Name of Participant	Signature	Date

Ehiremen Azugbene MPH, CHES (706.502.7622; ea64818@uga.edu) is the main researcher conducting this study, under the direction of Pamela Orpinas, Ph.D., (706.542.4372; porpinas@uga.edu) at the Department of Health Promotion and Behavior, University of Georgia. Please contact them if you have any questions. Additional questions or problems regarding your rights as a research participant should be addressed to: The Chairperson, Institutional Review Board, University of Georgia, Athens, GA 30602; Telephone (706) 542-3199; Email address: IRB@uga.edu.

Maternal health Experiences of African immigrant women and health utilization

Appendix C: Interview Guide

1. Tell me about yourself
2. Can you tell me about your experience with the birth of your last child?
3. Tell me about any maternal services that you have received in the United States?
4. What made it difficult for you to manage your last pregnancy?
5. What made it easy for you to manage your last pregnancy?
6. Tell me about the kind of care and information you received?
 Probe: Can you tell me if the information was easy to understand and easy for you to use?
7. What kind of problems did you have with getting maternal health information and using the information?
 Probe: What other information or services would you have liked?
8. Can you talk about a time you felt you were being treated differently in the process of seeking maternal or child health care services?
 Probe: What do you think was the reason for the difference in treatment that you experienced?
9. How has living in the United States as a recent African immigrant affected your access to maternal health services in the United States?
10. How did having health insurance or not having health insurance affect your access to maternal health services?
 Probe: How has being able to pay for hospital services affected your decision to go or not go to the hospital?
11. How did your experience with access to care affect your overall experience and decision towards seeking maternal care?
12. In your decision to seek maternal care/or use hospital services during your last pregnancy, what have been some of the factors that made you seek care?
 Probe: How early and how often did you seek care/ or use hospital services?
13. What kind of support have you received from family, friends, and other avenues before, during and after having your baby?
 Probe: Tell me about support with transportation, food, and any other help from family, friends, community or government or any other avenue?
14. How has the support you received affected the way you use health services in the United States?
 Probe: Has the support made it easier for you to access these services or there was no much difference?
15. What are your personal and cultural beliefs about pregnancy and maternal health?
 Probe: How do these beliefs affect the way you use maternal health services in the United States?
16. How has prior existing health conditions such as female genital cutting, or any other conditions affected the way you used maternal health care/ use hospital services during your last pregnancy or pregnancies in the United States?

17. What information do you know now, that would have been helpful in your previous use of maternal health services/hospital services?"
18. Tell me more about your maternal health experiences after the birth of your child?
19. Did you breastfeed your child? If yes for how long? What kind of services or support did you have that made this process easier?
20. Talk about your health and the health of your baby after the birth of your child? What services were helpful to you and the baby?
21. What advice would you give to someone in a similar position seeking maternal care/seeking help from the hospital when they are pregnant?
22. Is there anything else you want to share with me concerning your maternal experiences and the use of health services?
23. Do you have any questions for me relating to this study?

Appendix D: Demographic Survey

Name:

Date of Birth:

Country of birth/Origin:

1. Age = _____ Actual age

- Under 18
- 18-24
- 25-34
- 35-49

2. Marital status

- Never married
- Engaged
- Married
- Separated
- Divorced

3. Education

- Elementary/primary education only
 - Less than a high school diploma
 - High school degree or equivalent (e.g. GED)
 - Some college, no degree
 - Associate degree (e.g. AA, AS)
 - Bachelor's degree (e.g. BA, BS)
 - Master's degree (e.g. MA, MS, MEd)
 - Professional degree (e.g. MD, DDS, DVM)
 - Doctorate (e.g. PhD, EdD)
 - Other
- (Explain) _____

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4. Income

- Less than \$20,000
- \$20,000 to \$34,999
- \$35,000 to \$49,999

- \$50,000 to \$74,999
- \$75,000 to \$99,999
- Over \$100,000

5. Employment status

- Employed full time (40 or more hours per week)
- Employed part-time (up to 20 hours per week)
- Unemployed and currently looking for work
- Unemployed and not currently looking for work
- Student
- Retired
- Homemaker
- Self-employed
- Unable to work

6. Number of years living in the United States =

7. Level of English ability

- 1- Low
- 2-Medium
- 3-High

8. How they entered the United States

- Asylum
- Refugee
- Green card lottery
- Through marriage of family member
- Through education
- As a visitor
- Other

(Explain) _____

9. Use of health services in the last one year

- Frequently (more than 4 times a year)
- Occasionally (less than 2 times in a year)
- Rarely (less than 1 visit a year)

10. Month prenatal care began in last pregnancy

- Month 1-2
- Month 3-4
- Month 5-6

- Month 7-9
11. Number of prenatal care visits in last pregnancy =