TRADITIONAL BIRTH ATTENDANTS IN RURAL KENYA: PRACTICES AND ROLES IN TRANSITION

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A Thesis
Submitted to the School of Graduate Studies
of the University of Lethbridge
in Partial Fulfillment of the
Requirements for the Degree

MASTER OF SCIENCE

Faculty of Health Sciences
University of Lethbridge
LETHBRIDGE, ALBERTA, CANADA

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August 8, 2017

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DEDICATION

This Master's Thesis is dedicated to all Traditional Birth Attendants working in rural Kenya.

ABSTRACT

Despite recommendations by the World Health Organization on the utilization of skilled health care providers, women living in rural Kenya still use other services such as those offered by traditional birth attendants (TBAs). The role of TBAs in health service delivery has been shaped by political, economic and cultural influences. However, the literature reveals few instances where TBAs have been invited to share perceptions about their potential to enhance health for childbearing families in rural Kenya. An exploratory naturalistic inquiry design was used to guide interviews with five participants in this study. The findings reveal how the TBAs' work is transitioning from traditional to more modern methods of support for childbearing women, to align more effectively with formal health care services. The findings will assist TBAs to integrate more fully with the health care team while providing an opportunity to create or strengthen policies that support their work.

ACKNOWLEDGEMENTS

Special thanks to my supervisor Dr. Jean Harrowing for your constant guidance, professional advice, and constructive critique throughout the study. I have learnt a lot working with you.

I am grateful to my committee members Dr. Bonnie Lee and Dr. Jo-Anne Fiske for your support and guidance during this process.

Special thanks to my colleagues at graduate school for your emotional and social support.

Special thanks to my late parents and to my siblings for their constant advice and support during my education journey.

Finally special thanks to my loving husband Erastus who has been my rock and has stood by my side and supported me all through this process.

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LIST OF ABBREVIATIONS

ANC	antenatal care
LMIC	low- and middle-income countries
MMR	maternal mortality rate
NGO	non-governmental organization
TBA	traditional birth attendant
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

CHAPTER ONE. INTRODUCTION

One of the WHO (2016) Sustainable Development Goals (SDGs) focusses on reducing the MMR globally to fewer than 70 deaths per 100,000 live births by the year 2030. The WHO (2016) noted that daily, about 830 women around the world die from preventable pregnancy and childbirth related complications, especially the ones coming from low-resource settings. Of these 830 women, 99% live in LMIC. In Kenya, the MMR in 2015 was 510 per 100,000 live births (WHO, 2015), far in excess of the SDG parameter. Although pregnancy-related complications that lead to maternal mortality can be prevented by skilled healthcare professionals (WHO, 2012), Kenyan women do not have full and equitable access to reproductive health care services. In particular, there are not enough skilled professionals to provide health care to every woman in rural Kenya. These women have no other choice but turn to the services offered by TBAs, largely untrained members of the community who assist women during pregnancy and childbirth. Little is known about these TBAs and their work, however. Hence, this is an exploratory study conducted to examine the experiences of TBAs regarding maternal health in rural Kenya.

The WHO (1992, p. 4) described TBAs as persons who assist mothers during childbirth and who initially acquire their skills by delivering babies or apprenticing with other TBAs. TBAs play an important role regarding maternal health care in LMIC (Essendi et al., 2015; Kaingu, Oduma, & Kanui, 2011; Nelms & Gorski, 2006; Oshonwoh Ferdinand, Nwakwuo Geoffrey, & Ekiyor Christopher, 2014; Pfeiffer & Mwaipopo, 2013; Selepe & Thomas, 2000; Vyagusa, Mubyazi, & Masatu, 2013). They belong to the informal healthcare

system and are commonly found in rural areas (Shah, Brieger, & Peters, 2011). Their role has been shaped by political, economic and, cultural influences. For example, most governments in LMIC have limited capacity to put in place adequate infrastructure that provides equitable services to all citizens, as compared to the high income countries which have the means to implement high-quality universal health care services. Economically, women cannot afford to access private, professional health care. From a cultural perspective, TBAs are accepted and trusted by the community. Although many healthcare professionals do not consider the contributions of TBAs to be important, mothers in rural areas consult frequently with them during pregnancy (Kitui, Lewis, & Davey, 2013). In addition, the literature reveals few instances where TBAs have been invited to share perceptions about their potential to enhance maternal health care in rural Kenya. In this study, a qualitative methodology was used to examine the experiences and perspectives of Kenyan TBAs regarding their contributions to maternal-child health.

Statement of the Problem

According to the WHO (2012), the MMR in Kenya has improved little despite the implementation of the Millennium Development Goals in the year 2000. One of the main reasons for high maternal mortality in Kenya is low ANC attendance. Only 68% of urban women and 51% of rural women receive consistent antenatal monitoring and support (Kenya National Bureau of Statistics et al., 2015). Of the many factors associated with the low ANC attendance among rural women, the most common include low economic status, low education level, and long distances to the closest healthcare facility (WHO, 2012). For

example, over 20% of Kenyan women with low levels of education consider it unimportant to give birth in a health facility, while 11% cited cost as a major barrier to delivering at a health facility (Van Eijk et al., 2006). The low ANC attendance in Kenya has likely contributed to a high incidence of maternal mortality and other related complications such as severe bleeding, infections, high blood pressure, and unsafe abortion among women, particularly in the rural areas (WHO, 2012). Most rural women do not have skilled assistance, and many suffer the consequences during delivery. For instance, over 48% of the Kenyan women use the services of TBAs, citing that the TBAs were friendly and caring and that they got free food, warm beverages, and warm water for bathing (Liambila & Kuria, 2014). Also, the women raised a concern of fear of the hospital procedures and the cost of transport to the hospital.

TBAs have assisted women during childbirth for centuries, and their services are available in almost every rural community in Kenya (Kaingu et al., 2011). TBAs provide social support during the perinatal period, and often go beyond the usual job of delivering babies (e.g., they also cook and clean) (Kamal, 1998; Liambila & Kuria, 2014). This support creates a strong bond between the TBAs and their clients, which is cherished by rural women. TBAs provide necessary maternal health care services (Kaingu et al., 2011). They represent the first, and often only, healthcare service that most women in rural settings access during pregnancy. However, TBAs have been linked with high maternal death rates especially among the women with low economic status who do not have access to skilled health care (Desai et al., 2013). For example, according to Ofili and Okojie (2005), the services provided by TBAs in Nigeria have not

demonstrated reduced maternal mortality; in fact, the authors discovered that TBA services increased the vulnerability of pregnant women to infections. To reduce high maternal mortality, there is a need to improve the services provided by both TBAs and the healthcare system at large.

Despite the fact that most of the women in rural Kenya use the services of TBAs, little is known about the TBAs' experiences related to the provision of such care. The TBAs' views gleaned in this study provide a closer look at the factors that affect their practice. In addition, understanding the perceptions and experiences of TBAs in rural Kenya will inform their integration into the formal maternal healthcare system and will help improve their services.

Research Questions

The central research question of this study is: "How do TBAs perceive their contributions to maternal health in rural Kenya?" The following specific questions were also asked:

1) What is the role of the TBA in the provision of services to pregnant women and mothers?
2) What is the meaning and the importance of a TBA's relationship with family, other health workers, and the community?
3) How do the TBAs see themselves as contributing to the improvement of maternal health?
4) What would help TBAs become more effective and competent in their work?

Purpose

TBAs live and work in the community and are easily accessed and trusted by the women who use their services. Sudhinaraset, Ingram, Lofthouse, and Montagu (2013) detailed the structure of informal healthcare, including the roles of TBAs. Informal care has several components, including training, payment, registration and regulation, and professional affiliation. The informal healthcare provider is one who has not received formal education, although she may have some training through apprenticeship, workshops, and seminars. Furthermore, the informal healthcare provider receives compensation directly from the patient (Kaingu et al., 2011). Typically, these providers are not registered with any regulatory body, and they work outside the formal, professional context (Kitui et al., 2013). This study explored TBAs' perspectives regarding their role in maternal health care service, as well as the challenges and facilitators that influence their efforts.

Significance

The study explored the experiences and perceptions of working as a TBA in rural Kenya. The findings facilitate greater understanding of TBAs' perspectives in the development of practices regarding maternal health care, particularly for vulnerable women in rural and remote areas of Kenya. The research also offered the TBAs a platform to talk about their experiences and perceptions about maternal health care in rural areas.

Thesis Overview

Chapter 2 provides a review of the literature related to TBAs' perceptions of and contributions to maternal health care. This includes the background and

role of TBAs, maternal health care in Kenya and the Kenyan health care system. Chapter 3 explains the research design, including methodology, philosophical stance, setting, participant recruitment, data collection, analysis and management, and finally, ethical considerations of the study. Chapter 4 explains the study findings. Chapter 5 addresses the overall interpretation and application of the findings, as well as the study's limitations, recommendations for future study, and conclusions.

CHAPTER TWO. LITERATURE REVIEW

Literature related to the perceptions and contributions of TBAs regarding maternal health in rural Kenya is explored in this chapter. The following section will give an overview of the Kenyan health care system. TBAs' roles and benefits of their training are also reviewed. Maternal health care in Kenya and the factors that affect the use of maternal health care services are highlighted.

Overview of the Kenyan Health Care System

The health care system in Kenya is publicly operated and includes four levels of health facilities: national referral hospitals; provincial hospitals; sub-county or district hospitals; and dispensaries. At the national level, operating under the Ministry of Health, lies the responsibility for ensuring equitable and quality health care delivery across the country. There are only two national hospitals in the country: Kenyatta National Hospital in Nairobi, and Moi Referral and Teaching Hospital in Eldoret. Equivalent to them are the private referral hospitals: Nairobi Hospital and Aga Khan Hospital in Nairobi (Muga, Kizito, Mbayah, & Gakuruh, 2005). The national referral hospitals also serve as tertiary referral centres as well as teaching hospitals for medical schools.

Provincial hospitals in Kenya function as referral hospitals for the sub-county or district hospitals. Provincial hospitals also act as a link between the national and district hospitals. The provincial hospitals oversee the operation of sub-county hospitals, making sure they implement health policies and maintain quality health standards (Muga et al., 2005).

The sub-county hospitals provide medical services to local residents and serve as referral centres for all community-based health centres (dispensaries).

The most difficult cases are referred from the sub-county hospitals to the national hospitals. Thus, health care delivery in the country follows a structured hierarchical level of health facilities. Unlike the sub-county hospitals, which have specialized and general medical practitioners, the community health centres are managed by paramedical personnel with specialized skills in primary health care and midwifery, but limited clinical knowledge. Healthcare services are unevenly distributed throughout the country, between rural and urban areas (Muga et al., 2005).

Traditional Birth Attendants (TBAs)

TBAs are defined by the WHO (1992) as a group of persons who assist mothers during childbirth and who initially acquired their skills by delivering babies themselves or through apprenticing with other TBAs. TBAs have existed since time immemorial, and fall into the category of informal health care providers who work locally in the rural areas of LMIC. Women in rural areas usually use their services more than they use formal health care providers (Sudhinaraset et al., 2013). TBAs still exist despite the formal health care system because rural areas are characterized by poor infrastructure, including impassable roads and less equipped health facilities, among other things.

TBAs fall under the informal health system, which, according to Sudhinaraset et al. (2013), is defined by four categories: training, payment, registration, and profession. The authors described TBAs as having received no formal training, although they may have gone through some level of formal training such as apprenticeships, seminars, and workshops funded by NGOs. Sudhinaraset et al. (2013) stated that TBAs receive payments directly from the

clients they serve. The payments are undocumented, and may come in forms other than money, such as food-stuffs. TBAs are not registered with any organization, nor do they have any professional affiliation. Furthermore, Kamal (1998) noted four categories of TBAs: urban TBAs, who practice for a living but are not trained in the formal way; rural TBAs, often an elderly relative or neighbour who assists during child delivery but makes no living from it; family TBAs, who only tend to close family members; and finally, trained TBAs, who have received some type of formal training but are not fully skilled.

According to Oshonwoh Ferdinand et al. (2014), the existence of TBAs in most LMIC is due to limited availability of professional health care providers in rural areas, leaving TBAs to fill the gap. There is a wide gap between formal and informal health care providers in LMIC due to literacy levels (Kamal, 1998). The TBAs are here to stay. They are part of the community; socially and culturally accepted; and available whenever needed (Turinawe et al., 2016). This explains how important TBAs are in their communities. The TBAs enjoy an important status in the community, which likely explains why policy makers should consult with TBAs to improve the health of the mothers in the rural areas. The following section looks into the role of TBAs, benefits of training TBAs, and factors that lead pregnant women to use their services.

Role of TBAs

TBAs have existed for as long as women have given birth. The work they do has been tremendous, and people in the rural areas value their services. Originally, TBAs had no form of training, but they still performed midwifery duties. Training began in the 1970s by the WHO and other funding organizations

(Kruske & Barclay, 2004; Saravanan, Turrell, Johnson, Fraser, & Patterson, 2011).

Nelms and Gorski (2006) asserted that TBAs are a link between the rural people of Africa and health care delivery. They further stated that TBAs have a unique talent in that they use inherited knowledge of methods and practices that have evolved from the social, cultural, and spiritual wealth of the communities they serve. Despite TBAs being linked to high maternal mortality, they may also play a significant role in mitigating maternal mortality because they are first and often the only health care provider who can be easily accessed in rural areas; therefore, there is a need to involve them.

Abioye-Kuteyi, Elias, Familusi, Fakunle, and Akinfolayan (2001) found that more than two thirds of TBAs are older women who practice single-handedly. About half of the TBAs in their study had no designated delivery rooms. They also did not consider any pregnant women to be in danger; therefore, they saw no need to refer them to the hospital for further check-up. The authors also stated that few of the TBAs examined women during their pregnancies. Despite this, mothers still used their services; of the 109 clients interviewed, half used TBAs for all their deliveries. TBAs met with an average of five clients per month, which demonstrates their value in the community. The 109 clients interviewed were aware that the TBAs were ill-equipped, but they felt satisfied using their services and recommending them to other women (Abioye-Kuteyi et al., 2001). The authors highlighted the unique roles played by TBAs and how greatly their clients valued them.

Although the WHO recommends people be within an hour of the nearest healthcare facility, this was not possible in the Manxili region of South Africa where Selepe and Thomas (2000) conducted their research. The authors described the region as unstable, with a geographical terrain that does not favour pregnant mothers. Here, TBAs offer their services to pregnant mothers due to the inaccessibility of health facilities. Similarly, in Bangladesh, Sarker et al. (2016), found that poor roads and weather do not favour the women; during the rainy seasons the only accessible means of transport is by boat, leaving women to turn to TBAs. Selepe and Thomas (2000) described the distinct roles TBAs play in the region during each stage of pregnancy. At the prenatal stage, TBAs serve as health educators, giving dietary advice to the mothers, such as avoiding alcohol and smoking. They also estimate date of delivery by examining physical changes. During the labour and delivery period, TBAs usually encourage the mothers to have someone present, especially a mother in-law or grandmother. During postpartum, TBAs visit mothers to check breast milk flow and vaginal blood loss, and also advise them to maintain hygiene. The TBAs described by Selepe and Thomas seemed to be better educated and able to provide more comprehensive care as compared to TBAs described by Abioye-Kuteyi et al. (2001).

In Tanzania, where the government supports TBAs, the TBA promotes health, provides prenatal and neonatal health counselling, and initiates timely referrals (Pfeiffer & Mwaipopo, 2013). There are disparities between women in urban and rural areas in terms of maternal health care utilization. Women in urban areas in Tanzania use modern health facilities, while rural women use TBAs when delivering (Pfeiffer & Mwaipopo, 2013). The authors stated that rural

women prefer to deliver with assistance from TBAs because of the TBAs' motherly nature. In addition, some rural women in Tanzania prefer to deliver in a private and confidential environment with the assistance of someone from the same community. TBAs in rural Tanzania command a high level of respect and confidence and are also accessible, not only in terms of transport but also in terms of cost (Pfeiffer & Mwaipopo, 2013). The Tanzanian government has educated the TBAs in rural areas about HIV; as a result, TBAs take a lot of precautions to avoid being infected when conducting deliveries. For example, TBAs use gloves, and when they do not have any they refer the women to a health facility (Pfeiffer & Mwaipopo, 2013).

However, another study conducted in Tanzania found that as much as the government supports TBAs, there is still a problem (Vyagusa et al., 2013). The authors showed that TBAs lack knowledge for handling pregnancy complications. TBAs also shared gloves and used unsafe delivery materials. Despite the challenges TBAs encounter in their work, women still turn to them for services. This is due to various factors that hinder women from delivering in a formal health care setting. These factors include poor roads, distance from the clinic, and lack of electricity and water (Essendi et al., 2015).

Kaingu et al. (2011) conducted a study in Kenya with 200 TBAs and 20 clients. The authors used unstructured questionnaires, interviews, and focus groups, and found that although TBAs are female dominated, there are also males who practice. Further, the authors asserted that TBAs are culturally accepted in their communities and are considered a valuable resource. TBAs are consulted routinely by pregnant mothers. Mothers value them because they are easily

accessible as compared to the inaccessible health facilities. Kaingu et al. (2011) also mentioned that more than half of the TBAs were untrained and yet had attended to over 200 pregnant women. Their skills were earned through inheritance. Similar to the findings of Selepe and Thomas (2000), Kaingu et al. (2011) mentioned that TBAs observe hygiene and tend to pregnant women during and after delivery.

In addition to the roles mentioned above, Kaingu et al. (2011) stated that TBAs provide social support during labour and postpartum periods, something which is not available in health care centres. However, in another study conducted in Kenya, Wanyua et al. (2014) found that the majority of TBAs do not offer after-delivery services. The authors further mentioned roles TBAs play before delivery, such as checking the baby's position in the womb and massaging the mother's stomach. Social support creates a strong bond between TBAs and their clients, and is cherished by most of the rural women in the community. This helps explain why TBAs are here to stay. Therefore, there is a need to focus on assisting them in learning how to improve women's health and reduce maternal death.

Benefits of Training TBAs

According to the WHO (2016), global MMR between the years 1990 and 2015 dropped by 44%, which although notable, suggests that there is still a long way to go to eradicate maternal mortality. The WHO states that most of the deaths occur in sub-Saharan Africa, and that the leading cause is severe bleeding, primarily after childbirth. For instance, a maternal death audit done in Rwanda found that the leading cause of death was postpartum haemorrhage, with 22.7%

linked directly to bleeding (Sayinzoga et al., 2016). Most maternal deaths could be avoided if women in developing countries received professional health care; however, mothers are left to turn to TBAs for assistance. The next leading cause of postpartum death is infection. An evaluation done in South Africa by Peltzer and Henda (2008) suggested that TBAs need modern equipment to ensure minimum risk of infection to mothers after delivery. The authors stated that training TBAs will increase their knowledge and reduce risky practices that could harm mother and child.

Another leading cause of infection is associated with care of the umbilical cord. A qualitative study done in Ethiopia comprising six mothers, four grandmothers, and two TBAs found that umbilical cord care practices can cause infections in the newborn (Amare, 2014). The author's findings clearly depict that there is a need for TBAs to be trained. TBA training has proven to be beneficial in reducing MMR. However, whether or not TBAs should be trained and left to handle pregnancies on their own is still controversial. Because the MMR remains high and more than 99% of maternal deaths occur in the LMIC (WHO, 2016), the WHO recommends that the pregnant women need to attend ANC and receive professional health care to reduce maternal mortality (Peltzer & Henda, 2008).

Maternal Health in Kenya

The WHO (2017a) refers to maternal health as the health of women during the pregnancy, childbirth, and postpartum periods. It also refers to motherhood as a positive and fulfilling experience; however, for too many women it is associated with suffering, ill-health, and even death. The main causes of suffering include

haemorrhage, infection, high blood pressure, unsafe abortion, and obstructed labour (WHO, UNICEF, UNFPA, & The World Bank, 2014). Only a few studies in the past have focused on the problem of maternal health and use of maternal health services in Kenya. Although primary health care strategies implemented in Kenya since independence have positively impacted child health, maternal health has lagged behind (Muga et al., 2005). In 1987, the Maternal Health and Safe Motherhood Program was established by the WHO (2017b) with the aim of improving maternal and child health by preventing pregnancy related complications. The objective of this program was to ensure that women were healthy throughout pregnancy and childbirth (Muga et al., 2005). It has been more than 30 years since the 1987 Safe Motherhood Conference in Nairobi, and there seems to be a progress towards reducing MMR in Africa. The conference brought together different organizations (UNICEF, UNFPA and the World Bank) with the aim of devising solutions for the alarmingly high MMR which was at 500,000 maternal deaths per year. By 2015 the rate had decreased to 303,000 maternal deaths per year globally (WHO, 2017b). According to WHO (2016) the MMR has dropped by half in Africa. This is a great improvement but there is still much work to be done to lower the rate further.

In Kenya, 96% women attended ANC at least once during each pregnancy; however, there are still disparities regarding choices for the place of delivery. For example, 37% took place at home and 61% took place in a health facility. The survey findings showed that the increase in health facilities delivery was related to mothers' education (Kenya National Bureau of Statistics et al., 2015). In Kenya, place of residence, household wealth, education, ethnicity, and

other factors greatly influenced timing of the first ANC visit and type of assistance during delivery (Ochako, Fotso, Ikamari, & Khasakhala, 2011).

Despite the government's introduction of free maternal health care, it will still take a long time for the policy to be fully implemented (Emmanuel, 2015). This is because, according to Pell et al. (2013), the use of ANC services in Kenya is associated with socioeconomic, cultural, and reproductive factors. Culturally, women in Kenya perceive modern health care as intended for curative services only (Magadi, Nyovani, & Rodrigues 2000). For instance, Harun, Shelmith, and Muia (2012) stated that in Kenya the pastoralist communities do not see the importance of modern health care. The authors mentioned that barriers influencing women's use of modern health care include low education level, high parity, ignorance of and poor access to modern health facilities, the need for herbal medicines, and the expectations from the community and family to use TBAs.

Economically, there is a huge gap between urban and rural health care infrastructure. Lack of electricity, water, and good roads are main factors impacting provision of and access to maternal and newborn healthcare services (Essendi et al., 2015). Similarly a study in South Africa found a relationship between occupation and economic power (Silal, Penn-Kekana, Harris, Birch, & McIntyre, 2012). The authors stated that those who reside in rural areas cited distance, cost and acceptability as a barrier to accessing professional health care. The findings of a study conducted in Ethiopia by Birmeta, Dibaba, and Woldeyohannes (2013) were similar. All authors found that economic factors play a big role in rural areas when it comes to deciding where to deliver.

Maternal health is clearly still a critical issue in rural areas of Kenya. Policies concerning the health care system in rural Kenya need to be revised. Also, TBAs need to be rewarded and incorporated into healthcare plans because a majority of rural women rely heavily on their services. Therefore, this study seeks to look into the experiences of working TBAs in rural Kenya. The following section looks at major factors influencing maternal health care.

Factors Affecting Use of Maternal Health Care in Kenya

Education of Women. Women's education levels often influence the use of maternal health care in most LMIC. A demographic health survey of countries in sub-Saharan Africa points out that a higher percentage of educated women in the community has a positive impact on ANC use (Magadi, Agwanda, & Obare, 2007). In Bangladesh, Anwar et al. (2008) found that women whose husbands work in the professional/services sector had 6.3 times higher odds of delivering with the assistance of trained personnel, compared with women whose partners work in the agricultural sector. The cost of maternal health care is a burden for women whose husbands work in agriculture. Men in agricultural occupations gravitate toward lower levels of learning, and with lower education comes ignorance of the advantages of seeking health care during pregnancy and for childbirth (Anwar et al., 2008).

One has to pay to attain an education, and this is not easy for those who live in rural areas. Stephenson, Baschieri, Clements, Hennink, and Madise (2006) pointed out that the economic status of a community affects the utilization of maternal health care in LMIC. When a community is developing economically, there is a greater potential to increase infrastructure to support and sustain health

programs and facilities (Stephenson et al., 2006). In addition, these authors stated that economic development is associated with health care utilization. Most economically developed communities tend to have greater supplies of health infrastructure and personnel. Kamal (1998) stated that the socioeconomic status of skilled health care providers and the low levels of women's education are critical to maternal health care. This is because women in rural areas with low or no education cannot communicate well with skilled health care providers. Hence they turn to TBAs, who are socially and culturally accepted and available in the community (Kamal, 1998).

Accessibility. One of the determinants greatly associated with the utilization of maternal health care in sub-Saharan Africa is accessibility to health care services (Babalola & Fatusi, 2009; Mekonnen & Mekonnen, 2003). Living in rural areas may amount to services being almost out of reach, and long distances to medical clinics may be a disincentive to seek care (Pfeiffer & Mwaipopo, 2013). In Uganda, a study revealed that fewer women reported ANC attendance in rural areas as opposed to their counterparts in urban areas (Kyomuhendo, 2003). Also, Asweto, Aluoch, Obonyo, and Ouma (2014) conducted a study in Kenya and found that that women in rural areas paid fewer visits to the health facility, citing distance as a barrier. The authors further suggested that physical remoteness and scarcity of health facilities and infrastructure are obstacles to seeking maternal health care among rural women.

In Malawi, a descriptive study was conducted in which 12 women were interviewed regarding their perceptions of perinatal care (Kumbani, Bjune, Chirwa, Malata, & Odland, 2013). All 12 women had delivered at home and

stated that they had wanted to give birth in a health facility. However, the women observed that health care accessibility was a main problem in rural areas (Kumbani et al., 2013). Similarly, another study conducted in Malawi found that distance to the medical facility affected the choice of where to deliver (Gabrysch & Campbell, 2009). Therefore, there is a gap between wanting to deliver at a health facility and actually doing so. Fagbamigbe and Idemudia (2015) stated that in Nigeria, the geographical location of health facilities is usually attributed to distance or time required to reach the nearest centre. This has been demonstrated as an important determinant in maternal health care utilization in low income countries. In most LMIC, poor road conditions combined with scarcity of transportation complicates access to health services. Increased availability of health services in the slums will increase use of delivery and postnatal care.

In Kenya, Echoka et al. (2014) found that distance to health facilities impacted the frequency of ANC visits and delivery, leading to higher maternal and child mortality. Availability of health services at the community level has a positive influence on the use of maternal services. In Uganda, Anastasi et al. (2015) discovered that distance to these maternal services is an important factor in choice of delivery sites. Inaccessibility of health care facilities deters women from using them. The authors further determined that women in the community prefer to use TBAs because they are easily accessible and can perform duties beyond those of a midwife, such as cooking and cleaning. This leaves women with no other option but to rely on TBAs for their health care. Therefore, there is a need to further explore informal health care, under which TBAs fall, and find ways of incorporating these providers into the formal healthcare system.

Parity. Parity has been shown to be an important factor in maternal health services use (Magadi et al., 2007). Women with more children may deliver at home more often than women with fewer children, because they have experience with childbirth and therefore do not consider using formal services. The authors showed that women in LMIC are more likely to obtain ANC while expecting their first child than during subsequent pregnancies. A strong connection between number of pregnancies and delivery care has also been noted in a study conducted in Rwanda. Hagey, Rulisa, and Pérez-Escamilla (2014) found that women of low parity were more likely to deliver at a health facility compared to women with higher parities. Parity has been one of the factors influencing the high incidence of home deliveries and late onset of ANC visits.

Women's Health Seeking Behaviour. Stephenson et al. (2006) stated that fewer studies have focused on the effects of women's previous birth experiences on utilization of maternal health care. The authors also stated that a woman's health seeking behaviour is shaped by previous pregnancies. Their qualitative study showed that most women who experienced complications with previous births are anxious and aware of the risks involved in failing to seek health care. Therefore, they use maternal healthcare services to avoid complications.

In Uganda, Ononge, Okello, and Mirembe (2016) found that postpartum hemorrhage was also associated with parity. Women who had experienced previous pregnancy-related complications were more likely to seek care during childbirth compared to women who had not experienced such complications (Mathole, Lindmark, Majoko, & Ahlberg, 2004; Mugo, Dibley, & Agho, 2015).

Ononge et al. (2016) found that pregnancy complications, such as hemorrhage, are considered by TBAs to be normal healing processes and that every woman was expected to lose some blood after delivery. This view poses a great risk to mothers since the TBAs may not be able to differentiate normal postpartum flow from hemorrhage; further education is required (Ononge et al., 2016).

Some of the participants in a study conducted in Kenya, Ghana, and Malawi opted not to attend ANC to avoid being asked about the number of children they have (Pell et al., 2013). The authors stated that the women attended ANC once, just to get the ANC card and avoid future trouble with health workers. The participants in that study explained that they needed the health card so that when they went to deliver in the health facility, they would not be reprimanded by the health care professionals. The health card was also completed by health care professional whenever they attended ANC. Women value TBAs as health care providers due to their experiences with them. The authors looked at TBAs' experiences to learn from them why women prefer their services. Exploring the experiences of TBAs may assist policy makers in developing ways of incorporating these health care providers into the health care system.

Conclusion

The literature suggests that women in rural areas of LMIC often view pregnancy as natural and do not see the need of attending ANCs (Pfeiffer & Mwaipopo, 2013). Furthermore, women in rural areas are accustomed to TBAs, because they live among them and services are readily available. Formal health care systems in most of the LMIC are not sufficient to serve all of their citizens. Women in rural areas have yet to experience free maternity services because of

infrastructure issues (Emmanuel, 2015). As a result, women have no choice but to turn to informal health care; TBAs, who fall under informal health care, are utilized by women in rural areas during pregnancy and delivery. Socioeconomic and cultural factors play a big role in the utilization of the health care services. However, there is scant literature regarding the perceptions of TBAs about their role and contributions to care for child bearing women in rural Kenya. As well, more focus needs to be directed to the intersections between the informal health care system and the existing but fragile, formal health care system. This study will add to our knowledge about TBAs' perspectives and contributions in rural Kenya.

CHAPTER THREE. RESEARCH DESIGN

The purpose of this study was to explore TBA perspectives regarding their role in maternal health care services in rural Kenya, as well as the challenges and facilitators that influence their efforts. An exploratory design was used because little is known about the topic. As Armstrong (2010) and Neuman (2011) observed, a qualitative exploratory framework is useful to build foundational knowledge about little known phenomena. Neuman (2011) stated that the purpose of the exploratory research is to provide foundation and methods for future research. The exploratory method is flexible which gives the researcher the opportunity to pursue new topics where little is known.

Method

Qualitative methods can be used to gain new ideas on things about which much is already understood or to gain more in-depth information that may be difficult to convey quantitatively (Liamputtong, 2013; Neuman, 2011). Thus, qualitative methods are appropriate in situations where one needs to identify the variables that might later be tested quantitatively, or where the researcher has determined that quantitative measures cannot adequately describe or interpret a situation (Creswell, 2009). Research problems tend to be framed as open-ended questions that will support discovery of new knowledge. This study employed an exploratory design that incorporates the naturalistic inquiry design as described by Lincoln and Guba (1985).

Naturalistic inquiry is a qualitative method that focuses on how people behave when they are immersed in real life experiences in their own world

(Lincoln & Guba; Patton, 2002). Lincoln and Guba noted that the study occurs in a natural setting and the human is the instrument. The design emerges from tentative conclusions, ideas, and theories, depending on what a researcher finds. There is also a co-construction of knowledge between the researcher and the participant. The research is presented in a case study style creating rich descriptions, and, finally, validity is based on trustworthiness through prolonged engagement, multiple data sources, peer review, and keeping an audit trail. I investigated the experiences of TBAs in rural Kenya through in-depth interviews which allowed me the opportunity to learn about their work experiences, perceptions and contributions to maternal health in rural Kenya. I also observed the surroundings and body language during the interviews and made fields notes describing those observations.

Philosophical Stance

The naturalistic design was relevant for this particular study because the TBAs were able to share their work experiences in their natural setting. Understanding the TBAs' experiences is informed by knowing how they work and live daily (Creswell, 2013). As a researcher and a woman, I consider this study of utmost relevance to my life. Having been born at home with the assistance of a TBA and subsequently having witnessed how TBAs operate, I believe that my personal experience may have influenced my views as well as the understanding of the data and their analysis. I conducted the research with an open mind, reserving my own experiences to accord a proper value to what the participants shared. Besides their role in assisting women in rural areas during their pregnancy, TBAs have their own family responsibilities. The TBAs'

experiences were best understood through engaging with them in their natural setting, with the purpose of learning who they are, how they work, and the challenges they encounter as they served women in rural areas. The results helped me to set the groundwork for future investigations concerning the contributions and perceptions of TBAs and their role in maternal health in rural Kenya.

The Setting

The setting for the research was in rural Kenya (Appendix A), a country in East Africa. The site for this study was in Uasin Gishu County in western Kenya, which comprises three administrative constituencies: Eldoret East, Eldoret North, and Eldoret South (Uasin Gishu County, 2013). Socially, the residents in Uasin Gishu County are characterized by their norms of interdependence and reciprocity, religious pluralism, paternalistic society, and other restrained social influences (Uasin Gishu County, 2013). Most of the residents of Uasin Gishu County, and all the study participants, are Christians. This county has one main national hospital (Eldoret Moi Referral Hospital) and many clinics, both public and private (Uasin Gishu County, 2013).

Participant Recruitment

I recruited five participants from rural Uasin Gishu County after sending an introductory letter (Appendix B) to the chief of the local area, requesting his permission to proceed. The chief holds a political position to which he or she is appointed by the government. The chief represents the government in the community and has a number of formal and informal responsibilities. The chief acts as a gatekeeper; therefore, as a researcher I had to seek for permission to conduct my study. My letter to him outlined the research project and addressed

the rights and responsibilities of both the researcher and the participants. I also delivered the posters (Appendix C) to various community locations and leaders with a request that interested TBAs should contact me. The posters were placed in the market areas, chief's office, and the churches. Those TBAs who indicated an interest in participating were scheduled for an interview. An information letter (Appendix D) and a consent form (Appendix E) were made available to those interested in the research. Both the information letter and the consent form were verbally presented; in the case of those participants who were unable to read English, I read to them and translated the information letter and the consent form into Kiswahili (Appendices F and G respectively). After reading the informed consent, I then requested that the participants sign the form if they wished to participate in the study. I also requested that those who could not write respond verbally by saying 'yes' or 'no'. I audio taped the verbal consent at each interview as a way of ensuring ongoing consent. I also recorded the responses to demographic questions (Appendix H).

Participants

Lincoln and Guba (1985) indicated that there is a need for the researcher to know the target group and the procedures used in recruiting them. The authors also recommended two sampling techniques that I used in recruiting the participants for the study: snowball and purposive sampling. The authors stated that in naturalistic inquiry, purposive sampling entails identifying the place where the study will be carried out, followed by selecting participants who meet the study criteria. This approach incorporates the selection of participants who can share their knowledge of and experience with the phenomenon under study.

Snowball sampling, also known as ‘networking,’ was used to recruit participants. I asked the participants to invite other potential participants who met the study criteria (Creswell, 2009).

The inclusion criteria were that the potential participants reside in Uasin Gishu County and work as TBAs in a rural setting. In terms of language, the rural area of the county was dominated by the Kalenjin ethnic group, whose members speak Kiswahili, as does the researcher. Although there is no conformity regarding the ideal sample in this particular research method, the study was exploratory so I chose to interview a small number of participants for this study.

Data Collection

Data collection in this study was guided by four information-gathering principles. Firstly, as a researcher, I became an active listener and observer and took field notes. I was also involved in prolonged engagement within the community. I attended church services in community attended women’s groups after church, and socialized with women outside of church. I interviewed the TBAs at their homes. Secondly, once I was deeply immersed in the study, I became selectively more focused on the required data. Thirdly, I created enough time to gain trust and mutual respect with the participant before I started my interview. This was by visiting the community and getting to know the people and interacting with them. I also attended functions in the community such as attending their church services. Finally, I used multiple data collection strategies such as listening to stories, observing their surrounding and body language and making note of the TBAs’ day to day life experiences (DePoy & Gitlin, 2011; Lincoln & Guba, 1985).

The study included participant observation and in-depth interviews with open-ended questions (Appendix I) and field notes as sources of data. Rubin and Rubin (2012) stated that when a researcher conducts an interview, he or she must take into consideration what is important, what is ethical, completeness, and the accuracy of the findings. Therefore, the questions in the interview were all open ended and easily understood, thus giving the participants room to express themselves without being restricted to a 'yes' or 'no' answer. In each interview, I probed the main questions to generate relevant information from participants. In naturalistic inquiry, researchers often encourage participants to explain and confront their own observations and thoughts towards their experiences as TBAs (Lincoln & Guba, 1985).

Data Management

All interviews were recorded, with permission, using a digital recorder. Before I began the interview, I invited the participant to choose a pseudonym. Then I reviewed the consent and the demographic forms with the participant. Once they agreed, I asked them to sign or agree verbally; I also left them a copy. After each interview session, I wrote field notes to document my reflections on the session. After conducting the interviews, I uploaded and saved the interview files to my laptop with a password. I also locked all hardcopies of documents and equipment in a secure place. I transcribed the first interview before conducting the second interview. I translated the interview from the local language into English as necessary. Once the data were transcribed, I verified the English version for accuracy. I also used computer assisted qualitative software, NVivo 11 (QRS International, 2015), to manage the data and analysis.

Data Analysis

The data analysis process in the naturalistic study begins when the researcher starts collecting data and ends with a completed a report of the study (Lincoln & Guba, 1985). Data analysis is a process used to describe and interpret the meaning of the unstructured or raw data without distorting what was originally stated by the participant about her views and experiences of the phenomenon being studied (DePoy & Gitlin, 2011). The whole process is iterative in that it entails examining the raw data and the condensed data, including the developing themes, a couple of times (Patton, 2002).

For this study, I used the thematic analysis method described by Braun and Clarke (2006). The authors recommend this approach because it is an accessible and flexible approach for analyzing qualitative data. I immersed myself into the details and the specifics of the raw data to help me discover the emerging themes and their interrelationships (Patton, 2002). Braun and Clarke suggested five key thematic steps for qualitative data analysis. First, I familiarized myself with the data; this was done by reading and rereading the entire text and making notes, looking for major themes, unusual issues, and cases that related to the research questions. Secondly I began with the generation of initial codes; this was done by marking the text, making marginal notes, labelling the codes, and noting any analytical ideas. In the third step I began searching and reviewing the themes, meaning that as a researcher I reviewed the codes to see what chunks of texts were about the themes. Then I eliminated any repetitions and combined similar codes. For fourth step, I identified and named the themes. This was done by determining the interconnections between the codes, adding my interpretations to

the codes, and finding the relationships between and among the codes, the research questions, and the literature review. Finally, I produced a final report from my findings (Braun & Clarke, 2006; Bryman, 2012).

Scientific Rigour

When conducting research, one must follow correct procedures so that research findings reflect the true state of what is being studied and the realities of the participant are correctly represented (Guba, 1981). A naturalistic approach uses Guba and Lincoln's (1994) validation criteria to establish trustworthiness. The authors recommend the following criteria to establish rigour when conducting qualitative research.

Credibility. To achieve credibility, the study must accurately reflect the experiences of the participants being studied (Whittemore, Chase, & Mandle, 2001). The authors also state that credibility involves weighing the similarities within and the differences between the categories of the data collected. Credibility is established by the researchers having confidence in how the data will be collected and analyzed (Graneheim & Lundman, 2004). Graneheim and Lundman (2004) stated that credibility is achieved throughout the study by clearly stating its focus, type of participants, and the process of data collection. To enhance credibility, the researcher's biases need to be made plain from the outcome of the findings (Mays & Pope, 2000). In a qualitative study, credibility is obtained through peer debriefing, member checking, prolonged engagement, and the use of several methods of collecting data (Lincoln & Guba, 1985). To ensure credibility in this study, I engaged the participants in a prolonged discussion to learn the breadth and depth their experiences. I played back the audio of the recorded

interview to the participants to check for accuracy. I also followed up with what other participants had raised on a particular issue, especially if the response was unique or new and needed to be explored more in the next interview.

Dependability. In addition to establishing credibility, researchers' findings must also be dependable. Guba (1981) refers to dependability as an account that a researcher gives on the changes that occur in any setting as well as in the research process as the findings unfold. To ensure that the study is dependable there is a need for consistency in the data (Graneheim & Lundman, 2004). Also, other authors stated that research findings should have room for adaptability and flexibility all through the interview sessions (Hamberg, Johansson, Lindgren, & Westman, 1994), meaning that the interpretations and recommendations are supported by the data. When addressing dependability, Shenton (2004) asserted that the research process should be reported in detail so that another researcher could repeat the same study even if not for the same results. I gave a description in the above paragraphs on how I conducted the study starting from the recruiting process to the analysing of the data. I used new ideas raised by respondents in the next interview session. I conducted interviews until I reached a point of saturation (Fusch & Ness, 2015).

Confirmability. Guba (1981) stated that confirmability is the degree to which the results of the study could be verified by others. To ensure confirmability, Hamberg et al. (1994) asserted that the researcher should not distort the reality described by the participants; the researcher is required to keep questioning the findings, rethinking and critically reviewing to enhance confirmability. As a result, the findings will create room for other researchers to

critique my results by reviewing my data. I shared my findings with the participants after each session to confirm what they mentioned during the discussion, by playing back the audio for the participant to ascertain the findings. To enhance confirmability in the study, I consulted with my supervisor during the analysis process.

Transferability. Guba (1981), stated that transferability is the applicability of a research finding to a population other than the study participants. Graneheim and Lundman (2004) also described transferability as the extent to which the findings of that particular study can be reassigned to another setting. For the results of the research to be transferable to other populations, the authors also stated that the findings need to be presented in a way that allows another reader to look for alternative interpretations. Hamberg et al. (1994) stated that the findings need to be easily understood and relevant so that they can be used by another researcher. For this study, I provided a thick description of the findings, the setting, characteristics of the participants, and the processes of collecting and analysing my research findings.

Ethics

As a researcher, I must consider my moral and professional conduct during the research study. I ensured that I followed all ethical standards of research, including confidentiality, informed consent, honesty, and integrity, as outlined by the Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada (2014). Before going to the field to conduct the study, I obtained ethical approval from the University of Lethbridge Human

Subject Research Committee. A letter of introduction from my supervisor, as well as a consent form to be discussed with participants, identified the research purpose and methods to be used, the time to be spent on the study, and the responsibilities of the researcher and participants during the research process. I also advised the participants to feel free to withdraw from the study at any time, without any penalty being imposed, if they felt that they did not want to continue.

Although there were no anticipated risks related to this study, I took various measures to minimize any possible harm to participants. I made available to participants the opportunity to access professional therapy such as the counsellors at the clinic in case of any emotional discomfort because of their disclosures during the interview. I made sure that the participants' rights to confidentiality and comfort during and after the research process were adhered to. Audio files and written materials such as transcripts and field notes that had identifying information were removed and were secured in a locked cabinet, accessible only to me. All research documents will be destroyed as confidential waste five years after the end of the study.

CHAPTER FOUR. FINDINGS

In this study, I investigated the experiences and perceptions of women who worked as TBAs in rural Kenya. I used an exploratory approach based on the naturalistic inquiry design described by Lincoln and Guba (1985). Over a period of two months in the field I observed and interviewed five TBAs. This chapter summarizes my findings and analysis. The overarching theme, Tradition in Transition, reflects how TBAs are moving from traditional to more modern methods of maternal health care.

Background

The community in which the study was conducted is known for fertile soil and favourable weather which provide good conditions for mixed farming. Residents raise cattle, sheep, goats, and chickens. They plant crops of corn, potatoes, millet, sorghum, and other traditional vegetables such as kale. A main food is a paste made from corn, commonly known as ‘ugali.’ Houses in the rural areas are primarily thatched with grass; residents who are wealthier have sheet iron roofing. While the community has enough food, members are faced with other challenges. Poor roads become impassible when it rains, and there is no plumbing or electricity. The women collect firewood, use kerosene lamps for light, and fetch water from the river. The rural areas are administered by a chief who is well known by the community. I visited the chief’s office to present an introductory letter and get permission to conduct interviews in his territory. In conversation with him I learned he shared the same grievances about the health care system as those expressed by the TBAs during my interviews with them.

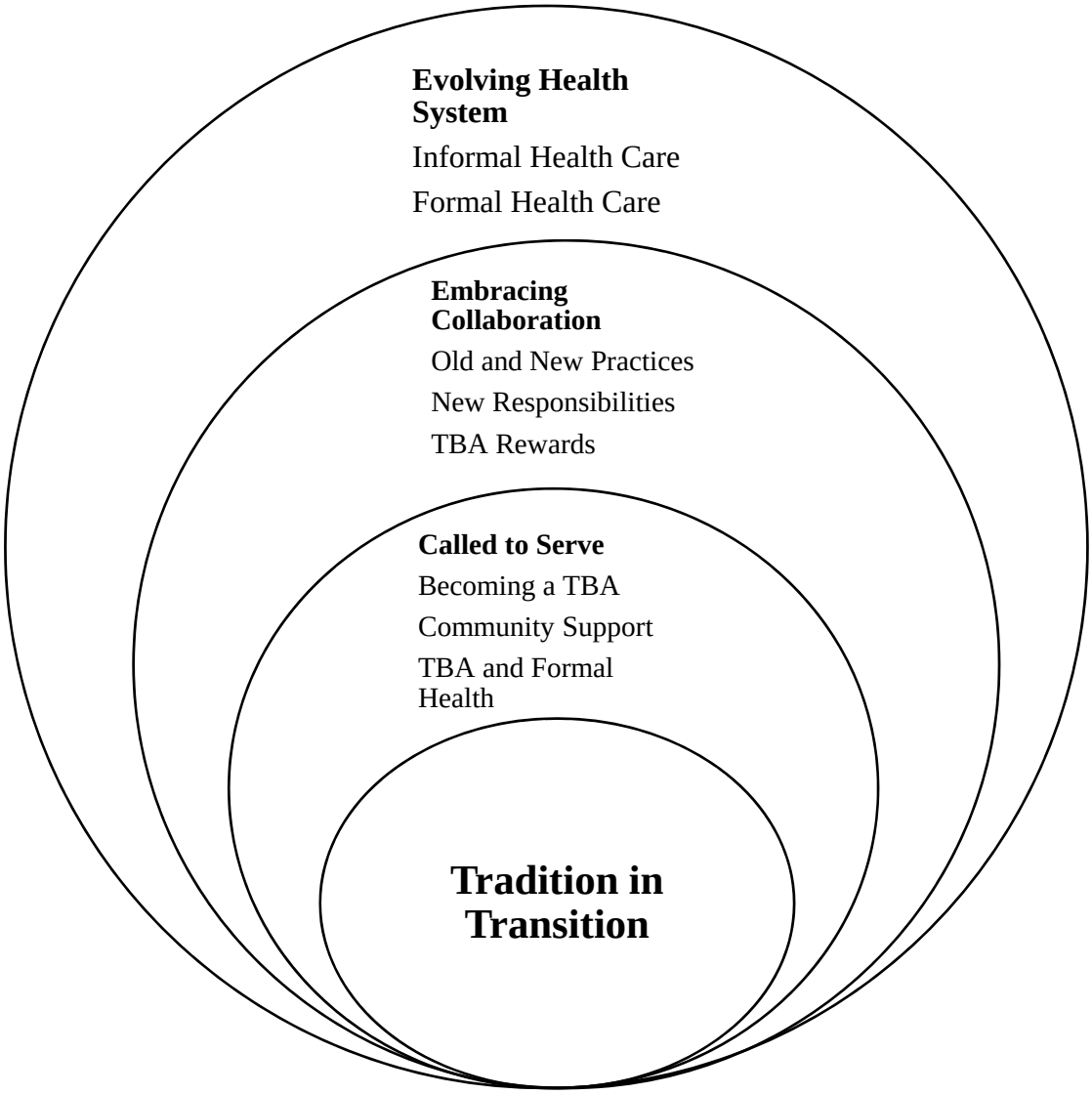

Figure 1. Interrelationships of the themes

Figure 1 illustrates the three themes and shows that the tradition of TBAs' work is changing in rural Kenya in response to a variety of forces. These themes will be further described in detail in the following sections after giving a background of the TBAs' daily life and the community in which they live.

Each community has at least one health care clinic. However, the clinics are not sufficiently equipped to serve all the community's needs. When the clinic

cannot handle a situation, patients are forced to travel 20 kilometres at their own expense for treatment at the main hospital. The journey is a challenge due to the poor road conditions especially during the rainy season, and also due to the poverty level in the rural areas as most people do not own cars. Therefore, the women rely on public means or ask for assistance from a community member who owns a car. In general, clinics are staffed by one medical professional. This could be a nurse or a clinical officer. There are no physicians. Also, there are no maternity wards. When women are in labour they go to the clinic to deliver and come home the same day. A maternity ward has been constructed, but the TBAs stated it was not yet in operation.

I talked to various women at the church I attended, asking them about the maternal health care available to them. While they noted that lengthy distances to the hospital and poorly equipped clinics forced them to resort to TBAs, they also stated TBAs are helpful, trustworthy, and will respond every time they are called upon—day or night. TBAs are highly regarded, particularly those who are more experienced. The women also mentioned TBAs are inexpensive and accessible. In response to my question about fees, they told me that TBAs do not demand immediate payment and often accept small tokens of appreciation such as 100 – 200 Kenyan shillings (approximately 1-2 Canadian dollars), corn, milk, or eggs. When I asked the women if they have encountered maternal and child deaths as a result of delivering at home, they mentioned a few incidents but did not blame the TBAs. They viewed such events as an act of nature. One woman mentioned a TBA who had lost her own daughter-in-law while assisting with the delivery.

The interview setting was mostly in the TBA's hut or under a tree in her compound. I invited participants to choose where they felt most comfortable. It was a humbling experience to sit down and talk to the TBAs in their homes. I also dined with them since according to the norm, a visitor cannot go back on an empty stomach. The interviews mostly lasted for 20 to 30 minutes with few interruptions. All the interviews were recorded with TBAs' consent. The interviews were conducted in both Kiswahili and Kalenjin which I fully understand. Later on, I was able to transcribe and translate them to English.

Daily Life

Like any typical rural Kenyan woman, a TBA wakes early to prepare breakfast for her family. She lights the fire on a traditional cooker made of clay and cow dung. She boils water for her husband to use for milking the cows and also for cleaning. She then cooks breakfast, and after her husband has finished milking she serves him and the children. The TBA normally lives with her unmarried children; her grandchildren visit her during the school breaks. She washes the dishes and feeds her chickens. Sometimes a neighbour visits. If a woman is in need of her assistance the TBA leaves what she is doing and goes to attend her. She prepares a noon meal for her family, milks the cow, goes to the local market or to her small garden for vegetables, and prepares an evening dinner for her family. Despite being like any other woman in her community, the TBA is unique in that she also performs work ideally reserved for health care professionals.

Participants

Five participants ranging in age from 50 to 80 years volunteered to participate in this study. Four of the five had not received any formal education, while one had completed formal schooling up to the secondary level. The TBAs in this study had worked for approximately 15 to 40 years, attending between two and ten births monthly. One delivered her own children in a medical facility, three delivered their children with the help of another TBA, and one delivered her children on her own. All names used in the interviews are pseudonyms. Table 1 describes the participants' demographic information.

Tradition in Transition

The TBAs described the context of their work in the community. Participants revealed how their work has been evolving from purely traditional birthing methods to combining traditional and modern methods. The TBAs' original role is gradually changing, and soon it will become obsolete. However, the TBAs' role in supporting women will continue, as they become better except they will be more equipped with modern practices and hence earn new responsibilities such as doing referrals and advocating for evidence-informed care for the women. The change in the TBAs' role in the community is coming as a result of external forces, such as education and the movement of people from rural to urban areas. The changes in society are gradually altering community culture. This transition in the work of TBAs is reflected in the following themes.

Table 1. *Participants' Demographic Information*

Pseudonym	**Age**	**Education**	**Ethnicity**	**Religion**	**Marital status**	**Women attended to monthly**	**Years of experience**	**Has own children**	**Place of own delivery**	**Attendant for TBA's own delivery**
Leah	52	Did not attend	Kalenjin	Christian	Married	2-3	15	Yes	Home	TBA
Mary	58	Did not attend	Kalenjin	Christian	Married	3-4	20	Yes	Home	TBA
Hannah	52	Secondary	Kalenjin	Christian	Married	3-4	15	Yes	Hospital	Medical Personnel
Eva	65	Did not attend	Kalenjin	Christian	Married	2-3	30	Yes	Home	TBA
Dorcas	77	Did not attend	Kalenjin	Christian	Married	9-10	40	Yes	Home	Alone

Called to Serve

The TBAs in this study, mostly older women, went out of their way to care for mothers during pregnancy. The community views the TBAs to have great wisdom due to their age. The role they play in caring for the mothers during pregnancy is often considered unique; not just any woman can be called to assist in childbirth. This is because the TBAs in the communities are known to have developed particular skills and they have more experience regarding childbirth. Not only does the community rely on them but formal healthcare providers are also forming partnerships with them. The TBA does not only assist women during their pregnancies; she is also a wife, a mother, a grandmother, and a neighbour. As a typical rural African woman, the TBA has her own life to run, and also needs to make sure her family is happy. Participants revealed that the work they do is mostly voluntary, but they enjoy it, and love to help. The TBA does more than support the women during their pregnancy; she also advises them and even sacrifices her time to escort them to the clinic when necessary.

Becoming a TBA. The following narratives give context about how TBAs' roles in the community are viewed and how their role is unique in that not any woman can be called to assist during delivery. The participants noted two ways on how they became TBAs; one was by chance, and the other was by helping a fellow TBA. On learning by chance, Leah narrated how she became a TBA by assisting a pregnant woman to deliver a baby without any TBA around:

> It was one evening and it was raining heavily when a certain woman came and knocked at my door, and she told me to help her. She was in labour and so I had no choice but to assist her. The baby was born well and since then I began the work of a TBA. I was not trained by anyone. It was due to the success of helping this woman. As much as all went on well I can say that this job is not an easy one.

By way of chance, Leah began to assist women. I asked her if she was scared; she mentioned that she had someone assist her who was not a TBA but had a little experience. Instructions from the mother-in-law of the woman she was assisting also gave her confidence. In the community, the mother-in-law plays a significant role because culturally a woman with a family is the one responsible for her daughter in-law when it comes to birthing.

The second way was through experiential learning and helping a fellow TBA. Those who became TBAs this way mentioned that they had acquired their skills from a female relative who was also a TBA. For example, Dorcas explains:

> I learned it through my mother who was also a TBA. I used to go with her when she was called in to help. And at times she could direct me on what to do and that is how I gained the passion of doing this work.

The above text illustrates how Dorcas inherited her work as a TBA from her mother. I discovered not all TBAs began the work as older adults. Hannah mentioned that she began the work at an adolescent stage:

> I began doing this work when I was young. I was about 17 years old. I assisted my mother during her delivery.

Hannah went on to explain how she gained confidence in doing her work by assisting her mother who was not a TBA. But later she mentioned that she usually

worked with a fellow TBA who was trained and at times she worked alone. The following sections will expound more on the themes mentioned above.

Community Support. The TBAs are called upon whenever there is an emergency and they do not hesitate to respond. Day or night, a TBA always makes herself available. Communities place their trust in the TBA and the work she does. Despite the challenges the TBAs face when assisting women, they never give up because of the support they get from the community. Dorcas narrated an incident:

> I almost quit doing this work. Just that the trust that I got from the community who did not blame me for their death gave me the morale to continue. I live well with my neighbours, we fetch water from the same river, and we go to the same church and meet with these women in the various groups. So I believe this gives me the encouragement to work more hard in helping these women. If they did not trust me and believed in me then I would be nowhere.

Support from the families and community makes the TBAs' work less burdensome. According to the culture, when a woman is delivering she is normally attended by other women. Most of the time it is her mother-in-law who assists the TBA. Husbands are there just for emergencies, if an extra hand is needed. Leah describes one scenario in which the husband had to assist:

> One of the deliveries that I will never forget was in the year 2000 when a woman who was in labour needed my assistance and it was her first child. This woman was very scared, and when she began to push and then the head came out she began to close her legs, and this really scared me a little bit. So I had to call the husband to come and assist me, and you know the husbands are not allowed there, but this round we had to break the rules in order to save the newborn. The husband came in to assist me by holding her legs. As she continued to push there is one thing I did that I had never

> done, and that is cutting the mother so as to let the baby come out. That was something I had never done before, and it's still memorable to me, or something that is still clear in my head.

Culture plays a role when it comes to maternal health in the community. The man's role is to call the TBA, especially in the late hours, and seek a means of transport if the mother needs to be taken to the hospital in an emergency. We can see from Leah's example that occasionally TBAs need to depart from the norm to assist a woman. Because TBAs are highly respected and valued in the community, whatever the TBAs demand is followed when they are conducting the delivery, even if they are working beyond their scope.

TBA and the Formal Health Care System. TBAs love what they do and are seen by the community as having useful wisdom and knowledge regarding birthing issues. As they have been part of the culture since long before formal health care was in place, the community fully relies on their services. However, due to their advancing age and continuing changes in society, TBAs are decreasing in numbers. With the introduction of formal health care there are no young women taking over traditional TBA roles. TBAs themselves are shifting their perspectives. They are accepting new health care practices and incorporating them into their traditional birthing procedures. The TBAs explained they are willing to work with the formal health care system because they do not have full expertise concerning women's problems. They encourage women to visit clinics for routine checks; they make referrals to the clinics; they have taken some

training from health care providers; and they get supplies, such as gloves, from the clinic. Eva explained how she had been working with the nearby clinic, especially in cases of emergency:

> You know through the experience of attending to these women I have come to learn a lot. Like the woman I mentioned earlier who we took to the hospital. I used the doctor's feedback to advise the other women. I also advise women to eat well and not to drink alcohol when they are pregnant. I also advise the women to visit the clinic for check-up. Whenever they come to me I normally ask them if they have gone to the clinic and also ask them what the doctor told them. I also have a contact number for a certain lady who works at the clinic, and so when there is a problem I call her.

Eva admitted she has come to learn a lot through attending to the women. By attending to different women, TBAs learn about various complications related to pregnancy, such as swollen legs, pale skin, and weakness.

Embracing Collaboration

The TBAs' role is to assist the women during their pregnancies. Participants noted that their roles are transitioning from performing deliveries on their own to referring mothers to clinics. The TBAs are now taking the initiative to educate women on the importance of attending a formal health care facility. The TBAs also support those who are vulnerable by connecting them to other women in the community such as the women's groups in the churches they attend. This theme elaborates on the practices of the TBAs and how their roles and responsibilities have changed from being purely traditional, to modern methods. The TBAs revealed how they perceive their role in the community and what form

of rewards they receive for assisting the women. In the following section, I will explain the TBAs' practices, responsibilities, and rewards.

Old and New Practices. Participants identified their roles within the communities they serve. It was clear their part in assisting women who are giving birth is significant. It was also clear a shift was taking place between the way TBAs conducted births before the introduction of formal health care and the way they conduct them now. Some practices have been abandoned. For instance, a tremendous change has taken place in the observance of hygiene, as Dorcas narrated:

> We normally used a knife to cut and a piece of cloth to tie the umbilical cord. We never bothered so much about hygiene. We used our bare hands at times. You could be smearing cow dung to your house and you are called. You just rinse your hands and rush since it's an emergency. Now we have learnt various things like using the gloves to protect ourselves and also the mother from infections. Also due to the HIV disease we were taught that it's good to use razor blades then dispose it immediately.

HIV and other infections have caused TBAs to alter their practices. Hannah also spoke of changes to the equipment she uses:

> You know long before this killer disease AIDS I used to use my bare hands to deliver the babies. Even long time one would be smearing cow dung on her house and when called they would rush even without cleaning their hands but now we are more enlightened we wash our hands with soap before and after. Also when there is no razor we use a knife and a piece of cloth to tie the cord.

The reports of Dorcas and Hannah reveal a pattern of transitioning into evidence-informed care practices. Awareness of how HIV can be contracted has made

TBAs cautious. As a result they are abandoning old practices and adopting new ones, even though they still conduct deliveries at home.

Formal training is also contributing to changing the way TBAs practice. TBAs who had undergone some formal training were happy for the knowledge they had gained, and indicated that training changed the way they worked. Eva shared what she learned from her training:

> They taught us on how to protect ourselves and also the mothers from infections by wearing gloves, being clean. Also timing the baby when the mother is in labour, among many things. Another one they taught us on how to detect if the mother is not ok, such as the swelling of the body and bleeding during their pregnancy.

Eva's example shows us the basics of what TBAs learn in training. Dorcas described the benefits she received from undergoing training:

> After I attended the training I have been frequenting the clinic. And the health care providers know me. They even supply me with the gloves, razor blades, and methylated spirit for sterilizing the razor and thread. They have even given me their contacts in case of any emergency that is beyond me.

Dorcas felt that formal health care providers at the clinic now recognize the work she is doing. They provide her with the equipment she needs to conduct deliveries in her community. Her example also reveals that TBAs are embracing formal health care and transitioning their own practices to bring them more in line with those used in clinical settings.

New Responsibilities. The TBA's role has always been to assist women during their pregnancies and to deliver their babies. However, due to changing

cultural practices and the introduction of formal health care in the society in which they live, TBAs are acquiring new responsibilities. Study participants are now referring women to health care facilities for check-ups. They acknowledge that the formal health care system is better equipped to detect women's health problems. Therefore, TBAs align themselves with formal health care services, suggesting that they have confidence in them. For instance, Hannah also advises women regarding the advantages of going to the hospital for check-ups:

> You know when they come to me I openly tell them that the hospital has more machinery to detect any problems than me and so it's best to go there. And I even offer to escort them there.

The above text illustrates that the TBAs have confidence in the formal health care system, and indicates the new responsibilities the TBAs are undertaking by educating and advising the women on the importance of using the formal health care services.

Typically, when TBAs are faced with challenges, and do not know how dangerous the complications are for both the mother and the baby, they call for assistance from more experienced TBAs. However, because of the training and knowledge TBAs have received, there seems to be a shift towards reaching out for assistance from formal health care professionals. Eva explained how she has been working with the nearby clinic, especially in cases of emergency:

> Whenever they come to me I normally ask them if they have gone to the clinic and also ask them what the doctor told them. I also have a contact number for a certain lady who works at the clinic, and so when there is a problem I call her.

Eva not only referred women to formal health care but also used their feedback to educate other women. From this we can infer that the TBAs gain more knowledge from the formal health care system about how to handle challenges than they do from fellow TBAs who are more experienced. Eva has a contact person in the clinic whom she can reach whenever there is an emergency. Although other TBAs did not mention having contact information, they knew at least one person who worked in the clinic, and they always referred expectant mothers there.

Another new responsibility TBAs are acquiring is championing the utilization of formal health care; they may go as far as escorting women to the hospital. The TBAs have acquired the new responsibility due to a better educated community and also to the training they receive. The transitioning has made the TBAs go out of their way to offer their services. With the training, the TBAs have received, they can now enter the clinic delivery room with the pregnant mother as stated by Eva:

> When I take the women to the hospital for delivery and am wearing the badge am not restricted from entering the hospital delivery room I am given way and respected by the nurses and this makes me feel good about what I do. You know before it was hard to take the women in the hospital because no one recognises you.

TBAs credited their interactions with the hospital staff for fostering an atmosphere of mutual respect. Being allowed to enter the delivery room enables

TBAs to see what goes on there and creates links between formal and informal health care systems.

TBA Rewards. TBAs work tirelessly in their community to assist women during their pregnancies. They handle complicated cases of birth, and yet, their reward monetary is not equivalent to that of their counterparts in the formal healthcare system. This subtheme focuses mainly on what the TBAs get in return for their services. TBAs are rewarded for the work they do in two ways: intangible and tangible. The majority of the TBAs work is voluntary, and because they have their own families to care for, this seems to be overwhelming for them. The TBAs work hard to make ends meet. For example, when Mary was asked how much she earns from her work, these were her words:

> I get 200 Kenyan shillings but not always. At times they tell me they don't have any money but go ahead and help them. I don't do this work as a business but just to help the women. They at times give me milk, eggs, sugar, tea, or corn, which I appreciate a lot too. You know this is a voluntary job so am not after money. Just that the demands in the home are the ones that force me to request for some money, but otherwise am happy helping these women.

The TBAs feel obligated to help women despite the challenges they face. The areas in which TBAs work have been described as having poor roads, small clinics which are not fully equipped, and populations living in poverty. However, participants also indicated that they enjoy what they do and love to help. They do more than support women during their pregnancies. They advise them and even sacrifice their time to escort them to the clinic.

TBAs are committed to assisting women, and they offer their services without seeking pay. They believe it is good to help, and in the long run one is blessed for the work done. They stated nothing makes them happier than conducting a successful delivery. A healthy baby gives them the motivation to continue. TBAs see their work as a blessing to both themselves and the community, as Eva attests:

> This work has been a blessing to me. You see that tall man outside there? I assisted the mother deliver him and recently I assisted his wife deliver. So when I see that, I feel happy and thank God also for the trust the people have put on me in this community. You know if it was not for their trust and love for me I would have left this job long ago. But you see people coming to you for assistance, so I am glad, and this gives me the energy to continue doing this work.

Eva's example illustrates how dedicated TBAs are, despite the circumstances under which they work. Their voluntary work is rewarded with trust and support from the community. They also noted how religion shapes what they do. The title itself—Traditional Birth Attendant—is associated with African traditional culture. It is apparent, however, that the TBAs' work has been influenced by Christianity, the dominant religion in the area. TBAs believe that when they help they receive more blessings.

TBAs work in rural areas where means of transportation are scarce. Participants mentioned that they have to walk some distance to get to the woman's home when called upon to assist. They are often wakened in the middle of the night or called out when it is raining hard as Dorcas attested:

> You know this work of ours is an emergency type and so at times you are called in the middle of the night, at times it's raining hard and to make it worse the home of the woman needing assistance is far from my home and so we have to walk there and since am getting old I can't run so you imagine the time I waste to get there for an emergency.

Because many are older, they cannot rush as compared to the young women who have the physical strength to rush, but somehow they manage. The TBAs do not hesitate when called upon. The community has confidence in their work, and many insist on calling a TBA since he or she knows that the TBA is experienced. Mary shared her experience of sometimes being wakened in the late hours of the night to assist a woman in labour:

> To be honest this work is good. I love when I see a newborn baby. When assisting these women I enjoy it but it also comes with a bit of a challenge. Since I have no experience as the people in the hospital, you see that we really struggle. Sometimes you are called in the middle of the night. You just have to wake up because it's my calling to help these women. Like one time it was raining heavily and I had to rush.

The TBAs often see their work as a calling and therefore they feel obligated to assist the women despite the challenges they face such as waking up in the odd hours. This demonstrates how committed the TBAs are to what they do. Despite the challenges the TBAs face, they sometimes receive tangible rewards for their work, as noted by Eva:

> Sometimes, and you know this job could be an emergency so I can't just say I need to be paid first before I assist. That would not be good in front of God's eyes. I do assist the women. If they decide to pay, well and good. I normally get milk, maize, or millet as a sign of appreciation. But in all I thank God I am a Christian and I believe in helping. I get more blessing and indeed I have been blessed.

Eva's experience is typical of the traditional African practice of exchanging goods and services, which took place before the introduction of money. TBAs still use bartering as a means of trade. However, they appear to be transitioning to accepting payment in the form of currency. They do not have a specific charge. Whatever they are given is what they take. If the expectant mother's family can afford it, this might be 100–200 Kenyan shillings. However mostly they are paid by other means, as indicated by Leah: "At times 200 Kenyan shillings or they buy you sugar or bring you milk as a way of appreciation." Informal healthcare providers receive payment from their clients directly, and their payments are in the form of cash or kind. Both are appreciated and accepted.

The participants described the roles the TBAs play when it comes to assisting women during pregnancy. The roles have been revealed through the TBAs' practices, responsibilities, and the rewards they receive after carrying out their work. Their work is evolving from purely traditional to more modern methods. The following section expounds on the changing health care system.

Evolving Health Care

There are two kinds of health care that were depicted in the study: formal and informal. The formal health care providers work in the health care facilities such as hospitals and clinics. TBAs are informal healthcare providers and are commonly found in rural areas of LMIC (Shah et al., 2011). The TBAs interviewed for this study explained how they began playing their role as TBAs

through inheritance, personal experience or assisting other TBAs; they did not attend any kind of formal education to become a TBA. One TBA attended school up to the secondary level and the other four did not attend any school. Yet the work they do is critical to the women in the community. Some of the TBAs interviewed received some formal training. For instance, Eva showed me a badge and her notes to prove that she had received some training: "You see these, there are some people from abroad who came to train us."

Eva and other TBAs attended a workshop that was run by an NGO. Eva further explained the skills they were taught during the training:

> They taught us on how to protect ourselves and the mothers from infections by wearing gloves, being clean, also timing the baby when the mother is in labour, among many things. Another one they taught us on how to detect if the mother is not ok such as the swelling of the body and bleeding during their pregnancy.

The TBAs' training was mostly practical and not theory-based because the TBAs themselves are older and have not attended school. The TBAs also mentioned that the trainers from the NGO were 'wazungus' meaning white people from abroad.

The TBAs are not registered with any regulatory body; they operate on their own and network with other informal providers as needed. The TBAs are highly valued and often consulted by the members of the community in which they live. Their opinions concerning maternal health services are usually relied upon. Within this informal structure, TBAs collaborate with other TBAs, herbalists, and—increasingly—professional

health care workers. In the following example, Leah illustrates how she collaborated with fellow TBAs:

> When I face a challenge I normally call or send someone to call my fellow TBA to assist me. Like one of the incidents that occurred when we were assisting another woman deliver, she was able to push back the baby who had started coming out with the legs first. She managed to push the baby back then turn the baby so that the head come out. And I am also glad it all went well.

Another collaboration is one between TBAs and herbalists. TBAs reported they do not administer herbs; their work is only to assist women to deliver. The only herb they admitted to having administered is for helping the baby breathe after it is born. This type of herb, derived from the cactus family, is locally known as 'pusaruk.' Pusaruk is dried, burnt, and then given to the baby to sniff. The same herb is used when someone has a cold. Although TBAs know about other herbs the mothers use, they usually refer women to the herbalists. For example, Hannah mentioned the type of herbs they mostly administer:

> Oh there is one I usually use. This helps the baby breathe well. You know when the baby is born the nose is blocked so we give them little portions to sniff that makes them sneeze out the stuff that is blocking them from breath.

TBAs believed this herb is safe, since it has been used for a very long time and they have not had any problems with it. One TBA noted they are facing a shortage of the plants due to an increase in population and deforestation; the herbs are becoming extinct.

On the other hand, there is the formal healthcare system where the healthcare providers, unlike the TBAs, receive formal training and are licensed and registered. The formal healthcare providers work under a regulatory body that oversees their work, and the healthcare providers are paid for the work they do. TBAs in this study believe that the doctors and nurses have the expertise to detect problems. Leah explained why she prefers the women to go to the hospital:

> You know as a TBA I may not have the full knowledge of what really caused the death of the baby. The hospital could have the best machines to know what really happened. Another measure I have taken is to always advise the women to go to hospital for regular check-ups during their pregnancy period so as to ensure the health of the mother and the baby. You know as a TBA I don't have all the knowledge like the doctors and the nurses in the hospital.

Both trained and untrained TBAs recognized the benefits of going to the hospital. This is one reason they refer clients to the nearby clinic, even if it means losing their own jobs. This is because TBAs believe hospitals offer more than they can in the way of knowledge, equipment, and the capacity to address problems. A pregnant woman is ideally supposed to make four visits to the medical facility for routine check-ups, to assess the progress of her pregnancy, to respond to any problems arising, and to get advice on how to take care of herself and her unborn child. One participant mentioned that she was only aware of women going to the clinic to receive tetanus injections. When asked how many times women visit TBAs during their pregnancies, Eva responded:

> Not all the time, they mostly come to me when they are almost due for me to check if the baby is ok and when they are in labour they call me to their home to assist in delivery or they come to my home.

After delivery women are advised to take their newborns to the clinic for immunizations, as Mary stated:

> And you know after every delivery I conduct, I advise the mothers to go to the clinic for their babies to be immunized and registered and also to be checked too.

In addition, Mary reported, "Even if I delivered all my children at home I made sure they were immunized." This illustrates that TBAs are aware of the need for immunization for newborns.

Also due to the increase in population and people becoming educated on the importance of attending the formal health care system, the TBAs are now forced to change the way they offer their services. TBAs are now getting some training and doing more referrals. There is a trend towards adopting formal health care practices into informal health care. Whereas in the past, TBAs have had the final say when it comes to issues concerning maternal health, they are now deferring to professional providers. The TBAs' roles in their communities are changing, leading them to form links with the formal health care system.

Conclusion

The three sub-themes (Called to Serve, Embracing Collaboration, and Evolving Healthcare) all show how birthing practices and the role of the TBA are changing in rural Kenya. Traditional practices are slowly fading away due to the

changing society, and the TBAs are incorporating some modern health care practices. Thus, the TBAs have acquired new roles and skills. The change in their role represents a tradition in transition whereby the TBAs are combining modern health care practices with traditional forms of maternal health care. The findings clearly depict that the formal training the TBAs have received has contributed to the change in how they operate.

CHAPTER FIVE. DISCUSSION

In the current study, I investigated the experiences and perceptions of women who work as TBAs in rural Kenya. I wanted to study the role TBAs play in providing services to pregnant women and mothers. The TBAs are usually older women and are highly respected, valued, and accessible to the women in the community (Byrne et al., 2016; Sialubanje, Massar, Hamer, & Ruiter, 2015). However, the literature reveals few instances where the TBAs have been invited to share perceptions about their potential to enhance health for childbearing families in rural Kenya. Most of the literature has focussed on the mothers and their choices around care and where they want to deliver. The following sections will discuss the findings and the limitations and recommendations of this study.

Called to Serve

To discover the role the TBAs play in rural areas, I first sought to know how they became TBAs. The findings show how the women began their work of assisting mothers during childbirth. The findings were consistent with the WHO's (1994, p. 4) definition of TBAs: a group of persons who assist the mothers during childbirth and who initially acquired their skills by delivering babies themselves or through apprenticeship to other TBAs. TBAs comprise mostly older women who have gained experience through working with fellow TBAs (Byrne et al., 2016). Consistent with the current findings, a previous study also showed that some of their TBAs began their work as adolescents (Rudrum, 2015).This explains the experience they gained in the field of delivering babies and also why

pregnant women go to them. The TBAs have been operating since time immemorial, and the people living in rural areas of Kenya use their services. Furthermore, with society changing, the TBAs roles, too, are changing. The TBAs seem to be transitioning from the traditional methods into modern methods in the way they conduct their work. The following paragraphs will expound more on the TBAs' role in caring for the mothers in their community.

TBAs play a key role in offering services to the women and mothers in the communities in which they live. The current findings show that the services TBAs offer are not only to deliver babies, but also to educate women and support mothers during their pregnancies. Consistent with previous studies, my participants assisted women throughout their pregnancy, from the antennal to postpartum stage (Byrne et al., 2016; Mahiti, Kiwara, Mbekenga, Hurtig, & Goicolea, 2015). However, a previous study conducted in Uganda also showed that not only do women utilize the TBA services but men also seek advice about their wife's pregnancy (Turinawe et al., 2016).

In the current study, the findings show that TBAs supported women by educating them on how to manage their pregnancies. Similar to a previous study, the TBAs educated women on the importance of delivering in a health facility (Tomedi, Stroud, Maya, Plaman, & Mwanthi, 2015). Thus, the findings show that TBAs are acquiring new roles, such as educating women on the importance of going for check-ups during their pregnancy period. Findings from the current study also show that both trained and untrained TBAs encouraged women to

attend antenatal care. They always referred women to formal health care and did not mind losing their jobs because they believe formal health care have more expertise than they do.

Consistent with the findings, Mahiti et al. (2015) showed that TBAs agree that formal health care has better equipment to diagnose problems if a woman is at risk during her pregnancy. The current and previous studies show a tremendous change in how TBAs offer their services to women in rural areas, thus leading to the improvement of maternal health. Apart from delivering babies and educating mothers, the findings also show that the TBAs supported women in various ways, such as escorting them to the hospital and connecting vulnerable women to the community. However, Ribeiro (2014) showed that TBAs face challenges when it comes to referring women to the formal health facility. TBAs reported that women were not complying with their advice. The reasons cited were lack of transportation, financial constraints, and fear of the pain of treatment they undergo. Similar to the current study, Ribeiro's participants also stated that they faced the same challenge; the women did not want to go to the hospital, so the TBAs had offered to escort them there. The reasons given in Ribeiro's study were that the women were scared and others mentioned that they could not afford it.

The TBAs talked about the types of equipment that they use, such as razors or knives to cut the umbilical cord and a piece of cloth or a string to tie it, following delivery. However, they did not mention equipment sterilization, hence putting the mothers and newborn babies at risk of infection. Ideally, as Sean,

James, and Jane (2010) stated, the equipment used in childbirth needs to be sterilized to avoid infection. This suggests that there is a need to support TBAs by providing them with proper equipment and procedures to sterilize it to improve maternal health care in rural areas. Since TBAs received their training from NGOs, the government has not paid attention to their work, as shown by Temesgen, Umer, Buda, and Haregu (2012). The authors further explained that the TBAs lacked enough equipment for delivery because they had been trained by NGOs so there was no government follow-up.

The TBAs in the current study narrated how their work is an emergency type, so if they do not have the equipment when they are called to help, they just have to improvise. For instance, the TBAs mentioned using a plastic bag to avoid infection. Not having the ideal delivery kits poses a great risk to TBAs, mothers, and newborns. A previous study conducted in Nepal suggested that there was a need to promote the use of clean delivery kits to reduce maternal and neonatal deaths in LMIC (Morrison, Jacoby, Ghimire, & Oyloe, 2015). Also, TBA described how they handled deliveries with their bare hands and thought it was normal without gloves, but after knowing how HIV is contracted, they decided to be careful and have since begun to wear gloves.

Kenya is now focusing on providing increased numbers of skilled attendants, whether a woman delivers in a facility or at home. Since TBAs are highly regarded by their communities, it is critical that they still be encouraged and enabled to play a role in improving maternal health (Van Eijk et al., 2006).

Embracing Collaboration

The current study shows that the TBAs are committed and love to do their work. As a typical African rural woman, the TBA has her personal roles that she has to play in her home, yet she still sacrifices her time to assist the women in her community. TBAs feel that they are trusted and respected by the members of the community they serve. The respect they attain encourages them to keep serving the women. Dietsch and Mulimbalimba-Masururu (2011) also showed that TBAs considered their good reputation in the community as a source of encouragement to carry on with their work.

Because TBAs are accessible, the community relies fully on their work, and this gives them the determination to carry on. However, other authors showed that TBAs are faced with other challenges too, such as being unable to handle complicated cases of pregnancy that require a skilled attendant (Byrne et al., 2016). The rural areas are described as having poor infrastructure, such as impassable roads, which makes accessibility to the formal health facility a challenge, similar to conditions described in the current study. Also, the clinics found in the rural areas are not fully equipped; therefore, the women have to travel a long distance to the main hospital. This is what TBAs encounter daily as they go about their work. Also, people living in the rural areas of Kenya face poverty and cannot afford skilled medical care.

Despite the Kenyan government introducing free maternity care to all women, the policy is yet to be fully felt among the women living in rural areas

(Emmanuel, 2015). Therefore, the women in the rural areas have no other choice but to rely on the TBA service. For the TBAs to perform their work efficiently, there is a need for improving rural infrastructure. Similarly, TBAs in a previous study conducted among the pastoralists in Kenya mentioned that they at times fear for their lives due to the possibility of encountering wild animals on their way to assist the women (Byrne et al., 2016). This shows that the Kenyan government still has a long way to providing free maternity services to all women. In order to implement this policy fully, the government needs to address the problems women are facing in rural areas that affect their maternal health. There is a need to develop rural areas by equipping the clinics with supplies, staffing and constructing the roads (Emmanuel, 2015).

The TBAs in the current study did not attend any professional training, unlike, health care providers in the formal health care system. Most attained their skills from other TBAs, while others mentioned that they gained the experience on their own. A few had received some formal training funded by NGOs in the country. Other authors mentioned that TBAs' training in India was funded by the NGOs (Saravanan et al., 2011). This fact suggests that the government needs to get involved in training the TBAs to improve maternal health in rural areas. Mbiydzenyuy (2012) asserted that if TBAs are trained, followed up, supervised, motivated, and given supplies, maternal mortality could be reduced. Also, the WHO developed a strategy that would change the TBA's role to one of advocacy and referral. When it was introduced and implement in Somaliland and Kenya it

was successful at first, but there was no sustainability, due to lack of follow up and payment for the TBAs (Pyone, Adaji, Madaj, Woldetsadik, & Van den Broek, 2014; Tomedi et al., 2015). The projects failed because they were funded by NGOs not governments. This is because the NGOs work independently of the government and mostly get their funding through donations. According to Pyone et al. (2014), the program was only to run for 14 months there was no continuity in terms of paying the TBAs for their new roles. The NGOs and governments in LMIC need to work together to support and integrate TBAs into a more permanent role in the health care service delivery infrastructure.

Kayombo (2013) suggested that training TBAs will have a positive impact on reducing maternal mortality. The author stated that TBA training should not be a one-time project; there is a need for follow up. The author further suggests that formal and informal health care should be linked, and that formal health care should break down barriers hindering that linkage by building trust, transparency, and tolerance between formal and informal health care.

Researchers have observed that TBAs are being trained to change their role from delivering babies to only doing referrals (Pyone et al., 2014). The transition could be a good step to improving maternal healthcare in rural areas. However, my study shows that if changing the TBA role is to be successful, then there is a need to improve rural infrastructure, such as roads and accessibility to health care facilities. The TBAs from the current study are more than willing to refer but are faced with the challenges mentioned above.

Participants in the current study also showed that they did not get much in return for services offered. The job they do is mostly voluntary, for which they get paid only sometimes, and if paid, it could be in kind. Also, the TBAs are not answerable to anyone, meaning they do not have an organized structured or oversight. They just respond when called upon in the best way they can. TBAs in studies by Mahiti et al. (2015) and Sialubanje et al. (2015) stated that they at times get overwhelmed with the work.

TBAs are now seen as a source for improving maternal health in rural areas. Byrne et al. (2016) suggested a model that will assist with the improvement of maternal health in Kenya, a link whereby TBAs work with formal health care providers. This will address the challenges TBAs face while assisting mothers. The TBAs' role is gradually transforming, and to support a smooth transition, there is a need to assist them by eradicating the challenges they face as they work to sustain the maternal health care in rural areas.

Evolving Health Care

In the current study, TBAs built links with formal health care providers in their communities. TBAs acknowledge that these providers are more knowledgeable than they are regarding the work they do in helping women during childbirth. However, the authors have reported that TBAs especially those who had not been trained may be uncomfortable working with formal health care provider, (Mahiti et al., 2015; Oshonwoh Ferdinand et al., 2014; Rishworth, Dixon, Luginaah, Mkandawire, & Tampah Prince, 2016). Some of the authors

also stated that the untrained TBAs felt that they were not being respected by formal health care providers, despite their effort of referring their clients to them.

Elsewhere, as the TBAs transition from traditional to modern practices, Dietsch (2010) revealed that in western Kenya TBAs felt the formal health care providers were taking over their roles and were not respecting them whenever they took women to the hospital. However, my findings differed. Both the trained and untrained TBAs appreciated the formal health care providers and how they were treated. The TBAs also stated that the formal health care providers supported them by providing supplies and training.

With regard to the TBA's relationship with her family, other health workers, and the community, my findings show that the TBAs did not work in isolation.

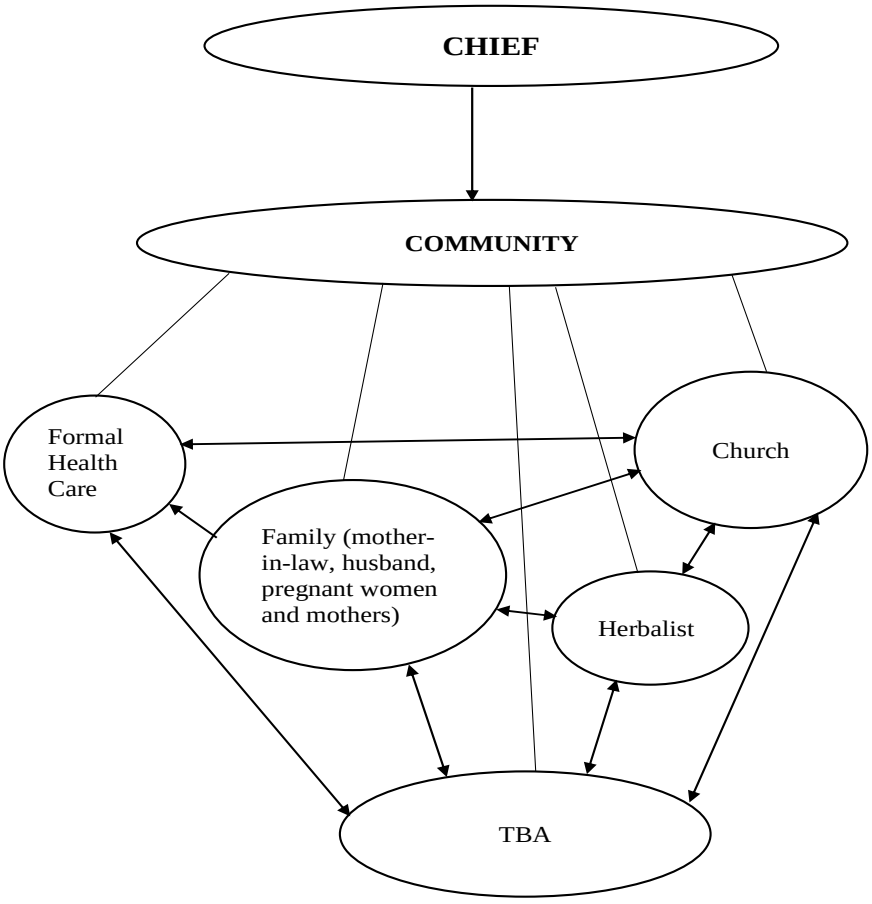

Figure 2. TBAs' Network of Collaboration

They collaborated with both formal and informal healthcare providers, including their fellow TBAs, herbalists, formal health care providers, and other members of the family and community, such as the mother-in-law. Such collaboration enabled the TBAs to build a strong, trusting relationship within their community.

Figure 2 shows the extent of the TBAs' interactions and relationships with members and institutions within the community. The chief is the leader and is in

charge of the community. TBAs are part of the community and collaborate with all the mentioned players. The families, TBAs, and herbalist attend church. The church has women's groups that give support to the pregnant mothers; as well, the TBAs usually connect vulnerable pregnant women to these groups in the church. The women's groups also advise pregnant mothers and women on the benefits of utilizing the formal health care services. The TBAs usually refer their clients to the herbalist and formal health care providers. It is through the TBAs that mothers are connected to the herbalists and health care providers. The herbalists also serve the whole family which consults with the herbalist for other illnesses.

Participants in the current study only conducted deliveries and administered herbs to the newborn. Whenever the TBA was faced with a challenge, she called upon a more experienced TBA to assist. TBAs worked as a team and recognized and looked up to their seniors in the field. They usually referred women to the specialists as needed. Other authors showed that TBAs are also herbalists, and they administer herbs to both the mother and the newborn (Byrne et al., 2016; Mahiti et al., 2015). Another study conducted in Kenya indicated that the majority of the TBAs managed pregnancy complications using herbs (Kaingu et al., 2011). Hence, the role of the TBA varies according to local needs and customs.

Limitations of Study

The current study was an exploratory naturalistic inquiry into the experiences of the five TBAs. No generalization can be made from this small number of participants. However, the findings are the groundwork for future investigations concerning the contributions and perceptions of TBAs regarding maternal health in rural Kenya.

The setting of the study was Uasin Gishu County, an area mostly populated by one ethnic group, the Kalenjin who share cultural values and practices and speak a dialect that is different from those of other ethnic groups in the country. Therefore, the views of the participants did not necessarily represent the views of other TBAs from other communities. However, the findings do call for further research to improve the maternal health in rural areas of LMIC. There was also the risk of bias because I am well aware of the community's culture. This might have also influenced how the participants responded to my questions.

Recommendations

This study raised possible recommendations for future research on how to engage the TBAs more on matters concerning maternal health in rural Kenya. Moreover, also to involve the TBAs by listening to them and getting their ideas on how to improve maternal health. Due to the TBAs' significant role, the government needs to consider compensating their hard work. The government of Kenya needs to improve infrastructure, such as roads and health facilities. This will make the work of the TBAs easy and they will be able work more efficiently.

In order to implement these recommendations, the government needs to construct good roads, equip clinics with enough supplies and materials to safely conduct deliveries, employ appropriate health care personnel, and provide the clinics with an ambulance that can transport complicated cases to major hospitals.

To smoothly transition TBA work from traditional to modern ways, there is a need to recognize and incorporate these community health workers into the formal health care system. This could be achieved by training, follow-up, and working with them to reduce child and maternal mortality in rural Kenya. Because TBAs are highly valued and respected in rural areas, the formal health care system should work with them to educate women about maternal health. Finally, the study expressed the need for further research into the experiences of the TBAs to help create a linkage between the formal and informal health care. Implementation of these recommendations will contribute to the improvement of the work of TBAs and the health of mothers in rural Kenya. The findings will lay the ground work in which the policy makers will use to developing policies concerning maternal health in rural areas.

Conclusion

The experiences and perceptions of TBAs contribute important information that policy makers and future researchers need to consider. The findings of this study lay the basis for future in-depth studies of the contributions and perceptions of TBAs regarding maternal health in rural Kenya. Specifically, further investigation into the role of TBAs and strategies to enhance their

effectiveness and capacity to partner with the formal health care system would be useful. The findings from this study could be transferred to other TBAs from other communities because they share similar roles of assisting women during their pregnancy period. Ideally, such knowledge would be widely applicable and would facilitate improved mother and child birth outcomes. The TBAs' commitment and dedication to their work must be considered by the community and the formal health care system. This can be achieved by educating and integrating the TBAs into the formal health care system.

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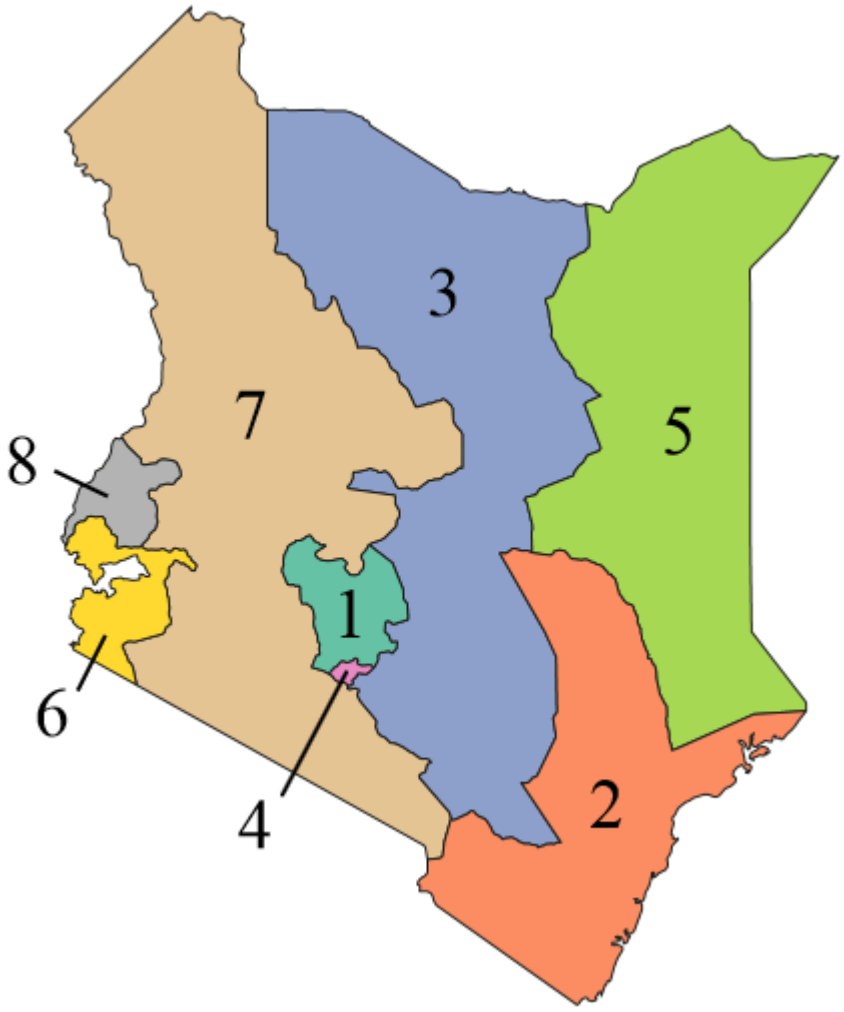
APPENDIX A
LOCATION OF STUDY



Retrieved from http://en.wikipedia.org/wiki/Provinces_of_Kenya

The setting of the study was area number 7 which is Rift Valley province.

APPENDIX B
LETTER OF INTRODUCTION

To the Local chief (Location)

Thank you for giving me this opportunity to conduct my study in your location. I am a graduate student currently attending the University of Lethbridge. I have come to Kenya to do my study concerning the experiences of traditional birth attendants in your location. I intend to visit the traditional birth attendants and interview them. As a Kenyan citizen, I am fully aware of the challenges that the women undergo in the community during their pregnancy. I believe that this study will be beneficial to the women and mothers living in rural Kenya.

If you have any concern kindly feel free to contact me Esther Sang (M.Sc. Student and principal investigator) or my supervisor Dr. Jean Harrowing (teacher), Faculty of Health Sciences, University of Lethbridge at 403-394-3944 or the Office of Research Services, University of Lethbridge (phone: 403-329-2747 or email: research.services@uleth.ca).

Once again I appreciate your time assistance for allowing me to talk to the traditional birth attendants in your location.

Yours sincerely

Esther Sang
MSc Student,
ec.sang@uleth.ca

APPENDIX C
POSTER

Hello women, are you a Traditional Birth Attendant? Would you like to participate in a research study?

I am interested in talking with you about your experience working as a traditional birth attendant in rural Kenya!

500 Kenyan Shillings Gift

To learn more about this study, please feel free contact **Esther Sang @ 0724**------ if you are interested in learning more about this study.

Poster (Kiswahili copy)

Habari wanawake, Je wewe ni

Mkunga na ungependa kushiriki katika utafiti?

Mimi ningependa kuzungumza na wewe kuhusu uzoefu wako katika kazi ya ukunga katika maeneo ya vijijini Kenya! Utapewa Shilingi Mia Tano kama zawadi

Ili kujifunza zaidi kuhusu utafiti huu, tafadhali jisikie huru kuwasiliana na Esther Sang Katika nambari 0724 ------

APPENDIX D
INFORMATION LETTER

Dear Participant:

My name is Esther Cherotich Sang and I am studying Health Science at the University of Lethbridge, Canada. I invite you to take part in an interview about your perceptions and experiences of working as a traditional birth attendant (TBA) in rural Kenya. I will be thankful for any help that you can give me.

I will ask you questions and this will last for about one hour. The interview will take place where you feel at ease. If you don't want to answer any of the questions please feel free to stop me. It is okay if you don't want me to go on asking you any questions or do not want to talk about it anymore.

I would like to record what you say on a tape recorder so that I can listen to it later, and write down what you say. What you tell me will only be known to my teacher and me. In case you feel uneasy and do not want to answer any questions, I can rub out what you said in the tape. After listening to the tape, I will write down your answers and then rub out what you said in the tape.

If you feel uneasy after the interview because of the answers you gave me and want to talk about it please let me know so that I can provide support. If you would like to talk to someone other than me, I will do my best to get help for you from someone else who will be able to help you. I will ensure that all necessary steps will be taken to ensure your safety and comfort during the interview.

Your responses are very important and may be used in the future for planning by the Health Ministry of Kenya and also to help women during pregnancy.

I will not write your name so that other people will not know what you said. Anything that will identify who you are will be changed when I write it down. I will put all together what you have said and will not tell your name. I will only write about your experience as a traditional birth attendant in rural Kenya. I will also keep the papers with your personal details locked up for five years after which they will be destroyed as confidential waste.

If you decide to take part in the study, you will be given 500 shillings for your time and trouble. However, you are free to withdraw from the study at any time for any reason. If you do this, all that you have said will be destroyed, and you will be allowed to keep your 500 shillings.

If you have any questions about this study, please contact Esther Sang (M.Sc. Student and principal investigator) or Dr. Jean Harrowing (teacher), Faculty of Health Sciences, University of Lethbridge at 403-394-3944. Any questions regarding your rights as participant in this study can be directed to the Office of Research Services, University of Lethbridge (phone: 403-329-2747 or email: research.services@uleth.ca).

APPENDIX E
CONSENT FORM

I agree to participate in this study

a) Yes
b) No

I agree to be recorded during the interview

a) Yes
b) No

I wish to receive a copy of the findings

a) Yes
b) No

Esther Sang has told me about her study on the experiences of working as a TBA in rural Kenya, and I agree to help her to answer the questions I want to answer.

Your signature below means that you happily agree to take part in this study.

Signature Date

Signature of Researcher Date

Contact information for transcribed interview and/ or summary of the findings: _____

APPENDIX F
INFORMATION LETTER (KISWAHILI COPY)

Ndugu Mshiriki:

Jina langu ni Esther Cherotich Sang na Mimi nina somea Sayansi ya Afya katika Chuo Kikuu cha Lethbridge, Kule Canada. Mimi ningependa kuwakaribisha katika mahojiano kuhusu mitazamo yako na uzoefu wa kazi kama mkunga katika maeneo ya vijijini Kenya. Nita shukuru sana kwa ule msaada utakapo nipea katika ilisomo.

Mimi ningependa kukuhoji na hii itadumu kwa saa moja. Mahojiano utafanyika penye utahisi kuwa ni salama kwako. Kama hauhisi kujibu maswali tafadhali jisikie huru kunipasha. Ni sawa kama wewe hauhisi kujibu maswali yoyote.

Ningependa kurekodi makubaliano yako ushiriki katika utafiti huu.

Pia ningependa kurekodi nikitumia kinasa sauti ili niweze kusikiliza baadaye, na kuandika mtakayo niambia.Yote mtakayo niambia yatajulikana kwa mwalimu wangu na mimi. Baada ya kusikiliza mkanda na kuandika majibu yako nita vuta yote uliosema katika mkanda.

Kama wewe kujihisi vibaya baada ya mahojiano unaweza kunisimamisha na kama unataka mtu wa kusemesena naye tafadhali uko nahuru kuniambia hili niweze kutoa msaada. Kama ungependa kuzungumza na mtu mwingine zaidi ya mimi, nitafanya juhudi kupata usahidizi kwa ajili yenu kutoka kwa mtu mwingine ambaye atakuwa na uwezo wa kukusaidia. Mimi kuhakikisha kwamba hatua zote muhimu zitachukuliwa kuhakikisha usalama wako na faraja wakati wa mahojiano.

Majibu yako ni muhimu sana na inaweza kutumika katika siku zijazo kwa ajili ya kupanga na Wizara ya Afya ya Kenya na pia kusaidia wanawake wakati wa ujauzito. Majibu yako pia inaweza kutumika wakati nikifundisha wanafunzi wa chuo au chuo kikuu kuhusu kazi ya wakunga.

Mimi sita haandika jina lako ili wengine wasi jue nini uliosema. Chochote ambacho kutambua itaondolewa wakati ninapo andika chini. Nami nita kusanya yote umesema na sita taja jina lako. Mimi nita andika tu kuhusu uzoefu wako kama mkunga katika maeneo ya vijijini Kenya. Mimi nami nitalinda, maelezo yako binafsi na nitafunga kwa ufuli kwa miaka mitano baadaye nitaziangamiza kama taka siri.

Kama wewe umekubali kuchukua sehemu katika utafiti, nitakupa shilingi mia tano kwa kukushukuru kwa muda wako. Hata hivyo, ukijihisi kutoendelea na mahojiana bado utaruhusiwa kuweka hiyo pesa.

Kama una maswali yoyote kuhusu utafiti huu, tafadhali wasiliana Esther Sang (M.Sc. Mwanafunzi na mkuu wa uchunguzi) au Dr. Jean Harrowing (mwalimu), Kitivo cha Sayansi ya Afya, Chuo Kikuu cha Lethbridge katika 403-394-3944. Maswali yoyote kuhusu haki zako kama mshiriki katika utafiti huu inaweza kuelekezwa kwa Ofisi ya Huduma za utafiti, Chuo Kikuu cha Lethbridge (simu: 403-329-2747 au barua pepe: research.services@uleth.ca).

Wako mwaminifu

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APPENDIX G
CONSENT FORM (KISWAHILI COPY)

Mimi ninakubaliana na kushiriki katika utafiti huu

a) Ndiyo

b) Hapana

Mimi kukubaliana na kuwa kumbukumbu wakati wa mahojiano

a) Ndiyo

b) Hapana

Napenda kupata nakala ya matokeo

a) Ndiyo

b) Hapana

Esther Sang ameniambia kuhusu utafiti wake juu ya uzoefu wa kufanya kazi kama ukunga katika maeneo ya vijijini Kenya, na nakubaliana na kumsaidia kujibu maswali nataka kujibu.

Sahihi yangu chini ina maanisha ya kwamba mimi ninakubaliana kushiriki katika utafiti huu.

Sahihi Tarehe

Sahihi ya Mtafiti Tarehe

Kuwasiliana na habari kwa ajili ya mahojiano na au muhtasari wa matokeo

Namba ya Simu au barua pepe

APPENDIX H
DEMOGRAPHIC INFORMATION FOR PARTICIPANTS

1. Age
    a) 20-30
    b) 31-40
    c) 41-50
    d) 50 or above

2. Highest level of formal education that you have attained (check only one answer)
    a) Primary
    b) Secondary
    c) Polytechnic
    d) University
    e) Did not attend

3. Ethnic or cultural group ----------

4. Religious affiliation ----------

5. Marital status
    a) Single
    b) Married
    c) Separated
    d) Divorced
    e) Widowed

7. How many women do you attend monthly? ----------

8. How long have you been working as a TBA?
    _____

9. Do you have children?
    a) Yes
    b) No

    If yes, where were they born and who attended the delivery?_____

APPENDIX I
INTERVIEW GUIDE

The following interview questions will serve as a guide during the in depth interview. Note that further probing questions will be generated based on participants' responses in the course of the discussion.

What are your experiences of working as a Traditional Birth Attendant in rural Kenya?

1) I am interested in understanding as much as possible about your experience as TBA. I would like you to share your thoughts about what it has been like for you to be working as TBA. What do like most about your work? Can you tell me about your most memorable moments as a TBA? May I know if there is any health facility in your village- are you currently working with them or do you intend to work with them-why or why not?
2) What do you like about the formal health care system? What don't you like about the formal health care system? May I know why you want to work or not work with the formal health care system?
3) What is it like to work with someone from the clinic or dispensary?
4) Can you tell me something about the maternal health situation in this community?
5) Are you aware of deaths that occur as a result of pregnancy complications? What happened?
6) May I know some of the measures you have been taking to prevent or reduce those maternal health complications?
7) What is your relationship with the community? How do they perceive your work as a TBA- do the services you provide meet their health needs?
8) In your working experience of helping the mothers and infants how do you recognize complications when attending to them?
9) May I know your thoughts on how to improve maternal health care in this community?
10) Some women prefer deliver alone, others go to clinic. What would be your advice for such a woman concerning where to have her baby?