Voices Bearing Witness: Culture and the Birth Process in the District of Labé, Fouta Djalloon, Guinea

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VOICES BEARING WITNESS: CULTURE AND THE BIRTH PROCESS
IN THE DISTRICT OF LABÉ, FOUTA DJALLON, GUINEA

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
International Family and Community Studies

by
Rachel Lang-Baldé
August 2019

Accepted by:
Dr. Arelis Moore de Peralta, Chair
Dr. Bonnie Holaday, Co-chair
Dr. James McDonell
Dr. Martie Thompson
Voices bearing witness:
Culture and the birth process in the district of Labé,
Fouta Djallon, Guinea

by
Rachel Lang-Baldé

A Dissertation

Dr. Bonnie Holaday, Chair
Dr. Arelis Moore de Peralta, Acting Chair
Dr. James McDonell
Dr. Martie Thompson

Clemson University
Department of Youth, Family and Community Studies
ABSTRACT

Every woman has the right to safe motherhood. Over half of the global maternal deaths occur in sub-Saharan Africa. In Guinea, where this study took place, a woman has a one-in-26 chance of dying in childbirth, compared to a one-in-1,400 in a developed nation. Thus, the purpose of this study was to identify the characteristics and the role of cultural beliefs and practices on a woman's birth process (conception to post-partum) among the Fulani in the Labé district of the Fouta Djallon region in Guinea using qualitative and participatory methods and collaborating with those most impacted by this issue, the women and their birth attendants. Three main themes were identified in the analysis process: maternal culture are, maternal care seeking, and miscommunication. An increased understanding of the role culture plays in birth and care choice for Fulani women could provide insight into more targeted and collaborative support and interventions for pregnant and post-partum women in the region and to reduce maternal mortality and morbidity. Further research should focus on a three pronged approach of 1) use of culturally congruent communication models, 2) professional development for birth attendants and community health workers, and 3) inclusion of cultural knowledge and participatory approaches.

Keywords: culture, birth process, Guinea, Fouta Djallon, Labé, participatory, ethnography
DEDICATION

This dissertation is dedicated to all of the birth attendants, midwives and women of Guinea. You are some of the most courageous women I know. Without your support and collaboration, this research could not have happened. Mama Condé, my dear friend, your spirit was with us the entire way. An additional dedication to all of my research assistants, co-researchers, family members, and friends who listened, explained, translated, traveled, laughed, cried, and supported me during the research, analysis, and writing. This was truly a collaborative study. I am deeply honored to have been a participant on this participatory cross-cultural journey.
ACKNOWLEDGEMENTS

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Deep appreciation and thanks to Dr. Bonnie Holaday and Dr. Arelis Moore de Peralta, my fearless co-chairs. From my first semester in the program, you supported my desire to do a creative, independent research study. Dr. Holaday, I knew that you believed in me, and you pushed me to believe in myself. Dr. Moore de Peralta, you encouraged me to continually reflect and backed me when I needed the support. I cannot thank both of you enough.

To Dr. Jim McDonell and Dr. Martie Thompson, my other committee members, thank you both. Dr. McDonell, you were instrumental in helping me turn my ideas into an actual research study, and accepted my qualitative take on the world. Dr. Thompson, you stepped in when I needed you and offered insight and support.

To my research mentors, Dr. Roxanne Amerson and Dr. Louanne Keegan, your guidance and support was invaluable. Although you were not on my committee, you offered me a sounding board, excellent advice, and careers to aspire. To Dr. Amerson, thank you for pushing me to publish, I am forever grateful. Dr. Keegan, meeting you helped me see a future for myself in the world of qualitative health research.

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on the phone, pushing me to think critically, for watching the kids, for offering advice, for taking my mind off of the work that had to be done, for making me laugh, and for believing in me. To my best friend April, there are no words. To my mom, I love you. To my Guinean family, on jaraama buce.

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CHAPTER 1: INTRODUCTION

Every woman has the right to safe motherhood. Yet, levels of maternal mortality and morbidity remain at critical levels throughout sub-Saharan Africa and there is an urgent need to redefine how to target the issue to ensure safe motherhood for all women. One approach to target maternal mortality and morbidity in the region is by addressing a multitude of previously under researched cultural factors of importance to women. Addressing cultural factors may contribute to the emergence of a more nuanced understanding of this issue, particularly given that throughout sub-Saharan Africa, motherhood is viewed as an essential role, a cultural imperative, for all women of childbearing age. Wilkinson and Callister (2010) found that for Ashanti women in Ghana, “if you don’t have a child, it becomes a pity. You will not be happy” (p. 210). However, to manage their pregnancies and births, women must navigate between the two distinct worlds of the accepted traditional and the newer clinical approaches. This duality influences the use of limited biomedicine that is mediated by cultural influences and preferences that shapes women’s individual perceptions of how to navigate their pregnancy and labor.

Many women continue to have confidence and faith that reproduction is best addressed outside of biomedicine. Thus, traditional cultural practices are privileged as sources of reproductive knowledge and therapy that address women’s real-life experiences (Chapman, 2006). In fact, they reflect bodily experiences and risk perceptions processed as cultural phenomena. Therefore, altering the trajectory of current research to focus on identifying the cultural beliefs and practices shaping the course of
maternal mortality and morbidity, while simultaneously addressing the systemic root causes (such as gender inequity, poverty, or socio-economic barriers), is essential to improving birth outcomes for women in sub-Saharan Africa. However, little is known about these cultural beliefs and practices that contribute to the continued high rates of maternal mortality and morbidity. These potential associations between cultural beliefs do influence or impact the birth process (conception to post-partum). Thus far, limited available research on the construct of cultural beliefs in sub-Saharan Africa has demonstrated the potential to increase understanding of factors generating poor birth outcomes in resource-poor settings and to subsequently target interventions that take into account this knowledge (Ajiboye & Abimbola, 2012; Marchie, 2012; Shole, 2015).

This dissertation pursued increased understanding on how cultural beliefs and practices influence the birth process in the Labé district [préfecture], of the Fouta Djallon region of Guinea, in West Africa. The Fouta Djallon was chosen due to higher prevalence of negative birth outcomes (defined as maternal death and disability) for women in this region, and its known overarching societal burden. 80% of maternal deaths, in Guinea overall, are directly attributable to obstetric causes (UNICEF, 2017). Increased positive maternal birth outcomes (resulting from the care and support received during the birth process from conception to post-partum) are crucial not just for the mother and her newborn child, but for the welfare of the entire household, as well as the community-at-large. Not enough research has investigated women’s own cultural birth networks, where women receive knowledge about the birth process. This research is needed to increase the
understanding of the impact of cultural beliefs and practices in all stages of the birth process.

**Statement of the Problem**

Data estimates (2015) showed that the world’s top 10 highest maternal mortality rates were all in sub-Saharan Africa, with Guinea placing 11th with an estimated 679-724 deaths per 100,000 births, or a one in 26 chance of death. These deaths were more common among young women and primaparas. Available maternal health indicators for Guinea indicated a lack of logistical and infrastructure to support reducing mortality and morbidity. These challenges are complicated by low levels of birth registration in Guinea, at 43% overall. This varies considerably (recent statistics indicate that 59.3% of rural births are not registered, compared to 23% of those in urban areas), with only 4.37% of births for the richest quintiles not registered, compared to 66% for the poorest quintiles (USAID, 2012). These variances are created by long distances, with difficult terrain, to registry offices, the prohibitive cost of birth certificates, and high levels of illiteracy among most parents, especially mothers (UNICEF, 2017). Additional fertility calculation problems include inaccurate statements regarding the date of birth or age, and selective survival bias (USAID, 2012).

The Ebola outbreak that began in 2014, continued to influence those high maternal mortality rates in the region as both access and overall confidence in health services were heavily impacted (Black, Caluwaerts, & Achar, 2015; Check Hayden, 2015; Delamou et al., 2017). Sub-Saharan Africa also has the largest inter-regional disparities, continuing to disproportionately impact women. Maternal conditions (maternal
mortality and morbidity), along with HIV/AIDS and tuberculosis, account for one in every two deaths for women of reproductive age in low-income countries (WHO, 2013). According to the 2012 DHS survey, maternal deaths in Guinea account for 28% of all female deaths for women aged 15-49. Thus, an exploration of these individual and community-level cultural beliefs is crucial to understanding how to support those who bear the largest burden of death and disability.

Historically, research has focused on deficiency-based intervention models of structural and socio-economic barriers to reduce maternal morbidity and mortality (Amogre Ayanore, Pavlova, & Groot, 2016; Friberg et al., 2010; Kaye, Kakaire, & Osinde, 2011; Nyamtema, Kakaire, & Osinde, 2011), and less on increasing the understanding of cultural beliefs and the capacity building that are necessary to engender sustainable change. In lieu of that, research should explore the numerous socio-cultural and religious belief systems that potentially amplify barriers, efficacy, and accessibility to appropriate and adequate care in resource limited or deprived communities. Structural injustices and instability are a reality that must be addressed in research and programming; however, the narrative encompasses more than large-scale structural inequities and quantitative data based intervention strategies. For example, in sub-Saharan Africa and in other low-income countries, low demand for higher-level obstetric maternal health care has been attributed to an enduring preference for traditional care and a preference for traditional birth practices (Ronsmans & Graham, 2006; Sarker et al., 2016; Sibley & Sipe, 2004; World Health Organization (WHO), 2016). This reinforces
the need for a more comprehensive understanding of the deeply embedded cultural norms shaping a pregnant woman’s birth experience in this region.

As there are known harmful cultural practices, (e.g., early marriage, female genital cutting, and food taboos), increased insight is required to integrate care that encompasses the model of preservation, accommodation, and re-patterning suggested by Leininger’s culture care theory of diversity and universality. This framework could increase support for more neutral and beneficial (e.g., incorporation of traditional foods, familiarity with providers, and respectful care) cultural practices. These disassociations, between biomedical constructs of risk and the traditional, context-specific cultural practices women use, should be the focus when undergoing research to develop support mechanisms or community-led interventions. Women are highly cognizant of the severity of birth and its complications, but often are unable to overcome the powerful influence of systemic barriers resulting from emic beliefs or practices. As long as women and their unique, culturally constructed beliefs and practices remain under-researched and ignored by biomedical discourse, women will continue to turn to traditional beliefs and practices in defiance or necessity. Therapeutic models of care, combined with the socio-cultural efficacy of the traditional system, the inclusion of community and/ or family members, specifically those holding power, such as the husband or mother-in-law, in decision-making, and the promotion of positive outcomes, is crucial. Moreover, in Guinea, only one third of women participate in decision-making for their own healthcare, with 41% holding no decision-making power for health, major purchases, or family visits (USAID, 2012).
Additional challenges remain, especially unexplained variations in beliefs and practices, between different women in the same community, during their own births, or between communities, often in the same country. Why do women prefer to birth at home with traditional birth attendants when clinic or hospital care is accessible and affordable? What can be done to support cultural care practices that either assist or have limited impact on the birth process? Why, when faced with complications, do women continue to choose, potentially high risk, culturally supported options leading to severe morbidity or mortality? Alternatively, do these women (culturally, socially, or religiously) have a choice of care? These questions of vulnerability and agency in choice of and access to care, among others, must be addressed for improved maternal care in sub-Saharan Africa.

Reducing preventable maternal mortality and morbidity worldwide, and specifically in Guinea, located in Western sub-Saharan Africa, will require structural changes such as getting women out of poverty, eliminating gender inequities, and building stronger, more accessible health systems. However, further exploration, using qualitative methods to explore constructs such as cultural beliefs, practices, and perceptions, is a necessary preliminary step to engendering a more holistic understanding of the birth process; thus, potentially supporting more positive birth outcomes for the mother, the child, and the community.

To achieve these more holistic, positive birth outcomes, greater understanding of the hidden cultural structures that guide the birth process - pregnancy and birth care decisions and preferences, communication pathways, and support processes - is required. This process must be inclusive of all primary female voices, the pregnant women and the
birth attendants who support the women giving birth: midwives, birth attendants skilled and traditional (SBAs and TBAs), and extend to family and community members, such as mothers, aunts, sisters, neighbors or mothers-in-law who play these roles in settings when skilled care is unavailable. Community-level health supports, such as SBAs and TBAs, have relevant and necessary cultural competence that women understand, value and highly support (Kayombo, 2013; Sibley & Sipe, 2004).

In addition, a more participatory, culture-centered model of health research is vital to strengthen and beget change in local capacity and community-level engagement strategies for maternity care (Dutta, 2007; Kleinman, Eisenberg, & Good, 1978; Leininger, 2002). Participatory methodological tools and qualitative approaches, that directly engage pregnant women and their communities, will offer deeper understanding into the underlying socio-cultural issues influencing the birth process. Use of visual participatory methodologies such as photo narratives, arts-based approaches, or Photovoice have also shown to be both relevant and culturally sensitive in maternal health work (Foster et al., 2010; Rose, 2016; Wang, Burris, & Ping, 1996; Wang, 1999; Wang & Pies, 2004).

Finding a common definition of culture, and cultural beliefs, is challenging. Sub-Saharan Africa consists of 49 independent nations, with a 2016 population estimate of over 1.1 billion people (World Bank, 2015). The continent is incredibly diverse, with communities and villages possessing and sustaining their own unique beliefs and traditions. With this enormous linguistic, religious, and socio-cultural diversity, addressing maternal mortality and morbidity through a cultural lens is crucial. In Guinea,
with its population comprised of over two dozen ethnic groups, recognizing and supporting unique cultural beliefs is a complicated, but imperative step. The resulting diversity of cultural terms and beliefs from multiple groups within the same region or country clearly exemplifies the challenge(s) of undertaking culturally bound research in maternal health.

This study used the criterion of Leininger & McFarland’s (2006) definition of culture: “the learned, shared, and transmitted values, beliefs, norms, and lifeways of a particular culture that guides thinking, decisions, and actions in patterned ways and often intergenerationally” (p.13). This study utilized a two phase qualitative research design, using ethnography and visual participatory methodologies, to explore the role cultural beliefs and practices play in the birth process for women and their birth attendants in the Labé district of the Fouta Jallon region of Guinea. Guinea is a small West African nation with a population of 12.6 million (UNFPA, 2015). Guinea’s population comprises approximately 24 ethnic groups, of which three are dominant: the Peuhl or Fulani (40%), Malinke (30%) and Soussou (20%), while others, including Kissi, Kru, Kpelle, Toma, and Koranko in the Forest region of the country comprise the remaining 10% (CIA, 2016; World Bank, 2015).

Guinea’s ethnic groups vary, often significantly, in regards to language, religion, and other cultural practices, including practices and beliefs around pregnancy and birth. The Fulani are the dominant ethnic group in the Labé district and the overall Fouta Djallon region, where this research took place. Although the Guinean Ministry of Health does not track health indicators based on geographic or cultural differences, the high
prevalence of traditional socio-cultural practices are known to impact Guinean women throughout their life course. One of these socio-cultural practices is female genital cutting (FGC), which is considered a rite of passage in Guinea. Up to 96% of girls undergo FGC to varying degrees, most before age 15; however, the practice is slowly reducing in scope and practice in all regions, and among all ethnic and religious groups. 2012 DHS survey data indicated that the most common form is removing flesh (84%), with the more severe closing and sewing of the vagina accounting for only 6%. When asked whether the practice should continue, 76% women thought it should be maintained, with 58% of males agreeing. These numbers indicated the deeply embedded nature of this socio-cultural practice. Women with FGC are twice as likely to hemorrhage during childbirth, which is the leading cause of death for mothers in sub-Saharan Africa (Berg & Underland, 2013). Recent data indicate that an average of 48% of Guinean women have co-wives (polygyny), with the districts of Faranah and Labé, having the highest at 58% (USAID, 2012). And although Guinean law has set the age of marriage at 17 for women, 18 for men, 26% of women are already married by age 15. Thus, the prevalence of these, polygyny or early marriage, and other traditional birthing practices and religious beliefs, are known to impact Guinean women throughout their life course (UNICEF, 2014).

Guinea’s indicators of poor health mirror, or exceed, many of its sub-Saharan and West African neighbors creating a disheartening overall state of maternal health. The UNFPA’s State of the World’s Midwifery report (SOWMY, 2014) reported a maternal mortality rate of 680 per 100,000 births for Guinea, with only one trained midwife per 1,000 births. In the region of Labé, no specific data on health care providers was
available; however, countrywide 2015 data indicated (for a population of 12.6 million people) 3,550 doctors, 207 state certified nurses, 319 certified midwives, and 6,673 public health agents (ATS) (Baldé et al., 2017). As for the medical infrastructure in the Labé region, there is one regional hospital, four smaller district hospitals, 65 health centers, and 124 smaller health clinics. There is high variability in staffing, both in numbers and level of training, and availability of resources. Fifty nine percent of Guinean women give birth at home verses 40% at a health facility (36% public, 4% private), and the proportion of women who have home births increases with the birth order of the child. Overall, 25% of births are attended by a TBA, with this increasing to 32% in rural areas (USAID, 2012). Hence, a woman in Guinea has a one in 26-lifetime risk of death from pregnancy (as compared to a global 1 in 180-lifetime risk of death). The SOWMY report also highlighted the reality that a woman in sub-Saharan Africa is 100 times more likely to die in pregnancy or childbirth than a woman from an industrialized country. UNICEF data from 2013 indicated approximately 2,800 maternal deaths, an estimation only, as no formal maternal death notifications are required by the Guinean Ministry of Health. The known underlying factors such as malnutrition and malaria of mothers, early and late pregnancies, lack of prenatal follow-up, lack of medical assisted delivery, and absence of post-natal follow-up contribute to these numbers. Countrywide statistics for one and four antenatal visits were 85.2% and 50.3% respectively, while postnatal visits for newborns and mothers within two days of birth were 25% and 37% respectively; whereas skilled attendance at birth was 45.3% and institutional delivery was 40.3% (UNICEF, 2014). No country specific, and thus regional differentiations, of maternal
mortality cause data were available for Guinea; however, sub-Saharan regional data on causes of maternal death include: hemorrhage (25%), hypertension (16%), indirect causes (29%), other direct causes (9%), abortion (10%), sepsis (10%), and embolism (2%) (WHO, 2015; Countdown to 2015).

The Fouta Djallon region, where the study took place, has the highest regional maternal mortality rate, due in part to complications from its rocky, mountainous terrain, and limited transportation infrastructure. In addition, Guinea conforms only partially to the International Labor Organization’s (ILO) 2000 Convention 183 on maternal protection, and Guinea is ranked 175 out of 189 on the United Nations Development Program (UNDP) Human Development index (HDI). Though the Guinean government has attempted strategies such as the establishment of a Safe Motherhood program, a national strategic plan to combat female genital cutting (FGC), and passed a Reproductive Health Act, challenges such as the inaccessibility of health services, poor adaptation of facilities and equipment to the needs of women, family poverty, and the persistence of a number of social and cultural factors (e.g., early marriage, FGC, and food taboos) continue to stymie progress. These statistics, or the lack thereof, suggest a critical situation for pregnant women in Guinea. As multiple interventions and strategies over the last 30 years have elicted only moderate reductions in maternal death rates in Guinea, mortality and morbidity remain staggeringly high and new approaches to reducing the maternal burden must be attempted.
Purpose of the Study

This two-phased, multi-method qualitative study combined in phase one, the participatory method of Photovoice (photo narratives), ethnographic interviews and observations, in combination with focus groups with birth attendants; while phase two made use of ethnographic observations and individual in-depth interviews with women of childbearing age or reproductive age (WRA). The purpose of this ethnographic study was to identify the characteristics and the role of cultural beliefs and practices on a woman's birth process (conception to post-partum) among the Fulani in the Labé district in the Fouta Djallon region of Guinea. This study was supported by Leininger’s culture care theory of diversity and universality framework. The goal of this study was to help increase understanding of the role that culture plays in birth and care choice throughout pregnancy, labor, and post-partum from the perspective of childbearing women and, as termed for this study (see below), their birth attendant. This study also hoped to provide insight into the potential for incorporating more targeted and collaborative support and interventions for pregnant women in the region, in order to reduce maternal mortality and morbidity. For this dissertation, the term birth attendant was defined to include trained and untrained midwives and skilled and traditional birth attendants (SBAs and TBAs); all study participants defined themselves as birth attendants in some form, none as untrained healers, community or family members.

Stakeholders’ Description

In Guinea, there are several titles for women who assist with birth, as well as a grading system used by the medical community to distinguish levels of training (A, B, or
C). The highest grade that can be received is “A” for medical school graduates or physicians; thus requiring both a university degree and a medical degree to qualify. The term midwife [sage-femme] is used for women who have undergone clinical training to obtain a diploma or certification, then graded a “B.” They are required to have their high school diploma, known in Guinea as the “BAC” for baccalaureate under the French educational system. Upon receiving the “BAC” women can enter a three year midwifery training program. Many, however, begin as public health aides [agents technical de la santé] or [ATS] before later adding on the additional training necessary to be a certified midwife. There are three state-supported training hospitals/centers for midwifery certification in Guinea (Conakry, Kindia, and N’Zérékoré); no state-run program located in the research region, with only one, a new private midwifery school, in Labé. Midwives work primarily in the regional and sub-regional hospitals (research region included main regional hospital in Labé, as well as sub-district hospitals in Koubia, Lelouma, Tougué, and Mali. Nurses [infirmières] are also graded a “B,” and involve additional schooling as well. There are also two paths to the degree. Many begin as ATS, and then add on an additional two years of schooling, while others go directly for a three-year period of classes and training. Labor assistants [matrones] are technically women who are employed to clean the birthing rooms at the hospital, but often play dual roles assisting with the birth. Many of these women received ATS training and moved up to become midwifery assistants or other positions within the formal medical system (hospitals or clinics).
There are also health technicians [aide de santé or agent technical de la santé] or public health aide, graded a “C”. These are the lowest graded health position whose requirements include at least a 10th grade education (though schools have been known to enroll with less education), as well as three years of technical education, plus two years of apprenticeship [stages] often done concurrently with the coursework. This training includes only limited education in pregnancy and labor. The main training center for ATS is located in Labé, though there are others branches within the country. The French schooling system employs a series of exams to pass into higher grades at specific intervals. In this case, the entrance exam [brevet] is taken after completion of the 10th grade to pass into 11th grade or high school. Many do not pass, as the educational system acts as a funnel and reducing numbers as higher education, whether at high school or college level, cannot support increasing numbers. Entrance into technical programs, such as teaching or health, are a common option for young men and women in this situation. Traditional attendants [accoucheuses villageoises or accoucheuses] may have some form of informal training (essentially an internship or shadowing of a relative or local woman who practices as a birth attendant), or she may simply be the woman in the village who is called on to assist with births. This study defined the birth process as the time between conception and post-partum where women, and their babies, are at higher risk of death or complications.

**Description of the birth process for Guinean women**

Women have four “choices” of where to labor in the district: hospital, state-run clinic, private clinic, or at home (her own or that of her birth attendant). In reality, a
woman’s choice is mitigated and influenced by a number of factors both within and out of her control, including family power relationships, cultural beliefs, and access, among others. The regional hospital is located in Labé center with a maternity ward, neonatal care room, surgical rooms for C-sections, a fistula center, and clinical rooms for maternity visits, alongside a mortuary for maternal deaths. Within the larger district of Labé, there are also four sub-district [sous-préfectoral] hospitals (where similar maternal health services are offered, including an operating room for cesarean sections, though with less resources and staff). Maternal care in the hospital system is promoted as free; however, there are often hidden fees and required materials for labor and delivery beyond the cultural request pieces of cloth [pagnes]. These pieces of cloth will be used to cover the woman, wrap the baby, and potentially as a birthing table cover or for other birthing needs. Guinea also supports the World Health Organization’s (WHO) recommendations for at least four antenatal visits (WHO guidelines, 2016). Women receive a pink booklet [carnet rouge], officially health booklet for the mom and child [Carnet de Santé de la Mère et de L’Enfant] (see appendix A) that tracks their antenatal visits, when they choose to engage with the formal health sector, at the hospital or clinic.

Fulani women in the study region, as do most Guinean women, waited until the 4th or 5th month of pregnancy to begin their prenatal visits, completing their final visit in the month before or of delivery. Women are also encouraged to visit a final time after birth to receive the baby’s first vaccinations and to do a post-labor exam, including advice on how to care for the baby, breastfeeding, etc. On the first visit, women are given a mosquito net, as well as two pills (one an antimalarial (SP), the other a folate/iron pill
(FAF). At each of the four visits, women are weighed, their blood pressure is taken, their urine is tested for gestational diabetes, fundal measurements are taken, and they receive SP and FAF pills. Women are asked basic health questions and offered simple advice – i.e., eat food that is more nutritious and do not labor strenuously. These visits are not individualized, multiple women move in and out of the visitation room, at various stages of the visit, alongside the midwife and her ATS agents. This process allows for limited, if any, one-on-one time with the nurse or midwife for any personal questions or concerns.

At the first visit, women are given a brief talk, as a group, on infectious diseases and HIV prevention, in both how these can affect a pregnant woman and her baby and how to diagnose and treat by visiting the health center. Other topics include the basics of pregnancy and stages of labor, nutrition in pregnancy, and what kinds of medicines they should or should not take while pregnant or breastfeeding. During the remaining visits, basic vitals are taken and towards the end of the pregnancy, women are encouraged to consider birthing at the clinic or at the hospital.

On the day of birth, women are required to bring four to five pieces of cloth [<em>pagnes</em>], to be used as covering for the birthing table/ floor and themselves. Any other personal needs, such as food or water, must be provided by family or friends. This includes during labor and any additional time the woman may stay at the hospital or clinic (public or private) with maternal or neonatal complications. If a mother chooses to birth at home, her birth attendant provides food and personal care during labor, and by her family afterwards. In private, for pay, clinics in the area, including Bambino Clinic (where two of the study’s birth attendants worked) fees are incurred for visits and birth.
There are several private clinics in Labé, run as a separate business or sometimes as an additional clinic for a doctor employed at the regional hospital. Costs of delivering at these clinics is prohibitive for many women and costs are not always displayed or disclosed. There are also 10 larger state-supported clinics and 36 smaller health centers and points de santé in the district, where women can labor, as well as complete their prenatal visits (four funded by the UNFPA program in any formal health care setting). Clinics typically have a maternal and child section, with visitation, vaccination, and birthing rooms.

Finally, women can also choose to labor with a traditional birth attendant, or a matrone or midwife, in either their home or the home of the birth attendant. Many midwives and matrones from the clinics (both state-funded and private), also offer home delivery services in their own homes (where they often have a separate birthing room) or at the home of the laboring woman. In Guinea, at least 59%, 70% in rural verses 28% urban (USAID, 2012) women choose to labor at home, the majority with a traditional birth attendant (one who may have shadowed another birth attendant, but who does not have formal nursing or midwifery training). The pivotal role of birth attendants in the women’s birth process and their socio-cultural relationship with the women they serve in Guinea led to the development of the following research questions.

**Research Questions**

1. What are the cultural beliefs and practices aligned with the birth process (conception to post-partum care) for Fulani women in the Labé district of the Fouta Djallon region of Guinea?
2. How do Fulani women (childbearing age (18-49) and their traditional birth attendants/ midwives) describe the role of culture in the birth process (conception to post-partum)?

3. What are the most common cultural beliefs or practices that Fulani women engage in during the birth process?

Summary

Too many women die in childbirth and the time has come for innovative and inclusive research that includes the voices of women and the embedded cultural beliefs and practices that guide their pregnancy and birth care decisions. Chapter two will offer an overview of the state of maternal health in the sub-Saharan region, maternal health in Guinea, culture and cultural beliefs, participatory and visual methodologies, women’s voices, as well as choice of qualitative study methodology.
CHAPTER 2: REVIEW OF LITERATURE

The purpose of this review of literature is to provide context to the background knowledge, existing research, and best approaches to support the legitimacy of this particular study. The review begins with a broad overview on the status of maternal mortality and birth in sub-Saharan Africa, as well as any available indicators specific to Guinea, the Fouta Djallon region, and the Labé district specifically, where the study took place. The review continues by addressing what is known about the cultural processes associated with giving birth, specifically culture and cultural beliefs that may influence the birth process in sub-Saharan Africa from the women’s viewpoint. This review uses anthropological and health literature to examine gender and gender specific cultural practices, such as traditional medicines and the use of midwives and skilled and traditional birth attendants for pregnancy and childbirth care impact birth outcomes. A brief overview of the cultural theoretical lens guiding the study follows. Finally, a brief overview of qualitative research methodologies is presented, specifically ethnography and of community-based participatory research is explored, alongside participatory visual techniques such as Photovoice and photo elicitation interviews. The review concludes with the study’s research questions.

Sub-Saharan African Maternal Health

Historically, from the groundbreaking 1987 Safe Motherhood Initiative (SMI), a collaboration of the United Nations Populations Fund (UNFPA), the World Bank, and the WHO, alongside the Bamako Initiative by the African Health Ministers addressing maternal health issues in the same year, raised awareness of maternal mortality and
increased global and regional concern. However, the focus of the SMI resulted in a more narrowed focus of tackling maternal mortality from the perspective of obstetric emergencies and unsafe abortion. Maternal health was treated as a medical issue, viewing the problem’s solution through the lens of programmatic or data-driven quantitative measurement analysis, overlooking and underfunding more inclusive “ground-up” strategies from the perspective of women and those who assist with the birth process (conception through post-partum). As a result, research and interventions by multiple international agencies and partners explored viable solutions to reduce maternal mortality and morbidity using this limiting biomedical and interventionist lens.

Millennium Development Goal 5A strove to reduce maternal mortality by three-quarters between 1990 and 2015 (UNDP, 2016). Yet, UN statistics indicated that only eight countries were able to achieve this goal by 2015, with 39 others making ‘significant progress.’ Overall, there was an approximate 44% worldwide reduction in maternal mortality over the course of the 15 years; however, this equates to a 2.3% reduction per year. Consequently, the maximum efficacy of reductions made using the biomedical model may have been reached using current parameters. Direct involvement of the women themselves, alongside greater understanding of the individual and community-level cultural factors that influence the birth process, are required for a more balanced understanding of the issue.

To this end, the 2016-2030 Sustainable Development Agenda (SDA) revived aspects of the Millennium Goals agenda to once again focus on maternal mortality. Part of the SDA’s Goal 3 is to: “Ensure healthy lives and promote well-being for all at all
ages”, global goal 3.1, necessitates a reduction of the maternal mortality rate (MMR) to less than 70/100,000 live births from current levels. The goal also compels countries to have a maternal mortality rate of no more than twice the global average (140 maternal deaths per 100,000 live births), while reducing their MMRs by at least two-thirds of their 2010 baseline by 2030. Thus, countries with the highest maternal mortality burdens, like Guinea and many others in sub-Saharan Africa, will need to focus concentrated efforts and employ innovative strategies for any possibility of achieving these critical goals.

Whereas globally, resulting from these interventions, other geographic areas experienced significant reductions in maternal deaths since 1990, maternal mortality and morbidity rates in sub-Saharan Africa remain staggeringly high (UNDP, 2016). The WHO defines maternal mortality (death) as,

The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes. (WHO, 2019, para.2).

Whereas pregnancy death is defined by the WHO as “the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death” (2019, para. 2). Major causes of maternal death, which 2015 data placed at 830 women daily (550 of those deaths in sub-Saharan Africa in comparison to five in developed nations), include: intrapartum hemorrhage, obstructed labor, and infections. Sadly, three-quarters of these deaths are preventable, occurring during labor, delivery, or in the first 24 hours post-partum (WHO, 2016). The WHO estimated that of the 303,000
total maternal deaths in 2015, 99% took place in developing countries, and more than one-half of those occurred in Sub-Saharan Africa, equating to over 201,000 maternal deaths.

The regional scale of the problem is greater in sub-Saharan Africa than in any other part of the world, resulting in the highest global maternal mortality ratio (MMR) at 546 [511-652] deaths per 100,000 live births. In the African region, the world’s largest inter-regional disparities also occur. These MMR statistics for Sub-Saharan mothers generate a one in 36 lifetime chance of death during childbirth, compared to a one in 4,900 chance for a woman in a high income country or a one in 180 chance globally (WHO, 2016; World Bank, 2016). Maternal mortality and morbidity are both direct consequences of the immense gaps, both between and within countries and continents, in the varying levels of socioeconomic and geographic inequities; however, these statistics do not tell the whole story. Therefore, greater efforts to eliminate systemic inequities, and continual focus on the human rights aspect, will certainly impact maternal mortality and morbidity over the long-term, but viewing maternal mortality solely from the biomedical lens does not paint a reliable picture of how to address the current state of poor birth outcomes for women in the sub-Saharan African region.

Maternal death is not the only criterion of consideration of maternal health, as non-fatal disabilities and complications resulting from pregnancy are also prevalent. The Maternal Morbidity Working Group (MMWG), composed of obstetricians, physicians, midwives, epidemiologists, medical anthropologists, public health professionals and patient advocates from high-, middle- and low-income countries, defined maternal
morbidity as “any health condition attributed to and/or aggravated by pregnancy and childbirth that has a negative impact on the woman's wellbeing” (Firoz et al., 2013). Maternal morbidity, more common than maternal death, is also categorized as maternal “near-misses,” and encompasses complications ranging from difficult labor and co-morbidities to indirect conditions that women experience during pregnancy, delivery, or post-pregnancy. These complications comprise a compendium of more than 180 diagnoses divided into 14 organ dysfunction categories, ranging from obstetric to cardiorespiratory and rheumatology conditions (Filippi et al., 2016, chapter 3).

The United Nations Population Fund (WHO, 2015) reports that for every woman who dies in childbirth, 20 to 30 encounter complications with serious and/or long-lasting consequences; equating to almost 20 million new cases of maternal disability per year. One cause of morbidity with lifelong complications for women in sub-Saharan Africa is incontinence or, in its more severe form, obstetric fistula, defined by the WHO as an abnormal opening between a woman’s genital tract and her urinary tract or rectum. Recent estimates for sub-Saharan Africa place lifetime prevalence for women aged 15-49 years at 1.57 per 1000 (Adler, Ronsmans, Calvert, & Filippi, 2013; Osotimehin, 2013); for women in Guinea, this rate climbs to six per 1000 (Institut National des Statistiques, 2014). Women impacted by the complications of obstetric fistula are direct indicators of the societal failure to deliver accessible, timely and appropriate intrapartum care in an inclusive health system, alongside sociocultural factors limiting a woman’s decision-making powers and limited education.
These varied complications of pregnancy continue to be one of the leading causes of death for women of reproductive age, 15-44 years, along with HIV/AIDS in the world’s poorest countries (WHO, 2013). The dire consequences for women suggests that the achievement of reduced maternal death and disability is, and should be viewed as a cultural and a human rights issue. Therefore, altering the course of current research to be cognizant of this, focusing on understanding the cultural beliefs and practices shaping the course of maternal deaths and complications, while simultaneously addressing the systemic root causes (such as gender, poverty, or socio-economic barriers) is essential to improving maternal and community level maternal health outcomes for women in sub-Saharan Africa.

**Maternal health in Guinea**

As one of the world’s poorest countries, Guinea is currently ranked 175 out of 189 countries on the Human Development Index (UNDP 2018). The national medical system is marked by ill-developed state-level infrastructure, insufficient trained personnel (doctors, midwives, and nurses), lack of necessary equipment and medications, and very expensive treatment and medical costs. In Guinea 93% of health expenditure currently takes place outside the state sector through more traditional or community level healthcare networks (Leach et al., 2008). According to the Integrated Core Survey for the Evaluation of Poverty (EIBEP 2002-2003), access to health services that are within a 30 minute travel distance is only 38.9%, with the rate of use at only 18.6%.

Since this survey was conducted (2002-2003), Guinea has embarked on a variety of health sector reforms, with support from the WHO and other technical and financial
partners. A new draft of the National Health Development Plan (NHDP, 2015) for the period of 2015-2024, encompass what the Ministry of Health hopes will be a country where the entire population enjoys good health, with economic and social productivity, and with universal access to high-quality health care, and services that are fully inclusive. Aspects that will most benefit maternal and child health are the goals of expanded overall health coverage to a greater percent of the population and to strengthen the development of overall health services while focusing on community health. Overall, the EIBEP survey indicated that 53.7% of health service users were dissatisfied with their treatment; however, no specific data on maternal health was available (NHDP, 2015).

The government provides hospital maternity wards with delivery kits without charge (cotton, gloves, plastic sheets, and other supplies) that should be given directly to the women. However, there have been known stock-outs, where women are asked to provide the necessary supplies or to cover costs (Baldé et al., 2017), a possible source of dissatisfaction, as home birth deliveries do not have these same requirements. Several national programs and strategic plans have focused more specifically on maternal health to help alleviate some of the issues, including: the National Safe Motherhood Program, the Population and Reproductive Health Program, the National Strategic Plan to Combat Female Genital Cutting (FGC), and the Reproductive Health Act. Although these initiatives are positive movements towards addressing the issue, the challenges of country-wide implementation, and certainly for those women living in remote, rural areas, remain numerous.
When focusing on maternal mortality statistics, Guinea’s rates are amongst the highest in the world. The UNFPA’s State of the World’s Midwifery report (2014) confirms the maternal mortality rate for Guinea is 680 per 100,000 births; equating to a 1 in 26 lifetime risk of death for a pregnant woman in Guinea. However, this is a significant improvement compared with 859.9 deaths in 2008 and 964.7 in 1990. The report also indicates that the number of trained midwives per 1,000 live births is one, a number insufficient for a population of over 12 million people (CIA, 2016). Other internal reports indicate that there are approximately 108 obstetrician/gynecologists, 409 midwives and 1189 nurses, in total, to serve the entire country’s population (Ministère de la santé, 2014). These statistics are compounded by an imbalanced and inequitable distribution of healthcare workers across the country, the majority of whom prefer to work in more urban areas (Baldé et al., 2017). The most common pregnancy and labor complications include uterine ruptures, eclampsia, infections (up to six weeks post-birth), complications from abortions, hemorrhage, pre and post-natal anemia, and dystocia (difficult birth). These complications are compounded across the country, but especially in the Fouta region by limited access to high-level obstetric care. There is only one regional hospital in Labé and four sub-district hospitals staffed with trained birth providers. The remaining health infrastructure includes 65 health centers and 124 health points with limited materials, most likely staffed by health technical agents with limited training.

In the district of Labé, where this research project took place, a skilled attendant assisted only 35% of births, less than 2% of births had post-natal care within 48 hours,
and only 30% of births took place in a health facility (USAID, 2012). Maternal mortality statistics in the Fouta Djallon region are slightly higher than the national average, at 724 per 100,000 live births. Only 6% reported using any family planning, and the average age at first birth was 18.8 years [18.4-22.8 without schooling to secondary schooling] (ibid, 2012). No country-wide data exist on the reasons women chose not to seek care, though this is known to be a critical element to improve accessibility and utilization of services as the majority of women continue to give birth at home. The proportion of women who have home births is also known to increase with the birth order of the child. Known socio-cultural practices that impact care include high rates of female genital cutting (FGC), in addition to the cultural acceptance and/or prevalence of other gender-related risks, including domestic abuse, low contraceptive use and availability, early marriage, and high fertility rates (CIA, 2016; WHO, 2013).

Additionally, the West African nation continues to deal with outbreaks of infectious diseases, from food, soil, water, or vector-born communicable diseases, including typhoid, cholera, malaria, schistomiasis, Lassa fever, and most recently the Ebola virus outbreak of 2014. Regrettably, because of the outbreak, recent research indicates that many fragile gains made in reductions of maternal mortality are being quickly erased (Black et al., 2015; Check Hayden, 2015). The negative results stemming from the confluence of two health emergencies, Ebola and maternal mortality, clearly illustrate the structural inequities as well as the lack of cultural understanding and miscommunication that plague Guinean women, and will most likely impact women’s lives and birth outcomes for years to come. 2015 Médecins Sans Frontières’ (MSF)
projections could translate into a maternal mortality rate (MMR) increase of 26% relative to pre-Ebola rates, thus increasing from 680 to 1,000 deaths per 100,000 live births or more in certain regions.

**Culture and Birth**

Benedict (1934) defined custom or culture as the “conventions and values, which distinguish one community from all others that belong to a different tradition” (p. 1). As such, each individual’s experience is shaped by these nuanced and specific cultural beliefs and practices. She stated that anthropology looked at both the nature of culture and the nature of inheritance (ibid, p. 12). Birth traditions certainly fall into both categories, as women are shaped by overall cultural norms, as well as beliefs and practices specifically handed down for specific events and stages of life, such as the birth process. The final form of a cultural trait, she believed, depended on the “way in which the trait has merged with other traits from different fields of experience” (ibid, p. 37). Wilkinson (2000) looked at health in a broader sense as influenced by the socio-economic and social circumstances, in which people live, which, in turn, is also influenced by culture. Other works, such as Ortner (1984), focused on how the actions and beliefs of intentional subjects shape cultural systems, and how people in turn are shaped by those systems. Ortner’s ‘practice theory’ supports an understanding of the complex nature of women’s need to balance the required agency and management of relationships in the midst of sometimes-conflicting societal or cultural norms. Moreover, in a global sense, a woman’s role in culture is often defined by her reproductive ability from conception through motherhood.
Thus, unique cultural definitions and norms relating to pregnancy and childbirth are interwoven within a particular culture’s understanding of health, often rooted in community-level religious or socio-cultural roles. These culturally contextualized factors interact with and shape the reproductive behaviors of women; additionally, these differences often vary significantly both within and between countries. Douglas (1992) and Thompson (1992) believed there are four ways of categorizing societies; individualistic, hierarchical, enclavist (egalitarian), and isolate (fatalist). These categorizations assist in the interpretation of the interactions between culture, childbirth and its consequences.

Throughout rural sub-Saharan Africa, childbirth is a time of both joy and fear, as limited access to quality care and the influence of cultural factors are strong, often providing a more fatalistic view of potential outcomes. Hillier (2003) analyzed this more fatalistic lifestyle impacting childbirth as marginalization through structural imbalance in that, “they [women] need to maintain dignity through acceptance of their situation” (p. 23). Cultures are intrinsically linked to the social structures that surround them, due in part to the way resources are allocated and controlled, which significantly influence how meanings are created in the context of the life experiences of cultural participants (Dutta, 2007). Jaffré (2012), a medical anthropologist, defined cultural beliefs as a set of variables that are not integrated and included in most research, instead essentially existing in the margins of typical practice. The awareness of the existence of these beliefs and practices, without a common interpretation of significance, continues to negatively impact maternal health. Yet, however distinctive these cultural variables may be, there
exists an overarching influence of culture that is constant across a wide socioeconomic landscape in the context of maternal health. As Kleinman’s 1978 theoretical model concluded, medical systems are in fact cultural systems; they are inextricably linked and must be addressed as such in cultural ethnographic and comparative research on maternal health. The WHO Constitution defines health as a, “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (2006, para. 1). Health is also an indicator of people’s experience in regards to the quality of the environment and the embedded quality of social relations they share (Hillier, 2003).

Contained within cultural beliefs and practices are individual acts or rituals. As birth in most cultures is defined as a rite of passage, these unique components convey symbolic messages that speak of a culture’s most deeply held values and beliefs (Davis-Floyd, 2004). Research by Douglas (2003) and Turner (1969) analyzed how the concept of rituals as stereotyped actions that remain faithful to cultural patterns help explain the deeply held beliefs and practices that surround the birthing process. Their research defined rites as either public or private by whether they were more individual or more of a collective community norm. Beliefs and practices thus become a function of a “rite” within specific spatial and social context.

Cultural Birth Practices

Cultural birth practices are an influential part of the journey into motherhood for women in sub-Saharan Africa, where community-level cultural practices have been normalized for women since their own birth. One of the major struggles in reproductive health interventions has been the lack of cultural acceptance of certain biomedical
practices, while high levels of support continue for traditional practices. Research, up to this point, has primarily focused on those recognized as potentially harmful, such as unsafe abortions. A recent systematic review on perceptions of care in sub-Saharan Africa found, from six themes identified, that cultural perceptions of women, cultural perceptions of pregnancy, perceptions of traditional birth attendants and traditional healers, and role of community in pregnancy and birth were barriers to care (Brighton, D’Arcy, Kirtley, & Kennedy, 2013). These findings corroborate other research indicating intense support for positive traditional birth practices, such as abdominal or post labor massage, return of the placenta post-birth, and use of certain traditional medicines witnessed in multiple settings. The causes of complications produced by extraneous factors or women’s bad behavior, are often in conflict with strict biomedical practitioners (Aborigo, Allotey, & Reidpath, 2015; Beninguissse & de Brouwere, 2016; Brighton et al., 2013; Kyohumendo, 2003; Maimbolwa, Yamba, Diwan, & Ransjo-Arvidson, 2003). This divergent path between the need to honor a woman’s cultural heritage, her personal desires and preference, and the need for high-level care to reduce mortality and morbidity should be explored further; to develop care that honors her tradition and incorporates medical care and interventions that are necessary in some instances.

Furthermore, cultural belief practices surrounding birth and labor all have in common the desire for protection from complications, and to increase positive maternal and child outcomes for every birth. Interpretations on how or why particular cultural beliefs or practices are followed vary, from gender and power differences to traditional religious or cultural practices, depending on the emic views of the participants. For
example, Spangler (2011) viewed cultural knowledge as authoritative, considered legitimate to justify behavior that may not seem normative outside of that particular cultural lens. Chapman (2006) found that in experiences of reproductive vulnerability, in essence where a woman has little physical control over the outcome, cultural belief patterns were also the primary management strategies.

Throughout sub-Saharan Africa, the voice of the dominant actor in the narrative, the mother, has often been silenced as interventions and strategies have been forced upon her without gaining a conceptual understanding of her own individual or cultural needs and desires (Amogre Ayanore et al., 2016; Evans, 2013; Regional Office for Africa (AFRO), 2017). Remarkably, although research has illustrated the potential for culture as a measure to gain an increased understanding of the maternal mortality and morbidity narrative. Research studies have been rare, with wide gaps of knowledge remaining of which specific practices or beliefs are the strongest predictors and moderators in questions of impact on the birth process.

A recent review of literature (ROL) by Lang-Baldé & Amerson (2018) used the social structure of values, beliefs, and lifeways, to identify the following categories, birth outcomes, maternal care seeking, and maternal culture care. These categories, based on Leininger’s framework, more clearly represented how women’s individual or collective perspective on culture impacted their experience of childbirth. Twenty-five articles, representing 13 countries, were found which defined, directly or indirectly, associations of culture to pregnancy and birth, with no published research from Guinea. The majority
of the articles, 21 of 25, used qualitative methods. The following paragraphs will summarize this ROL.

**Birth outcomes**

Limited research has directly addressed the question of how culture influences birth outcomes in relation to individual populations and cultural values. However, available research indicates that in addition to medical causes of maternal mortality, cultural variables are often viewed as increasing the likelihood of maternal death (Ajiboye & Abimbola, 2012; Marchie, 2012; Shole, 2015). Women believed that negative birth outcomes resulted from a weak belief system or from not performing ceremonial practices as prescribed by ancestors. If traditional practices were followed, positive outcomes ensued (Ajiboye & Abimbola, 2012; Shole, 2015).

Cultural issues perceived as essential or problematic associated with severe maternal morbidities, included an attitude of fatalism towards pregnancy and labor (both are beyond human control), risk management via traditional medicines, and a strong culture of silence in regards to birth (Bantebya-Kyohumendo, 2004). Similar to Shole (2015) where cultural beliefs supported home births without seeking outside antenatal care, Bantebya-Kyohumendo (2004) found the existence of a vibrant sub-culture of childbearing women and their female caregivers (TBAs and mothers-in-law) conceived to cope with and rationalize adverse birth outcomes. The ability to conform to local birth culture validates a woman’s individual birth outcomes for herself and her child, but only if she relies on culturally accepted, sometimes high-risk options.
Culturally bound maternal culture care (MCC) practices observe various alimentary and behavioral prohibitions and recommendations through the three stages of pregnancy (Beninguisse & De Brouwere, 2004). Several studies (de Graft Aikins, 2014; Morris, Short, Robson, & Andriatsihosena, 2014; M’soka, Mabuza, & Pretorius, 2015; Otoo, Habib, & Anknomah, 2015) explored specific food taboos during pregnancy and labor, such as: eating bananas, okra, or peanuts, or drinking standing up. However, culturally defined taboos complicate the association between cultural representations of motherhood and the unpredictable demands of pregnancy. Moreover, culturally mediated food consumption patterns have not changed significantly over generations, except for food availability and mode of food preparation (de Graft Aikins, 2014). As MCC food prescriptions are often shared by mothers, grandmothers, or TBAs; increased education mediated beliefs in food associations. Thus, diverse cultural sources of knowledge are called upon to make sense of pregnancy food consumption patterns.

Use of both traditional and modern (biomedical) practices during childbirth reflects the existence of a dual health belief system (Thwala, Mid Jones, & Holroyd, 2012; van der Kooi & Theobald, 2006), which plays an increasing role for pregnant sub-Saharan women. For many, the mother-in-law continues to hold authority over which health system is followed (Chapman, 2006; Thwala et al., 2012). Women engage in biomedical healthcare opportunistically, as non-adherence to customs is viewed as a cause of misfortune (Lori & Boyle, 2011; Thwala et al., 2012). Thus, the power of
traditional MCC practices resiliently endures, as higher efficacy is continually placed on cultural meanings and values.

Further reasons for continued use of traditional medicines in MCC include social pressure, to solve difficulties, to protect from evil and harm, to stimulate prolonged labor, to induce labor when overdue, to protect privacy, and support issues with biomedical clinic staff (Abrahams, Jewkes, & Mvo, 2002; Mogawane, Mothiba, & Malema, 2015; M’soka et al., 2015; van der Kooi & Theobald, 2006). The decision to utilize traditional medicines for MCC is strongly influenced by embedded cultural and spiritual significance, as a participant revealed, “They say it is our tradition, so I just drink” (van der Kooi & Theobald, 2006, p. 16). Pregnancy and labor are viewed as requiring support, control, and protection from harm or evil spirits (Naidu, 2014; Thwala, et al., 2012). Often, women’s health experiences (in this case the birth process) are surrounded by myths, missing information, and misunderstandings.

*Maternal care-seeking*

Culturally bound maternal care-seeking (MCS) practices shape the narrative by which pregnancy and childbirth are embodied and protected across sub-Saharan Africa. However, a growing interplay between cultural (traditional) and structural (biomedical model) factors influence MCS. Whichever system is followed, the desired outcome is a safe mother and child, carried out within settings that employ culturally accepted support and practices (Beninguisse & De Brouwere, 2004; Dako-Gyeke, Aikins, Aryeetey, Mccough, & Adongo, 2013; Wilkinson & Callister, 2010). However, factors affecting MCS are multidimensional and interlinked, including women’s workload, lack of
knowledge, labor division and position, risky practices, as well as family and community expectations (Lowe, et al., 2014) that place unnecessary burdens on pregnant women.

Thus, cultural beliefs and practices are a key factor influencing not only MCS and place of birth, but also in understanding the progression of birth. Culturally constructed meanings about the birthing process include the perception of birth, norms of labor behavior, and overall community-level importance; thus, a birth without complications, employing culturally accepted practices, becomes the ultimate symbol of womanhood. However, a dichotomy exists in perception. First, pregnancy can be seen as natural, as an honor, an achievement, regarded as a sacred event and milestone, or an exaltation of femininity, that brings joy to entire family, while the woman is awarded respect, power, and status in community (Beninguissse & De Brouwere, 2004; Kwagala, 2013; Ngomane & Mulaudzi, 2012; Ugwu & de Kok, 2015). Or, pregnancy can be seen as a threatening experience defined by fear, a delicate unpredictable time, or a biological phenomenon shrouded with a level of uncertainty from spiritual, biological or cultural threats (Abrahams et al., 2002; Chapman, 2006; Dako-Gyeke et al., 2013; Morris et al., 2014; Wilkinson & Callister, 2010).

The appropriate time to disclose one’s pregnancy, and when to begin MCS varies. Revealing a pregnancy to those outside of the family, to anyone not an immediate relative before the second trimester or when visible to all, is seen as culturally inappropriate (Morris et al., 2014; Ngomane & Mulaudzi, 2012; Roberts, Hopp Marshak, Sealy, Manda-Taylor, & Gleason, 2016). In some cases, it is taboo to speak of the pregnancy even to her husband (Lowe et al., 2016). As the first three months are crucial for the
fetus, secrecy is expected to protect the mother from evil spirits who cause a malformed infant or a miscarriage (Dako-Gyeke et al., 2013; Lori & Boyle, 2011).

Finally, issues of trust and power in MCS are another culturally defined aspect of pregnancy and birth. Significant others (e.g., spouses, extended family, and religious leaders) can overrule health worker suggestions; their legitimacy playing an integral role in the decision for MCS (Kwagala, 2013; Lori & Boyle, 2011). Care at clinics is viewed as substandard when compared to home care by traditional birth attendants (TBAs). Trust lies in the presence of familiar faces, rather than in an unfamiliar environment; however, MCS choices are also limited (Lowe et al., 2016). TBAs, grandmothers, and traditional healers, regarded as the custodians of the local birth sub-culture and MCS, support gendered cultural hierarchies, limiting men’s presence and involvement. Birth’s value and meaning are judged to be ignored or discounted outside the home (Chapman, 2006; Kyohumendo, 2003; Kwagala, 2013; Lori & Boyle, 2011; Morris et al., 2014).

**ROL Summary**

To manage their pregnancies and births, women must navigate between two distinct worlds, making strategic use of limited biomedicine, and available forms of MCC and MCS, which are mediated by cultural influences that shape individual perceptions of pregnancy threats. Many women continue to trust that reproductive threats are best addressed outside of biomedicine. Thus, traditional cultural practices are privileged as sources of reproductive knowledge and therapy that address women’s real-life experiences (Chapman, 2006). Pregnancy MCS and MCC reflect bodily experiences and risk perceptions processed as cultural phenomena. Thus, actions undertaken relate not
only to cultural influences, but also to broad personal or community-level experiences of complications, which both constrain and engender reproductive agendas. Leininger (2006) advocates certain aspects of culture - values, beliefs, and lifeways - should be preserved, accommodated, or re-patterned to retain MCC and MCS that benefit the mother, to accommodate those that do not harm, and to develop interventions targeting harmful practices.

Increased understanding of the pluralistic sub-Saharan African views of MCC is essential. Misunderstanding results in reduced biomedical system support, thus continuing to delay MCS. The manner in which indigenous communities honor and view a woman’s pregnancy is a call for biomedicine to recognize constructions of MCC and work towards collaboration. As long as women and their unique culturally constructed MCS preferences and MCC behaviors remain under-researched and ignored by biomedical discourse, women will continue to turn to traditional medicines and practices in defiance. Therapeutic models of care, combined with the socio-cultural efficacy of the traditional system, the inclusion of community and/or family members in decision-making, and the promotion of positive outcomes is crucial.

The authors acknowledge that this review is limited by the vast geographical territory of Sub-Saharan Africa, a region of 49 countries. Yet, research is only available from roughly 13 countries within this region; thus highlighting a tremendous literature gap. Each culture has unique differences, yet similar universalities, as noted by Leininger (2006). In addition, with cultural differences one must anticipate and account for the difference in ethnographic/linguistic terminology that continues to challenge research.
Thus, until research is available for these additional countries, this ROL will serve as an initial guide to understanding the interplay of culture and birth outcomes; while laying the groundwork for further research for integration within broader socio-economic contexts and with other traditional care providers, such as TBAs.

Further qualitative research across and within countries is also needed to explain the nuanced roles played by MCC and MCS. Existing barriers with the biomedical system should be addressed, but should be inclusive of connections to, and the need to disclose, indigenous, cultural, or traditional practices. This disclosure of traditional practices respects patient preference and engages with the cultural community to ultimately benefit all women. The development of campaigns, trainings, and workshops using Leininger’s (2006) framework engaging reciprocal learning, and acknowledging the dual roles of MCC and biomedicine, is possible. This collaboration, through increased dialogue, can reduce mortality and morbidity, while also connecting more women with skilled care. In order to see significant reductions in morbidity and mortality rates, women’s voices and an increased understanding of MCC and MCS are critical. Ultimately collaboration and discourse must also take place among the various sectors, biomedical and traditional, to support programs, interventions, and access to benefit all women in sub-Saharan Africa.

Defining culture, and how to approach in cross-cultural research, is vital to understanding how beliefs and practices impact maternal health outcomes. Culture itself, represented in this case by women in the varying stages of pregnancy and birth, is the
locus of change; therefore, communities of women represent the active participants who are capable of altering their own health outcomes (Lang-Baldé & Amerson, 2018).

Cultural Theoretical Lens

Defining a cohesive description of the concept of culture or cultural beliefs is integral; however, describing or characterizing a common definition of culture and/or cultural beliefs is challenging. Sub-Saharan Africa consists of 49 independent nations, with a population of almost 1 billion people. The sub-Saharan region is incredibly diverse, with most communities and villages possessing unique beliefs and traditions. Consequently, incorporating a cultural lens with this enormous linguistic, religious, and socio-cultural diversity in order to address maternal mortality and morbidity is crucial.

Characterizing culture and how to approach cross-cultural research is vital to understanding how beliefs and practices impact maternal health. Once defined and accepted, research must also begin to address issues of competence and/or humility, to validate the complexity and sensitivity of maternal health care with the compassion and understanding it deserves. When exploring culture-related research, a common approach has been coined ‘cultural competence.’ Cultural competence, and related cultural humility, are constructs that have been used primarily in nursing and medicine, while slowly becoming more accepted in social science-based maternal health research. The International Council of Nurses (2013) right to culturally and clinically appropriate care delivery provided by the appropriate person in the health care team (para. 3), using six demonstrable steps. Accurately defining cultural competence is difficult, as both an understanding of what is meant by culture and by competence must be addressed.
A more process-oriented approach to cultural competency is cultural humility, loosely defined as an open oriented approach that allows for integration of specific aspects of cultural identity that are most important to the individual or their community. Tervalon and Murray-Garcia (1998) believe three main factors guide cultural humility: (1) a lifelong commitment to self-evaluation and self-critique, (2) the desire to fix power imbalances where none ought to exist, and (3) aspiration to develop partnerships with people and groups who advocate for others. Both competence and humility practices allow the research focus to be positioned, or even facilitated, by those most affected; in this case, pregnant women, mothers, and their birth attendants, so their voices will be heard and valued. Various models exist on illustrating how to support components of cultural competence and humility. This encouragement and validation of women’s own voices through lived experience, offer a degree of dialogue and understanding to emerge in the domain of maternal health research.

Little research has attempted to prioritize culture, leaving a current knowledge deficit that can be viewed as unresponsive to sociocultural-economic contexts wherein health experiences are situated (Dutta, 2007). Thus, Dutta’s theoretical model of cultural competence allows women’s voices to be represented and used to centralize cultural understanding to articulate problems through a cultural point of view supportive of solutions. Dutta’s theory stems from research in health communication, using culture to interrogate the dominant paradigm for its absences and silences, as a theoretical lens (ibid, 2007). Culture itself, represented in this case by women in varying stages of pregnancy and birth, is the locus of change; therefore, communities of women are the
active participants capable of altering their own health outcomes throughout the birth process. A major criticism of prior studies of cultural approaches in health was the top-down nature of many interventions. Consequently, Dutta’s research explored the culture-centered approach from the community-level, where the dominant research paradigm is disrupted by introducing what he refers to as the ‘subaltern’ voice. Subaltern is defined as the position of ‘being under or being erased’ from the conversation. In sub-Saharan Africa, pregnant women and mothers, alongside their caregivers, their birth attendants represent a “subaltern” or marginalized population (Dutta-Bergman, 2004). Using his theoretical framework in this study, women voices are captured by using their individual understandings of birth issues and risks to create a more participatory conversation generating better outcomes.

Joining this approach of culture-centered community-based work, Kleinman’s early work (1978), from the lens of medical anthropology, explored the concept of medical systems defined as cultural systems. His theory sought to understand health, illness and healing in society as a cultural system; that one cannot be separated from the other without losing essential context and meaning. This was one of the first theoretical frameworks to guide research in relating concepts of biomedicine to other popular, folk, and traditional health systems in comparative cultural research. Thus the question, how could one’s traditional beliefs on pregnancy and birth be understood from a biomedical perspective and/or vice versa? The cultural construction of illness was understood as a socially learned and sanctioned experience, which could not be separated from its socio-cultural understanding in the criteria guiding a woman’s medical choices (Kleinman,
Eisenberg, & Good, 1978). Though his work did not specify birth as an illness, the psychosocial and culturally embedded experience certainly lends itself to using, as Kleinman called, explanatory models (EM). These EMs allow for a particular experience to be defined within the sphere of cultural beliefs in the clinical community, and how the family and lay referral systems (traditional birth attendants, healers, and other family members) impacted outcomes (ibid, 1978). The process of interaction that takes place between the traditional and biomedical systems discloses a richer understanding of the culturally created structures of knowledge, logic, and relevance, unquestionable in the culturally constructed experience of birth.

Developed two decades before Kleinman’s 1978 model, Leininger’s original theory was developed to increase understanding of the close interrelationships of culture to conceptions of well-being, health, illness and death. Created from a clinical nursing perspective, the model supported the goal of more culturally congruent, safe and meaningful care of diverse cultures (Leininger, 1998). Leininger’s culture care theory of diversity and universality offered explanations of care measures that were more closely aligned with an individual or group’s cultural beliefs, practices, and values. As a result, the theory evolved into an organizational framework to analyze complex culturally-defined data.

Embedded in the Leininger’s sunrise model (see image 1) are seven social structure factors: “religion (spirituality), kinship (social ties), politics, legal issues, education, economics, technology, political factors, philosophy of life, and cultural beliefs and values with gender and class differences” (Leininger & McFarland, 2006, p.
44); however, this study focused explicitly on cultural values, beliefs and lifeways. Applying her three modes of care: preservation & maintenance, accommodation & negotiation, and re-patterning & restructuring, research on maternal health outcomes supports the retention of cultural practices benefiting the mother, developing interventions to target harmful practices, all while including and supporting what the women and their birth attendants value.

Her perspective on research and care practice encompassed ideas of listening with an open mind, co-learning, and the non-imposition of ideas on others which were innovative at the time, and are increasingly in use and integral for respectful and inclusive maternal health research today. However,

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Image 1: Leininger’s Sunrise Enabler. [Figure]. (2004). Retrieved from https://sites.google.com/site/asunursingconceptsml/home/philosophical-tenets.
by employing this culturally sensitive theoretical framework, one can truly appreciate the diversities, by her definition folk, lay or indigenous (emic) and universalities (etic), that increase understanding and awareness of the culturally constructed world of birth outcomes through the voices of the women themselves.

Ethnonursing theory, using qualitative methods focuses on “naturalistic, open discovery, and largely inductive (emic) modes to document, describe, explain, and interpret informants’ world – views, meanings, symbols, and life experiences as they bear on actual or potential care phenomena,” (Leininger & McFarland, 2006, p. 21) offers the structure and organization required for an ethnographic study. This framework can support and contextualize rich birth narratives like those of birth attendants and the women they serve. The method also allows the research team to focus on learning through direct interaction, a true willingness to learn from other cultures, allowing a blending with the principles of community-based participatory research. Philosophically and epistemologically as sources of knowledge, the framework is “grounded with people as the knowers about human care and other knowledge;” (Leininger & McFarland, 2006, p.52) in this case, women with knowledge of culture and the birth process. Leininger’s theoretical lens offers structure and support to address questions of why and how in regards to the influence of culture on the birth process. The three predicted action and decision modes of care: preservation, accommodation, and re-patterning, allowed the cultural beliefs and practices shared by the participants to be analyzed as to whether they were supportive, neutral, or possibly unsafe. These three theoretically predicted action and decision modalities of the culture care theory were defined as follows:
1. Culture care preservation and-or maintenance referred to those assistive, supporting, facilitative, or enabling professional acts or decisions that help cultures to retain, preserve or maintain beneficial care beliefs and values or to face handicaps and death.

2. Culture care accommodation and-or negotiation referred to those assistive, accommodating, facilitative, or enabling creative provider care actions or decisions that help cultures adapt to or negotiate with others for culturally congruent, safe and effective care for their health, wellbeing, or to deal with illness or dying.

3. Culture care re-patterning and-or restructuring referred to those assistive, supportive, facilitative, or enabling professional actions and mutual decisions that would help people to reorder, change, modify or restructure their lifeways and institutions for better (or beneficial) health care patterns, practices or outcomes (Leininger & McFarland, 2006, p. 8).

These three decision modalities, as defined, were used in this study to contextualize the results from the ethnographic inquiry and offer guidance on how best to approach solutions to reducing maternal death and disability, while valuing and supporting cultural beliefs and practices. The following section will describe the two overarching research paradigms that guided the present study, ethnography and community based participatory research (CBPR).
Research Methodologies

*Qualitative research & ethnography*

Qualitative research seeks to capture an understanding about a phenomenon from the perspective of those most impacted by the phenomenon (Bradshaw, Atkinson, & Dooly, 2018; Denzin & Lincoln, 2008). Qualitative methods, such as individual interviews and focus groups embedded within an ethnographic study, allow research to hear directly from individual voices, in maternal health research, the lived experience of the women and their birth attendants. As the WHO has identified improving a woman’s experience as a critical strategy to improving quality of childbirth care, which includes respectful care, effective communication, and emotional support (Tuncalp et al., 2015), a deeper understanding of her cultural requirements to realize these goals is integral. Ethnography, using a qualitative framework, is able to elucidate these nuanced understandings, while a more participatory approach increases validity through their direct engagement as part of the research process. Understanding the shared experience is a vital component to an overall understanding of the situation.

Using Leininger’s ethnonursing theory of cultural care diversity and universality as a framework, participatory ethnographic methodology allows the establishment of a “naturalistic and largely emic open inquiry method to explicate and study phenomena” (Leininger & McFarland, 2006, pg. 44). However, ethnography is not only intended to illuminate the lived experience, but is also used to write descriptive narratives of the experience, guided by a phenomenological paradigm to unearth a deeper understanding of the phenomenon in question with an innate focus on culture (Berry, 2011; Creswell,
2007). An openness to examining the “subjective, intersubjective, spiritual or supernatural experiences, as well as the caring experiences lived by cultures” (Leininger & McFarland, 2006, pg. 45), in this case the beliefs and practices surrounding the birth process, to truly listen with curiosity and respect in order to understand and value the rich lived experience of the women, guides the research process. In this study, ethnographic approaches were used to describe what was heard and seen using the context of the Fulani’s view of reality; ultimately recreating a written and visual description, defining the cultural context and interactions that long-term fieldwork facilitates to allow for more targeted understanding and subsequent interventions.

Designed to capture the perceptions and belief systems of a specific group while co-researching with women of that group, participatory ethnography supported collaboration from study design through analysis. The creation of an intuitive, easily translated, variable, flexible, and easily shared process is essential. Emphasizing the researcher-community relationship with the birth attendants as well as the community partners in healthcare, is an integral component of the participatory process. This approach necessitates an acknowledgement of privilege and of power imbalances. The strategies are chosen to minimize these imbalances, for the negotiations and conversations to function as a bridge between groups who potentially had vastly different individual experiences of culture and birth.

Ethnography, as defined by Fetterman (2010), is about “telling a credible, rigorous, and authentic story” (p.1). As such, the crucial component of this approach is time spent observing, listening to, and recording the voices and lived experiences of the
participants (and other key informants and community partners) by way of observations, conversations, interviews (formal and informal), attending family and community events (weddings, baptisms, antenatal visits with pregnant women), focus groups, and meetings. This allows the integration of daily patterns of behaviors and conversations, in addition increasing the ability to interpret the components in a research study. To validate findings, a process of data triangulation takes place where one source is compared to another. This comparison gives context and puts the overall phenomena into perspective. Fetterman (2010) spoke of identification in subtle contexts, a measure of internal consistency or to “provide a handle that aids the ethnographer in grasping a community’s fundamental ideas and virtues” (p. 96).

Ethnographic research typically assumes a phenomenologically oriented paradigm, using aspects of social constructionism and participatory approaches that allows for the diversity of multiple realities and narratives (ibid, 2010). This paradigm permits active listening and a focus on the individual narratives, concentrating on specific contexts in which people live and work to understand, then to contextualize them in a cultural framework (Creswell, 2007), in this case for the Fulani and the birth process. Ethnographers seek to understand the cultural aspects of both behavior and knowledge to truly understand and describe cultural phenomena. This cultural “lens” thus acts as a metaphor used to view and interpret culture. Incorporating a more participatory approach to an ethnography only increases the reliability of the findings. Thus, cultural understanding increases with the analysis of both informal and formal contexts, key events that come in all shapes and sizes, which are able to be compared and analyzed.
These key events convey a wealth of information. This study incorporates Photovoice, focus groups, and interviews to help capture patterns or “interwoven strands” (Fetterman, 2010, p. 97) to capture embedded meanings in cultural preferences and practices. Interviews, as stated by Fetterman, are the ethnographer’s “most important data-gathering technique” (ibid, 2010, p. 40), used with individuals at varying levels in formal and informal contexts. The combination of approaches, guided by an ethnographic lens, offered reliability to the data collected. Ethnography is an embodied practice, much like pregnancy and childbirth. The practice of participatory ethnography allows the incorporation of the lived experience of the researcher, to empathize and connect with universal aspects of the phenomenon, while also respecting and honoring where paths intersect or conflict. As Gonzalez (2003) states, the ethic of accountability goes beyond the narrating of the story, it involves the story of the researcher and how ethics holds the researcher and narrator roles accountable. This accountability necessitates a careful reflection of what is seen and heard, but also can be supported through others in the research process, in this study participatory approaches and co-researchers. Using co-researchers in the process allows the “goal of respectfully and creatively narrating others’ stories” (Berry, 2011, p.170) to be given greater reliability by having ‘other’s stories’ validated by the storytellers themselves.

**Community based participatory research**

Community based participatory research (CBPR) is a research approach whose aim is to increase levels of community involvement, eliminating health disparities, and promoting broader community change. The goals of CBPR are to ensure that a
community’s health needs (for this study cultural beliefs and practices influencing the birth process) are assessed and analyzed with the goal of dissemination, and, if possible, action or interventions (Israel, Schulz, Parker, & Becker, 2013; Minkler & Wallerstein, 2008). This study utilized participatory approaches to facilitate collaboration from the development of the study through the dissemination of results phase, while using the principles of ethnography to enhance or to form a more complete cultural understanding with an etic, or outsider’s perspective (Fetterman, 2010). As CBPR is increasingly focusing attention on alternative orientations to inquiry that stress community partnerships and action for social change and reductions in health inequities as integral parts of the research enterprise (Minkler & Wallerstein, 2003), these CBPR principles (see image 2) guided the progression of the study. Community based participatory research (CBPR) is defined as:

A collaborative approach to research that combines methods of inquiry with community capacity building strategies to bridge the gap between knowledge produced through research and what is practiced in communities to improve health…..increases the value of studies for both researchers and the community being studied (Viswanathan et al., 2004).

This allows for collaborations or partnerships to occur, with the researchers themselves becoming part of the community, and community members taking on the role of researchers. Because of this solid foundation in social justice and collaborative traditions, CBPR has tremendous potential to address challenging health and social problems.
In qualitative research and working collaboratively with women’s groups, using participatory techniques engages women more fully in the research process, while also incorporating aspects of a human rights approach (HRAs) framework. CBPR has been used in maternal health research in developing contexts with success (Bermudez-Millan et al., 2011; Foster et al., 2010; Karmaliani et al., 2009), but less in sub-Saharan Africa. However, critical concepts to participatory work include authentic dialogue between partners, free flow of information, and trust are essential to increase understanding of the phenomenon and to the development of culturally appropriate and accepted interventions. When the aim is maternal mortality and morbidity, these aspects are critical to understanding women’s experiences and to support their participation.

Community-based participatory action research (CBPR) involves a commitment to not only the health issue being researched, but to the community impacted, encouraging and supporting their engagement as research partners in as many possible

phases of the study. CBPR is comprised of nine principles (image 2) from (1) recognizing a community as a unit of identity, to (8) disseminating all findings and knowledge gained to all partners (Israel et al., 2003). Thus, the combination of participatory ethnography recognizing and supporting a more cooperative collaboration with participants and research assistants, and with the CBPR approach advocating for dissemination of results (Denzin & Lincoln, 2005; Heron and Reason, 1997), a strong research network was developed to helping mothers and their birth attendants in the Labé region to work towards reducing maternal death and disability. This recognition and incorporation of the women’s values (research community) identified during the research process is integral to the process of thematic analysis and the efforts to share results with organizational partners and the greater research community.

Visual Participatory Methodologies

Visual participatory techniques (such as Photovoice) have been used for cross-cultural research, especially with low literacy populations, to help foster dialogue and increase understanding of sensitive topics (Catalani & Minkler, 2010; Duffy, 2011; Wang et al., 1996; Wang & Pies, 2004). Theoretical underpinnings of the technique come from Freire’s empowerment education, documentary photography and feminist theory (Molloy, 2007; Wang, 2003). In this way, visual methods, such as Photovoice, are often deployed with “the aim of generating evidence about the ways in which social positions and relations (in this case the cultural birth process) are both produced by and produce distinct experience” (Rose, 2016, p. 308). Using this lens, the visual image is less important than the process and the narrative that surrounds the image and its creation.
Fiske (1994) used the term “audiencing” to describe the process by which a visual image has its meanings understood and discussed by way of how the image circulates from photographer to audience. As the Photovoice photos in the study were created with the intent to open up dialogue and to increase understanding of cultural preferences important to the birth attendants and the women, the manner in which the photos were discussed, and circulated, was significant.

Photovoice thus becomes a process by which people can identify, represent, and enhance their community with photographic technique, with the image as sources of data. As a practice based in the production of knowledge, Photovoice, coined by Wang (1999) has three main goals: (1) to enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important issues through large and small group discussion of photographs, and (3) to reach policymakers (Wang & Burris, 1997). Photovoice is a participatory action research method that employs photography and group dialogue as a means for individuals who are often marginalized or non-engaged in decision-making to deepen their, or another’s, understanding of a specific topic, issue, or concern (Sutton-Brown, 2014; Wang, 1999; Wang, 2003). An adapted format, from Michigan State University’s Photovoice Participant handbook (Foster-Fishman, Mortensen, Berkowitz, Nowell, & Lichty, 2013), guided the design of the Photovoice component for this study, using the Photovoice process as phase one of two with the birth attendants. The Photovoice process typically entails a multi-step process of beginning with learning about the camera, through taking the photos, and finally sharing or disseminating them with stakeholders.
Photovoice is a unique and innovative method of allowing participants with low levels of literacy or research experience, for this study BAs, photographed images that represented cultural beliefs and practices surrounding the birth process with the intent to have their photographs enhance cultural understanding, inform in-depth interviews through photo elicitation interview (PEI) techniques, and potentially impact community-level awareness or changes. Photovoice gave ‘visual representation’ to chart a course though communication with the community (Fetterman, p. 102), valuable because they encode a large amount of information about a phenomenon in a single object (Grady, 2004). The process, which as designed as highly collaborative, offers those most knowledgeable about the phenomenon another means of sharing information beyond a verbal explanation.

Photo elicitation interviewing (PEI) is a technique that allows researchers to insert a photograph into a research interview, whether the researchers supply those photos or participants are asked to bring their own. In either case, the participants are supplied ‘guiding questions’ which help them talk about the photo and/or select their photo (Harper, 2002; Jordan, Adams, Pawley, & Radcliffe, 2009). First defined as ‘photo interviewing’ by Collier (1957), the technique has become more popular in anthropology and cultural studies (Pink, 2006; Rose, 2016). Fundamentally, photo elicitation asks participants to take photographs or to analyze photos to be discussed with the researcher. In this study, the photographs were taken by the birth attendants during the Photovoice process, then used in the individual interviews with the women they served. This approach is used to generate further evidence about the importance of certain social or
cultural phenomenon, as the photos themselves represent ideas, objects, or locations that the research is attempting to understand. It is another method of giving voice or getting a reaction from participants on a topic (Harper, 2002; Richard & Lahman, 2015). Aspects of which can be used to address methodological crossroads of potential and tension including: (1) the potential of decontextualized photos, (2) photos as metaphors of meaning, (3) photos as representations of inherent meaning, or (4) participant empowerment (Richard & Lahman, 2015). Thus images may be used to help elucidate more detail, more explanation, and more feelings about the experience, as lived experience is often challenging to articulate in cross-cultural research.

Research Questions

The existing gaps in the literature and the nature of the cultural understanding being sought, in regards to cultural beliefs and practices and their influence on the birth process, led to the development of the following research questions:

1. What are the cultural beliefs and practices aligned with the birth process (conception to post-partum care) for Fulani women in the Labé district of the Fouta Djallon region of Guinea?

2. How do Fulani women (childbearing age (18-49) and their traditional birth attendants/ midwives) describe the role of culture in the birth process (conception to post-partum)?

3. What are the most common cultural beliefs or practices that Fulani women engage in during the birth process?
Summary

This chapter gave an overview of what is known in regards to maternal health indicators in sub-Saharan Africa and in Guinea, additionally any indicators specific to the research site in the Labé district of the Fouta Djallon region. Furthermore, a discussion on what prior research understood in regards to the influence of culture in the birth process, an overview of the chosen theoretical framework guiding the study, and an overview of chosen methodological paradigms. The following chapter will cover, in detail, the design, participants, measures, procedures, and analysis that were followed to answer the study’s three research questions.
CHAPTER 3: RESEARCH METHODOLOGY

Introduction

This study was an ethnographic exploration of the influence of culture on the birth process with a specific group of Fulani women of reproductive age and their birth attendants, within a defined geographic area, which is the Labé district of the Fouta Djallon region in Guinea. A mixture of qualitative and participatory research methods (Photovoice, focus group discussions, phenomenological and ethnographic interviews, and field observations) were used, to assist in obtaining a more comprehensive understanding on how cultural beliefs and practices influenced the birth process from the women’s perspective. Due to the participatory nature of the study, the data was guided by both the principles and stages of community based participatory research and the ethnnonursing framework on Leininger’s culture care theory of diversity and universality (Leininger & McFarland, 2006), then analyzed using participatory thematic analysis to capture participants’ unique lived experiences of culture and the birth process.

Context of Research Site

The research area for this study was the Labé district of the Fouta Djallon, also known as Fouta Jallon or Fouta Jalon or Middle Guinea [Moyenne Guinée], region of the Republic of Guinea, in West Africa. The Labé region is 8,830 mi² located in north central Guinea. The overall Fouta Djallon region, 30,000 sq. miles in size and rising 3,445 ft. (1,050m) above sea level, is an area of mountains and plateaus in west central Guinea, and a watershed of many western African rivers, including the Gambia River (Encyclopedia Britannica, 2016). The city of Labé was founded in 1720, by the Dianlonké people and

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named for their chief, Manga Labé. The city and region function as the main trading center of the country.

The study took place exclusively in the regional district of Labé and from its surrounding villages, home of the Fulani, or Peuhl, ethnic group. The Labé district [préfecture] is comprised of 13 sub-districts: Labé-centre, Dalein, Daralabé, Diari, Dionfo, Garambé, Hafia, Koalan, Kouramangui, Noussy, Popodara, Sannou, and Tountouroun. Villages are scattered throughout the region, often visible because of the largest village structure, the central mosque. Large areas of the region are isolated, with a lack of transportation options due to geographic terrain, alongside a lack of access to quality education and health facilities for those outside of the city center.

The regional population is 1,639,617 individuals, with a district population of 204,000. The regional city center of Labé is Guinea’s 4th largest city with a population of 79,347 people (CIA, 2016). The majority of citizens in the Fouta region are Muslim, as is 85% of the country (CIA, 2016). Citizens in the Labé district speak Pulaar, or Pulaar-Fouta, a member of the broader Niger-Congo language family, and are known as Fulani,
Peuhl, or Fulɓe. The Fulani are the majority ethnic group in the country, comprising 33.9-40% of the total population (CIA, 2016; USAID, 2012). The Fulani group was originally pastoral, but now are primarily agricultural and engaged in commerce.

**Researcher Positionality**

My role as a researcher stems from my experience living in the Republic of Guinea, for four years prior to the commencement of the study, and from marrying a Guinean national. Observing the tragic consequences of maternal mortality and morbidity in the country profoundly changed my perspective on pregnancy and childbirth. In fact, the loss of a dear Guinean friend, who was herself an internationally trained medical doctor, to complications from hemorrhage in childbirth, profoundly impacted me personally and professionally and was one of the major reasons for undertaking this research study.

As this study was framed as a participatory ethnography, my role varied, depending on the context, between participant as observer and observer as participant. As such, I was careful to remain objective in my observations and analysis (i.e., management of marginality); however, the integration of more participatory elements encouraged greater subjective participation and engagement than what is typical for most ethnographic studies. I was conscious to use reciprocity and reflexivity in my interactions and observations, and asked the same of my participants and research staff. Participatory ethnography requires involving the people and/or community of study (for this study birth attendants and the women they served, as well as the research team) to be part of the research process in as many ways as possible.
The research goal was to help participant women tell their own stories of culture and the birth process, and to collectively and collaboratively make sense of them, and then to disseminate our results and understanding to community and national partners. As Patton (2005) stated, in qualitative research, the “researcher is the instrument;” thus, in our participatory ethnography there were multiple “instruments.” Additionally, Fetterman stated “cultural interpretation involves the researcher’s ability to describe what s/he has heard and seen within the framework of the social group’s view of reality” (2010, p. 17). The ability to frame myself as an “outsider-insider,” familiar with and embedded into aspects of Guinean culture via marriage and motherhood, offered a myriad of benefits that helped enrich the data gathered and the relationships formed, while allowing me to have greater insight into the cultural reality for women in the study.

Framing myself as the study facilitator and not the expert, allowed for the women (participants) to take on the roles of educating, sharing, and discovering without a sense of inferiority, in an effort to limit issues of power to the greatest degree possible. To contextualize the data, time was spent alone, as a research team, and with participants reflecting on the observations, conversations, and experiences throughout the study. In fact, this emic perspective “compels the recognition and acceptance of multiple realities” (Fetterman, 2010, p. 21). I believed throughout the research process, that in order to reach equitable understanding and outcomes, we needed the foundation of an equitable and inclusive research process.

To lessen translation errors and to allow further participation in the research process, I spent time before and during data collection improving my fluency level of the
most common ethnic language used in the Fouta Djallon region, Pulaar. A combination of family and friends were constant sources of encouragement and practice. My research assistants, with their personal and professional experience, were able to increase my working vocabulary in regard to women, culture, and maternal health. I went back to Guinea fluent in French, and became more conversationally fluent in Pulaar.

**Study Purpose**

The purpose of this study was to identify the characteristics and the role of cultural beliefs and practices on a woman's birth process (conception to post-partum) among the Fulani in the Labé district of the Fouta Djallon region in Guinea. This study pursued increasing understanding of the role that culture plays in birth and care choice throughout pregnancy, labor, and the post-partum period from the perspectives of childbearing women and their birth attendants. This study hoped to provide insight into the potential for incorporating more targeted and collaborative support and interventions for pregnant and post-partum women in the region, to better support women’s preferences and to reduce maternal mortality and morbidity.

**Study Design**

**Design Overview**

The study design followed the principles and stages of community based participatory research (CBPR), integrating and collaborating with participants, structured as two distinct phases. This two-phase design (see table 1) engaged with two sample populations. Phase one collaborated with two groups of birth attendants (BAs 18+ years), and phase two with women of childbearing age (18-49 years). To understand the
associations of cultural beliefs on the birth process during phase one, BAs participated in
a Photovoice project, followed by focus group discussions to broaden the understanding
of how Fulani cultural beliefs and practices were perceived and defined by those who
engage directly with pregnancy and labor as caregivers and providers. In Phase two,
phenomenological/ethnographic interviews, with women served by the BAs in phase one,
provided a more in-depth understanding of a woman’s lived experience, her individual
perspective of culture’s impact, as well as to allow for the potential exploration of
community and gender-based norms, meanings, and cultural values.

The narrative of more than one woman was needed to determine what represented
a culturally determined factor or behavior, or an individual preference. Informal
observations, combined with community partner interviews added additional context.
These observations took place during the interviews with women and with key
community partners, and in the communities (examples included: attending births,
baptisms, weddings, community or religious celebrations, daily activities at home, at the
market, and at prenatal visits or other
<table>
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<tr>
<th>CBPR research stages</th>
<th>Study Phase (participants &amp; partners)</th>
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<td>Discussion of roles &amp; responsibilities</td>
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<td>Post-Phase 2 BAs &amp; research team Community partners Ministry staff</td>
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<tr>
<td>9. Action &amp; applying results **</td>
<td>N/A</td>
<td>Presentations</td>
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<td>Sharing photos</td>
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**Table 1: Study design incorporating CBPR approach stages**
medical visits) also gave broader context to the individual narratives given by the women and their BAs. Additionally, visual artifacts (photos and their accompanying narratives created during the Photovoice project or taken by study staff), and ethnographic interviews with community partners were used for greater comprehension in the analysis. Thus, by listening to multiple voices within the birth community, employing multiple level ethnographic observations, the use of visual imagery, and by using a comparative thematic participatory analysis, a more nuanced understanding of how culture influences the birth process emerged. Finally, participatory analysis and dissemination events were used to share research results obtained through the two phases. This grouping of research approaches was designed to capture different perspectives of the phenomenon of culture and the birth process, ultimately hoping to increase understanding and to inform policy change.

**Definitions of Operational Terms**

1. Birth attendant: *includes trained and untrained midwives and skilled and traditional birth attendants (SBAs and TBAs)*

2. Birth process: *defined as the time between conception and post-partum where women, and their babies, are at higher risk of death or complications*

3. Community Based Participatory Research (CBPR): *a partnership approach to research that equitably involves community members, organizational representatives, researchers, and others in all aspects of the research process, with all partners in the process contributing*
expertise and sharing in the decision-making and ownership. The aim of CBPR is to increase knowledge and understanding of a given phenomenon and to integrate the knowledge gained with interventions for policy or social change benefiting the community members (Israel et al., 1998).

4. Community partners: Individuals engaged within the formal health sector as obstetrician/gynecologists, members of the national public health service, or who worked for local or international non-governmental organizations (NGOs) working in maternal health.

5. Culture: “the learned, shared, and transmitted values, beliefs, norms, and lifeways of a particular culture that guides thinking, decisions, and actions in patterned ways and often intergenerationally” (Leininger & McFarland, 2006).

6. Guided brainstorming: a process of individual or collective group discussion about a particular subject under the constraints of perspective and time. This format helps to reduce conflict and constraint while stimulating critical and creative thinking in an all engaging, balanced environment. This brainstorming often takes place for a pre-defined period of time, using visual methods (writing or drawing) by a pre-appointed scribe (adapted Sekhar & Lidiya, 2012).

7. Free list: a group process to help isolate and define relevant themes. Free listing questions simply ask respondents to list as many items they can think of for a particular topic (ERNWACA/ROCARE).
8. Photo elicitation interview (PEI): a technique, which allows researchers to insert a photograph into a research interview, whether the researchers supply those photos or participants are asked to bring their own. In either case, the participants are supplied “guiding questions” which help them talk about the photo and/or select their photo (Harper, 2002; Jordan et al., 2009).

9. Photovoice: a process by which people can identify, represent, and enhance their community through a specific photographic technique. As a practice based in the production of knowledge, photovoice has three main goals: (1) to enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important issues through large and small group discussion of photographs, and (3) to reach policymakers (Wang & Burris, 1997).

The pursuit of cultural understanding led to the development of the research questions below.

**Research Questions**

1. What are the cultural beliefs and practices aligned with the birth process (conception to post-partum care) for Fulani women in the Labé district of the Fouta Djallon region of Guinea?

2. How do Fulani women (childbearing age (18-49) and their traditional birth attendants/ midwives) describe the role of culture in the birth process (conception to post-partum)?
3. What are the most common cultural beliefs or practices that Fulani women engage in during the birth process?

Participants

Overview of participants

This participatory ethnographic study used a two-phase design with two main sample populations. Phase one collaborated with birth attendants (BAs 18+ years), and phase two with women of childbearing age (18-49 years) who were served, in the last five years, by the BAs in phase one. Exclusion criteria for both childbearing women and birth attendants included: (1) cognitive impairment that would hinder their ability to complete the interview or focus group, (2) not Fulani or living in Fouta region, and (3) limited ability in French. Over the course of the study, exclusion criteria number three was considered with flexibility, as French fluency was challenging to find when recruiting from remote villages. The study also engaged with community partners who were involved with the study through support, ethnographic interviews, and participation in study dissemination.

Stakeholder & community partners’ engagement

Introductions, facilitated by another Fulbright scholar, took place with staff from the Ministry of Health in Conakry prior to commencing the study. She was able to facilitate meetings with the Director of the Division of Human Resources for Health (former head obstetrician/ gynecologist and Director of Maternity in Labé) and the National Director of Family Health and Nutrition. She later helped organize an early analysis presentation that included the Director of the Division of Human Resources, the
National Director of Family Health and Nutrition, the President of the Order of Midwives in Guinea, the Chair of the Public Health Department at the National University in Conakry and Director of the Maferenya research group, alongside other midwives, nurses, and members of the university public health faculty.

In Labé, the research team was introduced to the regional public health director, head of the maternity ward at the regional hospital in Labé, and the head of the maternal health division of the regional office of the United Nations Population Fund (UNFPA) in Labé. Additionally, meetings were also held with local leaders in the villages and permission was obtained to complete observations in local clinics or other community health centers, as part of the study’s ethnographic observations.

Prior to beginning the study, a meeting was organized, via one of the study’s key informants, with the regional public health director (DPS) to obtain his approval and receive feedback on the proposed research. Consent was obtained to work in his district (and its sub-districts), went over the protocol of the project, offered copies of Clemson Institutional Review Board (IRB) and Guinea CNERS approvals, solicited his opinion on where to hold meetings, and any sub-districts of particular importance for the second group of phase one, in addition to answering any questions or concerns that he had about the study. The DPS, as a trained obstetrician/gynecologist (ob/gyn), was extremely supportive of the project and offered invaluable guidance throughout the study. We met multiple times, and he was a participant with the traditional birth attendants for the presentation of results and discussion of ongoing needs.
The same key informant, who worked as a midwife at the regional hospital, also introduced me to the head of maternity, as well as the ob/gyns, nurses, midwives, and matrones on staff. The head of maternity assisted in recruiting midwives from her staff for phase-one birth attendants. She consented to speaking with me multiple times, and meeting at the end of the study for a longer ethnographic interview.

The head of maternal health program in the Fouta Djallon region of the UNFPA working on maternity care was also a community partner whom I first met when attending a prenatal visit with my sister-in-law. He was also a supporter of the project, as he had immense knowledge of the sub-districts and birth, as he was a practicing ob/gyn at the regional hospital, as well as in his own private clinic and local NGO. We met and talked several times during the study, and at the end completed a consented ethnographic interview.

**Phase One: Birth attendants**

Phase one of the study involved collaborating with local birth attendants (BAs), from Labé and from four of the thirteen sub-districts, in the surrounding villages of Noussi, Daralabé, Garambe, and Taran, of the Fouta Djallon region in research design and implementation. Phase one was divided into two groups. Group one for BAs living within the boundaries of Labé center (n=11), and group two for BAs living in villages of the sub-districts (n=5). Recruitment took place broadly within the defined boundaries of the town of Labé, and then took place in sub-district villages, using different points of entry at varying distances into town. Purposive sampling was used to recruit birth attendant participants via key informants and research assistant contacts (see appendix
B). Phone calls, recruitment from state-run clinics, as well as visits to private homes were all used to obtain the necessary number of participants (n=16). Inclusion criteria, to obtain a sample of women with varying levels of expertise included:

- Traditional and skilled birth attendants, and midwives
- In practice for at least six months
- Ability to speak conversational French
- Member of the Fulani ethnic group
- Lived within the boundaries of the city of Labé and surrounding villages
- Comfortable discussing culture and birth outcomes

Incorporating the voices of the local Fulani BAs was integral from the onset of the study to the final implementation of recommendations and the dissemination of results, as a woman’s birth attendant has intimate knowledge of cultural barriers and supports encountered by local women (Ronsmans & Graham, 2006; Sarker et al., 2016; Sibley & Sipe, 2004; World Health Organization (WHO) et al., 2015). In Guinea, women and the community value and support BAs’ cultural competence; thus, as this research incorporated their viewpoints, it was well received and supported. The BAs were the experiential care experts of the phenomenon being studied. Two local gatekeepers (practicing midwives), alongside the individual and professional networks of my research

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<td>Matrone</td>
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<td>Birth attendant</td>
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assistants collaborated and allowed access to their vast connections from years of work as midwives and health staff (40+ years and 10+ years, respectively) in the local area.

**Phase Two: Women of reproductive age**

The second phase consisted of phenomenological/ethnographic in-depth interviews with women (aged 18-49 years) who were served by the birth attendants who participated in phase one. The study sample included a narrower age range for childbearing women, or women of reproductive age (WRA), than is recommended by the World Health Organization (WHO). Although women give birth before the age of 18, because ethical considerations would require parental consent, only the birth attendants recruited the experiences of those 18-49. All of the birth attendants from group one and group two (n=16) were asked to recruit a woman they had served for their pregnancy and birth willing to speak to us about her experience. Due to challenges of communication, weather, and terrain, only 12 women total were recruited. Inclusion criteria to obtain a sample of women with diverse reproductive histories included:

- Aged 18-49 who had given birth over last five years

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<tr>
<td>Demographics: Individual Interviews with Women of Childbearing Age (n=12)</td>
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• Ability to speak conversational French
• Member of Fulani ethnic group
• Given birth at home, or local health clinic, health center, or hospital
• Comfortable discussing culture and the birth process

The BAs were also asked to recruit women who had a variety of pregnancy and labor experiences (twins, primigravida (first pregnancy), multigravida or as multiparous, easy or more challenging births, with or without complications). The research team kept abreast of the birth narratives of the women, updating BAs of what was required to recruit a diverse sample to avoid only hearing the narratives of births without complications. Though potentially considered a limitation, the relationship between a birth attendant and the woman was determined to be important criteria for greater understanding of the ways that culture influenced the birth process. As the interviews evolved, BAs were asked to recruit women who fit more specific criteria to ensure a diverse sample of women.

**Measures/ Instruments**

The multi-method participatory ethnography used a variety of methodologies and techniques to arrive at a greater understanding of how culture influences the birth process, including Photovoice, participatory techniques, focus groups, individual interviews, ethnographic interviews, observations, and photo elicitation techniques.

**Photovoice & Participatory Techniques**

The Photovoice method was applied as a tool to increase understanding of cultural beliefs and practices for Fulani women in the study area. Visual participatory techniques
(such as Photovoice) have been used for cross-cultural research, especially with low literacy populations, to help foster dialogue and increase understanding of sensitive topics (Catalani & Minkler, 2010; Duffy, 2011; Wang, et al., 1996; Wang & Pies, 2004). An adapted format, from Michigan State University’s Outreach and Engagement Office’s Photovoice Participant handbook (Foster-Fishman, et al., 2013), guided the design of the Photovoice component, reducing the number of meetings recommended from four to two to accelerate the process, and introducing a blended focus group discussion during the second meeting. All participants were given a brief introduction to the use of the digital cameras and to the Photovoice process. The Canon PowerShot cameras were chosen because of their ease of use, large viewing screen and affordable price. All signed photo release waivers (see appendix C) prior to beginning the research (n=16). The Photovoice process was divided in two groups as follows:

**Group 1:**

In addition to the Photovoice, the first group participated in visual participatory group processes, including free listing and guided brainstorming. Both involved large sheets of brown paper and sharpies, used to write down words or concepts that defined how culture influences the birth process. No formal structure was required beyond separating the BAs into three groups for the guided brainstorming.

**Group two:**

The second group was given individual trainings on Photovoice and the use of the cameras, instead of a group process.
Focus Group Discussions with BAs

The focus groups were very flexible in structure and broad in focus, common when the research is more exploratory and the issues unknown (David & Sutton, 2004). The discussions were formatted to encourage a range of responses, providing a greater understanding of the beliefs, opinions, and perceptions of the birth attendants; essentially creating a “group interaction to produce data and insights that would be less accessible without the interaction found in a group” (Hennick, 2007, p. 8). A focus group (FG) guide (see appendix D) was designed by the researcher and was then approved by Clemson IRB before leaving to complete the field research. After reviewing with the research team, the wording of the FG guide was adapted slightly due to differences in colloquial French terms and pilot tested. Pilot testing of the FG guide took place with family and local friends who helped ensure the cultural relevancy and clarity of the questions. The final FG guide contained a series of five questions available to use as necessary for clarification and understanding. Final focus group guide questions (five with probes) included: Many of you mentioned ________ could you give me any more examples of this during the birth process? During pregnancy specifically? During labor? Post-partum? and, Do you think childbearing women are aware of the role that cultural beliefs and processes have on their birth process? To what extent do women engage in ________? Can you describe this further or tell me more....

Individual Interviews with women served by BAs

Individual interviews were scheduled following the completion of the focus group discussions. Birth attendants (BAs) from both groups of phase one, recruited women they
had served within the last five years who fit the inclusion criteria of the study. A total of 12 women were recruited. Interviews took place until saturation was reached, as recommended in qualitative research (Creswell, 2007; Leininger, 1998). As birth is viewed culturally as confidential, the interview(s) took place at the location and time of the woman’s choosing (clinic, home of BA, personal home, and hospital), first to make her feel at ease, as well as to familiarize her with the project and to gain consent and to complete her narrative.

Women were contacted as they were recruited, and interviews were scheduled at their convenience. An interview protocol (see appendix E) approved by Clemson IRB prior to travel overseas guided the interviews. The protocol included three demographic questions, followed by a five open-ended questions with probes about her birth experience. Example questions included: *Tell me about how your pregnancy experience? How did your family view your pregnancy? Your community? Tell me about your delivery? Where did you choose to give birth? What or who influenced that decision? Who attended your birth? Was this person your first choice?* After review by the research assistants and discussion with several BAs, alongside pilot testing on friends and family, small adaptations were made to wording for greater cultural relevance and understanding.

**Ethnographic Interviews**

Informal ethnographic style interviews took place throughout the study, as family and friends were asked for clarification and explanation of cultural influences on the birth process. Three planned interviews also took place with community partners, the Regional Director of Public Health, the Director of Maternity at the regional hospital, and the
Regional Director of the UNFPA’s maternal health program. These interviews occurred at their place of employment after the research study was complete. In this instance, we combined sharing of research results with a chance to clarify and gain more understanding of the maternal health situation from the formal health sector.

**Individual and Community Observations**

Throughout the study, informal ethnographic observations were noted. These notes on activities witnessed at home and within the community (such as: baptisms, weddings, clinic or hospital visits), informally asking women (family and friends) about cultural aspects of pregnancy, labor, and post-partum to offer greater context to the study. Two notebooks, the researcher’s digital SLR and iPhone, as well as a separate digital recorder and the voice recorder on the researcher’s iPhone were used to record these observations.

**Photo elicitation techniques:**

In this session, a data analysis session was held with the BAs and the research team to choose 25 photos taken during the Photovoice were chosen as representative of cultural beliefs and practices. These photos were used to elicit more detail or to clarify a woman’s narrative by inclusion during the individual interview process. Ten of the 12 interviews used photo elicitation.

**Dissemination meetings**

From the onset of the research study, the desire was to share the research, with the support of the participants, to as many stakeholders and community partners as possible. No plans were made until after the completion of phase one, when meetings and
presentations were scheduled both in Labé and in the capital city of Conakry. BAs and research staff accompanied the researcher as much as transport and logistics would allow. The meetings were both informal sharing of the results and techniques used, as well as more formal presentations of early analysis.

Procedures

Ethical Approval

Permission was initially obtained from the Minister of Higher Education and Scientific Research in Guinea to begin the research process as part of a Fulbright application. IRB approval was subsequently obtained from Clemson University. Upon arrival in Guinea, it was understood, via existing contacts and Clemson IRB, that no formal IRB process was necessary for non-clinical research in Guinea. However, in mid-February 2018, the researcher learned while traveling to the capital city to meet with Ministry of Health staff for cultural approval, there was a required local IRB process. Though in place for more than 20 years prior to the Ebola outbreak in 2014, the IRB process was primarily for review of clinical studies taking place in the formal health system. With increased interest of broader health research, the Comité National d’éthique pour la recherche en santé (CNERS), began to streamline a review process for all health-based research.

Local IRB applications were only accepted at the beginning of the month, so the application was submitted at the beginning of March 2018. Due to some ongoing unrest in the capital city (thus limiting safe travel from Labé), and the travel schedule of
members of CNERS, the study was not formally approved until the beginning of May 2018.

**Human Subjects Protection Procedures**

All assistants were trained using an adapted CITI workshop approved by Clemson IRB and the Guinean ethics review board, CNERS, in Conakry (see Appendix 5). After receiving formal approval from CNERS, a formal training event for the research assistants was organized.

Participants, both birth attendants and women served by the birth attendants, were informed that they could decline to comment on any issue, that their confidentiality would be assured, and that they could withdraw from participation at any time. Oral consent was obtained, in French or Pulaar, from each participant before data collection began, and due to the participatory nature of the study, continual consent was sought at each meeting or interview throughout all phases of the study. Confidentiality of all information and anonymity of all statements was ensured by removing participant’s names and replacing with numbers or other identifiers. Soft data was stored in a password locked computer and backed up to an external hard drive, while hard data was kept in a secured locked room in the researcher’s home.

**Recruitment of Research Assistants**

As this was a qualitative, participatory study, requirements for research assistants included reliability, language fluency in French and Pulaar, knowledge of cultural birth practices, and transparency for the purpose of the research, the collaborations, and the translations. Fulani culture reveres pleasing and assuring visitors; thus, there was the risk
of more complex or potentially negative beliefs or practices not being translated or explained. Thus, the study necessitated female researchers willing to share beyond the scope of those embedded socio-cultural norms, ensuring that the researcher had the most complete and nuanced understanding of the topic. Since the study involved gathering personal and sensitive information, research assistants were chosen with confidence in their given role, ability to act respectfully and ethically in their treatment of sensitive information, and with the ability to translate and share what they heard, thought, and felt in any situation.

During the study proposal process, a dear friend of the lead researcher, employed in the formal health sector as a nurse, was asked to become the lead research assistant for the project. She had more than 10 years of experience working as a health tech and, later, as a nurse in clinics and hospitals in Labé, as well as the capital city of Conakry. Her background in the formal and informal health sectors, and ability to speak fluently the cultural language of health, in addition to all of Guinea’s major languages (Pulaar, Malinké, Sousou, and French), as well as being the mother of three children, made her the perfect fit for the research study.

The second research assistant was chosen due to years of friendship and family ties, her knowledge and personal connections in the sub-districts, her relational skills, and curious mind. She worked as an elementary school teacher and administrator, had four children as the project started, and gave birth to her fifth child in June, 2019, during the study. She had all of her children outside of the formal medical system (with both traditional birth attendants, as well as trained midwives) in home settings. Having worked
in several villages as an elementary educator, she was a highly trusted member of several village communities in the sub-districts, including Noussi and Daralabé.

My transcriptionist held a Master’s degree in communication and journalism, and was competent typing and using a laptop. As a younger, more educated woman, she strongly supported more medicalized birth, as she saw this approach “as progress and what educated women should do”. Beginning with her recruitment, and acknowledging and upholding cultural norms, the lead researcher’s husband (who is a Fulani from Labé) negotiated with her husband and all study assistants’ husbands; discussing the parameters of the scope of work and gaining approval, bringing me in only as necessary to clarify any remaining questions or concerns.

Although not a formal research assistant, the study’s key informants, two trained, certified midwives, assisted with connections with community partners at the regional hospital, including the head of the maternity ward, with other clinic and hospital staff, and with community level contacts. As a result, one of the two took part in CITI training and team meetings. The other key informant was a semi-retired certified midwife with more than 40 years’ experience; she was primarily a source of community contacts and a sounding board for questions. The second key informant originally trained as a technical health agent (ATS), working throughout Labé and the sub-districts (including the health center at Garambé) before returning to school to complete her midwifery degree. She had been practicing as a midwife in the Labé area (at the regional hospital and with a home birth practice) for five years, alongside more than 10 years of experience as a health tech.
The study also used two taxi moto drivers who were paid set fees (a stipend and price of gas per workday), one for local trips and one for trips into the villages of the sub-districts. Local city taxis were also used, but our primary transport was with our two taxi moto drivers. The lead researcher also occasionally had access to a car that was able to transport research materials or participants to meetings as required.

*Training of Research Assistants*

All research assistants took part in a two-hour CITI training, and signed individual investigator agreements (see appendix F). This one-day training, alongside continual support and feedback, helped to ensure the reliability and validity of measures, and later analysis, used in the study. The assistant training included information on recruitment of participants, phases of the study, obtaining informed consent, Photovoice, use of Canon PowerShot ELPH 180 digital cameras and Olympus digital recorders, individual interviews, focus group discussions, respect in research, assisting participants and communities in understanding the study, and their roles and responsibilities. This was accomplished through the use of the CITI training PowerPoint slides, copies and role-play with the focus group and individual interview protocols, and informal conversations on the topic.

During the two hour meeting, methods of recruitment, known birth attendant contacts, acceptable compensation for the participants, what type and amount of support they required, reasons for undertaking this project, individual roles and responsibilities, the project timeline, and their benefits (salary, training, and per diem for travel, gas and meals while working) were also discussed. Throughout the following weeks, before and
as the study began, we met individually and as a group several more times to go over procedures, practice with the cameras (so they could assist the birth attendants [BAs] as needed), and more formally pilot test focus group and interview protocols. Each signed individual investigator agreements (appendix G).

As each new study phase began, training that is more specific was presented to the research assistant for that particular phase. The study transcriptionist was also given a separate training on the importance of transcribing the conversations verbatim. The lead researcher explained that summarizing any aspect of the discussion(s) risked bias, but also the loss of richness and context of the information as it was spoken by participants (Hennick, 2007). Using our chosen transcription software, “Inqscribe”, she was instructed to give each participant an agreed upon identifier (woman 1, 2, 3, etc…) to not only track who was speaking, but also to protect the identity of the participant. One additional challenge was the introduction of another language, Pulaar, into the recordings. For the first few recordings, we listened together to decide how much of the Pulaar should be kept, and how much should be translated only into French. The team ultimately decided that any rich description or story was to be transcribed into French and Pulaar, with any simple response or basic information to be translated into French only. As Hennick described, the translation should focus on “the meaning of the concepts, expressions, ideas, and issues discussed” (2007, p. 216) and less on the words themselves.

Throughout the study and once all data was collected, the team met continually to collaborate on strengthening study questions, to discuss how to engage more with birth attendants and district health staff (hospital, clinics, etc.), to discuss successes and
challenges and how the analysis was progressing, and how to best disseminate results. The team also shared the responsibility of verifying the transcriptions for any errors or eliminations. As the primary researcher was a non-Guinean woman, the study was strengthened by a participatory team approach ensuring that respect and cultural relevancy were consistently valued and embedded in all aspects.

**Data Collection: Phase One**

Phase one involved two meetings with two groups of BAs. The first part of phase one was a Photovoice project on representations and perceptions of culturally preferred beliefs and practices of the birth process for Fulani women. The visual images and accompanying stories (narratives) were the tools used during focus group discussions with birth attendants and in-depth interviews with women of childbearing age, and to engage with community partners. Participants, in this case birth attendants, took on the roles of co-researchers, as obtaining a more-comprehensive understanding of how cultural beliefs and practices influence the birth process requires women’s views and voices. The second part of phase one were focus group discussions covering the Photovoice photos, as well as additional information on the influence of culture on the birth process.
**Group one:**

The midwives were recruited from the personal networks of the research assistants, as well as from the personal and professional networks of the study’s two midwife key informant/gatekeepers. In all, the recruitment process took just over one week to get the first 11 participants (originally 12) for phase one, group one, of the project. Once the original contact and conversation accepting participation took place, the lead researcher and a research assistant, contacted them to answer questions, and to make sure they understood where and when the first meeting would take place. Travel was by either foot or motorcycle to reach participants who lived within the regional town center.

**Meeting one:**

All 11 participants met at the conference room of the district public health office (see images 4, 5, & 6). The meeting began with basic introductions, and an overview of the project.

The first meeting for group one began with study staff introductions, followed by individual introductions of the BAs. Each birth attendant introduced herself, where she worked, how long she had been practicing, and something interesting about herself. The lead researcher disclosed at this point that she

had a particular interest in Guinea, and the Labé region in particular, due to her marriage and family connections, as well as the years she had lived and worked in the area. Prior to beginning the study, it became clear that disclosing this more intimate information put people at ease about her intentions; she was now classified as a fellow mother with two Fulani children and less as an outsider coming into the community. BAs were also given basic instruction on ethics and consent - their ability to exit the study at any time, confidentiality, no right or wrong answers, etc. and all participants gave oral consent.

A flexible schedule was designed for this first of two proposed meetings, intending to cover introductions, consent, project overview, participatory group work, Photovoice, use of cameras, and planning for retrieval of cameras, as well as planning for the second meeting. Long
rolls of brown craft paper, sharpies, five point and shoot digital cameras (Canon Power Shot ELPH 180) (see images 7 & 8), two Olympus digital voice recorders (one for back-up), as well as snacks and drinks were brought to the first meeting. Customarily, food and a stipend are given as compensation for any sort of formal training; thus, to illustrate the professional nature of their participation, they were offered the same, regardless of degree or certification. The ~$16 U.S. stipend for participation was broken into two payments (to be given after each of the two scheduled meetings), while reimbursement for travel costs to and from the meeting was also offered. As the project continued into the analysis and dissemination phase, the study continued to cover for transportation costs and added some additional funds for phone calls and other necessities.

After defining the context of the study, all BAs
participated, as a large group, in a short, participatory group free listing exercise to help in understanding what constituted ‘cultural beliefs and practices with birth.’ A brief group discussion was held after the exercise. Afterwards, three groups were created, and the participatory technique of guided brainstorming was used to elicit deeper understanding of their cultural beliefs and practices surrounding the birth process. Large sheets of paper with colored sharpies, were given to each of the three groups, and BAs were asked to draw, write or define cultural beliefs and practices that surrounded the birth process for Fulani women (see photo 6). This type of learning and action cycle of participatory, community-based work has been validated with similar populations (Minkler & Wallerstein, 2011; Mosavel, Simon, Van Stade, & Buchbinder, 2005; Prost, Colbourn, Seward, Azad, Coomarasamy, Copas, & MacArthur, 2013; Wang, 1999). Throughout the brainstorming process, the lead researcher and a research assistant were checking in with the BAs, helping them continue to reflect on the topic. After 20 minutes, the group came together to discuss and debate what had been deemed cultural. The discussion lasted approximately 30 minutes, with members of each group presenting their thoughts as well as discussing amongst themselves any discrepancies or common themes.

The researchers facilitated a conversation on the process of participatory research focusing on how their participation was integral to the project’s success, and the reasons for choosing Photovoice. It was a collaborative discussion, with hands-on practice, facilitated equally by the lead researcher and her research assistant, guided by the BAs’ interests, comments, and ideas. BAs were given the time to practice with the cameras,
engage with each other, and discuss any concerns or questions about the project. Basic photography principles were covered, such as how to turn the camera on and off, how to use the flash, how to photograph up close, how to look at the photos that were taken, how to photograph with a bright sun, as well as the difference between public and private photos, and the need to have a reason to take the photo, i.e. ‘what was the story behind it?’ All BAs signed photography waivers after a discussion of how and when the photographs would be used both during and after the study. Each BA was tasked with taking as many pictures as she chose which represented how cultural beliefs and practices, defined by them as preferences, that influenced the birth process. Due to having more participants than cameras, a schedule of exchanging cameras was created, as well as discussing how the cameras would be retrieved to print images before the next meeting.

Prior to assigning the cameras, the women were divided into two groups, so that the focus group discussions would be composed of only five to six women; thus allowing for easier facilitation and more time for each BA to share their knowledge. It was an open, collaborative effort to determine whether they would attend the first or second group on the following Sunday, respecting family, work, and travel times. Then, the camera

partners were assigned by location of work, home location, or personal connections; due to distance, a few BAs required the researcher to accompany one of the study taxi drivers to exchange the cameras. The day before the second meeting, the cameras were collected to develop photos in time for the second meeting. During the time in between the two meetings, the lead researcher spoke to each BA by phone, or met in person, to check in on progress, answer any questions, and schedule a time to exchange cameras, as necessary. All those in focus were developed at a local photography store, even if two photographs were similar in nature. Group one took 126 photos, of which 120 were developed. The focus group discussions were scheduled, two hours apart, for the following week at the same location and time. BAs were told the discussion would not exceed one and a half hours.

**Meeting two:**

The structure of the two meetings, held two hours apart, was the same; however, the second focus group discussion provided the opportunity to gain additional perspective on issues that arose during the first. Before the BAs arrived, all of the photos they had taken were displayed on a second table in the back of the conference room (see image 10). Upon arrival, they were asked to choose at least two, but no more than five, photos that they felt represented Fulani women’s preferences for the birth process. The photos could be ones that they had taken themselves or ones that someone else had taken. Once they had all chosen, the women sat down at a long rectangular table. The women were asked again for oral consent, and ethics concepts were reviewed to participate in this second meeting, and again every time there was an individual or group meeting. The lead
researcher explained that in participatory research, oral consent was asked multiple times throughout the study to ensure that every participant was comfortable at each stage of the research process. This was an important step in building trust and illustrating that they had power in decision making in regards to their research. The research assistant explained that we were also interested in recording the meeting, to go over details at a later date. We explained that if a recording was taking place, we would need consent to be digitally recorded and would only be heard by the research team or members of the researcher’s committee at her university. All participants consented, which was digitally recorded.

The BAs went around the table to share their chosen photos and to describe the narrative(s) they associated with them. They were asked to speak one at a time, and to limit the amount of Pulaar spoken (essentially to use only if necessary to truly convey the details or nuance of a narrative). They were instructed that there may have been photos that they wanted to take but were unable to due to lack of exposure, consent, or time constraints; thus to feel free to add on or to complete the narrative as necessary.

The goal was to obtain as complete an understanding of how cultural beliefs and practices (what they referred to as cultural preferences) influenced the birth process for the Fulani from their personal or professional experience. Once they had described their photos, the discussion continued as a flexible focus group (with limited need for referral to the discussion guide), for approximately one and a half hours, with some questions being directed by the research assistant (and some by the lead researcher) and others
flowing naturally from the BAs. A discussion guide was also used to ensure that the conversation flowed and issues of importance were raised.

After the focus group meeting, it was reiterated that they were free to contact the lead researcher with any questions or concerns. Discussion of recruitment of women they had served, and gauging their interest in continuing as co-researchers through the analysis and when opportunities to disseminate the information arose took place. Immediately following the second focus group, the research assistant and the lead researcher sat down and went over some of the major concepts that we heard. The lead researcher had the opportunity to get clarification on some discussions that involved Pulaar, to ask for some added detail and perspective on certain discussion topics, to mark and identify photos, to discuss what could be strengthened for the next group of BAs, and to give my assistant feedback on her facilitation.

Group two

A second group of BAs was then recruited, from the sub-district villages of Noussi, Daralabé, Garambe, and Taran (ranging from eight to 20 miles distance from Labé center), to participate in their own Photovoice and focus group project. Five traditional birth attendants were recruited via research assistant and first group birth attendant contacts. Multiple phone calls were made and due to distances and difficulty of transport, as well as the challenges involved with exchanging the five available cameras, a smaller number of women (n=5) were recruited. As each village’s recruitment process was slightly different, varieties of methods were used during the recruitment and consent process. Either introductions or a basic overview of the project were given to the director
of the health center, her husband, or village leaders to respect cultural norms and ensure the participant would be free to engage in necessary research protocol.

**Meeting one:**

The second set of participants were met individually at their place of employment, at home, or another location of their choosing. Following face-to-face introductions, a review of the project was given. Any questions or concerns were answered, and if she chose to proceed, a brief discussion of ethics, such as consent, and the requirements and compensation for participation followed. We also briefly discussed their thoughts and beliefs on cultural practices and preferences supporting or influencing the birth process. The major difference from group 1 was that the discussion took place as a small group of three: the BA, the research assistant, and the lead researcher versus a larger group. This was followed by an explanation of Photovoice, and then use of the small digital cameras. Information gained on cultural beliefs and practices from the first group was used to inform discussions with members of the second group, allowing for a clearer explanation of expectations. The choice of the research assistant to accompany for meeting one was determined by who was more familiar with the location.

As the second group had only five participants, each was able to keep her camera for a longer period to take her pictures. All participants were told that there would be follow up by phone or in-person, and that they were welcome to follow-up with any member of the research team with questions. A small stipend of the equivalent of $1.00 U.S. was offered to each for use in paying for phone calls to study staff, as needed. This was not offered to the first group of BAs; however, the challenges of living in more
remote areas necessitated additional support. Throughout the week, study staff also reached out to check on progress, answer questions or to offer assistance. Towards the end of the week, a time was scheduled to retrieve the cameras. One hundred and two pictures were taken, with 96 pictures printed. While retrieving the cameras, the BAs were given directions to the school, and the time of the meeting was confirmed. Additionally, due to the distance, financial stress, and difficulty of transport from certain villages on non-market days, several of the participants were given a one-way dispersement to pay for transportation to the focus group discussion.

**Meeting two:**

All five BAs met in one of the classrooms of the elementary school in the researcher’s neighborhood, Tairé that was determined to be a central, and easy to reach, location for all. The set-up was simpler than with the first group, as it was a large
elementary classroom with no electricity or conference tables (images 11 & 12); however, a large rectangular teacher’s desk with chairs was used as our meeting table. Pictures were displayed on several student desks, and as BAs arrived, they chose from two to five photos to discuss (image 12). Refreshments were also offered (water, tea, small cakes). An afternoon meeting time was chosen (major challenges being transport and the complications of logistics during the rainy season), and transport was paid round-trip (or one way for those who had already received a partial payment) for research assistants, participants, and taxi drivers. Two of the project staff were also employed to drop off two of the BAs who lived in villages where transport was difficult to find due to distance and the rain, at the conclusion of the meeting.

The second group’s meeting was facilitated similarly to those from group one. Both research assistants and the lead researcher (one of whom asked to sit in because of her connections to several of the midwives and to better understand what the BAs were discussing and supporting, as she would be assisting with the individual interviews), facilitated the discussion. Participants were asked to choose photos that represented women’s beliefs and practices around the birth process or photos that they felt illustrated a story about the birth process from those displayed on the student desks. Ten minutes were spent looking at, discussing, and choosing the photos for the discussion.

Once photos were chosen, women took a seat around the table and began the discussion. Each participant had the opportunity to narrate the photos she had chosen, along with any other comments or stories that surrounded her experience as a birth care provider in regard to cultural beliefs or preferences. Several challenges presented
themselves during the meeting, including severe wind and rain, and a group of goats braying outside of the classroom. These challenges became more evident as the discussion was being transcribed, as the recording was not sufficiently clear; however, field notes taken by the transcriptionist covered the few minutes of lost audio.

Participants also had the opportunity to comment on each other’s chosen photos, either during or following the individual presentations. The focus group moderators allowed for a free flow of ideas, as well as offering structure, via the focus group protocol, to make sure that questions and stories were complete. The narratives offered by the women were audio recorded before beginning the discussion (with consent) and later transcribed verbatim, as well as photos chosen being marked with notations of what it represented and any other valuable information. Following the meeting, all of the research staff met to go over any questions or concerns.

All focus group discussion data was transcribed verbatim into French, from French and Pulaar recordings, by the study transcriptionist. Transcribed focus group data was translated into English as needed for analysis. Tape recordings, photographs and narratives, focus group guides, and recorded transcripts were kept in a locked room in the researcher’s residence. All discussion recordings were reviewed to remove any names or identifiers that were mentioned from the final recording; a number, also kept in the locked room in the researcher’s home, instead identified all birth attendants. All photos, recordings, transcripts, and notes were also uploaded into a project file in AtlasTi for purpose of organization and analysis.
Dissemination

Additionally, both groups of BAs later chose to highlight information gathered during the combined Photovoice and focus group process into several community dissemination projects, including a meeting with NGO staff, the district public health director, hospital and clinic staff, and a formal presentation at the national university (Université Gamal Abdel Nasser) on early analysis and study overview.

Data Collection Phase 2

The second phase consisted of phenomenological, ethnographic interviews with women who were served by the birth attendants in phase one. All of the birth attendants (from group 1 and group 2) were asked to recruit a woman they had served for their pregnancy and birth willing to speak to us about her experience. The goal was a conversation or dialogue with each woman, using a phenomenological paradigm, of her personal narrative on how cultural beliefs and practices influenced her birth process. Part of this process was having the birth attendants spearhead the recruitment process so that they could provide context to why their participation was important, and whom the researcher represented as the ‘insider-outsider’ in the process. The BAs were also asked to consider recruiting women who had a variety of pregnancies and labors (twins, primigravida [i.e., first pregnancy], etc.), multigravida or as multiparous, easy or more challenging births, with or without complications. The inclusion criteria for participants was explained, and the recruitment process began immediately following the completion of the focus groups.
As a result, the research team conducted 12 in-depth individual interviews. Though offered the option of meeting first and rescheduling a second time for an interview, all women decided to pursue the interview at the first meeting. For five of the twelve interviews that took place, women’s BAs were present. The potential bias this BA presence presented required us to reconnect later, either by phone or in person, with a few interviews. Having the birth attendants present was understood to be of benefit to the interview protocol, as birth attendants asked questions in different ways and often helped bridge the gap of understanding by explaining why certain practices took place that the women had described. However, in the case of two women, we were in contact at a later date to confirm information that we felt might not have been complete, due to the presence of her birth attendant.

The interviews all started with an introduction of the research team, allowing the women to ask any questions about us or the research process to ensure her comfort and consent. Although an interview protocol was developed, the interviews functioned more informally as a conversation, while remaining aware of our specific, but implicitly understood research agenda. All 12 women consented before proceeding, and their consent was digitally recorded. Interviews took place inside family homes or compounds, and at local health centers or the regional hospital; each woman chose to assure her comfort and privacy. Participants also were asked a few demographic questions (number of pregnancies, number of births), then asked to share their story of birth from conception through post-partum, guided by the interview protocol. Age was originally asked as a
demographic question, but many women were unaware, so we dropped this question from the protocol.

All interviews were conducted primarily in French, with certain stories or narratives given in Pulaar and translated both during the interview, as necessary, and later in the post-interview discussion and in the transcription. The research assistants functioned as cultural and linguistic translators, while the lead researcher asked questions from the protocol, designed as an open, flexible conversation to allow participants to share their lived, cultural experience of birth. While the interviews were taking place, ethnographic observations were also noted, by the research assistant, on location, physical and emotional state, and comments or questions to discuss later. No confidential information was shared with anyone outside of the study team.

Following each interview, a research team discussion took place on what we had heard and understood, what could be improved for the next interview, and what experiences we still needed to explore to have a complete understanding of the experiences of Fulani women in the region. Later each interview was transcribed verbatim. Notes were added to each interview recording and transcriptions were saved into AtlasTi. All names or personal identifiers were changed in the database during transcription, labeled as woman with corresponding interview number. The recordings and transcripts were kept in a locked room in the researcher’s residence.

**Researcher Ethnographic Observations**

Individual and community observations took place throughout the nine months of field research in as many settings as possible. These ethnographic observations began as
soon as the researcher arrived in country; with the intention to build trust within the community and to assure greater context for the rest of the study. Notes were handwritten into field notebooks that also included images, sketches, and informal conversations or analyses. Photographs were also taken by the lead researcher to assist in capturing the context of the local birth culture.

As this ethnographic study was based on understanding cultural behavior and community, a more detailed understanding was gained by the lead researcher’s immersion into the daily lives of friends, family, and my community. As Fetterman stated, “culture is the sum of a social group’s observable patterns of behavior, customs, and way of life” (2010, p. 16). The lead researcher was able to witness several home births, and participated in antenatal visits with her sister-in-law and another friend. Included in this observation practice were interviews with the study’s two key informants who were both trained midwives gatekeepers, as well as ethnographic interviews with community partners: director of the regional public health center; head obgyn of the UNFPA maternal health program in the Fouta Djallon; and the head of maternity at the regional hospital of Labé; as well as staff at the fistula center at the regional hospital of Labé, and physicians and staff at several of the district wide health centers (Garambé, Noussi, Hoggo M’Bouro, and Kindel). Consent was obtained if interviews were digitally recorded. Recordings were transcribed into French or notes taken from recordings and translated into English as needed. These ethnographic observations and conversations were an integral part of becoming a trusted partner in the birthing community, and in expanding my understanding of cultural beliefs and preferences surrounding the birth
process. Field notebooks were saved in a locked room in the researcher’s home and added into an AtlasTi file for analysis and back-up.

**Data Analysis**

*Analysis Overview*

Although grounded on the principles and stages of CBPR, this participatory ethnographic study also used Leininger’s transcultural, ethnonursing Culture Care Theory of Diversity as a guiding framework. In addition, more in-depth analyses used Leininger’s four-step (Leininger & McFarland, 2006) and Braun & Clarke’s (2006) six-step thematic analysis processes, which both allowed for a richer, more collaborative knowledge creation, but also helped inform the overall analysis structure (see table 4).

Leininger’s four phases of ethnonursing analysis include:

1. *Collecting, describing, and documenting raw data*;
2. *Identification and categorization of descriptors and components*;
3. *Pattern and contextual analysis*; and,
4. *Major themes, research findings, theoretical formulations, and recommendations*

Whereas, thematic analysis, as described by Braun & Clarke (2006), involves six stages:

1. *Familiarization with data*: transcribing, reading, re-reading, taking notes
2. *Generation of initial codes*: coding interesting features across the entire data set
3. *Searching for themes*: collecting codes into potential themes, gathering all data relevant to each potential theme
4. **Reviewing themes**: generate a thematic “map” of the analysis and check the themes relevance in relation to coded extracts (level 1) and entire data (level 2)

5. **Defining and naming themes**: ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme

6. **Producing the report**: selection of vivid, compelling extract examples, final analysis of selected extracts, relation back of the analysis to the research question and literature, producing a report of the analysis

The ethnographically grounded thematic analysis was an iterative, cyclical process, building on ideas developed throughout the course of the study (Braun & Clarke, 2006; Fetterman, 2010). Thematic analysis allows for the recognition of these multiple voices and facilitates the determination of words (codes), categories, and themes in collaboration with participants that represent their lived experience, helping to ensure the data’s trustworthiness.

**Table 4: Merging of Analysis Processes**

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<tr>
<td>1</td>
<td>Collecting, describing &amp; documenting</td>
<td>Familiarization with data</td>
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<td>2</td>
<td>Identification &amp; categorization</td>
<td>Generation of initial codes</td>
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<td>Searching for themes</td>
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<td>3</td>
<td>Pattern &amp; contextual analysis</td>
<td>Reviewing themes</td>
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<td></td>
<td></td>
<td>Defining &amp; naming themes</td>
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<tr>
<td>4</td>
<td>Themes, research findings…recommendations</td>
<td>Producing report</td>
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**Analysis Step 1: collecting, describing, and documenting (familiarization with data)**

At the onset, as the study took place primarily in French, with some Pulaar, the development of language and cross-cultural awareness analysis techniques were necessary to ensure reliability and validity. The recruitment and training of Fulani women as research assistants, as well as the incorporation of the BAs in the analysis, was also used in confirming the study’s internal validity. Training and pilot testing of measures, alongside a strict reflective process of note taking combined with the process of recording and transcribing the data ensured reliability of the process. Additionally, the continual awareness, though ethnographic observations (of participants and of the community), and the incorporation of photographs were also used to construct and ensure a more complete and valid understanding of beliefs and preferences surrounding and influencing the birth process. Beginning from the moment of arrival in country, the intention of a participatory thematic format entailed the development of strong co-researcher relationships and a flexible, feasible analysis process.

All data was continually reviewed, from the onset by the researcher, then with the addition of the research assistants, and finally, as the relationships developed, with the birth attendants (BAs). Following the completion of the focus groups, as the BAs had become co-researchers, they remained engaged with the study through the analysis process and beyond. This engagement used transcultural nursing theory as a guide, while applying the principles of ethnography and participatory thematic analysis. The participatory element gave voice to the cultural birth experts, often overlooked, and allowed them to guide the overall focus and offer explanations of details and nuances within the analysis process. An
iterative approach was applied, starting with the first observations, notes, photos, recordings, and interactions in the community, which would continue through the final interviews and dissemination meetings; allowing for a broader understanding of Fulani cultural birth themes to develop. Step one also began the process of entering data into AtlasTi. The software gave an organizational structure to the data; however, as ethnography uses a more interpretive approach, the story unfolded and was analyzed more in conversations, hand-written notes, and discussions; methods that were more familiar to my co-researchers.

**Analysis Step 2: Identifying & categorizing (generation of original codes & search for themes)**

The next stage of the analysis began the process of identifying words or codes that signified cultural beliefs and practices from the photos, observations, focus group discussions, the first few individual interviews, and daily interactions and conversations. These meetings took place formally and informally, meeting individually and in small groups over the phone, at the researcher’s home, the homes of BAs, and at health centers. Efforts to support the co-researchers as the cultural experts, alongside the research assistants, were prioritized allowing them to feel safe, engaged, and vested in the research process. The BAs guidance on the emerging codes from phase one and their role in recruitment for individual interviews, allowed us to be highly aware of missing data and of emerging themes. Consequently, the women’s interviews served to challenge what we learned from the birth attendant collaboration and push towards greater understanding of overall study themes in part three.
The process of coding and developing themes was not linear, instead an iterative and cyclical experience of re-visiting data created in all phases of the study, as well as any new experiences or observations. A list of descriptive codes or words, based on conversations, observations, listening to audio recordings, and looking over the photos and photo narratives, were named and defined. This “theoretical sampling” of copious field notes, memos, and meetings kept track of emerging theoretical insights and gave a focus to further inquiry, alongside an understanding of when saturation had been reached with interviews (Creswell, 2007). BAs were consulted throughout the process for their expertise. The aim was to make sense of what was known, what was heard, and what was understood as true cultural phenomena in regards to the birth process for Fulani women. These early analysis discussions were integral to the reliability of the themes developed, as without the BAs continual support and input, nuances and details would have been missed.

**Analysis Step 3: pattern & contextual analysis (reviewing, defining, & naming themes)**

The refining process required further discussions on ethnographic observations, a focus on the photos and narratives, and how the women were supporting or challenging the beliefs of the BAs. This process was continually re-visited post-individual interviews, and reframed once all aspects of the study, including the community partner interviews and dissemination meetings, were complete. The reflective process involved searching, through photos and oral comments, notes and memos, for recurring patterns or themes that grew from earlier codes and words, as described by Leininger (1987), Fetterman (2010), and Braun and Clarke (2006). As Fetterman (2010) stated, “triangulated data
provide a handle that aids the ethnographer in grasping a community’s fundamental ideas and values (p. 97). Triangulation of these multiple sources compared and tested the quality of the cultural patterns and preliminary themes that emerged. The continually emerging patterns, alongside thoughts and behaviors, key events (during the study, with individual participants, or in the community), guided the development of a working matrix or summary table. Photos and emerging themes were taped to the wall (creating a matrix of sort) in the researcher’s office and copies were brought to all analysis meetings and informal get-togethers with the research team and the birth attendants in an attempt to visualize the relationships, to add notes and detail, and to better define and shape the analysis.

At the halfway point of the individual interviews, the research team had tentatively determined three broad study themes from the emerging beliefs, patterns, and sub-themes. Codes or recurring words or statements were written down, then revisited and used to weave a narrative that led to an understanding of connections between these words. The themes became patterns, trying to explain in more detail how they were interrelated and interconnected, across the data sets that were important to the description of the phenomena and associated to our specific research questions on culture and the birth process (Braun & Clarke, 2006; Daly, Kellehear, & Gliksman, 1997). Each was then evaluated to determine whether it assisted with the explanation of the phenomena to address the study’s research questions.

Unfortunately, the lead researcher returned to the US before all of the themes were condensed (20 subthemes eventually became 14). Thus, in addition to using field
notes, photographs, narratives from the photos, conversations, and interviews, and the lived experience of being embedded as a member of the community, the researcher continued operating using participatory approaches (via phone and video call check-ins) after returning to the U.S. This level of participant involvement assured trust, a level of confirmability, and a validation that the participatory principles of engagement and co-learning were respected. Inclusion of the participants in the analysis in CBPR supports increased validation of results and enhancement translation and dissemination.

Analysis Step 4: themes, research findings…recommendations (producing report)

The meaning in context was developed from the three themes and descriptors that emerged from prior phases of analysis. This stage took place primarily in the US, with check-ins to the research team via phone calls. Working definitions of themes, subthemes, and original codes were refined and photos and matrixes were used in the process of final descriptive definitions, and a thematic analysis schematic was designed. Before writing up the results, final phone calls were made to the research team to assure the researcher that all voices had been incorporated and that the three major themes, with their accompanying photos, accurately represented the scope of the project. A copy of the results and discussion section was translated into French and sent to organizational partners in Guinea.

Summary

This chapter gave an overview of the research study’s methodology; from an overview of the research site and the positionality of the lead researcher, to the final analysis. This two-phased multi-method study’s purpose was to investigate the
relationships between cultural beliefs and practices and the birth process, with the collaboration of the women most impacted, the birth attendants and the women they serve. Centering their voices and experiences offers a legitimacy and rigor to the research. As women are often marginalized, using qualitative and participatory methods placed them in a position to guide the direction of the research and to have their voices and lived experiences validated. This chapter gave context to the setting, as well as giving an overview of design and procedures. The following chapter will present the results of the two-phase study, including visual and oral data, as well as observations by the lead researcher and the research team.
CHAPTER 4: RESULTS

Chapter four presents an overview of the current understanding, as per the present study account, of how cultural beliefs and practices influence the birth process for Fulani women in the Labé district in Guinea. The term preference or [préférence] in French came to replace beliefs and practices during the research process as a more culturally understood term. The purpose was to capture the influence of culture on the lived experience of birth, by engaging and collaborating with the community members (birth attendants and the women they serve) most knowledgeable about the topic, and the experience of community partners.

Using the results of the thematic analysis process of individual interviews with 12 women, and a Photovoice project combined with focus groups with 16 birth attendants, the findings will be presented as themes (see table 5). First, each theme will be defined, subthemes derived from the larger theme will be explained. Second, quotes from study participants, in order of participation, will be provided. Third, Photovoice photos taken and described by the birth attendants will also be used to offer visual support for the personal quotations. Fourth, narratives of individual women’s experiences and observations will be given following discussion of subthemes to give additional context. Finally, a description of the dissemination projects undergone by study participants will be shared, along with any relevant photos or quotations.

Analytical Approach

As a participatory ethnography guided the principles and stages of community based participatory research (CBPR) and Leininger’s transcultural, ethnonursing culture
care theory, a participatory thematic analysis process was employed. The birth attendants emerged as co-researchers, and alongside the research team brought nuance, through their lived experience, to the analysis of the findings. Women served by the birth attendants, community partners, and research assistants corroborated, and added valuable insight and lived personal and professional experience to the understanding of the influence of culture on birth.

The research team, including the lead researcher, and the birth attendants (BAs) all participated in analysis activities from deciding on main themes, to assisting with subthemes and choice of photos. Quotes were chosen primarily by the research team, but the BAs also assisted in making selections of photos from the Photovoice project. The structure of the analyses used Leininger’s four-step (Leininger & McFarland, 2006) and Braun and Clarke’s (2006) six-step thematic analysis processes, which supported collaborative knowledge creation for more participatory engagement. Three major themes emerged during the analysis: maternal culture care, maternal care-seeking, and miscommunication. Embedded within those themes were 14 sub-themes supported by data gathered through all phases of the ethnographic study.

**Participant Characteristics**

The two phase study was comprised of two groups of women, phase one birth attendants aged 18+ (n=16), and phase two women of reproductive age, aged 18-49 (n=12), served by the birth attendants in phase one.

Birth attendants (BAs) came from the regional capital of Labé, and from four of the 13 sub-districts (Noussi, Daralabé, Garambe, and Taran). Inclusion criteria included:
traditional and skilled birth attendants and midwives; in practice for at least six months; ability to speak conversational French; member of the Fulani ethnic group; lived with boundaries of district of Labé; and comfortable discussing culture and birth outcomes.

Phase one birth attendant demographics included two hospital midwives, 2 birth attendants from private clinics, five birth attendants and matrones from the health centers, and seven traditional birth attendants. The BAs were in practice from one to 25+ years and worked in the regional hospital, a private clinic, four different health centers, and home practice.

Phase two was comprised of 12 women who met the following inclusion criteria: age 18-49 who had given birth in the last five years; ability to speak conversational French; member of the Fulani ethnic group; gave birth in the district of Labé, and was comfortable discussing culture and the birth process.

The 12 women gave birth to a total of 14 babies, of which 12 lived. Two of the women were in polygynous marriages, and there were two sets of twins. There were two cesareans out of the 12 births, and one obstetric fistula. Two women gave birth at the hospital, two at health centers, two in a private clinic, and six gave birth at the home of their BA. Four women were primigravida, five women had three to four children, and two had five or more children.

Table five presents a visual of the three themes and the 14 subthemes that were defined and described in the analysis process.
Table 5: Thematic Analysis Themes

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<tbody>
<tr>
<td>Subthemes</td>
<td>Know what they like</td>
<td>Discreet/private</td>
<td>Fear of interventions</td>
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<tr>
<td>Guidance/encouragement</td>
<td>Family and community norms</td>
<td></td>
<td>Misunderstanding</td>
</tr>
<tr>
<td>Foods</td>
<td>Reputation/honor</td>
<td>What to do/not to do</td>
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<tr>
<td>Medicines/treatments</td>
<td>Familiarity/trust</td>
<td>Hindering engagement with the health system</td>
<td></td>
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<tr>
<td>Choice</td>
<td></td>
<td></td>
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<tr>
<td>Access/feasibility</td>
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**THEME 1: Maternal Culture Care [soins de la culture maternelle]**

Maternal cultural care was defined as those care practices that identified patterns and differentiations in how women seek to treat and support common pregnancy complaints, illness, and the range of labor expressions. In discussions, the theme became known as “what does not need to be explained” [ce qui n'a pas besoin d'être expliqué]; the results illustrated that birth attendants act as “cultural stewards” for the women they serve, with a multitude of culturally embedded practices that are known and important to those who work directly with women in the communities, and to the women themselves.

Four sub-themes encompassed the overall theme of maternal culture care. These will be defined and described in detail with photos and quotations. Narratives of individual women whose experience embodies the broader theme and subthemes will
also be shared to give context to how this cultural related theme influenced the lived experience of women in the district.

1. “Know what they like” [savent ce qu’ils aiment]
2. Guidance/ Encouragement [orientation/ encouragement]
3. Foods [aliments]
4. Medicines/ treatments [médicaments/ traitements]
**Theme 1, subtheme 1: “Know & support what they like”**

This sub-theme was defined as the support mechanisms, such as birth positions, that were culturally known and important to the women in the study, and that were not necessarily able to be supported outside of the traditional home birth practice.

Following are direct quotes from the birth attendants in support of this first sub-theme, “know what they like.” The woman’s desire to labor as she pleases was one of the main reasons mentioned by birth attendants in support of this subtheme. In Fulani culture, this customarily means on the knees, or laboring on the floor on her side. Home birth practice is able to support a woman in the birthing position of her choice, whereas at the hospital or in the clinics, labor and delivery rooms cannot support this practice. Instead labor and delivery take place on a metal birthing table, with only pieces of cloth as comfort and protection. At the hospital there are sometimes thin mattresses, but in the clinics there is only the bare table.
When she gets to the hospital, the manner in which she is used to birthing at home, she can’t birth in the same way she can at home….more often she goes on her knees…if she goes to the hospital, they force her on a table (birthing) and she is not used to that.

Birth attendants also stated that it was not simply a preference, but also a refusal and a reason for them not to return to the hospital if they were not supported in laboring as they chose. Hospital midwives are aware that this is an issue with women, but are not always in a position to support her choice. For the most part, hospital births are on one’s back on a table, and home births have the flexibility to offer women options for positions depending on the situation. When they come to my house to birth, all positions that she says that she wants to use, even if she wants to stand…you, you are the midwife, you help her to birth in the position that she prefers, even if she wants to birth standing....we help so that she does not tear, so that the baby doesn’t fall...we are authorized to help women. When they do birth at the hospital, they share these thoughts with their BAs, they say that they don’t want to be on the little beds (hospital)...that they are not comfortable, they want to get down and lay on the ground to give birth....they say that the bed is too small for them and, the bed is exhausting (tiring) because you are afraid you are going to fall...and also the position.

The home birth BAs explained that...It’s less comfortable for them (at the hospital) and others don’t accept to give birth on their back...(or in the rare case)...whereas there are other women who say they can birth on their back. Even the hospital midwives admitted that women complain if they cannot birth as they choose. If it is their first birth and they are able to labor without complications, they will most likely
not return. Having a complicated labor, or difficulties with a first birth has encouraged some women to seek biomedical care for their next birth out of necessity or fear.

The BA is the ‘mom,’ showing the women what she should do, guiding the process so that it is safe and respects cultural norms. If it is her first birth, the person that is with her…it’s that person that will show her how to rest (position for birth)...When taken out of the home birth setting, BAs worry that women are not receiving the kind of care they ask for. In my opinion, they want us to treat, supplicate, and pamper them and it’s what they want that we give them; we don’t require them to do anything specific, but at the hospital, it’s their rules that you follow when you are there. The type of care the women receive is of greatest importance to the BAs.

The following quotes from the women corroborated what the BAs had shared in focus groups and in the analysis process. The women considered the traditional BAs to have unspoken knowledge and understanding about what they liked. Even women who did not have a great deal of knowledge about the stages of labor or the birth process, often knew through friends or family that home birth labor assistants would defend their desires. The women felt that they would be supported in birthing on the floor or on their knees. The research team interviewed several women who birthed at clinics or at the hospital, but the majority of them preferred and supported traditional labor positions, although there was one woman at the clinic, and two women who had birthed at the hospital who did not have any issues.

Ahaa, that also, lying on my back…hmmm I don’t like that either...it’s not like that....staying...you know there are moments when you are told to lie down, and I prefer
to stay on my side. Another participant explained, at home, it’s on the floor that I lay....I didn’t have any problems at the hospital...at the house, I was on the floor and I didn’t have any problems (complications).

As birth is an individual experience, with each labor occurring with different challenges, there were women who felt that laboring in a biomedical setting was acceptable. Even if this required laboring on a table, because of prior complications of their own or from acquaintances, they were happy to have access to trained obstetric care. However, the majority of BAs and the women in our study were very vocal in supporting tradition, with positions and relationships of care. To “know what they like” was a strong indicator of a successful BA practice with women speaking highly of their care to others in the community.

The next subtheme of guidance and encouragement was another of the strongest culture care requirements. A BAs’ ability to guide and encourage a safe labor was highly valued. The subtheme adds further context to know what they like, adding that specific techniques of massage, words of comfort, and caressing are experiences that can be offered in a private home setting. Hospital midwives mentioned that they make every attempt to give women support and encouragement, but because of other women and other responsibilities, the experiences are not equal.

**Theme 1, subtheme 2: Guidance/ Encouragement**

This sub-theme was defined as the necessary cultural insight and advice on how to best support a pregnancy and labor experience. Traditional birth attendants were able to offer more individualized comfort and encouragement throughout the birth process.
Their role is taken seriously as serving the women’s interests is one of her primary goals, the first being safety. As she is only guiding one woman at a time, this is not only possible, but expected and favored. Hospital midwives were able to provide some of the same support and guidance, but had limitations with other responsibilities and other women at varying stages of labor that they were caring for while another was delivering. Hospital midwives were also on call to help with cesarean sections and other complications.

The following quotes are from the birth attendants (home birth BAs and hospital midwives) that illustrate how they view the guidance and encouragement they offer women during the birth process. For the home birth attendants, one of the ways in which this was demonstrated by the way they were working to fulfill the women’s desires, I stay by the woman who is in labor, I help her give birth (home birth BA), even when she requires an evacuation to the hospital or clinic, Even when she goes to the hospital, we stay with her until she gives birth by herself or when she understands that she needs to have an operation….we act for the woman.

The hospital midwives explained that they too offered guidance and encouragement during labor and delivery, Everything she wants...we also do that (at the hospital) everything that they (traditional birth attendants) do, we take care of them, and we bring them hot water (hospital midwife). As much as the hospital midwives defended that they cared for the women, they admitted that because they were not able to support certain practices and offer the same close relationship with the traditional BAs, they weren’t able to retain relationships with women.
The proceeding quotes were chosen from the individual interviews with the women. The women spoke highly of the individualized care they received with a home birth. The guidance and encouragement was likened to being a ‘mother’ figure by several of the women.

_During the birth, myself, when I finished, finished my birth....I didn’t even think that it was me, because I didn’t feel anything bad, no cold, because she knows how to take very good care of me.....and….ahh, she welcomed me ... she also helped me settle in for...to guide the delivery ... she guided (the birth) for me (at her home), and also, ...she caressed me ... (she said) it will pass, gently ... slowly, it's going to pass, she was talking to me with, with words that made me forget the pain I had (home birth of twins)._ 

The women continued to explain that the care was gentle and that they were not forced to give birth quickly. Women discussed that there were providers who did offer this kind of care, both in the home and in the biomedical sector. Mistreatment was not discussed in detail, but it was mentioned in passing, _she does not scream at you, she does not insult you, she caresses you ... everything that you want, she gives to you ... for me, that's what encouraged me to go to her place... (home birth)._ 

_Sometimes the statements were parallel, with women offering insight into the fact that there could be a positive, supported experience both at home and at the clinic. She guided me...yes, she was beside me, to massage me, to advise me, to (guide me) to be gentle (home birth)... the midwives are there and they, they guide you ... they provide you with medications ... they teach you (birth at health center)._
Women enjoyed the fact that they were the sole focus. It was all about her birth and her comfort. As a result, they felt cared for and supported. Only four of the 12 women interviewed gave birth at health clinics, and two at the regional hospital. It was primarily the women who had home births who spoke of this culturally desired comfort and guidance during birth. Women birthing at the private clinics had an experience that lay in between the biomedical and traditional, with access to biomedical intervention if necessary, but with the ability to have a more individualized birth. At the health clinics and the hospital, the birth was less private and individualized, as caregivers were responsible for multiple women.

The next subtheme focused on traditional foods that women consume during the birth process. Both the birth attendants and the women mentioned the importance of traditional foods, and the Photovoice project had some amazing images of traditional foods at the market and in their homes. Food is tradition, it offers comfort, familiarity, and nourishment throughout life, but takes on special significance during certain stages of life, such as pregnancy.

**Theme 1, subtheme 3: Foods**

The subtheme of food was defined as traditional foods that support a healthy pregnancy, labor and post-partum experience. Certain foods were requested and mentioned by the majority of participants (birth attendants and women). These included tau (a foufou like substance made of manioc), latoo (a porridge made from an indigenous grain called fonio), and kankeliba tea (a tisane made from the leaves and branches of a
common tree). Several other foods were mentioned and discussed by both individuals and groups of participants.

Photovoice photos are used to give a visual context to the quotations by participants. Each photo is followed by any quotes that highlight its importance as a culture care practice for women during the birth process. The following quotes about traditional foods are by the birth attendants made during the focus group discussions and during analysis meetings.

The food there, it’s tau (a pounded manioc foufou)...ebeh, all of the pregnant women, if they eat tau, it’s good for her and for the baby...it gives her strength, it gives, it gives,
good nutrition...it’s manioc (cassava)......gives strength to the woman, it also helps with,

with lots of things... it can help the child grow in the stomach, it helps the child gain weight.....good growth.

Cassava (manioc) made into tau, cassava, it’s the dry cassava that we make into tau.....the women all discussed how this was a preferred food of pregnant women.

Manioc is used in many preparations and recipes in its fresh and dried form.
Lattooo... *mix latoo with palm oil after birth* (to eat). Latoo is a comfort food enjoyed by infants through the elderly. It is usually cooked simply in water and is easy on the stomach, much like a simple porridge. Birth traditions include adding some form of oil or fat to offer additional nutrition and taste. *If a woman has stomach pains after birth, we cook fonio in a little bit of liquid, like a form of bouille (porridge)....we mix it with butter from a cow, but now more likely we mix with shea butter...when the woman eats this her pains will be gone.* These pains were meant as more of the fatigue that a woman feels after birth. Latoo is seen as a comfort, a form of care as it is warm and nutritious, and *many pregnant women love fonio.....ahh because they love it.*
Certain women like ndappa (a cornmeal porridge) with foléré (bissap leaves), they prepare this. This is a common ceremonial dish. Ndappa is made for baptisms, weddings, and other community celebrations. Corn is a common grain, and the bissap leaves in the sauce are also used in many other dishes. It is seen as another comforting and nutritious dish.
The following quotes were spoken during individual interviews; however, the photos were taken during the Photovoice project or by the lead researcher.

Kankeliba tea was the most discussed food or drink. It was provided by home birth attendants, and made at the hospital with hot water provided by the midwives. Yes, she gave me the tea here, she had it in her thermos over there, she gave me some each time, from time to time, she gave it to me (home birth). A woman who birthed at the health center said, it’s kankeliba, no? Why did I drink it? Because each month that I came (for my prenatal visit) they suggested that I drink it.
Latoo (image 17) was also discussed by the women as one of their preferred foods during and after birth. They also mentioned the adding of some sort of oil or fat to increase nutrition and taste, as latoo plain is quite simple. After the birth,......something like latoo, we put palm oil on it, the red palm oil......umm, me, I don’t like that......neban naee (cow butter) there, plus butter, shea butter there......me, I don’t like this, me I like neban touré (palm oil) is what I put in...yes, yes, she made this for me.....she made a lot of this for me...and I was here...she gave me something to eat...what do you call it...fonio, the fonio....latoo.

The line between a food being consumed for nutrition or medicinal purposes was sometimes hard to determine. Some foods were only for consumption, while others, like kankeliba tea, played dual roles. Traditional medicines were often in the form of teas made from the leaves, stems, or bark of local trees. The dosage or timing of these medicines was debated during the focus groups, especially those that acted as a form of natural oxytocin.

**Theme 1, subtheme 4: Medicines/ treatments**

This subtheme was defined as traditional medicines and herbal treatments that offered pain reduction, and ease of pregnancy, labor, or post-partum symptoms and conditions. Also those that assist with removal of placenta or other minor complications.

Kankeliba tea (image 19) was mentioned again in a more medicinal sense during the focus groups with the BAs, helping to treat with common pregnancy ailments and also keeping the baby clean. *Kankeliba leaves, when we boil the kinkeliba leaves....if a pregnant women is near term, if she drinks this, the baby will be clean in the uterus, her*
baby will not be very dirty (when born). A second comment was, It also reduces tension and it helps clean the baby (to avoid the white vermise)...the sticky white substance...the baby will emerge without that covering. And finally, if you have positive albumin (elevated blood serum), it, it brings it down to negative.

There was a discussion among the home birth and hospital midwives about the use of oxytocin, whether it should be given during labor as a stimulant or after to help expel the placenta and retract the uterus. One of the hospital midwives said, the lemon leaves and this shot (oxytocin) are the same thing, you can boil the lemon leaves and when the woman gives birth, you give it to her, it helps birth the placenta, it helps prevent excessive bleeding, do you understand? The other hospital midwife stated it this way,
lemon leaves, many have explained, that they are like oxytocin, this is something that is not recommended also for a pregnant woman, you use it so that the woman will have stronger contractions to deliver, ....but we say not to give oxytocin to a woman until she births and after the birth if you want you can use it, after birth you can use it to help the uterus retract, you can boil the leaves after labor and you can give it to her, it retracts the uterus.

However, the home birth attendants used lemon leaves for its medicinal properties of oxytocin as well, just during labor. If we are with a pregnant woman, we can boil them (lemon leaves) for her. It’s like a (natural) oxytocin, she will give birth immediately...and also, when the labor is hard, we can pound them and put them in water for her...she drinks the water, it will accelerate contractions...it’s like oxytocin or as this BA stated, she will not delay until the baby falls to the ground (once she drinks the tea).

Home birth attendants also mentioned mixing different medicinal teas, incorporating multiple leaves or bark for the intended outcome which was primarily a more accelerated labor. Can mix together the leaves of lemon, with the leaves of pelitoro, and leaves of mèko mix them all and boil...when they are mixed and boiled.... if she drinks it, it is good for her...it’s also good for the fetus...it protects them....there are babies that when they are born, when they have a longer labor, you see little black lines or veins on them.....other newborns, after a couple of days, you see little raised veins, like a kind of malnutrition...if she boils and drinks the tea, she can avoid all of those things...In this case, the combination of leaves are perceived as helping to accelerate labor and avoid certain physical characteristics on the newborn.
Eggplants, both the purple and the more bitter white, are common ingredients in many sauces. As pre-eclampsia and eclampsia are still common complications, there are several medications (both traditional and biomedical) to treat high blood pressure. One midwife explained that, ….white eggplant and (purple) eggplant play the same roles, if for example, if a pregnant woman is hypertensive, it helps a lot to reduce her blood pressure ...as a blood thinner .... we can boil it again, drink the water ... eat it again, all that can reduce tension.
This wasp house was discussed by the BAs, and then identified later during the interviews while using photo elicitation. No French word was known for it, so the Pulaar version was used throughout the discussion. Only a few BAs had not heard of this treatment. *Soudou Boudoudile* (house of the wasp)....*when you boil the powder (from grinding the house) mixed with the leaves of lemon, mèko and pelitoro, and you give this to a woman in labor, it’s like you have given her oxytocin, it accelerates labor.* A woman being interviewed, when looking at the photos chosen for photo elicitation, identified this
first, it’s the house of the boudoudouwil (a type of wasp) ....you know that when a woman goes into labor, she can put this in water and drink it (using photo elicitation).


Another form of natural oxytocin, this was not as familiar to the hospital or clinic midwives, was safatou. This is safatou leaves...when we boil this, when you put on the fire, when you boil this just until the liquid from the leaves...you give this to a pregnant woman...it’s like you gave her oxytocin that you gave her, it helps for labor.
Lewougnouko…small leaves that are also called “douce”….so it helps with a woman’s appetite, it’s a medication….if she is pregnant, for some, it increase the stomach if she gets (tokoye)….if you boil it as a tea, it is a medication…..the sickness called (tokoye) it causes some women to miscarry the fetus…..it causes miscarriage or premature labor….drinking the tea prevents this. Concern for women without appetite or
for women with morning sickness, led to the discussion of what could be done to help her retain food and to gain enough nutrition for her and the baby.

The final form of natural oxytocin discussed was from the Mango Fouta tree. The tree produces small green football shaped mangoes that are indigenous to the region. *Mango Fouta it’s oxytocin, it causes contractions*... The tree was also revered for its other medicinal properties, *the bark of the mango Fouta tree is good for a pregnant woman*, from the beginning of the pregnancy, up until her birth... *when she mixes with kinkeliba it*

is very good. And the leaves, even washing the baby with it is good.....and if the feet are swollen, the swelling will reduce...if she has edema, she can use it as well. Mixed with pelitoro leaves, boiled, and consumed, this makes the baby clean, it calms the woman’s body, and she becomes calm after birth.


Djillé was, besides the natural forms of oxytocin, the only medicine presented as having any negative side effects on the women. It was spoken of in regards to post-partum bleeding......when you grind into a powder, when the woman is done birthing, put in a cup, and then you give to her and to help with nursing her baby, after birth, the
mother can mix djillé with latoo to help with her breasts (milk) or also, mix djillé with chicken….you make it and give to her…it cleans the stomach. One of the research attendants spoke up against its use, I helped with a birth where, after the birth, the woman took that and she had problems since she was hypertensive…as soon as she ate it she vomited blood.


There were several traditional methods discussed on how to expel a placenta or assist with prolonged labor. Birth attendants that practiced in more remote areas had a variety of techniques they used if the woman needed the process to be accelerated.

Wébélérou….we use this when the woman has had the baby and the placenta has not
come out, we hold the woman, she puts this in her mouth, and she uses it to gag (ahh) then it will come out. Although not commonly known by many, the President of the Order of Midwives was aware of this saying that she had seen it used after a birth.

Traditional remedies for pregnancy or labor complications were discussed by women throughout the study. A common difficulty is vomiting. There were two common fruits that were used to remedy this condition, one of which was bananas. *If a pregnant woman is vomiting, we pick bananas, fresh bananas, the bananas that are not ripe, you take 6 or 7 bananas and you cook them in water....then you peel them and eat them*
The proceeding quotes were spoken by the women during the individual interviews; however, the photos were taken by the BAs during the Photovoice project. Women mentioned many of the same medicines, but also added in some others that their BAs had used or that they were familiar with.


One of two medicines described by women that had not been mentioned by the BAs was, *there is also mèko...hako pelitoro....if you wash with them, you also drink them...it will make your baby clean*. Teas that supported the baby being born “clean” were valued by women.
The second medicine mentioned by the women during the interviews was botchiola leaves. One woman who had birthed at the home of her BA said, *hmmm...after birth, if you take this also,...if you drink.....you must boil it very well, if you take this as well, it will cause the contractions....the stomach pains, the um-hum...after birth then, even if it’s only a cup...it will calm abdominal pains and also help stop hemorrhage as well.* Hemorrhage remains a leading cause of death for women in the district and throughout sub-Saharan Africa. This tea, along with abdominal massage were the only treatments mentioned by the home birth BAs. The hospital BAs mentioned using either oxytocin or misoprostol.
Women in the Labé district continue to support home birth attendants. The quality of maternal cultural care they receive by having their needs met, while being guided, encouraged, and offered traditional foods and medicines. The reception of this level of care generated feelings of safety and comfort. Clinic and hospital midwives and BAs were also passionate about their profession, offering as much maternal culture care as a group setting allowed, but aware that because they could not offer all of these cultural requirements, it was more challenging to convince women to birth in a biomedical setting.

Narratives

The following two narratives were created using the interview transcripts of two participants. By sharing these narratives, greater context will be given to their individual, lived experience of how maternal culture care influenced their birth processes.

In the first narrative, the mother illustrates the desire for cultural care in actions and words. She sought a relationship with her birth attendant where she would be cared for, caressed, soothed, massaged, and generally supported in a way that is not possible without an existing relationship and cultural care knowledge. Even with a high risk pregnancy (twins) her BA felt comfortable assisting her and she did not question. She felt safe and encouraged from her first birth, and saw no reason to change place of delivery. Her BA had a private birthing room at her home that was located in her neighborhood. She visited the local health center and did all of her prenatal visits, but knew that she would birth at home. She was given kankeliba tea and latoo, and she was able to birth privately and discreetly, her husband only aware following the birth.
In the second narrative, the mother also illustrates her desire for cultural care practices through a private birth, and support through the process through kind and supportive words, and traditional medicines as necessary to ease the pain and speed of delivery. She had delivered two children previously with her BA without complications, so did not question the decision to continue to have her assist with her third birth. She also completed all of her prenatal visits at a local health center and felt that it was a good balance of necessary biomedical and traditional practices. Her BA was a friend, and was conveniently located in her neighborhood with a private birthing room.

Both birth attendants showed maternal culture care through their inherent knowledge of what the women liked, guidance and encouragement during labor, and use of traditional foods and medicines both before, during, and after delivery. They both had very kind and patient natures, and exuded passion for their chosen profession, believing that home births were safe, but acknowledging that they would welcome additional training if available.

**Narrative one: mom of twins, home birth**

Having already given birth to a son via a home birth, the mother met the home birth attendant at the local health center, where she occasionally assisted as a volunteer. She felt a connection with her (in personality and behavior), and asked to visit her at her home. The relationship developed to be one comparable to a mother-daughter relationship. *Because every time, I confide in her. We are very close.* As she had challenges getting pregnant a second time, she even came to her BA for advice on how to get pregnant (she pursued both traditional and biomedical approaches). When she did
finally get pregnant, she went directly to her ‘mother’ to ask for advice. *I came, I said « ahh maman » I can tell that things are not right* (she felt symptoms of pregnancy). She was advised to follow the scheduled prenatal checkups. *The booklet, as well, it was she, she guided me to go to the other side* (the health center). Though her birth attendant was aware that she was pregnant with twins, she did not tell her client. The BA said it was a purposeful decision as the knowledge would have made her nervous. At a late stage of pregnancy, the BA asked her to go get an ultrasound, where she finally understood that it was twins. She went into labor the next day and birthed at the home of her ‘mother.’ *She is courageous, she takes care of, of her women* (in labor). *Everything that you ask of her, she will do. She doesn’t scream at you, she doesn’t insult you, she massages you....everything that you want, she does. Slowly, it will pass. She spoke to me words, words that made me forget the suffering that I had and when I went back home, she came all the time to see us or she would call....how are you? I hope that you are not sick? And the kids?*

She also discussed some of her beliefs supporting the use of traditional medicine or healers to become pregnant, as well as cultural foods and medicines used during and after labor. As the birth attendant was present during the interview, we walked with her after the interview to continue the conversation. Although she said, with her midwife in attendance, that she hadn’t been scared, when alone she admitted that, *eeh, I was very scared. I didn’t think I could do it* (give birth to twins) *I thought I would die*. However, because she had such faith in the skills and capacity of her birth attendant, she never mentioned this to anyone. She continued with the fact that she was thankful to have her
birth attendant. She continued to develop the relationship with her BA, visiting often with her kids and planning on using her again if she becomes pregnant.

**Narrative 2: home birth mom with dual home/private clinic birth attendant**

This interview was chosen because the birth attendant was one of the most knowledgeable about traditional medicines and care practices, as well as the fact that the mother was very open and comfortable discussing her experience. This was the mother’s third birth, and she discussed many of the pain management strategies that her birth attendant used for all three of her pregnancies. She also discussed how they met, we are neighbors…I live over there, very close to here. Yes, I know her personally, we get along well (laughs). I am used to her, since I have given birth with her since the first time, without problems. It’s for this reason that I chose her (laughs). I have confidence in her. I also went to the health clinic to get the booklet, the prenatal booklet. Though the birth attendant worked at one of the private clinics in town, she also had a thriving home birth practice for the women in her neighborhood. Yes, yes, yes, if anything was going wrong, I came to her, I asked her...“what should I do? Every time, she always guided me to the “hospital” (health clinic)...you must go there. The birth attendant was one of study’s most knowledgeable about traditional medicines, which she used as needed, in addition to encouraging her engagement with the health system by attending scheduled prenatal visits. Yes, yes, sometimes, she gave me, those other things, traditional medicines, she would get me those. She got me things to wash with, and also...honestly, throughout my pregnancy, she took very good care of me. Umm, she gave me kankeliba...ahh, leaves of mèko also..., pelitoro leaves. All of those, if you boil them, you wash with them, you drink
them as well….they will all help so that your baby...your baby will be clean (at birth).

There are also lemon leaves, botchiola leaves too. After the birth, if you take that...if you drink. You have to boil it very good, if you take this as well, it will calm the pain, the stomach cramping. That, even if it is only one cup, it will calm the abdominal pains and also stop any hemorrhaging. When asked what she needed to bring to the birth, she said, I only have to bring pagnes, five pagnes (pieces of cloth). The woman wanted to discuss how she was treated and why that was an important reason for continuing to birth at home, even though she stated that she had good experiences at the health center.

Everything she did, she did for me. But after the birth also...how do you say, helped to clean me. She moved me from where I birthed, and took me to a clean area and then took care of the baby. After the birth, they will, they will prepare something for the woman who birthed to eat. For example, bouille, bouillon, or maybe, there is...oh...how do you say, latoo. The relationship between the two women was very familiar, very friendly. As we accompanied her home after the interview (which took place at the home of her BA), she asked us to do everything we could to protect and help the BAs. She said they were guardians of the culture of birth and were important members of the community.
THEME 2: MATERNAL CARE SEEKING [recherche de soins maternels]

Maternal care seeking was defined as care practices that identified reasoning, relationships, and preferences of what and whom childbearing women sought during the childbearing period. This theme encompassed the sense that women know what to expect from certain care providers. It was discussed as “how things have always been” [comment les choses ont toujours été], larger culturally based norms that guided healthcare decision making that have not changed significantly in generations.

Within this theme, six subthemes were characterized and defined, these included:

1. Discreet/ private [Discret / privé]
2. Family & community norms [normes familiales et communautaires]
3. Reputation/ honor [Réputation/ honneur]
4. Familiarity/ trust [Familiarité/ confiance]
5. Choice [Choix]
6. Access/ feasibility [Accès / faisabilité]
**Theme 2, subtheme 1: Discreet/private**

This subtheme exemplified the Fulani desire for discretion and confidentiality, often silence, during the birth process; therefore, women sought maternal cultural care that supported these beliefs.

The following quotes were said during the focus group discussions and analysis meetings. One of the strongest held desires of Fulani birthing women was to birth in silence and alone, with the exception of their birth attendant. The tradition of discretion begins at conception and ends with the birth of the baby. No pregnancy or labor announcement is made, and at the time of labor even the husband is not always aware that his wife is in labor. The hospital midwives were aware of this preference, but could not do much to accommodate, as birthing and recovery rooms at the hospital were communal. There was a possibility of a discreet labor in the delivery room, but privacy and discretion were not possible with others in the same recovery room. *There are women that when they go into labor, they don't like that anyone knows where they are, or they want to hide until after they deliver.*

The number of people, and the fact that they were unknown to them were significant concerns. *Primarily, it’s because when you go to the hospital, most of the time you will find two, three or four women who are already there...generally, the women that are already there are younger women or maybe young girls...therefore, it’s not everyone who likes coming....it’s not everyone that can expose themselves like that.* Another traditional BA stated, *there are the midwives, the matrones, the interns, the students, there are all of those people in the maternity ward...thus women don’t want to come and*...
expose themselves to all of these people or if they go to the matrone’s house or to a home birth attendant’s house, the maximum number she will encounter there is two people or even one person...for this she prefers this over going to the hospital. And another reason, if women go to the hospital, if they see a lot of other women, this is the reason that they like birthing at home.....she will be embarrassed, she’ll say they are the same age as my kids or my little sisters.

The discussion of the desire for discretion continued during the interviews with the women served by the BAs. They reiterated their desire to be alone, and certainly to be with only people familiar to them. However, one of the women explained that personally, she did not have any issue with birthing at the health center, feeling that the women who worked there were kinswomen [parents] in the sense that they are of the same culture and thus have the same essential understanding of what a Fulani woman desired.

Women who had birthed at home stated, after, I gave birth at Tanti’s house...when I gave birth there, there, it's discreet...... there are not many men, no, there are not many people (home birth) and also, there (home) it is discrete....it’s for this reason that they prefer to birth at home.

Another women, who had given birth to all three of her daughters at a local health center said, I felt surrounded by people already, as if they were parents, because I was not embarrassed... there was not this complicity and I did not have any complex, I mean personally. She followed with her thoughts on privacy and place of labor, although it’s nice to have discretion, it’s, it’s just an argument... because giving birth at home, if you are a women who follows (that belief) that’s good too, but me, it doesn’t bother me (to
give birth at health center). After completing the interview, she admitted that her first birth was difficult, which only encouraged her to continue to seek biomedical over traditional care.

The study’s community partners, all licensed obstetrician/gynecologists (obgyn), were aware of this cultural desire for privacy and discretion, but disagreed on whether they felt it was the most important issue. Certainly at the regional hospital, the idea of a completely private birth is not possible, but one of the partners felt that greater efforts should be made to support a woman’s desire for privacy. For those women who wanted a home birth and were evacuated to the hospital from more remote villages, this was known to be a reason that they disengaged to some degree from the process, feeling unfamiliar because of the location, but also the exposure to so many unknown individuals during what they believed should be a private experience. *It’s for this reason that they don’t talk – elle sibi* (they remain quiet and don’t ask questions) *because there are too many people*. They also indicated an understanding about other differences of concern, *you will find sometimes that a woman of 45 years old is there giving birth, and right next to her a young girl, the same age as her daughter is also giving birth…it’s uncomfortable.*

Discretion and privacy were discussed by all women. Reasons for being more open to giving birth in a less private setting was often linked to having had a complication with a prior birth or feeling that giving birth at the hospital (often via cesarean) was a status symbol among the more educated. The regional hospital birthing room held four beds in a small room, two beds against each wall. There was the chance
that you would be giving birth with one to three other women present. At the health centers, the birthing room was, most likely, attached to the examination room and often next to the waiting area. Again, there was the possibility of another woman birthing at the same time. Whereas, in a home birth setting, a woman was guaranteed to be alone as she birthed and had a known provider to guide her birth.

**Theme 2, subtheme 2: Family and community norms**

This subtheme was defined as personal or social behaviors that were historical and culturally embedded in which the woman often has little control. Two major ideas discussed were the courage to birth at home because of tradition (and embedded in this belief were the family norms of power in decision making) and the practice of female circumcision.

One of the hospital midwives said it this way, *the woman is with her parents-in-law, but if she needs to go to the hospital, most of the time the mother-in-law says, me, I always birthed here (at home) I never went to the hospital....so she expects her to be courageous, without realizing the possible complications.* Many women, and certainly those with uncomplicated labor, continue to support home birth; however, for women who may have complications or simply desire to birth at the health center or hospital, community norms about courage in labor may block her ability to make that decision.

In regards to female circumcision or female genital cutting (FGC), hospital midwives and traditional birth attendants were in agreement that there were specific and sometimes serious complications that resulted from their cultural practice. However, although this was a topic of interest to the birth attendants, the women never mentioned
female circumcision during the interviews. One hospital midwife stated, *if god puts you in the position of helping a woman who is not circumcised, if she goes into labor, this will help her dilate more quickly... it will help the head emerge faster as well.*

Though support for the cultural practice is changing, *it continues to this day...yes, it continues, but it is reduced.....the method, the method is different...circumcision before, the clitoris, the big lips, the small lips, before we cut everything, but now we cut the clitoris only a little bit....so people don’t say that she is not circumcised....it has become formal, its cultural. Circumcision also causes that (fistula) because this also elongates labor, it slows the birth process...therefore, circumcision is, is a consequence...However, it will not be easy to eliminate the process completely, as one BA stated, the mothers are worried that someone will say one day (ahh) I married the daughter of this person and she was not excised....it’s a real insult....Bilhakorodje (word for someone not circumcised)....the, the, the different generations make fun of us. The BAs explained that views on this practice were more supportive with increased distance from town and lower levels of education. This illustrated that what was possible in Labé was not always possible in more remote villages.

During the interviews, women also spoke of the traditions and norms that are a part of Fulani society. Many were forgiving of any challenges that stemmed from cultural practices, while others were less forgiving, *Yes, among the parents, especially the parents, because we are talking about the illiterate parents who just give birth at home...for them it's a custom, some say to themselves, well, if I'm able to do it, why not?*
Others do it, because they already have a cousin who did it, she gave birth alone at home (woman who birthed at health center).

When asked to speak on the same topic community partners mentioned similar understanding of the strong desire to adhere to tradition. One stated, African families follow tradition, so what they see their parents do is what they follow, it must continue [if faut continuer].

Female circumcision was a topic know well that illustrated the strong tie to tradition, even when there were known consequences during labor and delivery. The practice was often discussed in private conversations and during the focus groups, but was not mentioned by a single woman during the interviews. The birth attendants in two of the three focus groups brought it up as potential reason for higher rates of obstetric fistula. The practice is still highly valued by families, though the younger, more educated women (and men) are becoming less supportive. It was understood via conversations with family and friends that a newer practice of simply making a small cut (to draw blood, but not to remove anything) is becoming more popular. Families can say that their daughters are “pure” and they have been excised, without any of the physical or psychological complications. BAs, and other medical professionals mentioned that as a result of female genital cutting (FGC), almost all first births require episiotomies because of the presence of scar tissue and its lack of ability to stretch during labor. Tradition and community norms are of high importance in Fulani society, where you are raised to be less of an individual and more a part of the community. In this way, cultural birth
traditions were highly valued and often placed above biomedical advice in the event of a conflicting narrative.

**Theme 2, subtheme 3: Reputation/ Honor**

This subtheme was defined as the reputation of the caregiver or the birthing location. Honor and respect in care seeking is highly esteemed in the Fulani community’s birth culture. Women seek a care provider based on the word of mouth of other mothers. Women want a provider who will support them, support their traditional beliefs, and be trusted to honor her and her community. A laboring mother will seek out this provider based on her reputation, from individual women and from her community.

Birth attendants spoke on their feelings about the community reputation by saying, *If you see that the women go to them, it’s because they ask around the neighborhood, they ask in the villages...oh, where did you give birth ...eesh me, I gave birth in this place, because she is good, she takes care of you, she welcomes you...she knows how to talk to you, how to care for a woman....she doesn’t hit, she doesn’t scream at you.* Another traditional BA stated, *it’s at that person’s house that you will be well treated.*

Hospital midwives are aware of the positive community reputation held by traditional BAs. They realize that the odds are against them, as they can offer quality care, but cannot always integrate important cultural preferences. One midwife stated, *that’s how you have turned all the women from us* (at the hospital). Even one negative story from a hospital birth does more damage than a similar story from a traditional BA.
who is known always to protect her honor and reputation. They are also working against the community and family norms that privilege home birth over biomedical birth.

When women discussed the concept of honor and reputation during their interviews, they offered these thoughts, *other women told me that she was nice, me too, I, me too I said that I want to see if it’s true or false....I gave birth there, and I found that she was.....very nice and another said, I also know that she is very brave, she helps us a lot in our village... she assists her clients (women) very well, she treats us like human beings ... more than other nurses, because others (baby cries) already when you gave birth with them (at health centers or hospital), it's insults and so forth, and in any case, she treated me very well ... as a normal human being. Women wanted a birth attendant who would stand by them, who had a solid reputation in the community, and who would respect her cultural care and care seeking needs.

However, a community partner said it best, *the traditional birth attendants, no matter what name we give them, we value (honor) them in the communities*. The traditional BAs are seen as an extension of the community, cultural stewards who support the women through their birth process and beyond. Thus, their reputation is of absolute importance. Once a BA has been reported to be unsupportive or aggressive, women immediately sought another provider. The informal training networks also stem from this honor and reputation. New traditional BAs seek out women with strong personal and community-level status to train. Family members, and even husbands, mentioned the importance of reputation (which is a highly valued trait among the Fulani).
In this study, all of the women engaged with the biomedical system for their prenatal visits. This engagement came with differing levels of understanding for what is required for a safe labor. The traditional BAs were not willing to risk their reputation by accepting to help a woman with complications (if there was another option available), and women are aware of this fact.

**Theme 2, subtheme 4: Familiarity/ Trust**

This subtheme was defined as a feeling of absolute faith in the care giving out of a sense of familiarity and confidence in their abilities. This trust was often absolute, as Fulani do not typically ask questions of their care providers. The decision on with whom to seek care could be a matter of life or death. More than a community level reputation; women also desired a familiarity with their BA, who was from their neighborhood or village. Beyond just a care provider, the BA also acted as a friend and an extended member of the family.

An intense case of trust was from a home birth mother who said, *even if.... I do not wish it and she never has done it.... that she gives me a poison, my husband says to take it ... I have full confidence in her ... we trust her.*

The need for trust was also to protect a woman’s privacy, as women were always nervous that someone would attempt to cause them or the fetus harm, or to report that she was not able to labor with the necessary cultural manner. One woman stated, *it’s because others....if they come with you, for example, a woman in labor....truly she will tell everything that the woman did during the, the, the birth....so, it’s for this reason that you must choose a person that you know will not speak ill about you behind your back.*
Women want their trust to be honored. The goal is a labor where pain is not shown, but since they are aware this may not happen, they want a provider that will keep what happened in confidence.

In the event the woman has a co-wife or wives, there are other trust issues to consider. And if she has a co-wife and it is not going well between you.....and she comes with you.....if you happen to suffer like saying words or crying, they will tell others.... that's how she did it. This statement from a woman whose co-wife was accused of trying to give her a difficult labor. According to her, the BA was able to mitigate any harmful actions, and was able to change the story once it was in the community.

Women also said that after their first birth at home, they saw no reason to seek other care. One said, since I was used to it, as I had to give birth the first time with her, without problem...that’s why I chose her, like that...I had confidence in her. Hospital midwives discussed this during the focus groups, explaining that each birth was unique. They tried to convince the traditional BAs that they were doing the women a disservice. Several of the trained matrones or midwives from the health clinics also offered home births. When asked for their reasons, they replied that if the women were going to have home births, weren’t they safer with a trained attendant over a traditional BA?

Community partners added some valuable insight from their perspectives working in the clinics and the regional hospital. They were all aware that, here in the villages, the woman has more confidence in her birth attendant, that ‘mom’ than anyone else...they feel safer with them, in their hands, than with anyone else. Community partners view the decision to home birth with a medical lens of risk, when she births at home, when they have
confidence in a traditional birth attendant, her BA cannot interpret the risks for the woman or for the baby... but if you approach a women, it’s true, that when all goes well there are no problems, but if she can’t detect early enough the risks that the woman and baby are developing....to refer her early enough....it’s not good to give birth at home.

Community partners are also aware of the strong family and community influence over women and their choice of care. One example, from the maternity, the doctors tell the woman it is important to drink after birth (surgery), and she does, then the family comes in and says to not drink water, if you drink water it will come out of the scar...she believes that more than what the doctor said and stops drinking water. This medical professional was aware that his advice was only as strong as the family support. When going into villages he knows that they will listen out of respect for his position, but if the village birth attendant disagrees, they will follow her advice over his. The contrast between trust and misinformation illustrates that cultural hierarchy surpasses biomedicine.

**Theme 2, subtheme 5: Choice (where to birth)**

This subtheme was defined as the desire for choice in where (location) to birth, but also whether she has the autonomy or discretion to make the choice. Women are often accused of making poor choices or risky choices for laboring at home; however, many of these women do not have the ability or power to choose. Although women mentioned their desire to choose their place of birth, cultural and family requirements often take the power out of the women’s hands. The BAs also feel this stress, as they do not have the power to force a family to evacuate the woman.
The following six Photovoice photos show differing views of several birthing options for women, including a home birth room, a health clinic, and the regional hospital in Labé.

The BAs concurred that there was a cultural preference for home birth. There are many women who prefer giving birth at home more than at the hospital, and, voila, they prefer to give birth at home. Many of the reasons for this choice were explained. Many women don’t go to the hospital because of these strict rules that the hospital requires….if she wants a position that is comfortable to her…to let the woman choose what she is more comfortable with…it’s that, we shouldn’t force her…we shouldn’t say come lay here only, don’t get up…..because this traumatizes women. The inability to guarantee that a woman’s choice would be respected was a problem that the hospital midwives
struggled to solve. *Their desires are what they want, it’s the reason that they left us, it’s because we told them that they always have to lie on their backs.* Another followed with, *if you don’t accept different positions, right after they birth they will never return, and now we are trying to get them to come back.*

A woman’s choice of location is also choosing how she will birth and what kind of individualized care she receives. If she compares her hospital birth to a friend’s home birth, she will find that only one was able to respect all of her cultural traditions. *The first question she will ask you is if you will accept that I give birth half sitting on my knees....now if you force them, she’ll birth, but she will not return because they are used to being on their knees in their room and birthing.*

Traditional birth attendants, on the other hand, feel differently. *There are complications where you are obligated to bring her to the hospital, but if there are no complications, she can do it, she can do it.* The accepted norm is that the hospital is for complications, for cesarean sections, but not for an uncomplicated birth. One hospital birth attendant said the problem might stem from the fact that, *right now we don’t force women to go birth at the hospital....but we do require them to have a birth plan, to share this with a qualified person...because you have confidence in her, you can go labor there without going to the hospital,....you only need to worry in the event of complications....* In the event of one of these complications or being told that they cannot labor on their own, they go to the hospital. If they have a positive experience, they are more likely to return and to encourage other women to do the same. Overall, it continues that if given a choice, the women will choose home birth.
However, there are women who may seek biomedical care or encounter a complication and not have the choice to go to the hospital or clinic. These reasons are many, but in regards to choice, if the husband is not there, no one feels comfortable taking the woman to the hospital and more often than not, the woman is with her parents-in-law.... and if she has problems she should go to the hospital....you will hear a woman say, me, I had all of my births at home, I never went to the hospital so there is a ‘brake’ and a block, so to speak. The husband holds the decision making power in health, but in his absence it is his parents or the woman’s mother-in-law (MIL). The challenge is whether the MIL has been given authority to act on the husband’s behalf and whether she has the means to bring her daughter-in-law to biomedical care.

During the interviews, the women added their perspective on whether they had choice, and what they would choose in the absence of other challenges or cultural norms. One woman’s MIL wanted her to take some traditional medicines to ease labor pains, but... my mother-in-law, she told me to take, but my husband did not agree when I told him that, he said it's not good. Although at the time he was living in another country, both the MIL and the woman respected his wishes, even though she admitted that she wanted to drink the medicine. She felt she did not have the choice to go against his wishes.

When women do seek hospital care, it is often due to a prior complication or the need for a cesarean. This time, I voluntarily came here (hospital), the first time I gave birth there (at home).... I had a problem during birth. Some women with higher levels of education have started to view biomedical birth as the preferred choice. Me, I chose the
(health) center because... first thing, everything is free... it’s free, second, when you come, when you come and you have, you have any pain (contractions)... you are at the birthing place. This woman was comfortable with more interventions that what other women mentioned, and uniquely, she said that she had made the decision, to birth at the health center, jointly with her husband.

The choice on where to birth remains biased towards home birth. There were a variety of factors that could be influencing this decision. One that was continually brought up was whether or not they had the choice to make the decision for themselves. One community partner even said, women are marginalized ... it's the men who decide everything ... and that's what is not good. In observing the birth process for women, the lack of choice and autonomy cannot be underscored. Husbands and mothers-in-law hold power over the women, especially those in more remote areas. In only a few conversations did women discuss a partnership with their spouse or a confidence that if a complication arose that they would be able to decide how to proceed without consulting family members.

Birth is a family and community event, the birth and the baptism that follows seven days later are the biggest events in a woman’s life, more important than her own wedding. For those women with whom I spoke that were educated, their personal autonomy appeared more developed than their less educated sisters. At the hospital level, and to some degree at the health centers, the doctors were all men. The head of maternity in Labé was a woman, but I observed her having to behave more strictly in order to be respected within the existing system. The absence of a decision maker during labor was
observed to have dire consequences for women, certainly those in more remote areas who needed to be transported for intervention or surgery.

**Theme 2, subtheme 6: Access/ Feasibility**

This subtheme was defined as not only the physical access, but the logistics or feasibility in a broad sense, in regards to cultural care-seeking for birth. Following the discussion of choice, besides decision making autonomy, the second biggest obstacle for women was access. Not just physical access, but financial access as well.

The terrain of the Labé district is mountainous and with limited road access once outside of the city and larger villages. Transport is by foot or motorcycle, cars are owned by few and used primarily as taxis to get from town to town or town to village. Many women do not have direct access to transport, and in the event of a labor complication, there are few options if she lives in a more remote area. Outside the city, roads are often unpaved, sometimes as small as footpaths, some usable only on food or moto.

There are also fees incurred, for transport, for the costs of care while she is away from home, for any medications. Many women do not have their own financial resources.

The following four photos show some of the challenges of transport in the district. Whether during the dry season filled with dust and harmattan winds or the rainy season that washes out roads, transport when not in labor is challenging.
Much like decision making power, overcoming issues of access or feasibility in seeking care does not lie in the hands of women. One birth attendant said, *there may be someone who without their permission nothing happens*. Traditional BAs who live and work in more remote areas are aware of the multiplicity of factors affecting care seeking. *It could be because of a lack of money, lack of available transportation if she lives far away for example, if she lives far away from the health center or the hospital... that could cause problems in the moment.* Prenatal visits and delivery are free within the biomedical system, but medications are not. Traditional BAs can offer her free traditional medicines and support pain management in other ways.

One BA even spoke about how these challenges brought her to her profession. *If you see that they are coming here (home), before there were no hospitals, no health clinics, and the town was far away...because of this I had the idea to start practicing as a birth attendant.....and this is what continues.* Even though there are health clinics, there is also a regional hospital and several sub-district hospitals, women seek cultural care that the women before them used. Ironically, many of the same problems of access continue today.

A strategy to overcome these challenges offered by the BAs was to incorporate more trained care in the villages. *Me, I think that if we are able to train people in the communities, the health agents there in the villages, that will significantly reduce maternal mortality.....if they have training, a little training about even just how to transport a pregnant woman to the health center.* The traditional BAs are very open and aware of their capacities, whereas many of the more remote health centers are staffed
with health agents with much less experience. The lack of sufficiently trained staff in remote posts is another complication in seeking access to care.

For women, problems with access to quality care sometimes means that she delays in going to the hospital, even with severe complications. *She came to visit me to see, she gave me medications...she said there are eight women who need to have caesareans before me.....so I still need to wait longer...when the eight women (before me) have given birth, if I haven’t already given birth...they will give me a caesarean (after 10 days of labor in her village)*. This woman’s experience was not altogether unusual. Challenges with finding trained care in more remote areas are another known issue. Luckily for some women, one complication leads them to a positive experience at the hospital because they had access to transport, *because here, I found that it’s better (at the hospital, after having had problems at the health center)*.

Community partners are also aware of these challenges in access and feasibility. *At the hospital, they don’t ask you for money, but they ask for medications, they ask you....because of this, they prefer to birth with their “midwife”, my birth attendant (traditional). When explaining what had already been attempted by the government, with the state of things, to employ people, to motivate people to go to rural zones (landlocked areas), to try and organize things there...the state tried to...they recruited and sent midwives to these posts, but there aren’t any midwives there now. Another shared that, all of this has an effect (transport costs, distance, the fact that health centers may be staffed by health technicians, etc.). There is an awareness of the problems, but no tenable solutions that have worked.*
There are known issues with access to quality care, even major differences between the regional capital of Labé and the national capital of Conakry. *In the health services, it’s the quality, it’s a big lack (need), especially in the interior...the competencies are in Conakry, the needs are in the interior...this is the problem...all of the specialty doctors are in Conakry, all of the midwives, the real midwives who have the training.* The more advance medical specialties and hospitals are located in the capital with *the women are in the villages, in the communities... unfortunately there is this problem of roads ... they do not have access often to ... a, to a health center ... either because she has to climb a mountain, cross a river, walk 5-10 kilos on foot, all while in labor.*

Finally, community partners agreed that the decision making process within families, especially when the husband is absent for whatever reason, *this young woman, she will go into labor, and it’s the mother-in-law, who is tired, who is there...she has no monetary means, she has no decision making power.*

The logistics of transport and terrain in the Fouta Djallon region are the country’s most challenging. In conversations with various national and local medical staff, it was understood that a variety of approaches to assist with transportation have been attempted, including ambulances in town, and motorcycle ambulances with sidecars for the more remote villages, to transport women to a sub-district or the regional hospital. However, none of these methods worked, due to lack of training and the challenges of the terrain, especially during the rainy season. There are women who do not have the option to leave once a life-threatening complication arises, both in the more remote villages and even in
some neighborhoods of Labé. Another complication from the remoteness is the lack of trained health staff willing to remain at more remote posts, whether at the health centers or the sub-district hospitals.

Husbands and mothers-in-law hold power of the labor decisions of their wives and daughters-in-law. Even within my own family, decisions were navigated without the input of the pregnant woman. This lack of autonomy hurts women’s ability to make decisions about care-seeking (wanting to go to the hospital or health center, but the mother-in-law had always given birth at home) and this had dire impacts when complications arose (causing maternal death or disability).

Narratives

The following five narratives were chosen to illustrate how women throughout the birth process experience these culture care-seeking beliefs and practices. They indicate how women are choosing or are not given choice in engagement with these aspects of normative cultural care and care seeking.

The woman in narrative one engaged in biomedical care throughout her pregnancy. She visited the hospital for all of her prenatal visits. As a young married woman, her situation was unique. Her husband was working abroad in the Ivory Coast, and she was a first year student in French at the national university in the national capital. She was well educated and supported biomedical treatments; however, when it came to the delivery of her baby, she felt that using her village’s birth attendant was the best choice. Her reasons for seeking the BAs care illustrate that delivering at home is truly a culturally embedded practice.
The second woman chose to birth all of her children at the local health center. During her first labor, she had experienced some complications, so felt safer being at a medical clinic over a home birth. She prescribed to some cultural care seeking practices, but overall was less concerned with privacy and familiarity. Instead, she wanted interventions and she wanted her husband’s engagement in the process to the greatest degree allowed. Many of her comments were in direct contrast to the other women interviewed for the study.

The third woman had a home birth, but with a trained matrone (she only needed take her exams to be a certified midwife). This allowed for an interesting mix of allowing the cultural care seeking needs of privacy and trust, but in a hybrid traditional/biomedical setting. She experienced the loss of her husband during her pregnancy, and explained how some of the decision making power shifted as a result.

The fourth women gave birth at a private clinic after having two home births. Her story illustrates the importance of familiarity, trust, and reputation. Her birth attendant had previously assisted with home births, but at the time of the interview was only assisting at the private clinic. The two women met in their neighborhood, and the BAs reputation and manner convinced her to change her birth location. The private clinic was able to function as somewhat of a hybrid, having a more biomedical setting, but allowing for more choice in position and offering more culture care than the hospital (food and tea).

The fifth woman experienced a prolonged labor that resulted in the loss of her baby and the complication of an obstetric fistula. She was a young woman, newly
married, and this was her first pregnancy. Her experience was compounded by problems with access and choice. She mentioned that she had wanted to go the hospital for her birth (sub-district of Lelouma). However, her only support was her mother-in-law, who assisted women in labor, but she was not a birth attendant. Her labor did finally take place at the sub-district hospital.

**Narrative 1: university student with home birth**

This interview took place at her birth attendant's home, with the BA present for the first part of the interview, but later left to help care for the interviewee’s baby. They both lived in the most remote neighborhood of Labé, she was one of the youngest interviewees, and the first (of two participants) to have any university education. She was in her early 20s and studying French. *They sent me to Conakry for university and during the time that I was here, I did some exercise, because they say that it is good for pregnant women.* She had been married two years, and divided her time between her university studies in the capital and her married life in Labé. She used a traditional healer, alongside a medical doctor at the hospital, to try and become pregnant. She was also very comfortable speaking French. She went to the regional hospital for everything from pregnancy test to prenatal check-ups. *Ahh, as soon as I understood that I was pregnant, I went to the hospital first, for a visit, to find out if it was real. First, because it had been a year and a few months since I was married, and I hadn’t yet gotten pregnant. When I went there, they told me that I was pregnant, as a result I was very happy.* However, she decided to birth with her neighborhood’s traditional birth attendant. *You understand that in our village, each person that wanted to give birth comes here. When we went to see*
their baby, they always said that they gave birth with Nene (BA) over here. Yes, many people told me, she is good, she really helps her laboring women, and she treats them as fellow human beings. There are other birth attendants, others, when you give birth with them, there are insults and other things, but honestly, she treated me very well...like another human being. She mentioned her husband being supportive of her decision to birth at the home of the BA, as he was working out of the country in the Ivory Coast. While I was giving birth....and I even did not tell him that I was here, he asked me if I was at her house....so, he immediately understood that I had come here to give birth...simply I didn’t tell him directly. The same descriptions of comfort, trust, and lack of need for specialized services were interwoven throughout the interview. Yes, she...when, sometimes, every once in a while, she asked me if I felt any pain and I said yes, she would say « it will be ok, it will be ok, it will pass, don’t worry. » This was her first and only child. She also discussed drinking kankeliba and eating latoo once she had delivered her daughter. Yes, she gave me tea, she had some in her thermos over there. She gave me some, from time to time, she gave me tea to drink while I was here (kankeliba). Ah-uh, that's right, every forty minutes. After she came back (from the Friday prayer), I was still here ... she gave me something to eat, the ... what do you call it... the fonio when ...ahh, latoo.

**Narrative 2: Educated mama at health center**

The interview took place at the one of the larger health centers in town. The mother had four pregnancies and four girls. She was originally from Labé, but had her first three babies at a health center outside of Labé. Her 2 month old (who was present
during the interview) was her last. She explained that she believed her extended breastfeeding helped her space her babies 3 years apart. She was a college educated woman, with a spouse who was a local government official. Her socioeconomic status and college degree gave her distinct advantages over most women in the area, and led to an easy conversation peppered with opinion and commentary. *Because they're (women) not intellectuals, they do not understand ...but no ... there are all the languages in the health centers, there are all the languages, so you come and ask about your problem.* She felt that women didn’t see the benefit of birthing at the health center due to, *it is what is called ignorance, when you do not have this, uh, this, uh, understanding, understanding between, between these, these people who are on the spot (health center) to help you and then, you, you have this nerve, you cannot come to an understanding with (them).*

She was well spoken and was very aware of the possible complications that arrive during birth. She consciously chose to give birth at the health center in case of potential problems or complications. She did not speak of this during the taped portion of the interview, but afterwards spoke of one birth that was so long and painful that she lost consciousness and felt grateful to be at the health center. *My pregnancies, all of my pregnancies...the prenatal visits (baby cries) were in the health centers. Me, I chose the health center because....first point, everything is free. It’s free. Second, when you go, when you go and you have, you have pains....you are already where you will give birth. There is the needed support, the women (birth attendants) are attentive and stay with you up until you deliver...the midwives are there, they, they guide you, they provide you with medication, they teach you, you know?*
She also spoke about the fact that her husband was present for all four births, though according to Guinean "custom" was not allowed in the birthing room. *Well ... I am an educated woman and I have a husband who is a civil servant. We have, we do all, we spend all the moments of the pregnancy in ... already I tell him we share, because every month of monitoring, every appointment, I come with my husband.* She gave her opinion on why women (she mentioned uneducated and "ignorant") chose the greater risk of home birth and the cultural need for discretion. *If a woman gives birth at home, you do not know what to do, you have no help, you can be overcome (with pain), and in any case there are problems that could happen...Because, as a woman, we don’t need to be embarrassed at the health center. Especially when someone wants to help you to deliver in a safe environment...and then, (if you) need someone, someone to help with your care, because one cannot do it (birth) alone. So, we say, one to two, that’s not being indiscreet, right? From my point of view, it does not bother me...so, although it’s good to have discretion, that’s it, it’s just an argument, because they want to give birth at home.* She did follow some traditional belief patterns, such as drinking kankeliba tea and not eating too much. *Every month that I came (to health center), they suggested for me to do it and everything that was fatty, I avoided. To not, for the pounds, to avoid being too heavy, therefore (she laughs) to avoid a large baby.* In regards to reasons women may not choose to birth at health center who had planned, she gave the following answer. *Some might be in too much pain to travel or some may also choose to give birth at their home, just because they know that there is someone there who is able to help them and it is not*
because she underestimates the (health) center and then, some of them might find that to get to (health center) she hurts too much that she has no strength.

**Narrative 3: Health center midwife who assisted birth at her home**

This interview took place at a health center in town. The mother gave birth with one of the center’s matrones (she was almost a certified midwife); however, the birth took place at the matrone’s home. She was reserved at first as we sat in the room next to the birthing room, with the waiting benches for the maternal clinic outside. However, we had an uninterrupted conversation. She did have her baby with her, but sadly, the baby’s father had passed away before her birth. My husband died (pause), when my husband died, it is there (at her birth attendant’s house) that I could find out if I'm pregnant. I did the ‘baby’ test, I found that I'm pregnant...I gave birth at Tanti’s with my (other) three children,... but I did not have much difficulty during labor. A special name was given to her baby, thus signifying that she lost her father before she was born. The health center matrone was her neighbor, and although she had all her prenatal visits at the health center. It was Tanti that told me to go do the prenatal check-ups at the health center (where she worked). I’m the one who decided. Umm, my husband asked me, if I want to do a cesarean or a natural birth, me, I said, in my opinion, I prefer to give birth with Tanti... a natural birth. She mentioned privacy and the existing relationship with the midwife as two of the major reasons. Tanti (BA) is very nice also, when you labor at her house, you don’t have any problems there. Women told me that she was kind, me too, I found, and me too I said I wanted to see for myself if it was true or false.... I gave birth there, I found that she was very kind. You know she is very smart. Tanti, it’s for this
reason that I prefer to give birth there. There is discreet. There are not, not a lot of people there. That is why I prefer to give birth there. She talked about how she was well treated during her labor and delivery. She gave me good advice. She told me to go slowly, you will give birth very soon. She was next to me, always next to me, always, all the time she was next to me. She mentioned that for all of her other births, her husband had given the midwife some money, but this time she had not had anything to give her. If I labor, if I prefer to give something in my opinion, to give her, but, she did not ask me to give her something. She did not ask me to give her something, but when I give birth, my husband would get something to give her, give to Tanti. After this interview, the matrone discussed issues about the location of the birthing room at the health center. She acknowledged that it was not very private, but shrugged when reminded that she advocated at each visit for a health center birth. The BA mentioned that women will seek home birth, and it was better for them to deliver with her (since she had training), than to birth at home with an untrained birth attendant. Both the BA and the women discussed the blending of the two locations, especially in regards to labor practices, a more medicalized home birth (medications, birthing position). Yes, me, it’s on a table (birthing) that I had my baby at her house. She has a birthing room, there are tables. There is where you go, that’s where we should labor.

**Narrative 4: Mom who gave birth at private clinic**

This mother had given birth twice with a home birth attendant. At the house, it was on the floor that I delivered, she also gave me medications up until I delivered and I didn’t have any complications. For her third pregnancy she realized that her neighbor also
worked as a birth attendant at a private clinic, and her neighbor was recommended by another friend. *Ahh, I knew Madame. She works there, ahh, she told me to go to the clinic. It’s good for birthing.* Although there was a slight language barrier (with her comfort being more in Pulaar, than French) she was able to discuss the importance of trust and referral (she knew several other women who had gone to the clinic); however hers was based on the recommendation of a close friend, and her personal relationship with the birth attendant. Her first two births had been positive experiences with home births, no complications. *My other two kids, it was with, ahh, someone who works at the public clinic* (home birth). She said that she was treated well and given good advice.

*Every month, I would do, go do the prenatal visit (at private clinic). She told me to go to the clinic, it was good. Ahh, she told me to not work too hard and to eat lots of, of things.* *This is the advice that I received.* When she went into labor, she explained that she was treated well, and had no complications. *When I got to the clinic, she, she took good care, took good care of me. Hmm, she gave me medications, she consoled me, “go slowly, slowly you will finish soon.”*

**Narrative 5: Obstetric fistula interview**

This interview was with a young, 19 year old with her first pregnancy. Her interview took place at the fistula center in the regional hospital in Labé. She explained that she did not have complications during the pregnancy, but the birth had been challenging. She had completed her prenatal visits at her local health center. Her mother-in-law wanted a home birth and was the only support she had during her labor. Although her mother-in-law helped other women give birth, she had no training and did not
consider herself a BA. After two long days of labor, the mother-in-law determined that she would not be able to birth without assistance. *I started to have pain on Tuesday morning, it continued into the night and into the next day. It kept going until Wednesday. I stayed (with mother-in-law) until the prayer of footooro (4th daily prayer) then they took me to the hospital in Lelouma (sub-district).* She not only was left with an obstetric fistula, but she also lost the baby. She understood the following day that she had a fistula due to the leakage of urine. *I gave birth there by myself and I stayed another two days...they told me I needed to stay for seven days to see if it would stop (urine leakage), if not they would transfer me to Labé. It didn’t stop, they let me go. After, I stayed with my husband and we heard on the radio to come to Labé (for the fistula repair).* She was in Labé, three months post-delivery, to attempt to repair the fistula through a joint USAID/ Engender Health project. The program is broadcast over the national radio into local languages, and encourages women to come to one of the participating regional centers (Labé was one) to determine if they qualified for the completely financed surgery. She said she heard good things about the hospital from other women and that the hospital was more comfortable because that’s where I was able to give birth. When we met, it was unknown if the surgery was a complete or partial success.
THEME 3: Miscommunication [mauvaise communication]

This theme was defined as cultural patterns, associations and norms that posed challenges for communication with the traditional and biomedical health sector. This theme was also defined as “what is not talked about or explained” or [Ce qui n'est pas parlé ou expliqué]. These are the communication pathways that women are using to, or not, engage or gain access to maternity care.

Four sub-themes were developed to support the overarching theme of miscommunication

1. Fear of interventions [Peur des interventions]
2. Misunderstanding [Malentendu]
3. What to do/ not to do debate [Que faire / ne pas faire débattre]
4. Hindering engagement with health system [Entrave au dialogue avec le système de santé]
**Theme 3, subtheme 1: Fear of interventions**

This subtheme was defined as a fear of unnecessary interventions in the health care system, which limited, delayed or prevented engagement with the biomedical system. Women who birth at home are not subjected to any injections (shots) creating a distinct difference between their birth experience and the birth experience of a woman who chooses to birth at a health clinic or hospital. The biomedical system offers interventions for pain management, acceleration of labor, and to mitigate any complications. Whereas during a traditional home birth, tisanes or other traditional medicines would be offered, along with massage or other non-invasive pain management strategies. These fears about possible treatment at the hospital leads to delays in seeking treatment.

The following two photos were taken during the Photovoice project. The hot pepper was discussed as a food that women enjoy eating during pregnancy, as well as discussed as a story about how the shots given at the hospital were filled with hot peppers. The second photo was taken by a hospital midwife and discussed to demonstrate that the biomedical system tracks complications and interventions. In this way, they learn to manage pain and complications using the latest medical knowledge, instead of relying on traditional medicines.
The traditional BAs, supportive of the women they serve, were for limited interventions. The BAs said, *many women don’t like injections...that’s why we don’t force her. They prefer that we give them leaves (in tea) over injections and we don’t force her to do what she doesn’t want to do.* The traditional BAs were staunch in their protection of their women, not wanting to subject them to any unnecessary pain. One BA stated, *as soon as she gets there, whether you are at term or not, they inject you so that you give birth quickly and now if you go they inject you five or six times, seven times, they inject you but you don’t give birth.* Traditional BAs felt they were in tune with a woman in labor, giving support and medicine only as necessary at the appropriate stage. Any
other way was felt to be, suffering, every shot is suffering... and they make you pay as well....even if they don’t charge you, the pain that you feel before your labor begins, it’s just pain and suffering.

The traditional BAs felt that one of the main issues was the reality of the care provider being responsible for more than one woman in the hospital or clinic setting. If you go to the hospital for birth, the midwife that is there is already taking care of other women, as soon as they do a vaginal exam, as soon as this is completed, ahhh, we’ll give you oxytocin for example, one time, two times, three times, four times until you give birth...each shot is a problem, they can’t support... this is the reason that they don’t go to the hospital...they avoid shots in general.

Women who had already given birth successfully at home were more likely to choose a home birth for additional births, if the baby allows. When asked what was stopping them from going to the hospital, it’s because of the things at the hospital, when you go to the hospital they will attach something to you.....when you go to the hospital, they will ask you to lay down in one place, to stay in a small room, they say to stay there, stay there, they tell you what to do.....she finds that she doesn’t like this, that she prefers giving birth at home...there she does it for herself, she knows what she needs to do, it’s (at home) where she is free, where she is comfortable. Another BA commented that with home birth, you find that you look at things the same way, the way you want, it’s that way that it will be... there are others when you go to them, everything you want is not what you asked for, in this way it creates complications to make you want to stay home. The traditional BAs had all given birth at home themselves, one to 15 children, and they
believed in their skills and knew that women were fearful of interventions and treatments that differed than the cultural norm.

In response to the argument that a lack of intervention or not using the biomedical model leads to unnecessary deaths, one traditional BA responded, *we have deaths, it’s true…but there is that at the hospital as well.*

Hospital midwives wanted the opportunity to respond to the traditional BAs use of oxytocin during labor, *it’s something that if you have an operating room, if you do not have an operating room, we don’t give that before the woman has had the baby.* They explained that they gave oxytocin after birth, *the shot that you call hot pepper (piment), it prevents bleeding, it prevents excessive bleeding…it also helps the woman’s vaginal wall recuperate.* The other hospital midwife added to the discussion by responding, *we inject the woman to prevent hemorrhage, also for the uterus to return to position, to retract back to its original position, but you think that the shot of hot pepper that we give, that we inject hot pepper, is a shot that we call atrophine.*

The midwives knew that women were afraid to come to the hospital because of the operations, but *there are some that require an operation….even with all of the courage that you have in helping them birth at home, if she gives birth there, she will have a fistula….The hospital midwives accused the traditional BAs of forcing vaginal births, at the end, she finishes laboring, but the infant does not survive, if the baby does not live, she will have a fistula. Yet at the hospital, we realize this early, we do vaginal touch…you know if you have a retracted uterus you will not wait, you take her directly to*
the operating room….therefore we prevent obstetric fistulas by cesareans. For traditional BAs, vaginal touch was also considered an unnecessary intervention if done frequently.

One intervention that the traditional BAs and hospital midwives agreed upon were episiotomies required of all primigravida (first birth) due to female circumcision. One midwife explained, because if we cut the clitoris, at the moment of birth, there will be a tear near the clitoris, near the urinary mea…..do you know that circumcision also brings about obstetric fistulas….do you know how?….because we cut completely… but at the moment of labor, that’s why we say not to (circumcise), because at the moment of birth she will suffer. She added, because if you are circumcised, you will have a smaller opening, if a head tries to pass through, if you don’t tear above, you will tear below, it’s better if you tear below….we do an episiotomy and then we repair, all of the first time moms…. (hospital and home births).

Fear of interventions was a commonly overheard reason for avoiding a medical birth, even if the medical system had been engaged through prenatal visits. The “hot pepper” explanation stems, from the viewpoint of one participant, from the stinging sensation of a shot. The discussion over whether there was, in fact, hot pepper in the shots was filled with passion on both sides as they defended their method of practice. Many women discussed that a traditional BA would offer teas or other food-based medicines, whereas at the hospital, you would be given many shots. Another layer is that there did not appear to be a consent process with the shots (to encourage labor or manage pain), but that they were considered common protocol whether the woman supported the intervention or not.
Other actions that were considered interventions included vaginal touch. Traditional BAs rarely utilize this method of determining stage of labor, whereas the biomedical system uses this as general protocol. Overall, there were vast differences in practice, with one supporting intervention and the second avoiding in lieu of traditional medicines and teas.

**Theme 3, subtheme 2: Misunderstanding**

This subtheme was defined as obstacles with communication and understanding that delayed or obstructed medical treatment or outcome. Major areas of misunderstanding included languages, using the prenatal booklet, differences between biomedical and traditional care, and the cultural definition of doctor.

Although language barriers should not exist as the majority of the Labé district is Fulani, miscommunication was apparent with differences in levels of education and understanding of medical terminology. Communication in general is challenging, as many women have little if any formal education. Health center and hospital staff speak Pulaar, as well as French, but women hesitate to question what they are told, even when they do not understand. Several participants agreed, one saying, *there are all the languages in the health centers*. Language is an immediate indicator of education, as the school system uses French, but the most commonly spoken language is Pulaar. As a result, conversations were short and lacked the depth and questions necessary for full comprehension of her pregnancy or labor.

Use of the prenatal booklet [*carnet rouge*] is still not at full compliance. Most women are aware of the booklet, known for its distinct pink cover. The booklet tracks
pregnancy markers and basic health information, such as blood pressure and weight. For the women who visit at four or five months pregnant, receiving their booklet does not guarantee the use of medications or compliance with follow-up requests, *even if they have the carnet* (the pink booklet), *there are certain women that (still) refuse to follow the treatments*; limiting the booklet’s efficacy. Other women do not receive the prenatal booklet at all, even though many traditional BAs encourage their women to seek prenatal care within the biomedical system using the prenatal booklet.

There is also still confusion as to whether or not there are costs associated with the booklet. International funding covers the costs of the booklet itself, four visits, a mosquito net, and the SP and FAF medications given each month. However, many women assume there are costs, and without means to pay, they choose not to engage in prenatal care. In the more remote areas, *there are certain girls who hide, they become pregnant, and they hide from their mothers, you know?...it’s just at the end that they go to the village, they come to say...now, my girl has become a woman, she is pregnant....we ask where is her booklet, they say no we don’t have a booklet.* This lack of engagement with any prenatal care increases the likelihood of a complication during birth,...*they say truly I did not have the money for the booklet, and they didn’t get their vaccinations nor medicines, and as a result there are complications....for them, if a woman has not taken SP sulphadoxyl, nor FAF (folic acid and iron supplements)...when they do come we are now required to give it to them* (hospital midwife).

Community partners mentioned other problems with the prenatal booklet. As part of the regular visit, women are given an antimalarial and a folic acid pill with iron. These
are given in a paper cone, but in observations at the health centers, staff rarely explained what the pills were and why they were taking them. One partner commented, *the iron / folic acid, you know, when we take (swallow)... it's metallic, there is a metallic taste, we do not explain to the woman ... all (the information), what happens? The first time she takes the tablet, the taste is there, she puts it aside, because for her there is no sense* (it was not explained). Encouraging engagement with the biomedical sector is important, but currently there is miscommunication and the lack of the necessary support structure for women to follow recommendations easily.

At one health center there was a great deal of confusion when they ran out of pink paper (for the outer covering of the booklet) and the booklet was yellow. Women were overheard questioning whether this was, in fact, the booklet they needed or even the legitimacy of the health center. In speaking with medical staff at the health centers, this was verified. As a result, every effort was made to ensure the booklets always looked the same. A health center matrone explained, *the prenatal (red) booklet is like a medication, it’s what she knows, what her family knows, so if she comes to the health center and they don’t have it, even if we did a good consultation, and she received all of the necessary medications, she will feel like something is missing, so that alone reduces the adherence to the visits.*

Unless visiting a traditional BA, where the visit is individualized, most biomedical care is performed in a group setting. This could be either a common treatment room or in a multiple bed recovery room. In regards to birth, where women seek to have a discreet pregnancy and labor, this lack of privacy hinders their desire to engage with the
health system. Care providers at the regional hospital and local health centers are doing their best to meet the needs of the women during the pregnancies; however, communication about risks, prenatal care, and medications is not being understood and followed.

As the biomedical model of care functions differently than visits with a traditional BA, often women are left embarrassed and confused with how to successfully engage with medical staff. Even the question of whether or not biomedical and traditional medications or therapies can be used simultaneously is not understood. A traditional BA explained, if they go to the hospital, they will find, for example, other midwives that they aren’t comfortable with, everything she says the other says the opposite, you see? For many women, interactions with the biomedical system are tenuous at best. They engage in biomedical care sporadically for their four to five prenatal visits and to obtain their booklets.

Even determining and labeling medical staff is confusing. Confusion about who gets to be called doctor or what constitutes a hospital…everyone is a “doctor” here and that is a problem staff is embarrassed to say, no I am a nurse or no, I am a midwife. In the villages, because of their reputation and the honor bestowed upon them as the cultural stewards of birth, traditional BAs are sometimes referred to as ‘doctor’. For many, there is no real understanding of the difference in qualifications between the various titles. Faith is placed in the hands of whomever is wearing a white coat or is dispensing medical knowledge, even if they have no formal medical training. A community partner said, this complicates whose medical advice is followed. Fulani view medical doctors in high
Esteem. The title of doctor, however, is given to many different levels of healthcare providers, from traditional BAs to formally trained MDs. This level of misunderstanding easily leads to complications and minimizes engagement with the biomedical sector.

Theme 3, subtheme 3: What to do/ not to do debate

This subtheme was defined as the practices involved in women’s work (such as laundry or chopping wood) and the continual debate over whether these should be supported during pregnancy. Depending on the care provider that a woman chooses, the advice given to her can vary significantly. Hospital midwives are against heavy labor during pregnancy, aware that strenuous work increases risks of complications like miscarriage. Traditional BAs tell women to limit heavy labor, all the while understanding that without support, she will do what she must. For many women, continuing to labor while pregnant supports the belief that it would assist with her labor and help keep the baby small (for easier delivery).

The following four photos were taken during the Photovoice project. These images illustrate some of the more strenuous labor, such as getting water from a well or chopping wood, and how the health centers choose to visually illustrate what women should and should not do while pregnant.
The hospital midwives were more adamant in their desire for women to not labor while pregnant. As one explained, *in this picture, the woman is laboring... she is pregnant, but it’s something that is not good for the woman, because it can cause premature separation of the placenta... in doing hard physical labor, it can also cause an internal hemorrhage for the woman, therefore it’s something that a pregnant woman should not do... laboring like that, but we say that it helps a woman.*
The hospital midwives continued by linking a photo to a labor practice. *This is a photo of a woman who is cutting wood....and this, this is also something that is not recommended for a woman, why? Because it's the physical effort that the woman is using.....especially for a woman in the first trimester...it can cause symptoms of miscarriage or a miscarriage.....if a woman is farther along, it can cause premature labor or a premature detachment of the placenta.* Interestingly, all of the photos of the types of labor would should not engage in while pregnant were taken by the traditional BAs.

The traditional BAs began the discussion of labor during pregnancy. The discussion illustrated the complicated relationship between respecting cultural norms and following biomedical advice. They explained, *the old women say a pregnant woman should labor, labor.....if a pregnant woman just relaxes, then the baby will not get stuck and remain in the uterus...when you go into labor it drags on.* They also acknowledged that, *in the village, women do that but it is not good, it’s not recommended...at the*
hospital we say to not do it, but in the village, we tell women, when you are pregnant you must work so that the baby will not get stuck.

When asked during the interviews about advice given by their care provider, the answers illustrated that conflicting advice was offered, but in practice, women did as they were able. *Umm, ahh, she told me to not do a lot, a lot of work….and, and to eat lots of things.* Sometimes the advice came with a warning about potential consequences, *they forbade me to work with too much effort, like that, the babies had dropped, and like that* (she showed her belly). *If no, I would be, I would have had a miscarriage, but (baby cried) I accepted ... I did not have a miscarriage, like that.* Women who did not have family or children to help with the daily labor tasks were obligated to do whatever was required; however, women interviewed for the study illustrated they were aware of the potential consequences, but hesitated in answering whether they had engaged in any of these practices, as they were aware of the conflicting views.

There was a distinct difference between women in the more rural areas and those in town. Those in rural areas women’s responsibilities, such as chopping wood or getting water from the well, that needed to be done by them whether pregnant or not. They did not have the support to avoid the necessary labor. Women in town, and certainly those with more education, managed to avoid anything that could potentially cause excessive strain or a miscarriage. BAs from the villages encouraged women to keep working on a limited scale, to keep themselves in shape and to avoid having a large baby (a concern for many as this could lead to a difficult birth). Whereas midwives and BAs at the health
centers and at the hospital told women to avoid heavy labor, often speaking to them in such a way as to frighten them into compliance.

**Theme 3, subtheme 4: Hindering engagement with health system**

This subtheme was defined as beliefs or practices that complicate interactions with the biomedical health system, including inadequate trained staff at the health centers, differential treatment, lack of guidance and support, and poor communication.

Lack of confidence in the health system often resulted from interactions with inadequately trained staff at the local health centers. As one participant said, *it's true what they say you, you (pregnant women) do not know, but you have to go to the people who are supposed to know* (staff at the health center). Community partners, who travel often to district villages mentioned, *I observed a lack of trained health staff. Often, health centers were staffed only by health technicians with limited training and experience.*

Women are being told to go birth at the health center because it is safer, but often the health technician on staff has considerably less experience than the traditional BA who works in that village. Multiple partners discussed multiple issues with staffing at the health centers. One commented, *if a health center is managed by an ATS, or, actually right now, almost all of centers, the head of each health center is an ATS or the ATS that hold office hours as a midwife, to do the CPN (prenatal) visits at their health center. As women continue to have undesirable experiences at the health centers, the health system will have to work to overcome these challenges.*

The staffing problem is not new, one hospital ob/gyn explained, *there was a time when we closed the national health school, where we train midwives, so there was a*
rupture, between….around 10 years, there were no midwives… therefore, it was the health technicians who were there to hold place for the midwives. However, midwifery training offers advanced training to diagnose complications and to speak the language of biomedicine. Traditional BAs and hospital midwives agreed that, when, during labor, they return to the health center for help, they are often met with inexperience health technicians, not a medical doctor or midwife.

During the interviews, women had several stories of their encounters with inexperienced staff. One woman, who labored for 10 days before being transported to the regional hospital said, the doctor, (at the health center) where I went…. the doctor was not there, the doctor had gone to N’Zérékoré (a town in another region of Guinea)…. he lives there …when my belly began to hurt, when I went there I only found his wife with his niece (Timbi Madina) … that's what tired me more. The women did not acknowledge that they did not have sufficient training to diagnose, and because of cultural norms, she did not question their capacity until it was almost too late.

A second woman had a similar experience with a lack of admission that the situation was beyond their training. She was told that, if I can give birth by myself ok, and if I cannot they will take me to Labé … .when he arrived he said that he could ….ok, we stayed together there for two days, three, we saw that I could not give birth on my own, the baby overtook me….I was forced only to give birth ….. yes I got hurt seriously, because of that he left our village… They chased him, they told him to get out, right as they sent me here (to the hospital). The woman tore severely during her prolonged labor,
requiring surgery and cesarean sections for her proceeding deliveries. The ‘doctor’ was chased from the village, having lost the trust of the community.

A community partner described another situation where the woman had been attending her prenatal visits at her local health center. She had an eclamptic crisis (at the Koubia sub-district hospital) ... she comes from a region of Mali (a sub-district of Labé) ... she was followed, four prenatal check-ups, at the last of the four visits, the health tech says her blood pressure is normal ... from the last visit, it was not even a week... the woman has made eclamptic crisis. As an obgyn, she explained that there would have been signs at the last visit, a week earlier. Not having adequate training to diagnose pre-eclampsia almost cost the women her life.

In addition to the complications that arise from inadequately trained staff, women reported experiencing differential treatment because of socio-economic status. Prenatal visits are free for the subsidized services (booklet, SP and FAF, mosquito net, and visits), but not for any other necessary medications. You know that when they write the prescription……then they see ahhh, this prescription that you received....and you say...ahh, now I don’t have the time to (get) all of the medications.....yes, it’s a result of this that they know (that you couldn’t afford them). Traditional BAs described, here the story changes, they are ashamed. Women are embarrassed, to explain that they were badly treated when they don’t have the money to pay for the medications and as a result are treated differently. Another woman said this, hmmm, those that have money and those that are poor are not the same once they arrive at this moment (of birth)...that’s the
reality. This is not an issue for women who birth at home, as it is discreet, and payments are often in the form of gifts to the BA.

Another issue for women coming to the hospital from more remote areas is the lack of guidance once they do engage with the system. They are simply told to go get this test or lab work done, without any assistance with directions. Many are hesitant to demonstrate that they are confused, leading to abandonment of treatment or unnecessary delays. One community partner admitted, they don’t give you any direction… you come from the village, you don’t know where the lab is…it’s very stressful at the hospital.

Women coming from remote areas, often with little to no formal education, were overwhelmed with all of the procedures and questions. They were not given directions to get to the labs or other treatment rooms. Though Pulaar was spoken, instead of French, women and their family members were often confused as to what to do and where to go, and because of cultural norms would not ask questions.

As staff was often overwhelmed with clients (at the health centers and at the hospital), there was a sense of stress and chaos for all. Due to staffing shortages, they did not have time to orient them or to ensure that there were no misunderstandings. At the hospital, this was often compounded as women had to go to other buildings to get medicine or lab tests, often without any assistance. Many women, presumably embarrassed to have to ask for directions or help, simply leave the hospital complex before finishing the visit. At the hospital, an obgyn shared, you tell her that she must go to the regional hospital, she leaves the clinic, she doesn’t have a guide or understanding, she returns home…it’s when she has a complication at her home that we finally try to
evacuate her. Without some guidance and support, women from outside of Labé showed that navigating an unknown location with an unfamiliar system led to taking unnecessary risks by not completing treatment.

A community partner explained, *almost 80% of women are illiterate, their religious beliefs also come into play, that’s true...the absence of information...the midwives don’t have enough time to talk to the women to convince them, to keep them coming to the health centers or the hospitals to have a supported birth.* These differences in experience and education levels between the hospital staff and the clients also seemed to compound the misunderstandings. Women are given oral directions telling her to go to the hospital, *she leaves the clinic, she doesn’t have anything specific with her* (written note or other indication), *so she returns home,* but is not offered the necessary assistance. An effective system of support is lacking, a means to guide women and encourage them to complete their care plan.

In order to offer this support and guidance, communication patterns must shift towards greater encouragement for the women. Many midwives discussed the need for a birth plan. The development of the birth plan would offer the chance to explain care choices in more detail and to develop a relationship with the care provider. *If the midwife, from the woman’s CPN visits, has a little time to talk to the woman, to convince her of things, to prepare her for her labor, there are a lot of things that could be avoided during labor...because she will be prepared.* During my observations, there was little time to listen to and discuss problems. Women are not being adequately prepared for
complications, nor are they receiving the individualized care that would convince her to leave her traditional BA.

Women expressed frustration that some care providers at the health centers did not themselves understand enough to explain a care plan, the reasons for a certain treatment, or what was causing the complication. *They should inform the person, but you know, if even they did not understand...it's difficult...I have the impression that they did not understand themselves.* Women felt that were not given sufficient explanations about complications or reasons to change their place of birth. *They should tell the woman...hin (ok) for example, in her case, to really tell her your baby is like this (position), so it's better to (birth) like this or really in case it does not work, there is a solution, (to have) a cesarean houn (ok)?* As one health center BA said if the effort was made to talk to the woman, *perhaps, they say maybe she didn’t understand, or they didn’t want to tell her (explain), it's one of the two.*

A community partner felt it went beyond simply whether or not the women understood, *I rarely have anyone who knows their rights...yet, the women are the holders of their own rights...we should, we are obliged to give them the right information.* In this sense, there was a directive to put the effort into mutual understanding, to educate that asking questions about your pregnancy and birth were your right.

During their prenatal visits, women receive, *drugs against malaria, they have tablets there...we give to the woman the same cup that everyone uses, we get water from the well....we don’t even explain what the tablets are against (are taken for). Basic communication is lacking during most visits,* one midwife said, *I tell you, there is not*
enough time with the midwife and her client, to truly discuss her situation and to talk about her birth plan, to explain to her the entire process that will happen, and if you detect a risk, even to accompany her. Another said that because there is no cost for delivery, we follow the woman to the health center or the hospital, but we encourage the births at home. Right now women are being encouraged to engage only sporadically in the biomedical system, and by default showing women that their cultural practices can only be supported during home births.

To further complicate these challenges in engagement with the biomedical sector, Fulani culture does not question medical advice. A medical provider gives a diagnosis and subsequent treatment without question. Women visited the health center for their prenatal visits and left without ever asking a question or having the opportunity to share or discuss how they were feeling. These communication challenges, along with issues with differential treatment, varying levels of training for health center staff, and the lack of guidance place women in a precarious position. If engaging with the traditional system, she would have an individual provider who is there to guide and support her, all while making her wishes a concerns the priority.

Narratives

The following four narratives give context to the quotations from the sub-themes above. These narratives illustrate challenges with inadequately trained staff, differential treatment, lack of guidance and support, and poor communication are hindering the birth process for Fulani women.
During the interview with the first woman, she was desperate to explain that they (hospital staff) had taken her baby. She had given birth two days prior via cesarean, and was separated from her newborn without explanation. She was told simply that there was a fee she must pay in order to resolve the issue and to have her baby stay with her. The lack of support and poor communication caused both the woman and her baby unnecessary stress. The birth prior had also been a cesarean at the hospital without incident. However, after this second surgery, there is a chance she will disengage from the biomedical system and encourage others to follow.

The second woman also had issues with poor communication, differential treatment, and inadequately trained staff. She had engaged with the health center for her prenatal visits, but found that because she could not afford the costs of some medications, that she was treated differently. She wanted a home birth, but due to complications was brought to the health center by her BA. She lost the baby upon arriving at the door of the health center, and was interested in giving her opinion on what happened.

The third narrative explains the 10-day labor of a primigravida woman who had gone to the health center. She encountered individuals at the health center who were the relatives of the ‘doctor’ who was typically on call. She was given subpar care and suffered as a result. Though she was with her mother-in-law and sister-in-law during the 10 days, none of the women questioned the long labor. It was not until she was transported to the regional hospital that she realized the gravity of her situation.

The fourth woman, a recent mother of twins, experienced the fatal consequences of poor communication and lack of guidance. As a first time mother, she went to all of
her prenatal visits, and because of her condition, decided to birth at the hospital. In the last few weeks of her pregnancy she was diagnosed with pre-eclampsia, but was able to give birth vaginally to the twins. Immediately after returning home, she began complaining of headaches, dizziness, and general feelings of unwellness; however, these signs were dismissed as fatigue and being a first time mom. Her midwife had not warned her about symptoms, nor did her family encourage her to seek treatment. She died a few days after the babies’ baptism.

**Narrative 1: Caesarean section mama with “taken baby”**

*Woh sibhè yetikèon koh hondoun bhè landani on n'boudhi?* When asked why they had asked her for money she replied, *they didn’t ask me, actually, my baby is there* (a separate part of the maternity ward) *and to bring him here with me, they say I need money for my baby to be beside me. We have paid half of what they asked, but there is still half left. The baby is over there, you see?* *Woh kowa djelou bèh landi on?* She said they finally explained that she would need to pay 150000 Guinean francs or about $12 \[koh tèmèdèrè ai tchiapandai djoyi\] Once she began to explain the situation, her voice became hushed, *It was only one time that I went there, because actually we don’t have the money for them to say to bring the baby with me, instead I have to go there to breastfeed the baby.* The baby was being held in the neonatal care unit because of respiratory difficulty, and the fee per night is 50,000FG. For an uncomplicated labor, and even cesareans, there is no fee to birth at the hospital. Only supplemental interventions, such as neonatal support, are charged a fee.
She came from the sub-district with the highest rates of maternal mortality. She went for prenatal check-ups at the local health center and followed some traditional practices. *We go and pick leaves of pelitoro, banana leaves, bamboo leaves. It’s those that we boil and it’s what makes the baby clean in the mother’s womb. If a woman urinates it does not stick. There are medications that only the person (pregnant woman) drinks.* However, the mom of three had a complicated first pregnancy in her village where she did not have access to adequately trained care. *When he arrived, he said that I could. Ok, we stayed there together for two days, three, we saw that I couldn’t give birth by myself, the baby overtook me, I had to really force to birth. I was forced to give birth little by little up until she was born, we came here (hospital) and my family argued as a result.* Her family had traditionally given birth at home. Because of the inadequate care, her family felt betrayed and more afraid to engage with biomedicine. *Yes, I was torn severely and as a result he was forced from our village. They chased him, they told him to get out of our village. At that moment, they brought me here (regional hospital).* She explained that as a result, she has returned to the hospital voluntarily for her subsequent births. *It was my following pregnancy, my daughter that I gave birth to here (at the hospital). That was also an operation as they told me that I could not give birth by myself (vaginally), that the baby was big and to come to the hospital. Due her first birth experience, she explained that she willingly came to hospital for c-section for second birth. The first time we didn’t pay, but this time they asked us to give some money. They didn’t asked me (about taking the baby) actually my baby is there (in another room of maternity ward. She paid no money and she stated that she was treated well. She
followed same protocol for third, but had a different experience where after the birth, they took the baby from her and asked for payment. No explanation was given to her for the difference in treatment. She and her mother-in-law, who had accompanied her, told us they no longer felt as if they could trust the biomedical system feeling they had inadequate care in the village, and that they were manipulated at the hospital.

**Narrative 2: Loss of baby at sub-district health center**

One of the BAs had spoken of this woman when she came to the focus group. She gave birth at the doorstep of the health center in Noussi, and lost the baby. She had five pregnancies, three living daughters, but lost the last two babies during childbirth. *When I gave birth twice and they did not survive….that's why she (her BA) said* (with this last labor), *she went get me at my house and told me to come* (to the health center). *That's when I gave birth to the baby we found that it's a stillborn, right at that time I had no pain*. The interview took place in the birthing room of the village health center. She spoke little, if any, French, but wanted to explain her situation. At her local health center, there was a doctor on call, a trained midwife and several health tech agents. Her BA did not have the ATS training, nor was she a trained BA, but was well respected in the community. *Sometimes it was with (her BA) here, with the doctor (as she was referred) the one who is here with us. It’s (her BA) that they went to get. She came, but since she was not certain (that things would be ok), she told us to come here* (to the health center where there was no other trained medical staff available).

She believed in her BA, who assisted with home births and at the local health center. *Hmm, no, people really trust her ...* However, she explained that she felt
differently with the last labor. *This time since I became pregnant, I had a little pain ... hin* (yes) *from the beginning, so often I came here, I take a little medication and when I gave birth also, honestly I suffered, there I suffered, they all thought that even I was not going to live through the birth. Yes the baby had not dropped, he had not dropped at all ... ahh here you know it's because the pain....this time, I hurt so badly and actually I lost control of myself (fainted), ahh, and at the moment when they took me and brought me here (health center), I was detached from the situation, ahan (yes, yes).*

She and her husband were also searching for explanations of why she was losing babies outside of the biomedical system. *The house where I live is not a house where I should live. They (traditional healer) wrote a talisman (a spiritual charm) for us, that’s what I used (to protect the pregnancy).* She and her husband planned to try to become pregnant again.

She was frustrated not solely due to the loss of two babies, but also due to an overall dissatisfaction with how she was treated by the health system. Her complaints stemmed from how she was treated as a client at the health center, *hmm, who has the money and who is poor are not the same if they arrive (at health center). You know when they are writing the prescription they discover, ahh, the prescription you received it and you say...ahh now you do not have the means to buy all of the medications there, yes, it's at that moment they know.* She had several experiences with what she considered mistreatment at the health center. *To those who should have supported me... it is true what we say you do not know, but you have to go to the people who are supposed to know, because at that moment I took the medicines, the drugs that we went to Labé*
(closest large town to the village) to buy, and it was here that I came for visits (prenatal), I did as they said. She could not always afford all of the drugs, and she said this led to differential treatment. When asked about payment and what was available to pregnant women at the health center, she spoke of lack of communication and differential treatment based on income. The notebook (prenatal) is not bought, it is the drugs that one buys, even the medications sometimes one does not buy, and there are tablets here that one does not buy. However, this is where they are discovered (that they cannot afford the medications), they are ashamed. She did not feel that many of the health agents she encountered at the health center had sufficient training.

She began to doubt their abilities when they refused to listen to her pregnancy complaints and how this labor felt different than the others had. There is what is normal, if it's like that, they should inform the person, but you know if they themselves have not understood, it's difficult? But that's because I thought that as they say I did not feel it was like that, I did not really feel that it was like that, it's like childbirth was difficult. She felt that they kept repeating typical pregnancy progression issues, not really listening to the fact that she felt something was not right. Hmm,…it was me who found that, here, here (she shows where on her stomach) I found that it was tight, and when the moment of my labor arrived, and up until now here it is tight, it has not dropped as it usually does...She felt that because she was not given good advice and support, they were not able to save the baby.
Narrative 3: 10-day village labor with health center engagement

The interview took place in the recovery room of the hospital maternity ward. One of the study’s midwives chose this woman for her interview based on the complications that she experienced before arrival at the hospital. She was young, 21 years old, and this was her first birth, a little girl. She went for her prenatal visits to the local health center. *I did not get sick every time ... I went to the ‘hospital’ (health center) every month for my prenatal visit...and I came here (the regional hospital of Labé) twice here to Labé to do the ultrasound. Yes, they said it's normal ... it's good. Yes, but the doctor, or where I went for my prenatal visits, the doctor was not there, the doctor had gone to N’Zérékoré...he lives there...Yes, he was not there. That's what tired me more.*

Once she began to have labor pains, she went to the health center and they told her to go home (three different times). Ten days later when the pain was unbearable she went back to the health center, but was not offered qualified personnel or advice. *When ...... the first day that it started. I went. The girls told me that my labor had not started yet, that it's a bit early ... that my belly only hurts me. Yes, they told me to go home ... no, but the pain still continued. I left again for a second time, they told me the same thing. The girls told me that my labor had not started yet, that it's a bit early ... that my belly only hurts me. I stayed in pain for 10 days ... I did not even sleep. Now from, from Friday, night, it started to hurt me a lot. I got up at six o'clock on Saturday. I went (to the health center). They told me that I am going to give birth, but not in the morning. I stayed until 4-5pm at the hospital (health center). They told me that I cannot give birth there ... to come to Labé here. I left on Saturday morning at six o'clock... they told me that I will give birth that*
day. Well, I stayed until 4-5pm. I left ... and they themselves, they were afraid... They had her wait almost an additional 24 hours before telling her they could not help and to go to the regional hospital from Timbi Madina (at least a 40 minute drive on paved road from Labé). Although her husband was not in town, she was living with her in-laws. Any attempts to intervene using traditional methods were negated by the husband. *No, my husband is in Ivory Coast, but I was with my sister-in-law with my mother-in-law too. My mother-in-law, she told me to take them (traditional medicines), but my husband did not accept. Yes, he is in Ivory Coast. When I told him, he said they are not good. As a result, she said, I did not do anything (to speed the labor process). I wanted to come here (the hospital) because here, I found it better. She was more comfortable in the biomedical system, but her husband and family were not.*

Upon arrival at the hospital, her delivery story continued. *we came here (the regional hospital) yes, when I arrived, there was a woman ...she checked me, a midwife. She checked me to see, she gave me medicine ... she says there were eight women who have to do caesarean before me ... so I have to wait again ... when the eight women have had their caesareans, if I do not deliver, then (I will have a cesarean).... He operated on me at four o'clock in the morning. I came here, I came here at ten pm, nine pm, ten pm, around that time. When asked how she was treated at the hospital she said,...all of them ... all the midwives here. In any case, I find them to be very generous, they all... she was kind to me, anyway. She added that she had been scared and, yes. ah, she herself (the midwife) was scared, eh? She had pity on me when she saw me...She and the baby both survived the operation, and were recovering together on the day of the interview.*
Narrative 4: Twin mom death of complications from post-labor pre-eclampsia

A local mother gave birth to two healthy fraternal twins, boy and girl. She engaged with the biomedical system for prenatal visits and gave birth at the regional hospital with one of the study’s hospital midwives. Prior to labor, her blood pressure had been high, and she was closely monitored, but not told that it could be pre-eclampsia. She was able to birth vaginally at the local hospital. Two weeks later (for twins or a c-section birth, cultural protocol allows for the naming ceremony or baptism to take place after two weeks, instead of the traditional one), she was present for the baptism of her babies, and that day complained only of fatigue.

Over the next few days, she complained to family about headaches, dizziness, and an overall sense of not feeling well. Her family told her that it was due to the twins (they were her first babies), therefore she was not encouraged to seek medical attention and the midwife was not informed. One afternoon, she stepped out of the house and collapsed while taking laundry off the line. The (hospital) midwife said that it was due to complications from post-labor pre-eclampsia, but admitted that no special directions were given to her or her family about additional complications or symptoms to monitor post-birth. When I asked one of her aunts why they had not sent her back to the hospital, she admitted that they truly thought she was more tired due to the twins, and that they had not received any indication that they should be watching for complications.
DISSEMINATION

An additional component to the study was the sharing of preliminary results with community partners at the local and national levels. In all three focus groups, birth attendants who worked outside of the medical system expressed their desire to become more integrated through access to trainings, materials and other supports. To support the principles of community based participatory research (CBPR), the intention from the onset of the study was not only to incorporate participants as co-researchers in as many stages of the research as possible, but also to push for dissemination of results in the limited period offered by the field research grant.

Meetings that occurred both during and after the individual interviews solidified the idea of using the photos taken during the research process as an outreach tool with community partners to organize meetings and presentations with community partners to share results.

Presentation at National University Gamal Abdel Nasser, Department of Public Health

Organized by my Fulbright colleague working for the Ministry of Health, a semi-formal presentation took place at the National University in Conakry, with the following national partners in attendance: the Director of the Division of Human Resources for Public Health, the President of the Order of Midwives in Guinea, the Chair of the Department of Public Health and Director of research group Maferenya, the National Director of Family Health and Nutrition, alongside other members of the public health staff, midwives and nurses from the National hospital.
Assisted by two members of our research team, the lead researcher presented the preliminary results and analysis. I discussed the participatory and qualitative nature of the study methods, showcased the photos of the BAs, and explained the early thematic analysis that the research team had developed. The meeting was held in a conference room in the public health school at the national university. After a 30-minute presentation, attendees asked questions and gave feedback. I was asked to send them a final report once I had completed my dissertation, and they expressed interest in continuing to pursue both more qualitative research and the influence of culture. The following were the main points of feedback received:

1. Increased understanding of why traditional birth attendants (all those without formal midwifery training) practice. What motivates them without additional training?

2. Why do women and their BAs delay seeking care for prolonged labor? Specifically speak to women who have experienced obstetric fistula to gain their perspectives.
3. More understanding of clinical and hospital births for differences between those who came willingly and those that were required due to complications.

4. Recommendations about how to better integrate traditional BAs and trained midwives, including communication, shared responsibilities, etc.

5. Qualitative and community-based research approaches were validated.

6. In regards to complications, what are the alternatives? What do the BAs see as possibilities?

7. Increase the number of demographic questions about women being interviewed.

Meeting with BAs, Director of Public Health and UNFPA Regional Director

The most relevant meeting for the local birth attendants was with the District level Director of Public Health (DPS). Organizing the final meeting was a multi-step process. First by showing him the photos taken by participants, and then trying to arrange a date and time that would work with his schedule and allow the greatest number of BAs to participate. The meeting took place on the same weekend as a large public health training, thus the Regional Director of the UNFPA was able to join, with six of the home birth midwives. The meeting started very formally; however, as the meeting continued DPS realized that he found the community level connections that he had sought. He envisioned integrating the traditional birth attendants into scheduled public health trainings. A Word table was created that included, with permission, their names, phone
numbers, and location, number of years in practice, and any formal training or schooling.

Continued collaboration was maintained through phone calls.

Upon arrival, the BAs and research staff had a short analysis meeting to further narrow the existing subthemes into broader themes. We spoke of why they had wanted help in organizing this meeting and to offer time for reflection on their priorities and needs.

When our invited guests arrived, they began with an overview of how the government programs work. The DPS explained that in the rural zones, each health center is meant to serve a minimum of 650 people. He affirmed that in each village we need women like you for births and for other health needs. He spoke about wanting to continue the relationships that had been formed through the research project. He habitually visits the district villages and observes how the traditional BAs are respected and honored by their communities. The BAs explained that women come and talk to them...
because we are confidential [soutoura]. They shared their process of remaining with the women until they need to be transferred or are ready to give birth. *We help because we know the traditional things [finatama]. Everything we do, with words, leaves, it’s what we use to help the women. We are here and we need help.* The DPS then asked them to specify what kind of help they needed. Before they began listing items, one of the BAs spoke up and said, *we need trainings before we can ask for specifics and then we can follow recommendations.*

The DPS then described the group he directs, along with their existing trainings and projects to fulfill their mission of reducing death and disability for women and children. He explained that the UNFPA director also works in women’s health. He pushed for them to encourage use of the health system, whether hospital or health centers. The DPS stated, *sometimes there are certain things to eat, medicines to take, or shots to get. After this if they (medical staff) see them, they can help decide if she can birth at home or if she will need to birth at the hospital…(one) cannot wait until last minute to determine. Sometimes there are women who come at the last minute who are very tired, but this can harm them or their infant. For us to work together, there must be clarity and honesty, we cannot wait until the last minute.* He continued by discussing the need for family planning and why it was important, saying that *in other regions* (rates of family planning are higher), *like upper Guinea, but here women hide this from their husbands.* He spoke to the BAs about how they could form a partnership and work to better the health of the communities. *(You) could help with this work… you can go to them and*
give them materials so their can teach these ideas in the villages. It (family planning) will help reduce maternal death and reduce the frequency of close births.

During the meeting, the DPS asked the BAs for their opinions on their needs and what could be done to better integrate the biomedical with the traditional system. Hesitant at first, the BAs soon felt comfortable offering their opinions. One mentioned that, *when we are all together, it will be easier to convince them*. If the women they assist in birth observe them collaborating with the biomedical center, there is a greater chance that they will become engaged as well.

Their list of needs included help with transportation. *It’s transport that we need.* And that the *difficulties are with transportation...sometimes we need to hand carry women when there are no motos (motorcycles) or no cars.*

And with training, we *need training, we need help getting more training.* Specifically training on how to manage complications, but also, *I want to increase my*
knowledge, because I, myself, only speak a little French. Many of the traditional BAs did not have any formal education, but had years of working as a care provider to women.

The last request was for materials. One BA said, here, you know, to help someone give birth, you need gloves, you need scissors….you need all of the materials……they need antiseptics, the disinfectants….coats, boots. Another added, if you wear these things...you are protected, you know that are a lot of diseases. The list continued with plastic sheeting to cover the floors, tweezers, scissors, and clamps for the umbilical cords, medications, and other materials. One also mentioned that they needed, staffed and stocked health centers. The DPS answered by saying that they had brought up some challenging problems.

The regional director of the UNFPA then spoke about some historical challenges with engaging BAs in health work. Years ago, traditional BAs began to treat other illnesses because they were trusted and called ‘doctor,’ but they caused more harm than good. He also acknowledged that many do not seek even a BA, instead remaining with their mother-in-law, resulting in many problems. But if the BAs are linked to health centers and hospitals.....this could encourage women to seek medical care. In his position, he frequently travels to remote areas, and says he has seen the challenges that stem from lack of materials and other logistical complications. However, trained community members could make a significant difference. If the BAs could work with those at the health centers, they could talk by phone and guide them about what they need to do. Speaking about another major challenge, both the DPS and the Regional Director of the UNFPA (both ob/gyn) spoke on the necessity of telling the health center about the
birth...the child needs vaccinations, this should not be something that is hidden. They explained to the BAs that they received government funding based on the population and such things as numbers of births and number of providers matters. Better communication will result in better health indicators.

**SUMMARY**

As evidenced by this study’s findings, Guinean women are influenced by their cultural beliefs and practices throughout the birth process. Three themes and fourteen sub-themes, identified through the study’s data analysis, helped put what was learned into context. Some influences are shared in regards to cultural care or care seeking practices, wanting to continue with valued and respected providers and support; however, others, such as issues with miscommunication and misunderstanding are more unique to the particular context. The following chapter will analyze what the results mean to better support women’s desires as well as to reduce maternal death and disability in the district.
CHAPTER 5: DISCUSSION

Chapter five presents a discussion about the three ethnographic themes. Findings are supported by the existing literature, the principles and stages of community based participatory research, and the theoretical framework, Leininger’s culture care theory of diversity and universality (2006), to inform maternal health care practice for Fulani women in the Labé district of Guinea. This will be followed by sections of discussing, conclusions, study limitations, and finally recommendations for further research and interventions.

This participatory ethnographic study focused on providing an increased understanding of the role culture plays in birth and care choice throughout pregnancy, labor, and the post-partum period from the perspective of childbearing women and their birth attendants. The study described cultural beliefs and practices to provide insight into the potential for incorporating more targeted and collaborative interventions and support for pregnant, and post-partum women in the region, to better support women’s preferences, and to reduce maternal mortality and morbidity. This study addressed the following research questions:

1. What are the cultural beliefs and practices aligned with the birth process (conception to post-partum care) for Fulani women in the Labé district of the Fouta Djallon region of Guinea?

2. How do Fulani women (childbearing age (18-49) and their traditional birth attendants/ midwives) describe the role of culture in the birth process (conception to post-partum)?
3. What are the most common cultural beliefs or practices that Fulani women engage in during the birth process?

No woman should die in pregnancy or childbirth [aucune femme ne devrait mourir pendant la grossesse ou l’accouchement]. This statement guided the development of the project through the final analysis. Although life for a Guinean woman is wrought with a multitude of challenges, one of the most precarious is the potential for death or disability during pregnancy, labor, or post-partum. Therefore, this study sought to understand the cultural context of beliefs and practices surrounding the birth process to offer insight about reducing this burden.

Through the use of participatory ethnographic methods, and using thematic analysis, three main themes emerged: 1) maternal cultural care, 2) maternal care-seeking, and 3) miscommunication. This identification of themes began the process of understanding the embedded belief patterns and practices and how they could be used to encourage more dialogue and support for safer births without complications. As stated in the first sentence of chapter one, every woman has the right to safe motherhood. This study purported that one avenue to safer motherhood was the involvement of the women most impacted, women of reproductive age and their birth attendants, to guide the research and to analyze the results. This study also investigated how to better engage and create dialogue and relationships between community partners (biomedical) and the traditional birth attendants through the use of participatory methodologies. This study hoped to increase the understanding of how supporting cultural beliefs and practices could help women in the Labé district have a safe motherhood experience by honoring
and sustaining those values. The principles and techniques of community based participatory research were chosen to honor the women’s lived experiences. The three theoretically predicted action and decision modalities of Leininger’s culture care theory of diversity and universality were chosen to accommodate the provision of quality care that is appropriate, sustainable, and beneficial to the women.

The regional director of the UNFPA in the Fouta Djallon region stated, “In every sense, the women continue to suffer” [dans tous les sens, les femmes continuent à souffrir]. Understanding the complexity of all issues currently impacting women during the birth process was beyond the scope of this study, but a manageable issue was that of cultural beliefs and practices. Culture is known to play a significant role in a woman’s journey to motherhood (Bantebya-Kyohumendo, 2004; Chapman, 2003; Lori & Boyle, 2011; Thwala et al., 2012). This study’s results demonstrate that culture and cultural beliefs and practices also play a strong role in the birth process for women in the Labé district of the Fouta Djallon region in Guinea. From strongly held beliefs about what position is easiest for labor to the deeply held societal support for maintaining existing care provider relationships, an understanding of these beliefs is integral to reducing birth complications. These results validate similar cultural care and care-seeking practices in sub-Saharan Africa. Many of these practices, as Leininger posited, are ones that can be preserved or accommodated as they are supportive in nature and present little risk; as shown in the first two themes: maternal culture care and maternal care seeking. Other beliefs and practices, however, would require some accommodation or re-patterning to
reduce risk and allow for collaboration between the traditional and the biomedical care practices.

Leininger developed her theory after years of nursing practice, finally conceptualizing care as what makes people human, gives them dignity, and inspires people to get well and to help others and further predicts there can be no curing without caring, but caring can exist without curing (Leininger, 1988; Leininger & McFarland, 2006). Women’s healthcare, particularly during the birth process (conception to post-partum) is a time of rich and valued cultural practices for women globally. As a result, the process of ‘care,’ in this case maternal care, needs to be addressed and understood in the diverse and specific cultural contexts in which it is practiced. This study, framed as a participatory ethnography, illustrated a selection of the multiplicity of cultural factors that influence care beliefs and practices for Fulani in the Labé district. Leininger’s framework was used as an open, natural, and qualitative inquiry mode seeking the informants’ ideas, perspectives, and knowledge, while being mindful of not controlling, reducing, or manipulating culture and care (Leininger & McFarland, 2006).

This study explored cultural beliefs and practices among the Fulani. My lived experience as a member of an extended Guinean family through marriage and motherhood, put me in a unique situation as a researcher. I was familiar with the location, and I also had existing professional connections in the traditional and biomedical system. These connections allowed for a more rapid recruitment process, and the initiation of a collaborative, participatory relationship with the BAs. Having spent years living in the local area, cultural beliefs and practices surrounding the birth process were familiar. This
study examined the most common cultural beliefs and valued practices, which offered insight into how they could be incorporated by the health system into care planning and support for pregnant and laboring mothers in the region.

The three themes, defined through participatory thematic analysis, paint a picture of how cultural beliefs and practices influenced the birth process. The three themes were further divided into 14 subthemes. These subthemes gave nuanced understanding: to identify the beliefs and practices aligned with birth; to describe those beliefs and practices; and to portray the women who are engaging in these beliefs and practices. The first theme, maternal culture care, described what women want and how they want to feel during the birth process. The second theme described who can make them feel that way and how they are chosen. The first two themes offered insight into strongly embedded beliefs and practices that should be preserved and accommodated if greater engagement with the biomedical sector is to be successful. Finally, the third theme illuminated reasons why women continue to seek traditional cultural care over biomedical care, and described patterns of communication and understanding that often hinder supportive relationships and access to care. These beliefs, such as the fear of interventions or what to do or not do during pregnancy, illustrated the challenges that remain if these are to be re-patterned to reduce complications resulting in unnecessary suffering and death of women during the birth process. The Guinean Ministry of Health, along with international partners like the WHO, want to transition reproductive care into the biomedical system, with women birthing with trained midwives in a health facility. However, the subthemes
defined for theme three highlighted significant problems and concerns that need further consideration for women to feel comfortable and secure accessing biomedical care.

**Theme 1 Maternal Culture Care**

Maternal culture care was defined for this study as those care practices that identified patterns and differentiations in how women seek to treat and support common pregnancy complaints, illness, and the range of labor expressions. The subthemes of ‘know what they like,’ encouragement/ guidance, foods, and medicines were similar to cultural care practices found across sub-Saharan Africa (Beninguisse & De Brouwere, 2004; Dako-Gyeke et al., 2013; Wilkinson & Callister, 2010). Understood as “what does not need to be explained” [ce qui n'a pas besoin d'être expliqué], the theme highlighted the multitude of culturally embedded care practices that are valued by women, their birth attendants, and their communities. Moreover, those who support women with these practices are viewed as ‘cultural stewards,’ able to maintain and preserve beliefs and practices handed down from prior generations. The BAs are also viewed as ‘mothers,’ to the extent they give care and support to the women they serve as they would to their own children. BAs even referred to the women as their ‘daughters.’ The training of traditional birth attendants also follows this pattern, as women shadow those who are more knowledgeable to glean as much possible information before embarking upon their own work as independent birth attendants. As these women are known and highly valued community members, there was an unspoken understanding that they ‘knew what to do’ without explanation.
The four subthemes uncovered during analysis, under the maternal culture care theme illustrated that MCC was not solely a set of behaviors or beliefs, but rather patterns of support (alimentary and psychosocial) that followed long-established traditions. ‘Know what they like’ were the unspoken, yet highly cherished preferences birthing positions, and the safe, discreet locations that supported these preferences. Encouragement and guidance through the challenging birth process was also highly supported by women who wanted to feel secure and reassured through gentle words and acts of support, as she bared down to birth her child. Traditional foods and medicines were the final cultural care desires, as foods are a common comfort during times of difficulty, which soothe ailments, as well as reinforcing feelings of familiarity (de Graft Aikins, 2014; Locher, Yoels, Maurer, & Van Ells, 2005).

Throughout sub-Saharan Africa, research indicates that women continue to engage in biomedical care opportunistically, privileging traditional practices that are often at odds with newer models of care. Any deviation from these accepted traditions could cause complications or misfortune for the woman and her unborn child (Lori & Boyle, 2011; Thwala et al., 2012). The women were aware that the knowledge traditional birth attendants carry is special and should be preserved. A woman’s mother, aunts, other female family members, and her social circle have all undergone a similar birth experience supported, on occasion, by the same birth attendant. In this way, though there is always a fear of the unknown or of potential consequences, comfort exists in knowing that she will be supported and cared for in the same way as those who came before her.
Within these culturally constructed beliefs, a higher value of trust is placed in the hands of family and community members who care for women during birth. The form of cultural care that they practice, the combination of ‘knowing what they like’ and guidance/encouragement, cannot be easily replicated in a biomedical setting. As described in Leininger’s first predicted action and decision care modality, these acts of unspoken support can be more easily maintained and preserved as they do not cause harm (Leininger & McFarland, 2006). In fact, whether physically or psychologically, this support may help to alleviate unnecessary suffering and complications; while facilitating and enabling a woman to uphold her community and cultural connections. The practices of cultural care honor a woman’s birth journey, viewing her as an individual, allowing her to feel membership and connection to all those who have birthed before her (Adjiwanou & LeGrand, 2013; Moyer et al., 2014; Ryan et al., 2015).

In much the same way, traditional foods and medicines envelop a woman in the cultural journey with familiar smells and tastes. Knowing that these same teas or nourishing foods were given to offer comfort and pain relief to relatives before them is a source of reassurance. Literature from the sub-Saharan region also found that these culturally mediated food patterns are important and have not changed significantly over the generations (de Graft Aikins, 2014; Osseo-Asare, 2005). Certain foods were mentioned frequently throughout the research process. Kankeliba tea, mentioned in almost all of the interviews, was also discussed in detail during the focus groups and analysis discussions. Fonio and cassava [manioc], in their prepared forms of ‘latoo’ and ‘tau,’ were also conceptualized as a necessary pregnancy and recovery food. Maternal
culture care food and medical treatments are shared by female members of a community or cultural group. In this study, these food patterns were shared by those who engaged both in the traditional and in the biomedical systems. This attests to the strong likelihood of support to preserve these pregnancy food consumption patterns.

The use of many traditional medicines, such as leaves of mèko or safatou, represent practices that most likely fall into the first care action modality of preservation or maintenance; there may be others, such as djillé which had reported complications for some women, that belong in the second category of accommodation or negotiation. While there is minimal scientific research into how these leaves and teas impact the labor and birth process, what is currently understood, via this study, is the commonality of their use and the reported effects from the birth attendants and the women. Several teas act as a form of natural oxytocin (such as lemon leaves), used to encourage or accelerate delivery, expel the placenta or possibly to calm and reassure the birthing mother. Hospital midwives and traditional birth attendants vocally disagreed and discussed the correct time to use oxytocin in the birth process. Other medicinal practices, such as using the wèbéléròu as a traditional method of expelling the placenta, would also need to be evaluated for risk before the consideration of preservation over accommodation. When left without options, due to logistics or culturally driven decision making, birth attendants have developed multiple means of assisting women that may not be supported by the biomedical model, but may not cause any harm. The decision to use traditional medicines or methods is strongly influenced by embedded cultural or spiritual significance (van der Kooi & Theobald, 2006). Thus, beyond simply
assisting women in their birthing process, birth attendants are also playing the role of
supporting, controlling, or protecting from harm or spirits (Naidu, 2014; Thwala et al.,
2012).

For the most part; however, traditional medicinal culture care practices discovered
in the study were ones that do not cause concern of harm or disruption to the birth
process. Practices of encouragement and guidance, in fact, mirror desired biomedical care
patterns for many in pain or suffering, such as wanting to be reassured or caressed
(Simkin & O’Hara, 2002; Simkin & Bolding, 2004). However, for the Fulani, to not cry
out during labor is seen as a sign of strength. To have someone by your side with this
understanding, offering you culturally relevant care and support during delivery was
greatly valued. In addition to stimulating prolonged labor and inducing overdue labor,
research from sub-Saharan Africa indicates the value placed on traditional medicines in
maternal culture care for a variety of additional reasons. These include social pressure,
problem-solving, protection from evil or harm, to protect privacy and for support issues
with biomedical staff (Abrahams et al., 2002; Mogawane et al., 2015; M’soka et al.,
2015; van der Kooi & Theobald, 2006).

As found by this study and supported by Naidu (2012), Thwala et al. (2012) and
van der Kooi and Theobald (2006), traditional medicines were credited with not only
reducing or mitigating labor complications, but also in protecting the pregnancy itself.
Factors affecting culture care are very much multidimensional and are a key factor in a
woman’s decisions influenced by existing cultural knowledge, risky practices, and family
and community norms (Lowe, Chen, & Huang, 2016; Morris, Short, Robson, &
Andriatsihosena, 2014). A birth without complications that employs culturally accepted practices is the ultimate symbol of womanhood. To validate the inclusion of existing care practices that honor a woman’s preferences supports both a safer birth, as well as showing respect for deeply embedded and valued beliefs. If the biomedical and traditional care providers can come to an understanding, preserving these cultural care practices honoring these women’s preferences is conceivable.

**Theme 2: Maternal Care Seeking**

Maternal care seeking, as defined in this study, encompasses a set of patterns not only seeking the care itself, but also what, where, and when this care is sought. In this way, preferences emerged within the research that could be both preserved and accommodated. Women are comforted by knowing what to expect from their traditional care providers. During the analysis, this concept became known as “how things have always been” [comment les choses ont toujours été], or that larger culturally based norms that guide maternal care decision making. Six subthemes defined within our analysis included: discreet/ private, family and community norms, reputation/honor, familiarity/trust, choice, and access/ feasibility. These subthemes indicated different facets of culturally embedded care seeking preferences.

In the Labé district, as in most of sub-Saharan Africa, women prefer to birth in the hands of a woman who is known to them (Garces et al., 2012; Lane & Garrod, 2016). However, a growing debate has arisen between the cultural and the biomedical models concerning what influences these maternal care-seeking practices. Research supports the notion that a safe mother and child is the optimal outcome, but with the preference of
traditional, culturally accepted care practices over the biomedical model (Beninguisse & De Brouwere, 2004; Dako-Gyeke et al., 2013; Wilkinson & Callister, 2010). Traditional birth attendants [accoucheuses villageoises] represent this level of care for many. Residing in their neighborhoods, with the prestige that comes from offering a discrete, respectful birth supported by a positive community reputation, these women offer an accessible, culturally understood level of care. The BAs mission is to serve the women through their birth process, by supporting the beliefs and practices esteemed by the women they serve. The relationships witnessed throughout the study, certainly exceeded a normal patient to caregiver relationship. This desire for a culturally competent provider is witnessed throughout the literature, certainly throughout sub-Saharan Africa (Chapman, 2006; Kyohumendo, 2003; Kwagala, 2013; Lori & Boyle, 2011; Morris et al., 2014).

The most significant reason for a Fulani woman to seek a certain birth provider is their ability to offer discretion and privacy. Birth is an event to be seen and supported by as few people as possible. One participant mentioned that she sought her husband’s involvement, but for the majority of Fulani women the notion that men would be involved is not desirable. A traditional BA is able to offer not only a discreet location, but also a completely individualized experience. Birthing in a communal location (clinic or hospital) provokes feelings of embarrassment, of not wanting to expose themselves, and of wanting to hide. A home birth may include one additional person, the mother-in-law or other family or friend who accompanied the mother, but otherwise traditionally it is only the woman and her BA. Due to the preference for traditional care, midwives, matrones or
nurses with higher-level training offer to assist women labor at home. One reason is that they are fearful women will try to guide labor at home without a skilled attendant. By providing this service for them (they often have a separate room with supplies) they can help mitigate some complications, yet they are seemingly taking a great risk by supplying this service.

Fulani women do not share their pregnancy, or tell others that they are going into labor, and if possible they birth in silence. As recent research found, revealing a pregnancy to those outside of the family, to anyone not an immediate relative before the second trimester or when visible to all, is seen as culturally inappropriate (Morris et al., 2014; Ngomane & Mulaudzi, 2012; Roberts, Hopp Marshak, Sealy, Manda-Taylor, & Gleason, 2016). Giving birth in a communal setting could result in people speaking poorly of her; a result to be avoided at all costs. This places hospitals and health centers at a distinct disadvantage. In the biomedical system, there is little likelihood of birthing alone, and post-partum recovery is done in a public setting. Women would consider discretion a priority, a practice to be preserved. However, there may need to be a manner of accommodation in order to encourage women to seek biomedical care as necessary, while still supporting this cultural preference to the greatest extent possible.

Family and community norms, whether expressed on an individual or community level, are held in high esteem. Any efforts to disregard or change these norms would be met with distrust and disapproval. Whether these are manifested as decision-making power over birth choices or cultural practices that are known to be harmful, the powerful oversight of the community eye would be challenging to overcome. In the case of female
circumcision or female genital cutting (FGC), a desire remains for the practice, with parents afraid that their daughters will not be marriageable and that uncircumcised women will be more promiscuous. Whatever the reason, the practice is cultural in nature, with no religious link; although many continue to believe it is religiously dictated by Islam (Nour, 2008; Vogt, Zaid, Ahmed, & Efferson, 2016).

The effects of FGC on the birth process are many. From the need for an episiotomy with every first birth, to the possibility of prolonged or painful labor, FGC is known by BAs and the women they serve to be a health complication. The practice has slowly become more about the tradition of a ceremony, merely cutting somewhere in the genital region, rather than completely removing the labia and the clitoris (Akora & Jacobs, 2016; Shell-Duncan, Moreau, Wander, & Smith, 2018). The BAs spoke of this during the focus group discussions, but, interestingly, it was not mentioned during the interviews. With their knowledge of the practice, BAs with training and education could help convey the dangers involved and help reduce pregnancy and labor complications resulting from the procedure; a cultural negotiation of sorts. The procedure is performed by women on women, in the Labé district often on young girls from four to eight years old. Other consequences of the practice include painful urination, painful menstruation, frigidity, and of course painful intercourse. Within the Labé district, increased levels of education, and increased awareness through campaigns in the communities and even the local mosques are slowly limiting the practice and its consequences.

In Fulani society, one’s reputation is imperative. Even more so in a profession such as midwifery. Pregnant women find their birth attendants by word of mouth. Thus,
other women will not espouse a BA who has a reputation for mistreatment or for not supporting a woman. A strong reputation of supporting women, knowledge of how to mitigate complications, and community support are imperative; thus, for personal and professional reasons, guarding her reputation is of utmost importance. The choices BAs make are based on any training she received by following another BA and/or by the experience she gained in assisting women. During this study, the women who experienced severe complications were not in the care of a BA. The notion that traditional BAs take unnecessary risks with women appeared to be false. BAs who have had deaths or complications are as much a victim of the situation as the women who experienced them. A birth attendant’s actions are honorable: to support a woman through pregnancy and delivery. However, in the sub-districts of Labé, the ability for a woman to seek care outside of a traditional BA is fraught with challenges, from personal agency over decision making to impossibly rough terrain and lack of transport.

Going beyond reputation is the notion of trust and familiarity. One’s community level reputation is important, but a woman’s trust in her provider is essential. As many women still felt that care in the biomedical sector was substandard to care at the hands of her birth attendant, the choice of who to guide you on the journey through labor is central. Trust is placed in a familiar face, in a known member of the community. However, care-seeking choices are limited, particularly in more remote areas (Lowe et al., 2016). Research also supports the idea that it was not only trust and familiarity that were important for the provider, but that the birth itself was seen as losing its value and meaning without a cultural context (Chapman, 2006; Kyohumendo, 2003; Kwagala,
2013; Lori & Boyle, 2011; Morris et al., 2014). As a relationship cannot be developed with a hospital midwife in the same capacity, and to some degree at the local health clinics, the chance of developing a trusting relationship with a familiar face is lessened. Yet, the preservation of cultural ideals, in this case honor and trust, is vital in order for women to engage with the biomedical system.

In Fulani culture, the choice of where a pregnant woman will give birth is similar to other regions in sub-Saharan Africa (Ayanore, Pavlova, & Groot, 2015; Rosen et al., 2015). Spouses, extended family, and even religious leaders have power in the care-seeking process. In the Labé district, the husband and mother-in-law hold this power. The legitimacy of these members of a pregnant woman’s family plays a significant role in the decision for maternal care seeking (Kwagala, 2013; Lori & Boyle, 2011). Among the Fulani, husbands often hold the final decision making power over choice. In their absence, mothers-in-law are forced to mitigate with limited resources. Only for a natural birth without complications, can the woman and her birth attendant guide the decision making process.

This lack of control over the ability to seek biomedical care or to be evacuated is known to have dire consequences for many women, especially in the case of prolonged labor, hemorrhage or eclampsia. Mothers-in-law were often the voice questioning a woman’s reason for seeking biomedical care, with the Mother-in-law stating that she birthed at home, so why couldn’t her daughter-in-law do the same. For many women across sub-Saharan Africa, the mother-in-law, or other family member, continues to hold authority over which health system model is followed (Chapman, 2006; Thwala et al.,
2012). The choice to engage in biomedical care is thus opportunistic, as non-adherence to customs is viewed as a cause of misfortune (Lori & Boyle, 2011; Thwala et al., 2012). When complications arose, the power of her MIL’s guardianship was tested, as the husband held the resources and access to transport, and he often had the final say in the decision. Culturally, these family members can overrule the decisions of health workers, whether traditional or biomedical (Kwagala, 2013; Lori & Boyle, 2011). This reliance on family members to guide maternal care seeking is traditional and deeply culturally accepted (Ngomane & Mulaudzi, 2012), although potentially problematic for the woman. This requires elements of negotiation of these variables to help women receive culturally congruent, safe and effective care of her own choosing, while still respecting the hierarchies of power engrained in community settings. The biomedical system must begin to recognize the importance of cultural care-seeking practices and the variables that impact their execution if they are to be successful at working towards greater accommodation and collaboration.

There is a common belief that women are choosing to delay emergency care seeking. However, this study found that women who are using birth attendants (whether traditional or trained) are not delaying seeking emergency care. BAs are recommending evacuations, but the logistics of transfer to the regional hospital is often not possible, which leads women to clinics who have inadequately trained staff. Women who had complications such as obstetric fistula were not served by a ‘trained’ local birth attendant or a midwife, and thus their unassisted, prolonged labor had horrific consequences. In reality, poverty, absence of care seeking decision makers, and location are more likely to
be among the major risk factors over a lack of interest in seeking care or delay in seeking care (Cham, Sundby, & Vangen, 2005; Okonofua, Ntomo, & Ogu, 2018).

The sub-theme of access and feasibility adds a final layer of complication to a woman’s ability to seek care. Access is not simply a matter of the woman having the agency to choose, it is interwoven with the challenges of distance, transport, finances and availability of services. The Fouta Djallon region, and the Labé district in particular, is a mountainous region, consisting of a series of stepped sandstone plateaus balanced with deep gorges, and is the watershed for many western African rivers. The challenges of transport in this region vary from dry to rainy seasons, but the unpaved, mountainous roads are problematic during either season. Various methods of ambulance type services have been attempted in the region for transporting women in crisis, but the upkeep and plausibility of incorporating these into the health system were fraught with challenges. A journey of less than 10 miles can be over an hour by motorcycle or several hours on foot, through difficult, rocky terrain. For a woman going into labor or experiencing an obstetric crisis, these are insurmountable logistics as motorcycles are few, and cars even fewer. Combining lack of agency to make the decision to seek biomedical care, and the challenges of logistics to leave a remote region, frequently leaves a woman in crisis. The fortunate ones have access to a birth attendant who has at least studied under the tutelage of another woman, and who has some knowledge of assisting women in labor and managing complications. However, in more remote regions, there may simply be a woman who helps women in labor that has no specific training and would not even define herself as a birth attendant.
The multiple complications of requiring a discreet birth, supportive of community norms, with a provider that is respected and can be trusted, family members willing to yield her decision-making power, and with the logistics of rugged terrain are numerous. The first two themes of maternal culture care and maternal care seeking gave an overview of what cultural beliefs and practices that are aligned with the birth process, how they are described, and those that are the most common. Many of these beliefs and practices can be preserved. However, certain sub-themes may involve some degree of negotiation or re-patterning if the goals of both a safe, culturally accepted birth and increased usage of the biomedical system are to be realized. Women’s health experiences (in this case the birth process) are surrounded by myths, missing information, and misunderstandings. Thus, the third theme examines some of the underlying cultural issues that cause conflict and divergence, as patterns of communication, misunderstanding, medical culture, and fears complicate already challenging care and care seeking decisions.

**Theme 3 Miscommunication**

This theme was defined as cultural patterns, associations and norms that posed challenges for communication between the traditional and biomedical health sector. This theme was also defined as “what is not talked about or explained” or [ce qui n'est pas parlé ou expliqué]. These are the communication pathways that women are using to engage or not to engage or gain access to traditional and biomedical maternity care. Four subthemes emerged during the analysis including: fear of interventions, misunderstanding, what to do/ not to do debate, and hindering engagement with the health system. The findings from this theme may be the most important overall, as they
paint a picture of the less known but strongest influences on care and care seeking
decisions outside of the traditional sector. Many of these cultural patterns, under
Leininger’s model (2006), involve a re-patterning or restructuring, but there are aspects
that may be accommodated or negotiated.

The fear of interventions was a common complaint among pregnant women, and a
commonly stated reason for not wanting to birth at the hospital by women in the Labé
district. For Fulani women, the desire for a birth without interventions or non-traditional
medications, such as pain relievers or chemically derived oxytocin, is of high importance.
However, the fear of interventions that was described during the study goes beyond the
desire for a natural birth. During the focus group discussions, it was understood that
many of the birth attendants and the women they serve thought that ‘hot pepper’ [piment]
was injected into women at the hospital. Later, this was understood by the research team
to be a result of the stinging sensation of an injection at the point of contact. It was a
highly debated topic between the hospital midwives and the traditional birth attendants.
This fear overlaps with the next sub-theme of misunderstanding, as women are not going
to the hospital or the clinic, even when medically necessary, because of this, among
other, misunderstandings.

The fear of the unknown is a strong deterrent against seeking non-traditional care,
and in a culture where there is limited transference of medical knowledge, this false
belief pattern endures. Upon arrival at the hospital, there are a series of care practices that
take place to help make the women comfortable, including the use of pain relievers
(given as injections). There is no consent from the birthing woman and this behavior is in
direct contrast to the limited interventions of a traditional home birth. During a home birth, women may be offered medicinal leaves steeped as a tisane or another non-invasive comfort or pain-management strategy, such as massage. As these care strategies are so divergent, Leininger’s action modalities would support re-patterning (Leininger & McFarland, 2006). There is an urgent need to help women understand the reasons for these medical care decisions, and to achieve a consensus on how to modify or restructure care to garner greater support for biomedical practices.

Vaginal examinations and other biomedical care practices, like cesareans, are also a source of contention among care providers and the women they serve. As Fulani women are not used to medical examinations of the same nature with their traditional BAs or with the requirements of surgery; these more ‘invasive’ procedures are not readily accepted. There are women who elect to have a cesarean due to complications or personal choice. However, many women are fearful that if they choose to birth at the hospital, they will be forced to undergo a cesarean or be subjected to other medical interventions.

The subtheme of misunderstanding had four components: language, use of the prenatal booklet, differences between biomedical and traditional care, and the cultural definition of a doctor. The first of these subthemes, language misunderstandings, stemmed from the language directly spoken (French or Pulaar), but also the cultural norm to not question a medical professional (of any nature) and the language used in the biomedical system. Transitioning from traditional care where everything is ‘what does not need to be explained’ (maternal culture care) and ‘how things have always been’ (maternal care seeking) to biomedical care requires explanation and will demand a
combination of negotiation and re-patterning. Greater attempts at assuring understanding will be needed to support engagement by the women and their birth attendants.

All of the women in our study received their prenatal booklet [*carnet rouge*] during the course of their pregnancy. Encouraged by the WHO, the Ministry of Health, the local DPS, and even by the home birth attendants, the booklets are a necessary step to hospital access in case of emergency. Included during the visits are the booklet and a mosquito net (first visit), medications, and brief medical examinations. These brief examinations are not conducive to the development of close relationships with the care providers, in comparison with the longer relationships that the women develop with their traditional birth attendants. There is no established tracking system, making it impossible to know the percentage of pregnant women who access all four prenatal visits, which is the WHO’s recommendation. A tracking mechanism could be the first step towards monitoring greater compliance with recommendations.

During prenatal visits, limited time is spent discussing a pregnant woman’s overall health or checking in on the woman’s emotional status. The examinations consist of straightforward measurements with multiple women moving through the steps as a group. After conversing with a few women in the waiting area, I understood that many women were not aware of why they were obtaining the booklets. Several came to their appointment on the recommendation of family or friends, while a few others were due to a request from their midwife. Communication is needed to help the women comprehend the importance of preventive care during pregnancy, and to support them to obtain the greatest possible benefits from prenatal care.
Customarily, booklets are pink. However, if pink paper is unavailable, they print in other colors, as such, women were very wary of booklets that were not pink. Knowing by word of mouth that the booklet should be pink, and if given another color booklet, women were doubtful of the services they received. At prenatal visits at the health center and in the maternity ward at the hospital, as one woman finishes being weighed, another is having her blood pressure taken, and another is having her fundal height measured behind a thin curtain. This continual influx of women leaves little opportunity for privacy or individualized care. Many notations, in lieu of being recorded in the women’s individual booklets, were recorded in a large booklet at the clinic or hospital. Although the WHO recommends beginning the visits at 12 weeks of gestation, many women wait until the fourth or fifth month (WHO, 2018, para. 2). Waiting until the second trimester does help guarantee that the woman is pregnant and has not just missed her period. However, there are consequences to this delay: increased probability of complications, and first trimester advice is not given, such as nutrition or practices to avoid miscarriage.

Among the Fulani in the district, the voice of the ‘doctor’ is not questioned. This ‘medical culture’ holds true in both the traditional and biomedical systems. However, the definition of ‘doctor’ requires clarification to limit confusion, because the community can give anyone working in health this title. One of the issues discovered during the research process was the existence of a few traditional birth attendants [accoucheuses villageoises] who practiced medical roles beyond the scope of their training in maternal health. As a high level of respect is afforded the women who assist with birth, their knowledge base and training were inflated where some were treating other medical conditions not linked
to pregnancy and birth. As a result, there were instances of unnecessary suffering and complications stemming from attempts to treat other illnesses. Several of the co-researchers argued that these women did a disservice not only to birth attendants, but impacted levels of trust in relations with the biomedical system as well.

Misunderstanding is also the cultural pattern of not asking questions about your care, whether for clarification or adding personal context. In cases where women had high blood pressure or other potential signs of pre-eclampsia, they were often not made aware of their condition. They were simply given the same advice as other clients. Pregnant women also dismissed or did not bring up symptoms in consultations. This practice of not mentioning symptoms was likely due to the cultural norm of not questioning the provider or to an incomplete understanding of the risks. Thus, the medical staff is not sharing enough information, and the women are afraid to ask questions. Providers from the traditional and the biomedical systems could use training on cultural competency and communication to restructure the relationships with their clients and to reduce complications.

The debate over the acceptability of working during pregnancy was widespread. A variety of factors influence why a pregnant woman engages in certain intensive work, such as chopping wood or getting water from the well. Impacted by the amount of available assistance from the extended family, the quantity and degree of manual labor is greater in areas that are more rural. Available extended family, whether daughters, sisters-in-law or other family members reduce a pregnant woman’s labor requirements. Yet, many birth attendants supported manual labor during pregnancy, believing there are
positive effects such as, keeping the baby’s weight low and helping her body prepare for the physicality of birth. Formally, trained BAs, like the hospital midwives, felt that all forms of manual labor have significant risks for a pregnant woman. Hospital midwives discussed how these types of practices could lead to miscarriages or early labor complications. General movement was not the problem, but the large muscle movements required to chop wood, do laundry over a washboard, or pull a bucket of water up from a well went beyond medical recommendations. Women were conflicted during the interviews about this issue. Some knew that this type of manual labor could harm the baby, but were sometimes powerless to stop working. Husbands and families need to be made aware of the risks and to negotiate how labor can be more equitably distributed during her nine months of gestation and while she is still breastfeeding her infant (Azuh, Fayomi, & Yartey Ajayi, 2015; Morgan, Tetui, Muhumuza Kananura, Ekirapa-Kiracho, & George, 2017; Vermeulen, et al., 2016).

A variety of beliefs and practices hinder engagement with the health system. Subthemes within the overarching theme of miscommunication illustrate the interrelatedness of most issues and norms. The lack of adequately trained staff in the health centers persists as one of the biggest issues hindering engagement. At the regional hospital, and at the district level hospitals, medically trained and certified providers are always available. Unfortunately, at the local health centers in the villages, the most qualified individual may only possess a three-year health technician degree. This would be equivalent to a medical aide in the United States taking the place of the doctor and dispensing diagnoses and medicines. For women in the birth process, this lack of trained
staff leads to suffering, unnecessary complications, and death, if they seek care during a crisis. Many women in the more remote regions cannot access any of the hospitals; thus, the highest level of medical care available to them is at the health center. As mentioned by the study’s community partners, there are multiple challenges to keeping trained staff in the villages. The Ministry of Health has made efforts to support the distribution of personnel, but individuals do not stay in remote areas (Guinea Health Services Development Plan, 2015). Several health centers have traveling doctors, nurses or midwives that visit the center infrequently, but without a specific schedule, women are unable to time their visits accordingly. Information gathered from the individual interviews indicated that some felt staff were undertrained or some also felt mistreated simply because of poverty or lack of education. Whichever the reason, many women are not comfortable trusting their maternity care to health center staff who are unknown, often young, and who do not have the training or maturity to deal with the complications that arise.

During the interviews, differential treatment was brought up by both the traditional birth attendants and by the women. Many women felt as if they were, essentially, being discriminated against because of their income or their lack of education. UNICEF reports (2014) indicated that only 33.1% of females in Guinea are literate. This lack of participation in the educational system puts them at a disadvantage when attempting to bridge between traditional and biomedical care. Women mentioned that as soon as staff noticed that they did not purchase all of the medicines prescribed, they were treated with less respect.
In conversation with two trained hospital midwives, one of whom had participated in the study, the other had not, they both admitted that many of the things that they were doing were pushing women away from the hospital. They said that they tell women to come to the hospital to give birth, certainly the women who are showing signs of complications. Yet, even those who would be capable of birthing vaginally without complications, would not, they admitted, be offered the same culture care practices that they valued so highly. They want to labor in other positions; they want to know who they will labor with and have a relationship with them; and they want to have a private and respectful birth outside of the viewing eyes of others.

At the regional hospital in Labé, they know this is not possible. The birthing room at the hospital has four laboring beds, with a small room outside with two beds for women in transition. At any given time, all of the beds could be taken or only one. Additionally, the midwives’ schedules shift, so even if one midwife (obstetrician/gynecologist team) has been seen for all of her prenatal visits, there is no guarantee that these same providers will be there when she goes into labor. Moreover, for the women who live further from the city center, a similar situation plays out in the health centers. Several of them have medical doctors or midwives on staff, but there is no guarantee that they will be available. Typically, there is a health tech agent who is at the center, who most likely has no additional training in pregnancy and labor, and absolutely no training in birth complications.

In addition, one of the strongest maternal culture care desires of the participants was for encouragement and guidance. The traditional birth relationship is between two
individuals, the woman and her birth attendant. Most likely, for all the indicators, the woman and her BA are similar; same level of education, same village, etc. Limited barriers increase the efficacy of care. These women enjoy a client to provider relationship without stress or complication. However, there are vast differences between the hospital midwives and the women they serve. All study collaborators brought up this challenge. The women spoke about feeling overwhelmed by the very different approach to care, especially at the regional hospital, not only because it was a new location. Clinic and hospital birth attendants and midwives knew that the women often needed greater support, but were unable to leave their other duties to accompany them or to offer more assistance to them. While community partners spoke about the complications that arose from the current system, they felt that women were not following through on care, were taking unnecessary risks, and most importantly, were being discouraged from seeking biomedical care. Meanwhile, the women were getting lost at the hospital, not understanding directions for lab work, etc.

The first three themes (fear of interventions, misunderstanding, and the ‘what to do/ not to do debate’) help in comprehending the most practiced beliefs and practices, their description and why they are valued. From the desire to a discreet birth under the guidance and encouragement of a traditional birth attendant to care seeking practices that must be renegotiated to integrate the desires of the women. Many of these beliefs and practices can be maintained and accommodated to a greater degree. The fourth theme (hindering engagement with the health system) gave broader understanding into why and how these beliefs and practices are hindering engagement with the biomedical system.
CONCLUSION

To answer the study’s three research questions, an increased understanding of the embedded nature of cultural beliefs and practices during the birth process for the Fulani in the study region was required. By the study conclusion, rich descriptions of the general and most common cultural beliefs and practice; as well as how women and their birth attendants employed them through the birth process were acquired.

These rich descriptions uncovered through analysis were divided into three major themes illustrating how these cultural beliefs and practices influenced the birth process for the women, their birth attendants, and community partners. Information gathered both supported current understandings in the sub-Saharan region and added more specific context to the lived experiences of culture for the Fulani in the study district. Issues such as transportation and access continue to challenge women living within and outside of the city centers. Those in the more remote regions were inundated with challenges of transport, access and understanding; however, even women in the city of Labé continue to engage in biomedicine in a limited fashion. The healthcare available to these women, outside of traditional birth attendants, is wrought with inadequately training staff and infrastructure, and issues with medical communication styles that do not respect cultural norms and preferences.

Yet, a picture filled with hope emerged due to the committed women and men working daily to confront maternal mortality and morbidity head on in Guinea. While dealing with issues that created frustration, confusion, and suffering, this passion and commitment needs to be strengthened. Partnerships between different medical providers,
from traditional birth attendants to ob/gyns working at the regional hospital, need to be supported to collaborate for a common goal. Overcoming the, at times, overwhelming challenges of a country struggling to offer quality care, with cultural beliefs and practices that hinder the acceptance of the biomedical health model, will take dedicated effort on the part of all involved. The realization that hearing the women’s own stories of lived experience was a strong step forward. This engagement of the women themselves allowed a more nuanced description of the study questions to emerge. By continuing to focus on what can be accomplished, these stories will remain in our collective conscience, as their resilience, their strength, and their desire to be part of the solution will remain a strong motivator in challenging times.

Offering the best care possible, which is both supportive of cultural beliefs and ensures the safety of the mother and child, remains the primary goal. Certainly, the gaps in knowledge and access between the traditional birth attendants, the trained midwives, and the ob/gyns are evident. For many years, the WHO supported increased training of traditional birth attendants, with its current statement the agency begins to look at a more collaborative model,

Where TBAs remain the main providers of care at birth, dialogue with TBAs, women, families, communities and service providers is recommended in order to define and agree on alternative roles for TBAs, recognizing the important role they can play in supporting the health of women and newborns (WHO, 2015, para.1)
This recently altered course, of the WHO and other international agencies, from training traditional birth attendants to focusing on increasing the number of trained midwives, is problematic not only in our study context, but in many other regions of sub-Saharan Africa. No one in the study region would argue that increasing access to quality, skilled care is required. All study participants were in favor of women having access to high quality obstetric care. However, the reality for the Labé district is the enormity of work that remains for this to become a reality. Women even a few miles outside of the city center, have multiple obstacles in their path, including culturally embedded gender roles, access to care, care seeking, and transport. Continue even a few miles further and women have only their health center of point of health as a back-up in the case of an emergency. In these more remote regions, and by choice within the city of Labé, women continue to choose traditional care, accessing biomedical only sporadically. The challenges of inadequate infrastructure, lack of training and materials, to issues with cultural and medical communication will continue to impact the nature of pregnancy and labor care available to women.

Better understanding of cultural beliefs and other intervention practices that are associated with maternal culture care and care seeking are needed. This management of various socio-economic determinants of health, especially overlooked cultural beliefs and practices, is a means of reducing the gap between the traditional and the biomedical providers (Ensor et al., 2014; Nabacwa, Waiswa, Kabanda, Sentumbwe, & Anibaya, 2015). The integration of systems on multiple levels requires an awareness of care practices that can be accommodated, as well as those that must be restructured.
The study’s questions began the process of understanding the challenges that continue for women during the birth process. However, increased policy and research engagement is required in order to incorporate study findings into the lives of the women and their communities.

**RECOMMENDATIONS**

Based on the conclusions of this study, further research and policy development should focus on a three pronged approach (1) use of culturally congruent communication models, (2) professional development for birth attendants and community health workers (cultural brokers), and (3) inclusion of cultural knowledge and participatory approaches.

*Policy*

The dissertation findings suggest a few areas for policy development or adaptation. The following paragraphs offer some insight into how these policy development decisions can be incorporated into common practice.

Cultural competency training should be included in all medical training programs. This training needs to take place from the earliest stages of learning to the final application of skills. An increased understanding of why and how cultural beliefs and practices influence care and care seeking decisions is necessary in order for biomedical providers to support and encourage engagement with their health model. Without this increased understanding, women will continue to engage with biomedical care opportunistically, supporting the traditional models that they understand. As there are beliefs and practices that can coexist (supportive environment, relationship with provider, increased communication and reduced interventions), giving providers the tools to help
women navigate the new systems is essential. Traditional birth attendants can be included in these courses, as they have both the respect of the communities and a richer understanding of deeply held cultural values. Structured as professional development courses, these can be held at the department of health or in community centers or health clinics.

During the dissemination meeting with the DPS, the BAs discussed their need for training and willingness to collaborate with the biomedical system. The DPS and the Regional Director of the UNFPA both agreed that working on ways to integrate them into the existing system would benefit care providers and the women they serve. Whether through integration of existing care providers, like traditional BAs, or the training of community members (cultural brokers), a focus on developing networks of care, linking the traditional and biomedical models is required. Women in the Labé district of Guinea, and across sub-Saharan Africa deserve to have access to the highest quality care and to have their cultural beliefs and practices honored and respected by skilled, competent providers.

Using cultural brokers, or community members training specifically in maternal health, could help bridge the gaps currently blocking the integration of biomedicine and traditional care. Cultural brokers would come from the communities that they serve, and thus have the respect and familiarity the women desire. Research has shown that maternal care practices of women are highly dependent on the individual women, their families and communities, and their cultural beliefs and practices (Ensor et al., 2014). The integration and training of traditional BAs in this role, or women who serve as birth
assistants in the absence of traditional BAs, acknowledges their cultural and social acceptability, as well as the supportive role they play in cultural care and care seeking (Miller & Smith, 2017). Traditional BAs are highly valued and respected in their communities. Whether they themselves act as cultural brokers or they assist in training other community members, their presence will add legitimacy and cultural relevance. As inadequately trained staff emerged as a source of complication for women, increased availability of trained providers in more remote areas is crucial. The specifics of the cultural norms, beliefs and values that relate to childbearing provide an invaluable framework from which to approach families within this culture and design programs with a community focus in mind. (Evans, 2013). The issue is community based, though not simple. A recent article on value of building health promotion capacity in Guinea discussed building the capacity of community level volunteers to heighten awareness about maternal health risks and to promote the increased use of biomedical services (Brazier, Florentino, Barry, & Diallo, 2015).

In order to engage with the dual realities of the biomedical and traditional care systems, a more participatory approach, and a willingness to incorporate cultural beliefs and practices is vital. Those with the lived experience of caring for women throughout the district should have a place at the table to help design policy and trainings for their communities.

Education and trainings are important components for these cultural brokers, especially if they utilize a more participatory approach, bringing together the both the traditional and biomedical different systems of care. Trainings on conducting
participatory research, as well as the incorporation of participatory approaches into existing curriculum and professional development seminars would allow diverse voices to be heard and acknowledged. This study illustrated the possibilities of visual and participatory research methods, with Photovoice and the engagement of the BAs in the analysis process. A participatory approach, incorporating the views of the women most impacted, and as much as possible the women themselves in policy development can only be of benefit to the women and their communities. Preserving and accommodating cultural preferences is vital, and greater understanding can be cultivated by incorporating all voices.

Two dissemination events took place during the course of the study. A report with suggestions for further policy and research, as well as to share copies of the results and discussion sections (translated into French), will be sent to community and national partners. These partners include the Ministry of Health and regional community partners in Labé (DPS and UNFPA). The hope is that supporting continued collaborations and trainings with the birth attendants who participated as co-researchers in the study will continue to increase understanding of the complex nature of culture and the birth process in the district and beyond.

Research

As with suggestions for policy, the findings have inspired some ideas for further research. Of the three themes that emerged from the study, the theme of miscommunication illustrated the complexity of the challenges when approaching the birth process using a cultural lens.
Research must address issues with misunderstandings and miscommunication resulting from culturally embedded norms not being acknowledged by the biomedical system. The incorporation of community members, or ‘cultural brokers’ with the necessary training, can act as intermediaries in regards to access to biomedical care. Research into how best to approach the incorporation of traditional birth attendants, or other well-respected women in the communities, into the conversation is integral to community engagement. In Pulaar, the local language of the Labé district, the term intermediary is *soucoura*. Birth for the Fulani is a women’s world, where BAs act as the supporting intermediaries to assist women to birth as they please. Culturally, the concept would be well understood, and community members would agree that safer birth for women would have positive affects for all. This study proved that BAs are able and willing to become engaged with the research process, and that they hold knowledge and understanding required reaching culturally relevant outcomes.

As our research indicated, traditional BAs are aware of their capacities and are vocal about what is needed for them to benefit the lives of the women they serve. However, their lack of understanding about what actually takes place during a birth at the regional hospital may be limiting engagement. Conflicting ideas on what work labor practices women should engage in, misunderstandings in regards to reasons for interventions, and cultural norms limiting conversation with healthcare providers all need to be addressed. On possibility is incorporating the trained midwives into additional support and training for the BAs, as mentors or contacts in the event of complications. The International Confederacy of Midwives (ICM) recommends in its statement of belief
that “linking or forming partnerships between registered/regulated/licensed midwives and traditional caregivers has the potential to improve significantly the health outcomes for pregnant and birthing women and their babies” (ICM, 2014, p. 2). These research partnerships should include such things as ensuring community involvement, especially listening to women; accepting that community needs are varied; mutual recognition and respect of knowledge; sustained support and direction from ministries of health and development agencies; inclusion of cultural competency; etc.

Further research can also incorporate two other voices who emerged as having significant agency over the birth decisions of women, the husbands and mothers-in-law. Maternal care and care seeking decisions were found to be influenced by these two family members. Mothers-in-law guard cultural norms and knowledge. They, along with BAs, know how women have always given birth. However, as biomedical care is more readily available, they misunderstandings and fears create confusion and reduce participation by their daughters-in-law. As husbands also hold power over a woman’s cultural care and care seeking decisions, greater understanding of their knowledge about the necessity of certain interventions or engagement in the biomedical community is required. Male researchers would be required to respect cultural norms and to obtain a richer understanding of their level of knowledge.

Continued dialogue between the traditional and biomedical system, the researchers and the communities they engage with, and the continued support for community level integration into research is required. Further research focus on increasing collaborations between the traditional birth attendants and the formal health
sector, incorporating other voices with decision making power, as well as on increasing understanding of how cultural beliefs and practices are influencing care and care seeking using qualitative and participatory methodologies. As this study took place only in the district of Labé, an extension of this study into other districts in the Fouta Djallon region, and nationally is required in order to develop inclusive national policy and research initiatives.

**Limitations**

This study had some weaknesses and some strengths. The limited amount of research available for Guinea on culture and the birth process offered unlimited possibilities, but the lack of current health indicators makes policy recommendations challenging. Having a research team and research collaborators who were all women, all mothers, all Fulani, and all with lived personal and professional experience in the traditional and biomedical systems that we were studying was an enormous strength. The research could not have taken place without their engagement and dedication to the study.

There were also some challenges. Though the research team did our best to recruit only participants who were comfortable speaking conversational French, as we recruited from more remote locations, this became challenging. As a result, the inclusion of some Pulaar made the already difficult transcriptions even more challenging. And as such, some nuances and meanings might have been lost.

The logistics of running a study in an area with extreme weather differences (dust during the dry season and torrential rains during the rainy season) were numerous. The difficult terrain and travel times limited the number of interviews we were able to
complete. Weather often led to delays in scheduled events, or simply complicated the time and logistics in how to arrive safely in more remote locations.

Fulani women, especially when in a group, become an animated and highly conversational and opinionated. Placing five to six women in a group and asking them to speak in turn had its challenges. Certainly when debating topics such as care practices and their understandings of each other’s capacities or needs. The richness gained from their passion towards the subject of birth in addition to the heated discussions between trained midwives and traditional birth attendants were invaluable.

Using Photovoice and other participatory techniques generated issues that were both beneficial and challenging. Though it had challenges, the participatory nature of the study offered rigor and reliability to the design and analysis. The original discussion about the purpose of taking the Photovoice photos illustrated that identifying and defining cultural practices is inherently problematic. Preferences [préférences] supported their understanding more than the lead researcher’s terms of beliefs and practices. As with all research, more time is valuable. Due to challenges with weather, terrain, and communication, the BAs did not always have enough time to capture all of the photos they wanted (women in labor or practices that were less common); however, the quality of the photos taken and the rich discussion that they supported more than overcame any challenges. If given the chance to repeat the project, certain procedures would change, including offering more time with the cameras. More time could lead to more opportunities to capture the birth process at various stages. Finally, disseminating the
photos, questions remain on how best to use them towards increased awareness. Who
needs to see them? How can they best be shared to the broadest audience?

The choice to have the birth attendants recruit the women that they serve was
meant to corroborate narratives and determine how the care practices and beliefs shared
by the BAs were similar or different to those shared by the women they served. The trust
and respect afforded between the traditional birth attendants and their women offered
insight into why some of the themes emerged so strongly in favor of traditional care.
There was certainly a respect between the hospital midwives and the women, but they did
not have the same intense personal relationship.

SUMMARY

Women deserve to have their voices heard and to have access to culturally
accepted care. As culture is known to influence the birth process, greater insight into
these preferences is necessary. This increased understanding, gained by involving those
most impacted will allow for programming, interventions to serve women and their birth
attendants better, in the traditional, and the biomedical sense. Every day 830 women die
in childbirth due to preventable causes, with over half of these deaths occurring in sub-
Saharan Africa. Poor women, and women living in remote areas are at even greater risk.
Women often lack agency, access to transportation, care, and finances, especially those in
more remote communities. Incorporating the community, whether through cultural
brokers, traditional birth attendants, or even family members, may be a strategy that using
culturally relevant and congruent communication strategies to target the systems that are
most influencing women’s cultural care and care-seeking decisions. Use of participatory
methods, alongside a focus on culture, ensures greater community engagement and interventions that honor traditional values and preferences. Too many women live with complications or die in childbirth unnecessarily and their families and communities feel the impacts of this economically, physically, and psychologically. Research must support the idea of those living the experience and help them to reduce the burden on women.
APPENDIX A

Prenatal Booklet [Carnet rouge]
Hello, I am recruiting birth attendants/midwives to participate in a combined photo and interview project as part of a study titled, “Voices bearing witness: culture and birth outcomes in the Fouta Djallon, Guinea.” My name is ____________ and I am an assistant to the investigator conducting this research from Clemson University in the United States. Would you be interested in participating? Could you spare a few minutes to answer some questions?

1. Would you tell me how old you are?
   a. 17 or younger ........................................terminate interview
   b. 18 or older

2. Where do you live?
   a. Labé
   b. Surrounding village considered part of Fouta Djallon region
   c. Other ..................................................terminate interview

3. How would you describe your ethnic heritage?
   a. Fulani
   b. Other ..................................................terminate interview

4. Are you a practicing traditional birth attendant or midwife?
   a. Yes
   b. No ..................................................terminate interview

5. How long have you been practicing?
   a. Less than 6 months....................................terminate interview
   b. 6 months or more

French language ability will be assessed in conversation for the questionnaire.
Questionnaire de recrutement / dépistage - sages-femmes

Bonjour, Je recrute des accoucheuses / sages-femmes pour participer à un projet de photo et d'entretien dans le cadre d'une étude intitulée "Voix qui témoignent: culture et issue de la naissance au Fouta Djallon, Guinée". Je m'appelle ____________ et je suis assistant de l'investigateur menant cette recherche à l'université de Clemson aux États-Unis. Seriez-vous intéressé à participer? Pourriez-vous ménager quelques minutes pour répondre à quelques questions?

1. Me dirais-tu quel âge tu as?
   a. 17 ans ou moins .......................................... .. terminer l'interview
   b. 18 ans ou plus

2. Où habitez-vous?
   a. Labé
   b. Village environnant considéré comme faisant partie de la région du Fouta Djallon
   c. Autre .......................................................... terminer l'interview

3. Comment décririez-vous votre patrimoine ethnique?
   a. Fulani
   b. Autre ............................................................ terminer l'interview

4. Êtes-vous un accoucheur traditionnel ou une sage-femme?
   a. Oui
   b. Non .............................................................. terminer l'interview

5. Depuis combien de temps pratiquez-vous?
   a. Moins de 6 mois .......................................... terminer l'interview
   b. 6 mois ou plus

La capacité en français sera évaluée dans la conversation pour le questionnaire.
APPENDIX C1

Photo Release Form

Clemson University

Voices bearing witness: culture and birth outcomes in the Fouta Djallon, Guinea

I, ______________________________ give permission for (Rachel Lang-Baldé) to use and publish my photographs developed during the “Voices bearing witness: culture and birth outcomes in the Fouta Djallon, Guinea” study. She is free to use the photographs for presentations and publications about this project.

Contact Information.

If you have any questions or concerns, please contact Rachel Lang-Baldé (625784004).

Participant’s signature: ______________________________ Date: __________________

Participant’s name: ______________________________
APPENDIX C2

Formulaire de décharge de photo

Université de Clemson
Voix qui témoignent: culture et issue de la naissance au Fouta Djallon, Guinée

Je, ________________________________ donne l'autorisation à Rachel Lang-Baldé
d'utiliser et de publier mes photographies développées lors de l'étude "Voix qui
 témoignent: culture et issues de la naissance dans le Fouta Djallon, Guinée". Elle est libre
d'utiliser les photographies pour des présentations et des publications sur ce projet.

Informations de contact.

Si vous avez des questions ou des préoccupations, veuillez communiquer avec Rachel Lang-Baldé (625784004).

Signature du participant: ________________________________ Date:

________________

Nom du participant: ________________________________
**APPENDIX D1**

**Focus Group Protocol for Birth attendants**

**Building on the understanding gained from their participation in the Photovoice project, birth attendants will be either all take part or be purposefully selected from the TBAs who participated in the Photovoice project, to participate in focus groups of 6-8 women to discuss and clarify how cultural practices and beliefs influence the birth process and how they see their role as attendants during the birth process. Thus, questions will be informed by what arises from the Photovoice. Birth attendants’ own narratives and photographs may also be used during the discussions for greater clarification.**

“Welcome and thank you for your continued participation. (Introduce myself again as primary researcher or alternatively assistant will introduce herself as the moderator – final decision will be made after pilot testing). As we discussed at our last meeting, this focus group discussion is a follow-up to the Photovoice project that was completed on (insert date). This discussion is the second part of the research that I/we am/are conducting on how cultural beliefs and practices impact the birth process for women in the Fouta Djallon region. Our research group will also be talking to all/ some of the other birth attendants who participated in the Photovoice project in separate discussion groups. Your input and ideas are invaluable to the success with this project, so please do not feel shy during the discussion. As with the Photovoice project, there are no right or wrong answers, we simply want to hear your views, opinions and experiences with the topic, so please feel comfortable to say what you really think.

As we have already discussed during the Photovoice, your participation in this group is voluntary. Whatever we discuss today will be confidential and used only for this research project. During the discussion, (either myself or research assistant) will be taking notes and reminding me if I forget something. However, so that she does not have to worry about getting every word down, we will also be tape recording the whole session. Just as
with the Photovoice project, the reason for the tape recording is so that we don’t miss anything that is said, and so that the rest of the research team that are not here can also hear your views exactly as you said them. Please do not be concerned about this, our discussion will remain completely confidential; we will only use first names in the discussion and the information will only be used for this research project to better understand how cultural beliefs and practices impact the birth process. Is it ok with everyone to tape record this process? It is also important that only one person talks at a time. We will not be going around the room, just jump in when you have something to say (alternatively, we may have found a better cultural method for sharing information in a group). Remember we want to hear all of your views, so it’s ok to disagree with everyone else if you have a different opinion, but please respect the views of the others here as well. The discussion will probably last a little more than an hour, but not more than an hour and a half. Are there any questions before we start? Ok, let’s begin………”

**Introduction**

1. As an introduction, let’s go around the circle and re-introduce ourselves, and tell us how many years you have been practicing as a birth attendant.

2. How did you come to practice as a birth attendant?

**Part 1: clarification of Photovoice images and/or narratives**

1. I would like to discuss further some of the topics or issues that arose during the Photovoice. Could you tell me more about ____________? (may use a photo(s) or a narrative(s) from the project as a discussion starter) *repeat as necessary*

2. Many of you mentioned _________________ could you give me any more examples of this during the birth process? During pregnancy specifically? During labor? Post-partum?
3. The Fulani expression (or a specific quote from one or more narratives) “______________________________” was said several times, could you tell me more about how this is impacts the birth process for you as a birth attendant? *Do you agree with this statement?*

4. *repeat as necessary*

**Part 2: Final understanding of culture and the birth process**

1. Do you think childbearing women are aware of the role that cultural beliefs and processes have on their birth process? *To what extent or tell me more....*

Other potential questions/ probes depending on what is covered in Photovoice:
How pregnant women are viewed in the community? (*personal/professional views as a midwife*), Greater clarification of birth process behaviors/ choices based on cultural beliefs or practices: what women do once discover they are pregnant? (*Things they cannot do or who chooses?*), reasons why women seek care while pregnant (*how does she or who makes that decision? Examples*?), how women choose where to deliver? (*what/ who influences decision?*), local beliefs explaining why women experience complications or death in pregnancy/ during childbirth, or shortly after birth?, greater clarification of beliefs or practices performed during birth process? (*how many of these do you support, encourage, or discourage? Why? Probe for understanding of whether considered helpful, harmful or neutral – who requests women or themselves? How do you see your role in the continuation of cultural beliefs and practices?*) Level of knowledge about pregnancy or the birth process prior to marriage? (*who do women learn this knowledge from?*)
**Conclusion**

We are nearing the end of the discussion. Does anyone have any further comments to add before we end the discussion? Our research team would like to thank you for your continued participation in this research project. Your experiences and opinions are very valuable in increasing the understanding of how cultural beliefs and practices influence the birth process for women in the Fouta Djallon.
APPENDIX D2

Protocole de groupe de discussion pour les accoucheuses

**S'appuyant sur la compréhension acquise à partir de leur participation au projet Photovoice, les accoucheuses seront tous participantes ou soit délibérément sélectionnées parmi les accoucheuses traditionnelles qui ont participé au projet Photovoice, pour participer à des groupes de discussion de 6-8 femmes pour discuter et clarifier comment les pratiques et les croyances culturelles influencent le processus de naissance et comment elles perçoivent leur rôle d'accompagnatrices durant le processus de naissance. Ainsi, les questions seront informées par ce qui ressort du Photovoice. Les propres récits et photographies des préposés d'accouchement peuvent également être utilisés pendant les discussions pour plus de précisions.**

"Bienvenue et merci pour votre participation continue. (Je me présente de nouveau comme chercheur principal ou, alternativement, l'assistant se présentera comme modérateur - la décision finale sera prise après les essais pilotes). Comme nous en avons discuté lors de notre dernière réunion, cette discussion de groupe est un suivi du projet Photovoice qui a été complété le (insérer la date). Cette discussion est la deuxième partie de la recherche que je suis / nous menons sur la façon dont les croyances et les pratiques culturelles ont un impact sur le processus de naissance des femmes dans la région du Fouta Djallon. Notre groupe de recherche discutera également avec toutes les autres accoucheuses qui ont participé au projet Photovoice dans des groupes de discussion distincts. Votre contribution et vos idées sont inestimables pour le succès de ce projet, alors s'il vous plaît ne vous sentez pas timide pendant la discussion. Comme avec le projet Photovoice, il n'y a pas de bonnes ou de mauvaises réponses, nous voulons simplement entendre vos opinions, idées, et expériences sur le sujet, alors n'hésitez pas à dire ce que vous pensez vraiment.

Comme nous l'avons déjà discuté lors du Photovoice, votre participation à ce groupe est volontaire. Tout ce dont nous discuterons aujourd'hui sera confidentiel et utilisé uniquement pour ce projet de recherche. Au cours de la discussion, (moi-même ou un assistant de recherche) prendra des notes et me rappellera si j'ai oublié quelque chose. Cependant, pour ne pas avoir à s'inquiéter de la moindre parole, nous enregistrerons également toute la session. Tout comme avec le projet Photovoice, la raison de l'enregistrement sur bande est que nous ne manquons rien de ce qui est dit, et que le reste de l'équipe de recherche qui n'est pas ici puisse également entendre votre point de vue exactement comme vous le dites. S'il vous plaît ne vous inquiétez pas à ce sujet, notre discussion restera complètement confidentielle; nous n'utiliserons que des prénoms dans la discussion et l'information ne sera utilisée que pour ce projet de recherche afin de mieux comprendre comment les croyances et pratiques culturelles ont un impact sur le processus de naissance. Est-ce que tout le monde peut enregistrer ce processus? Il est également important qu'une seule personne parle à la fois. Nous n'allons pas faire le tour
de la salle, il suffit de sauter quand vous avez quelque chose à dire (nous avons peut-être trouvé une meilleure méthode culturelle pour partager l'information dans un groupe). Rappelez-vous que nous voulons entendre tous vos points de vue, donc c'est d'accord avec tout le monde si vous avez une opinion différente, mais s'il vous plaît, respectez également les points de vue des autres ici. La discussion durera probablement un peu plus d'une heure, mais pas plus d'une heure et demie. Y a-t-il des questions avant de commencer? Ok, commençons ...... .. ".

Introduction

1. En guise d'introduction, faisons le tour du cercle et nous re-présentons, et dites-nous combien d'années vous avez pratiqué comme accoucheuse.
2. Comment êtes-vous venu pour pratiquer comme accoucheuse?

Partie 1: clarification des images et / ou des récits de Photovoice

1. J'aimerais discuter plus en détail de certains sujets ou problèmes survenus durant le Photovoice. Pourriez-vous m'en dire plus sur __________________________? (peut utiliser une photo (s) ou un récit (s) du projet comme un démarreur de discussion) * répéter si nécessaire *
2. Beaucoup d'entre vous ont mentionné _______________________ pourriez-vous m'en donner d'autres exemples pendant le processus de naissance? Pendant la grossesse spécifiquement? Pendant le travail? Post-partum?
3. L'expression peul (ou une citation spécifique d'un ou de plusieurs récits) "______________________________" a été dite plusieurs fois, pourriez-vous m'en dire plus sur l'impact que cela a sur le processus de naissance pour vous en tant qu'accoucheuse? Êtes-vous d'accord avec ce constat?
4. * répétez si nécessaire *

Partie 2: Compréhension finale de la culture et du processus de naissance

1. Pensez-vous que les femmes enceintes sont conscientes du rôle que les croyances et les processus culturels ont sur leur processus de naissance? Dans quelle mesure ou m'en dire plus ...
2. Autres questions / sondes potentielles en fonction de ce qui est couvert dans Photovoice: Comment les femmes enceintes sont-elles perçues dans la communauté? (points de vue personnels / professionnels en tant que sage-femme), Une plus grande clarification des comportements / choix du processus de naissance basée sur les croyances ou les pratiques culturelles: que les femmes découvrent une fois qu'elles sont enceintes? (Les choses qu'ils ne peuvent pas faire ou qui choisit?), Les raisons pour lesquelles les femmes cherchent des soins pendant la grossesse (comment elle ou qui prend cette décision? Exemples?), Comment les femmes choisissent où livrer?
(quoi / qui influence la décision?), les croyances locales expliquant pourquoi les femmes subissent des complications ou la mort pendant la grossesse / pendant l'accouchement, ou peu de temps après la naissance ?, une plus grande clarification des croyances ou des pratiques durant le processus de naissance? (Combien d'entre vous soutenez-vous, encouragez-vous ou découragez-vous?) Pourquoi demandez-vous quel est votre rôle dans la continuation des croyances et des pratiques culturelles? Niveau de connaissance sur la grossesse ou le processus de naissance avant le mariage? (De qui les femmes apprennent-elles cette connaissance?)

Conclusion

Nous approchons de la fin de la discussion. Quelqu'un a-t-il d'autres commentaires à ajouter avant de terminer la discussion? Notre équipe de recherche aimerait vous remercier pour votre participation continue à ce projet de recherche. Vos expériences et vos opinions sont très utiles pour mieux comprendre comment les croyances et les pratiques culturelles influencent le processus de naissance des femmes dans le Fouta Djallon.
APPENDIX E1
Interview Protocol for Women of childbearing age

Interview #1:
Gain informed oral consent. Discuss nature of study and context of their participation.

Demographic Data:
1. What is your name?
2. Number of pregnancies? Number of children?

Interview #2-3:

PREGNANCY
3. Tell me about what women do once they discover once they are pregnant? *Are there any things that a woman cannot do? Who chooses? What did you do?*
4. Tell me about reasons why a women would seek care while pregnant? *How does she make that decision? What was your experience?*
5. Tell me about how pregnant women are viewed in your family? Your community?
   *How do you view pregnancy?*

DELIVERY
6. Tell me about choosing where to deliver? *Where did you choose to give birth? What influences that decision? Why do you think this is true? What was your experience?*
7. Who would be your preferred birth attendant? *Why do you feel this way? Who did you use?*
8. Tell me about local beliefs explaining why women die during pregnancy? During childbirth?Shortly after birth? *How many of these did you follow? Why?*

9. Tell me about traditional beliefs or practices that you perform while pregnant? During labor? After the birth? *How many of these did you perform? Why?*

**OUTCOMES**

10. Tell me about beliefs or practices that you feel support birth outcomes? For pregnancy? For labor? For post-delivery care? *What was your experience? Who supported you, if anyone?*

11. Tell me about beliefs and practices that have a harmful effect on birth outcomes? *Were you asked to perform any of these? By whom? What would you have done differently?*

12. Is there anything else that you want to tell me or discuss?

Thank you for your participation. If needed: With your permission, could we schedule another interview to discuss this further?
Protocole d'entrevue pour les femmes en âge de procréer

Entrevue # 1:
Obtenir un consentement oral éclairé. Discuter de la nature de l'étude et du contexte de leur participation.

Données démographiques:
1. Quel est votre nom?
2. Nombre de grossesses? Nombre d'enfants?

Entrevue # 2-3:
1. Parlez-moi de ce que font les femmes lorsqu'elles découvrent qu'elles sont enceintes?
   Y a-t-il des choses qu'une femme ne peut pas faire? Qui choisit? Qu'est-ce que tu as fait?
2. Parlez-moi des raisons pour lesquelles une femme se ferait soigner pendant sa grossesse? Comment prend-elle cette décision? Quelle a été ton expérience?
3. Dites-moi comment les femmes enceintes sont perçues dans votre famille?
   Votre communauté? Comment voyez-vous la grossesse?
4. Dites-moi de choisir où livrer?
   Où avez-vous accoucher? Qu'est-ce qui a influencé cette décision? Pourquoi pensez-vous que c'est vrai? Quelle a été ton expérience?
5. Qui serait votre accoucheuse préférée?
   Pourquoi pensez-vous de cette façon? Qui avez-vous utilisé?
   Combien d'entre eux avez-vous suivis? Pourquoi?
7. Parlez-moi des croyances ou des pratiques traditionnelles que vous pratiquez pendant votre grossesse? Pendant le travail? Après la naissance?
   Combien d'entre eux avez-vous joué? Pourquoi?
Quelle a été ton expérience? Qui vous a soutenu, si quelqu'un?
9. Parlez-moi des croyances et des pratiques qui ont un effet néfaste sur les issues de la grossesse?
Avez-vous été invité à effectuer l'un de ceux-ci? Par qui? Qu'auriez-vous fait différemment?
10. Y a-t-il autre chose que tu veux me dire ou discuter?

Merci pour votre participation. Au besoin: avec votre permission, pourrions-nous prévoir une autre entrevue pour en discuter davantage?
February 23, 2018

Dr. Aralis Moore de Peralta
Clemson University
Department of Youth Family Community
2078 Barr Hall
Clemson, SC 29634

RE: IRB2017-408: “Voices Bearing Witness: Culture and the Birth Process in the Foutu Djalou, Guinea” (Rachel Lung-Balde’s Fulbright Award)

Dear Dr. Moore de Peralta,

The Clemson University Institutional Review Board (IRB) reviewed the protocol referenced above using expedited review procedures and has granted approval. Your approval period is February 19, 2018 to February 18, 2019.

This approval is based on U.S. human subjects protections regulations (45 CFR 46) and Clemson University human subjects protection policies. We are not aware of any regulations that may be in place for the country you are planning to conduct research in that would conflict with this approval. However, you should become familiar with all pertinent information about local human subjects protection regulations and requirements when conducting research in countries other than the United States. We encourage you to discuss with your local contacts any possible human subjects research requirements that are specific to your research site, to comply with those requirements, and to inform this office of those requirements so we can better help other researchers prepare for international research in the future.

No change in this approved research protocol can be initiated without the IRB’s approval. This includes any proposed revisions or amendments to the protocol or consent form(s). Any unanticipated problems involving risk to subjects, complications, and/or adverse events must be reported to the Office of Research Compliance immediately.

The Clemson University IRB is committed to facilitating ethical research and protecting the rights of human subjects. Please contact us if you have any questions and use the IRB number and title when referencing the study in future correspondence.

Sincerely,

Nalinee D. Patin
Nalinee D. Patin, CIP
IRB Administrator
IRB Number: IRB200000481
FWA Number: FWA000004497

www.clemson.edu/research/compliance
APPENDIX F2

Guinea IRB (CNERS) Letter
REPUBLIQUE DE GUINEE

TRAVAIL – JUSTICE – SOLIDARITE

COMITE NATIONAL D’ETHIQUE POUR LA RECHERCHE EN SANTE
(CNERS)

Conakry, le 23 Mai 2018

N° : 065/CNERS/18
Objet : Examen protocole

LA PRESIDENTE

A Mme Rachel Lang BALDE
Taire, Labé - Guinée

Madame

Le Comité National d’Ethique pour la Recherche en Santé (CNERS) a procédé à l’examen de la version corrigée de votre protocole de recherche intitulée : « Voix qui témoignent : culture et processus de la naissance dans la préfecture de Labé, Fouta Djallon - Guinée ».

Le CNERS prend note des corrections apportées à votre protocole.

Le CNERS autorise la mise en œuvre votre protocole dans le respect des principes éthiques y énoncés. Il vous invite à lui transmettre une copie du rapport final.

Cette approbation est valable pour une période d’un (01) an à compter de sa date de signature. Le CNERS tient à être informé de toute autre modification du présent protocole au cours de sa mise en œuvre.

Veuillez agréer l’expression de ma considération distinguée.

La Présidente.

Présidente : Professeur Oumou Younoussa SOW. Tel. +224 664 962 434 Email : oumou45@yahoo.fr
Assistante Administrative : Aissatou Sanoussy BAuí Tel : +224 669 930 951
APPENDIX G1

Clemson University
Individual Investigator Agreement

Federalwide Assurance (FWA) #: 00004497

Individual Investigator’s Name: __________________________________________

Research Covered by this Agreement:

Principal Investigator (PI):

Research Title:

Protocol Number:

(1) You have been trained in the ethical conduct of research involving human subjects.

(2) You understand this information. You will follow this training. You agree to protect the human subjects in this research study.

(3) You will follow all the decisions of the Clemson University Institutional Review Board (CU IRB). The Principal Investigator will tell you the decisions of the CU IRB.

(4) You are responsible for protecting each research subject. The protection of the subject is more important than the research study.

(5) If you do not do these things, the CU IRB can choose to stop you from helping with this study.

My signature shows that I agree with these statements.

Investigator Signature: __________________________________________
Name: ________________________________

Date: ___________________________

Address: ________________________________

(City) (State/Province) (Zip/Country)

Phone #: ___________________________

FWA Institutional Official (or Designee):

_________________________________________ Date: ___________________________

Tracy S. Arwood

Institutional Title: Assistant Vice President for Research Compliance
Address: Clemson University
Office of Research Compliance
391 College Avenue, Suite 406
Clemson, South Carolina 29631

Phone: (864) 656-1525
Université de Clemson  
Entente d'un chercheur individuel

Federalwide Assurance (FWA) #: 00004497

Nom du chercheur individuel: ___________________________________

Recherche couverte par le présent accord:

Chercheur principal (PI):

Titre de la recherche:

Numéro de protocole:

(6) Vous avez été formé à l'éthique de la recherche impliquant des sujets humains.

(7) Vous comprenez cette information. Vous suivrez cette formation. Vous acceptez de protéger les sujets humains dans cette étude de recherche.

(8) Vous suivrez toutes les décisions du Conseil d'examen institutionnel de l'Université Clemson (CU IRB). Le chercheur principal vous dira les décisions de la CU IRB.

(9) Vous êtes responsable de la protection de chaque sujet de recherche. La protection du sujet est plus importante que l'étude de recherche.

(5) Si vous ne faites pas ces choses, la CU IRB peut choisir de vous empêcher de participer à cette étude.

Ma signature montre que je suis d'accord avec ces déclarations.

Signature de l'investigateur: ___________________________________
Nom: ________________________________________________________________
La date: ___________________________ 
Adresse: ________________________________________________________________

(Ville)  (Pays)
Téléphone #: ___________________________

Fonctionnaire officiel de la FWA (ou Désigné):
___________________________________ la date: ___________________________
______________________________
Tracy S. Arwood

Titre institutionnel:  Vice-président adjoint pour la conformité de la recherche
Adresse:  Université Clemson
Bureau de la recherche et de la conformité
391, avenue College, bureau 406
Clemson, Caroline du Sud 29631
Téléphone: (864) 656-1525
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