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**FACTORS INFLUENCING UTILIZATION OF SKILLED DELIVERY
SERVICES IN JOMORO DISTRICT IN THE WESTERN REGION OF
GHANA.**

BY

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DECLARATION

I, Samuel Nyarko, do hereby declare that with the exclusion of references to the literature and works of other researchers which have been duly cited, this proposal is the result of my original work.

Samuel Nyarko.

Mr. Kwabena Opoku-Mensah.

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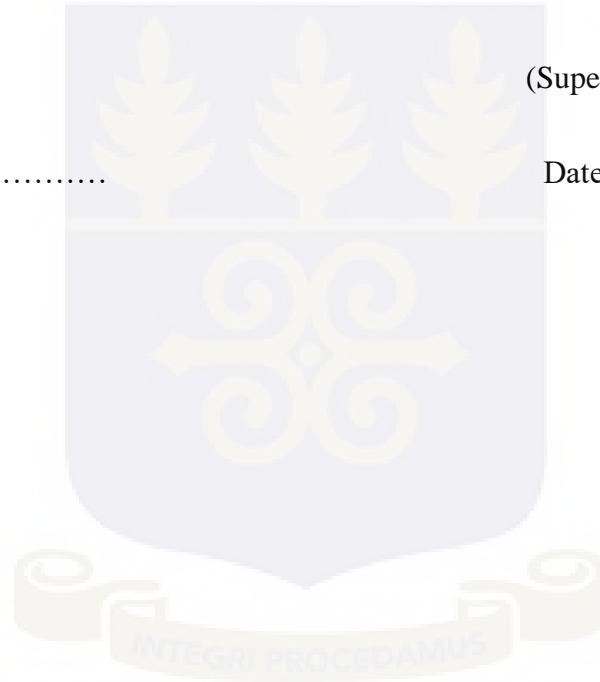
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(Student)

(Supervisor)

Date:

Date.....



DEDICATION

This is to my loving wife, Mrs. Emelia Afiba Nyarko and lovely sons Kwaku Nyamekye Nyarko, Yaw Nyameye Nyarko and my mother Amma Akomah.



ACKNOWLEDGEMENT

Grateful “I AM”, God Almighty thanks for your heavenly mercies that have seen me through this course. I also especially owe Mr. Kwabena Opoku-Mensah, my supervisor, and Dr. Donne Kofi Ameme who read through the manuscript and offered very useful corrections and references for this final dissertation.

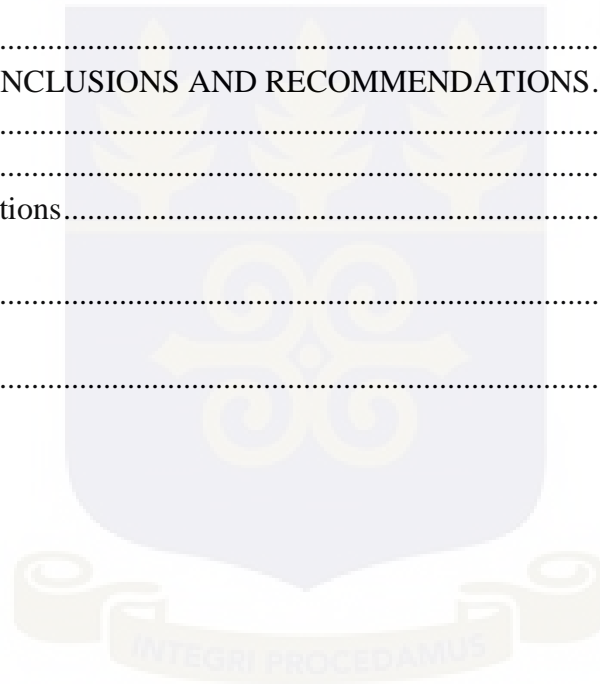
Similarly, I am very grateful to all the lecturers of the School of Public Health, Legon especially those in the Social and Behavioral Sciences Department for their collective assistance complimented efforts to my completion this course and dissertation. I must also acknowledge, with gratitude and appreciation, the assistance and encouragement from Mr. Paul Agyakwa and Dr. Jonathan Mensah both of Half Assini Government Hospital who motivated me throughout this course.

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LIST OF ABBREVIATIONS AND ACRONYMS

ANC	Ante-Natal Care
BEmOC	Basic Emergency Obstetric Care
CHAG	Christian Health Association of Ghana
CHPS	Community-based Health Planning Services
CHN	Community Health Nurse
CHW	Community Health Worker
CS	Caesarean Section
CWC	Child Welfare Clinic
DHS	Demographic and Health Survey
EmOC	Emergency obstetric care
FDG	Focal Group Discussion
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GOG	Government of Ghana
KHC	Kikoneni Health Center
MHS	Maternal Health Survey
MDG	Millennium Development Goal
MOH	Ministry of Health
MMR	Maternal Mortality Ratio
MICS	Multiple Indicator Cluster Survey
NHIS	National Health Insurance Scheme
NGO	Non- Governmental Organization
NCD	Non-Communicable Disease
OPD	Out-patient Department
PNC	Post-Natal Care
RCH	Reproductive and Child Health
SBA	Skilled Birth Attendant
SSA	Sub- Saharan Africa
TBA	Traditional Birth Attendant
UN	United Nations
UNICEF	United Nations Children Fund
UNFPA	United Nations Population Fund
USAID	United State Agency for International Development
WHO	World Health Organization

ABSTRACT

Background: A delivery is measured skilled when it is done by a certified professional such as a midwife, doctor or a nurse, who can manage normal pregnancies, childbirth and immediate postnatal period, and to identify, manage and if indicated, or refer women and newborns with complications. Women in Sub-Saharan Africa lack skilled health care during gestation and delivery, with majority delivering at home by traditional birth attendants (TBA).

Several factors prevent women in SSA from finding quality health care services from the formal sector due to deprived access to health facilities and poor roads, transportation lack, poverty, cultural practices, poor knowledge, and poor quality health services. This is similar to the situation in the Jomoro district. The aim of the study was to identify the factors that influence skilled delivery services in Jomoro district.

Methods: A cross sectional study was carried out on the factors influencing utilization of skilled delivery services among women between 18-49 years. Simple random sampling method was used to select eighteen Child Welfare Clinics, three in each sub-district in the district. Purposive sampling method was used to select mothers who have children less five years. Structured questionnaires were used for data collection. The data were analyzed using STATA Version14. Univariate analysis was conducted and the results were presented in frequencies, percentages, tables and figures. Association between

skilled delivery and related factors were determined at 95% confidence interval and level of significance of $P=0.05$ and the results are presented in tables.

Results: Most (about 43%) of the respondents for the study fell within the 25-34 years age group. Christians formed (79.95%) among all respondents. Although, it may seem majority of respondents (58.56%) who had skilled delivery were Primary/Junior High graduates, respondents with tertiary education 15(4.0%) out of which 13 out of every 15 females with tertiary education, (86.7%) were delivered by a skilled personnel. The overall skilled delivery usage among respondents was 61.6% and 38.4% used the unskilled services of traditional birth attendants (TBA) and close relatives. Others also did self-delivery.

This study did not find any cultural or religious beliefs that hinder utilization of skilled delivery services in the Jomoro. Most participants were pleased with the attitude of staff describing them as having very good attitude (54.8%). On the other hand some said staff attitude was poor, describing them as insulting and unfriendly. Poor attitude seems to deter mothers from using skilled attendant services. Most participants said staffs attitude has encouraged them to use skilled delivery services. Others include shouting at pregnant women, extortion of money and items such as soap Dettol and detergents for delivering skilled services. On cost of service delivery across the Jomoro district, about (33.4%) of respondents had free maternal health care for skilled delivery services. The majority (about 66.6%) paid for services ranging between (¢20.00 to ¢440.00).

Conclusion: The results therefore indicate there is low patronage of skilled delivery services in the Jomoro district.



CHAPTER ONE

INTRODUCTION

1.1 Background

A delivery is measured skilled when it is done by a trained qualified person normally, midwives, doctors or nurses, with the ability to manage usual pregnancies, child delivery in the first 28 days period, and to recognize abnormalities, manage if present, or do referrals (Graham, Bell, and Bullough, 2001).

The target for the Millennium Development Goal five was to reduce the 1990 record of maternal death by a third by end of year 2015 through the scaling up the number of health facility base supervised births using trained health workers through increasing skilled birth attendants (SBAs). The World Health Organization (WHO) in 2013 estimated that 289,000 lives were lost or succeeding gravidness and child birth, and majority of these deaths occurred in SSA. Globally, Sub Saharan Africa (SSA) leads in pregnancy related mortalities and child births, out of every 100,000 births, 510 maternal deaths occurs in the world, mostly from avoidable or poverty related reasons (WHO, 2015).

Most SSA women do lack professional health care services during pregnancy and child birth and are predominantly delivered at home by TBAs. TBAs are mostly women who conduct childbirth and initially attaining their skills by delivering new born or through learning from other TBAs. However, The TBAs are classified not skilled because they cannot identify early danger signs and to manage difficulties that may occur in less than 15% of babies delivered (Caulfield et al., 2016).

There are several factors which inhibit women in SSA from finding quality health care services from the official sector include geographical access to health facilities and poor road network, lack of transport, poverty, bad cultural norms, misinformation, and poor quality health care services (Caulfield et al., 2016).

The year 2008 recorded global maternal deaths of 358,000, of which about 99% occurred in developing countries. Fifteen percent (15%) of women who are pregnant are at a higher risk of unpredictable danger or may undergo caesarian section, or may even lose their lives (WHO, 2008).

Due to this, skilled delivery in health facilities is recommended so as to provide early remedies that would reduce the maternal and neonatal death rates. However, high cost of services and hospital admissions particularly with the system of out of pocket payment for health care expenses prevents the use of facility-based health care services, particularly in countries where most clients are forced to pay when they seek health care. It is proven that a high rate of point of care payment contributes to high rate of unsupervised deliveries in these countries. 'Cash and carry' in health is closely related posing an augmented risk of impoverishment and devastations, for the most parts in low income countries (Douangvichit, Liabsuetrakul, & Mcneil, 2012). Skilled delivery is generally low especially in developing countries where pregnancy-related mortalities mostly occur (WHO, 2008).

The MDG 5 seeks to address pregnancy-related maternal deaths by two-thirds ending year 2015. In Ghana, attendance to antenatal care is tremendously higher in comparison with skilled delivery. Antenatal care attendance figures in most parts of the country is over 90% coverage whilst skilled delivery is fairly below 65% (Cotter et al., 2016).

1.2 Problem statement

Pregnant women who attend antenatal services are advised to prepare adequately to be delivered at health facility for safer supervised delivery, but most of them choose point of delivery ranging from highly skilled hospital delivery be it normal, assisted vaginal delivery or cesarean section. Other mothers prefer home delivery at the invitation of the Traditional birth attendant (TBA). Some, due to their traditional or spiritual beliefs, indulge the services of herbalist who give herbal preparations at labour to aid quick, less painful and safe delivery in some instances.

Staff attitude could be a contributing factor to skilled or unskilled delivery problem as some midwives do not accept postings to remote health facilities, collecting soap, Dettol and other detergents from pregnant women, and some collect monies after delivery.

According to Nina, Kirkwood, Tawiah-Agyemang, Owusu-Agyei, and Adongo, (2008). mothers choose home delivery due to a wide range of factors, it is cheaper than skilled delivery, it is easily accessible, it is without transportation cost and convenient because the birth attendant could be invited to attend to the woman in labour at home

Some believe Spiritualists have the power to counteract evil forces of witchcraft at labour hence their preference for them during labour. Skilled delivery on the whole is lifesaving to both mother and baby at labour, complications could be identified early and safer methods used to save both mother and baby and referrals made in some cases. In the Jomoro district, in 2013, the expected number of deliveries in Jomoro district was 6499, antenatal registrants during the period was 4931(76.5%), 2049(66%) were delivered by skilled personnel whilst, 1057 (34.0%) were delivered by unskilled persons (DHMIS 2, 2014).

In 2015, antenatal registrants in the Jomoro district were 5006, the total number of skilled deliveries recorded was 2059(67.5%) with 990 (32.5%) unskilled deliveries (DHMIS 2, 2015). This study was conducted based on the low skilled delivery records in the Jomoro district to identify the factors that influence utilization of skilled delivery services. This would help in increase of skilled delivery aimed at reducing maternal deaths and still births to improve on overall mother and child's health.

1.3 Research questions.

Regarding the low patronage of mothers delivering in health facilities in the Jomoro district, the following research questions were asked;

1. What are the maternal factors that influence use of skilled delivery services utilization?
2. What are the community and family related-factors that influence the uptake of skilled delivery services utilization?

3. What are health facility-related factors that influence usage of skilled delivery services utilization?

1.4 Study objectives

The following were the research objectives;

1.4.1 General objective

The general study objective was to identify factors influencing utilization of skilled delivery services in Jomoro district.

1.4.2 Specific objectives

1. To assess maternal-related factors that influence skilled delivery services utilization.
2. To determine the family and community-related factors that influence utilization of skilled delivery services.
3. To determine the health facility-related factors that influence skilled delivery services utilization.

1.5 Justification of the study

Globally, about 60 million females have conception related disability including poor reproductive health, serious or uterine prolapse, recto-vaginal fistulae and barrenness (Alvarez et al., 2008)

Maternal mortality ratio (MMR) in Ghana recorded that out of every 100,000 live births, 350 maternal deaths occur. Provision of emergency and obstetric care has shown to be a solution to effectively reducing these pregnancy-related deaths. Availability of skilled birth attendants would promote utilization, conduction of normal vaginal deliveries and give assistance in a congenial and enabling atmosphere with needed equipment and stock of basic essential drugs availability with prompt referral system, when the need arises, proper transport ambulatory services, including satisfactory knowledge and skills that serves as a prove of skilled services is termed “utilization”.

One of the important pointers for checking targeted indicators for accessing progress for the reduction in the number of maternal deaths (MDG) 5 was health facility-based child births. Nationally, out of every three women who deliver, two are delivered with the support of health facility skilled attendant, but the rate of skilled delivery is higher in urban areas compared to the rural areas (Sakeah et al., 2014)

Developing countries has a high maternal mortality challenge (WHO, 2008). This study would help in identifying the factors influencing skilled delivery services. Findings would be used to improve skilled delivery services in the district. The results of this study will be used to inform policy makers in decision making to help address the problems relating to maternal deaths and still births that result from preventable causes when women are delivered by unskilled personnel.

1.6 Conceptual Framework.

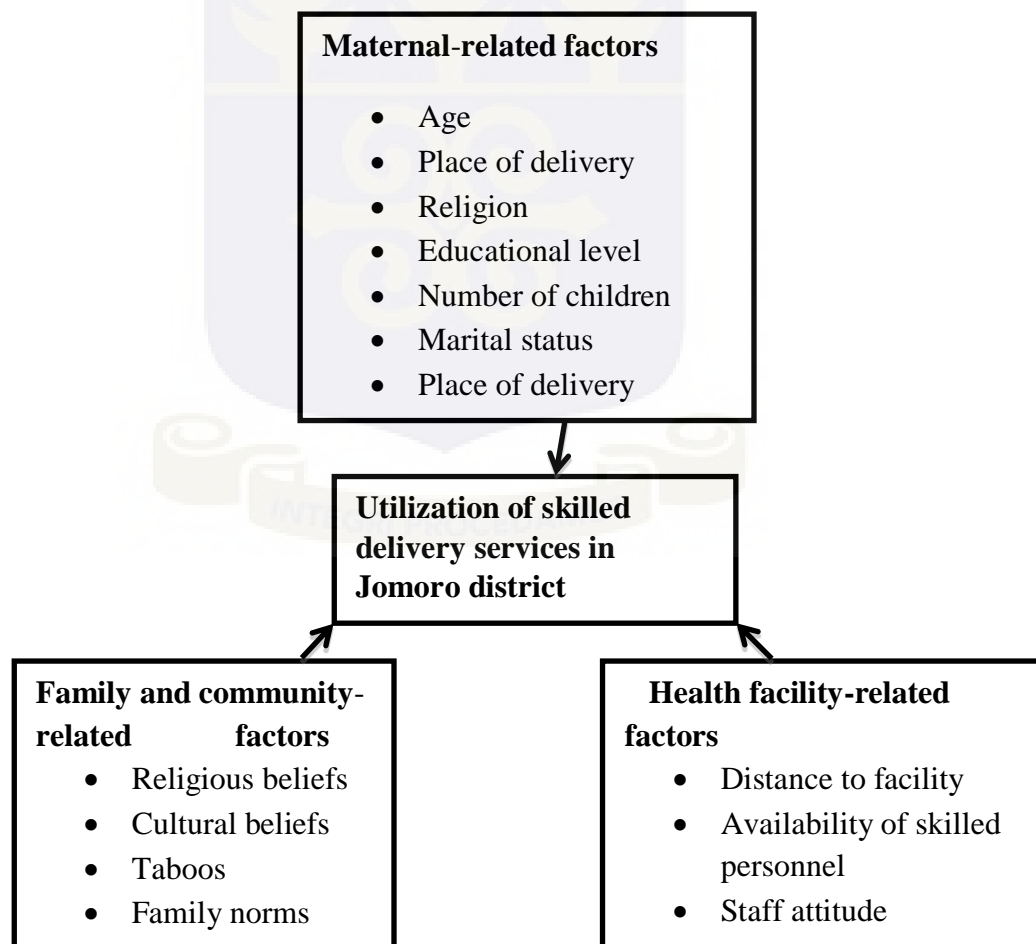
The conceptual framework elucidates how mother-related factors, community and family-related and health system related-factors influence the choice of either skilled or unskilled delivery by pregnant women. An educated woman appears more informed as to the adverse events following unskilled delivery. In an event a TBA delivering a pregnant woman and unforeseen complication should set in during or after labour, this gives her informed decision of choice for the best alternative of being delivered by a skilled attendant, whilst the illiterate may be ignorant of the benefits of skilled delivery and the dangers of unskilled delivery and could choose otherwise with the adverse consequences or risks of being attended by an unskilled person.

Socio-cultural factors such as number of children, marital status and their effects on family income as well as occupation kind can have either positive or negative effects on the choice of point of delivery. Other factors include cultural, which could hinder them from seeking skilled services. Certain religious beliefs also have their merits and demerits when it comes to health seeking behaviours and religious beliefs. Such as use of herbs and strict adherence to only decision by their spiritual leaders. The age of the pregnant woman predetermines the woman's decision as to where to choose when deciding for her delivery service needs. The young teenager is likely to be sent to deliver at a health facility due to fear of complications.

Health facility related factors could also play significant role in the quest to seek either skilled or unskilled delivery services. Geographical access to the facility with a midwife

cost of transportation to convey the woman in labour could be a hindrance to the utilization of the services. Most health staff refuses postings to deprived but needy communities. Some midwives by the nature of their expertise could influence high patronage of skilled delivery services through hard work and encouragement given to pregnant women during antenatal sections. Others due to their bad behaviours scare pregnant women from delivering in the health facilities. High cost of services could be a prohibiting factor to the use of skilled delivery services, some facilities charge unapproved fees for skilled delivery services.

Figure 1: Conceptual Framework on factors influencing skilled delivery service



Source: Student Author.

Conclusion

Globally, about 60 million females have conception related disability including Poor reproductive health, serious or uterine prolapse, recto-vaginal fistulae and barrenness. A skilled is termed when is one done by a trained qualified person normally, midwives, doctors or nurses, with the ability to manage usual pregnancies, child delivery in the first 28 days period, the skilled services consist of the conception period of 36 weeks, delivery of the baby and the immediate care given to mother and baby during the first 28 days of birth.

At antenatal services, pregnant women are advised to prepare adequately to be delivered at health facility for safer supervised delivery, but most of them choose point of delivery ranging from highly skilled hospital delivery being it normal, and assisted vaginal delivery or cesarean section.

The main study objective was to identify factors influencing utilization of skilled delivery services in Jomoro district. High cost of services could be a prohibiting factor to the use of skilled delivery services, some facilities charge unapproved fees and some staff extort monies from women during at delivery.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed literature on previous studies conducted on factors that influence utilization of skilled delivery services. The factors considered under this includes maternal-related factors that influence skilled delivery services utilization, family and community-related factors that influence utilization of skilled delivery services and health facility-related factors that influence skilled delivery services utilization were reviewed.

2.1.1 Maternal-related factors

Studies revealed that there is a critical need to inform mothers, trained TBAs and skilled birth attendants on infection prevention practices during labour and delivery, after delivery, and the importance of the initial postnatal care. It is recommended that having more skilled birth attendants is a sure way to increase safety at birth, identify early abnormalities and call for help during complication and to utilize appropriate evidence-based care (Shahjahan, Ahmed, Rahman, & Afroz, 2012).

2.1.2 Age

In relation to age at which the woman delivers, another work in pastoral India, Punjab, showed that hospital formal deliveries were more seen in ascetically youthful age groups, at 43% for those aged 18-25 related with of 23% for age 36-45 age bracket (Pradhan, 2013).

2.1.3 Education

Women's education has been found to be higher in areas with low MMR with a higher overall good general health of the population. For example, in Kerala and Neuquén both located in India, which are known to have efficient and active health system, regarding skilled care during the prenatal, perinatal and the postnatal periods; and access to potable drinking water have essential support for maternal health. Economic factors are related to the above-mentioned factors and that will be impossible to improve health without considering them. It will be critical to focus on women's education, economic and social empowerment to achieve Sustainable Development Goal (SDG); 1, 3, 4, 5 and 10. It is essential that our efforts to emphasis on to fulfill ach of the (SDG) (Alvarez et al., 2009).

Education plays a very vital role by preparing both female and male genders to make informed judgments about conception and child birth, that may have a substantial reduction on maternal loses, even in nations where women have no say in taking decision. Male education on reproductive health benefits of a woman giving birth with skilled birth professionals is vital, and acknowledges them as family heads that provide financial support for their families and recognizing them as final decision-makers. Couples who make collective decisions concerning their family's wellbeing, are more likely to deliver in a health facility where SBAs conduct deliveries (Caulfield et al., 2016).

In spite of the efforts in many Sub-Saharan countries to reduce the MMR in recent decades, it shows no evidence of decline. This study takes into account a lot of factors

replicating parts of women's position to predict maternal mortality. A number of studies have found a positive relationship with the health care system-related variables as well as educational and economic variables, they must be given equal attention to improve SBA care (Alvarez, Gil, Hernández, and Gil, 2009).

The relationship between education and the outcome suggests that informal adult education for adults can be used to provide basic education and to increase awareness about basic maternity and delivery care. Awareness creation about the use of SBAs among women and men through mass media, and stakeholders must be given a desirable attention. It also concluded that large proportion of rural women do not use SBAs even after receiving ANC services, suggesting that there is a need to improve the quality and follow up with a major emphasis on providing suitable advice on safe delivery, thus proper actions aimed at scaling up ANC service will more likely be followed with delivery assistance services once access is not a limitation (Fekadu and Regassa, 2014).

2.1.4 Parity

Mothers with many children also affect skilled delivery services and care utilization. Such mothers are not likely to deliver in health care facilities or with SBAs (Al., 2013). From a similar study, mothers with more than five deliveries were less likely to deliver with a skilled birth attendance than mothers with first deliveries in the 2000 Ethiopian Demographic Health Survey (Fekadu and Regassa, 2014).

2.1.5 ANC Attendance

The number of times in attending ANC was also a major factor related with skilled delivery or unskilled delivery. High antenatal care visits, raises the probability of health facility birth compared to home. Correspondingly, exposure to social media, such as watching television occasionally, has the likelihood of deliver in a health facility other than delivering at home

(Al., 2013).

Educational indicators have higher means; nevertheless they are not at required levels. One economic indicator, the Kolmogorov-Smirnov assessment survey showed that all variables had normal spreading with the exceptions of Gross National Income per capita and per-capita administrative expenditure on healthcare. Also considering the health system associated indicators, there was a direct relationship between the MMR and infant mortality rates. The educational pointers revealed opposite associations with the MMR with grown-up literacy ratio, as well as with primary female enrolment rate and education index (Alvarez et al., 2009).

2.1.6 Service satisfaction

Contact with apt medical care and health conditions during delivery can reduce the risk of complications and infections that may lead to death or grave illnesses for the mother and baby (Van Lerberghe and Brouwere V, 2001). A woman's perception with admiration to the constant ease of use of a skilled health worker and the suitability of health amenities was associated with a greater option of skilled delivery. The literature offers varied

results in reference to the quality of health service and their effect on the place of women's delivery (Nina et al., 2008).

2.1.7 Geographical Access

Another study showed that the rate of utilization of skilled delivery in Gokana Local Government Area is low. This is similar to a previous study done in a rural community in Nigeria (Nwakoby, 1994). However, value was higher than the national average and is also higher than the national figure for rural areas in Nigerian (Demographic and Health Survey, 2008). This indicates a large difference of service provision for parturition within rural areas of Nigeria. Moreover, lower rates of use of skilled birth services were reported in fewer rural communities in Africa. For instance, literatures from rural areas of Orange Free State in South Africa, Changwe district of Zambia and Kenya were on liked terms in skilled attendance at delivery (Alvarez et al., 2009).

Furthermore, in Laikipia and Samburu in Kenya, women there deliver by themselves as a cultural belief. Some believed that women deliver with ease when alone, giving birth in public would attract 'evil eyes' which could lead to stillbirths, babies would be 'bewitched', baby's blood may be sucked, and or birth attendants may cast a spells on the baby. Their cultural belief is that in the presence of other people, there would be difficulty in delivery of the baby and as such delivering alone is the best traditional option (Caulfield et al., 2016).

2.2.0 Community and family-related factors.

2.2.1 Socio-Cultural Factors

The GDHS 2006 found that social and cultural norms have the possibility of influencing skilled services uptake most ethnicities shone the services of skilled care, even more some religious. Absence of severity regarding cultural norms for females in general deprives them of skilled services. Most seriously, the women's inability to take self-confident decisions but to seek approval from husband or in-laws before attending to skilled are especially when labour sets in, it makes the situation worsen (Esen & Sappor, 2013).

A number of socio-cultural beliefs affect utilization of skilled delivery services, pregnancy is hidden and kept secret by women for a possible length of time and is considered dangerous and vulnerable time especially in the early trimester; it is sometimes equated with a state of illness. Most women questioned in the study reported feeling disruptive during pregnancy, arguments with their husband over flimsy issues, "thinking too much," Relocation during pregnancy was also mentioned; as staying with relatives for support in the third trimester of the gestation. Fears were described, additionally illness and even death during labour. Responses were that at labour is a life threatening issue. Culturally, home birth is valued highly. The majority of women in the birth cohort gave birth at home (Nina et al., 2008).

Misfortune was associated with mothers who deliver at the health facility, most especially with Cesarean sections whilst home delivery with less support is associated with luck or talent. Also, a woman who delivers at the health facility is associated with

infidelity. Their notion was that wrongfully giving a pregnancy to another man is the cause of health facilities delivery (Nina et al., 2008).

One TBA stated: “When a woman falsely gives responsibility for the pregnancy, and is in labor, she cannot deliver until she tells the truth. When the woman lies of her pregnancy, delivery becomes very difficult. And I will tell her, ‘you caused your own problems, and should go to the hospital.” Preference for home birth is also rooted in fears about medical operations. A social concept valued highly among women is the ability to “keep the pain” and not cause disruption or appear to need assistance, medical or otherwise. Another said: “Some have easy deliveries. But mine lasts a very long time, but I give birth alone and unnoticed. That is how God gifted me”(Nina et al., 2008).

In another study by Anyait et al.,(2012) on Predictors for health facility delivery in Busia among the indigenous Maasais, if a woman is uncircumcised, it will be done by unskilled by the TBA at labour. So to avoid this women do self-delivery. To prevent being circumcised women choose delivering by skilled health attendant to hide their status from the community as this could result in shame and downgrading their standing in society as women who deliver at the health facility are uncircumcised.

Keeping early stages of labour a secret and self-limiting, hiding the pains from people around you and avoidance of “loose talk” withstanding labour pains. This keeps the woman in labour from attacks by her detractors with witchcraft. In most instances this cultural belief could lead to dangerous outcomes of labour to the extent of both mother

and baby losing their lives because she cannot voice out even if she is in danger (Zone, West, Study, Yegezu, and Kitila, 2015).

Self-delivered women considered it as an achievement that would increase their status in society. A respondent stated 'I delivered one of my children alone so I had it quite easy, but in an instance where you have to be taken to the hospital that is what makes person's delivery difficult' (Nina et al., 2008).

Stigma is attached to a mother who deliver at the health facility, whereas home delivery is considered as the best even when the woman delivers all by herself (Nina et al., 2008). Most ethnic Ugandans considers the after birth as a second child, and as such as special rituals are made to dispose it off by the traditionalist. Proper and the rituals is associated with luck and fruitfulness. Doing otherwise is associated with calamities or even loss of the newborn baby. So the placenta being a self-determining factor of choice for the woman and her relatives as to where to deliver (Anyait, Mukanga, Oundo, and Nuwaha, 2012).

2.2.2 Fear of Hospital Environment

Most rural deprived communities have the fear factor of the hospital setting. Such women are the unfortunate needy of skilled services. They usually need care, encouragement and support from the health care workers, because they are the very ones not familiar with the health facility environment which scares them from seeking skilled care and delivery (Zone et al., 2015).

2.2.3 Staff Attitude

Furthermore, customer rights, satisfaction and agreements are very important in the health delivery system. Maternal preferred positioning during delivery is the most important aspect that leads to acculturation of local traditional ways of delivering care into orthodox medicine. It is prudent to train our skilled personnel to learn and adopt healthier culturally acceptable methods of positioning preferred by each client if it will improve on skill care and promote healthier mother and baby's life during labour (Douangvicit et al., 2012).

Also, health education given at ANC and the general public should focus on the complication that can occur unpredictably in pregnancy. Finally midwives could ask the laboured women or their relatives attending to them their most acceptable way of placenta disposal (Anyait et al., 2012).

2.2.4 Family Norms

Both Jansen and Geurts found that decision making about place for childbirth either home or health facility was a difficult process that mainly involved the woman's older female relatives and in-laws. Jansen noted that older female relatives used rational judgments to weigh the probabilities of risks, benefits, and returns related to their cultural, spiritual, and social system. Other factors were unfriendly skilled staff and disrespect for women from rural and remote areas (Zone et al., 2015).

2.3 Health facility-related factors

2.3.1 Service Satisfaction

The quality of health care is a major contributor that influences service utilization. A well-endowed contemporary setup whether private or public, attracts its clients based on this assertion of going to where they would find quality and skilled providers. A study in Nigeria on Utilization of skilled birth attendance revealed that skilled professional doctors and midwives who offer 24-hour services keep on attracting clients regardless of their facility cited in a remote town of Chitwan where the infrastructure is beautiful and installed with modern basic equipment that can deliver acceptable comprehensive health care (Adewemimo, Msuya, Olaniyan and Adegoke, 2014).

2.3.2 Health Insurance Status

Out of pocket payment or ‘cash and carry’ for ANC has been found to be more frequent when compared with that of skilled delivery. The chances for a facility birth are dependent on the number of times the pregnant women attend pregnancy school and ANC. In another study, maternal deaths were found to be associated with complications at delivery in women who did not patronize ANC and so did not relevant education and specialist’s advice reach them (Taguchie et al., Yanagisawa et al., 2006; Enuameh et al., 2016).

Another revealing insight is that the determinants of patronage include the possession of valid health insurance access card, the wealth of the client and the level of social recognition they hold in their community as well as the relationship they have with the

health workers. This seems external but vital factors do influence place of choice when seeking skilled delivery service provision (Sakeah et al., 2014).

Health care professionals should convey very important and convincing health promotional messages that lead to behavioural change that improves skilled attendant. They also confirmed the finding of the study in Ghana, Kintampo, Dodowa and Navrongo where socio-economic status and validity of NHIA cards were associated with uptake of skilled delivery attendance (Enuameh et al., 2016).

2.3.3 Availability of Midwife

One community Health Worker narrated that they leave you alone in your pains at labour in the health facility whilst the TBA will be by you throughout and help you deal with your pains. This perception is a reflection of understaffing at KHC, especially laboring during the day is rather more frustrating as the skilled attendant combines general OPD duties. As a result of multiple activities, it is unusual for a woman in labour to be under medical care of KHC spends much of her labour period without a skilled attendant in the labour ward (Cotter et al., 2016).

Efforts aimed to building a healthier community consciousness and awareness about skilled staff and their care, and ensuring the good performance of health care, facilities have been careful selected to vitalize and to improve skilled maternal services in the study area. These interventions should target deprived women who need but lack these services Provision of good ambulatory services for labored women, proper health

education and health promotion activities has likelihood of improving skilled delivery services (Douangvichit et al., 2012; Worku, Yalew, and Afework, 2013).

2.3.4 Infrastructure and Equipment

In a study in Ethiopia on Factors associated with maternal mortality in SSA, it was apparent that the importance of having new improved infrastructure is a reason for increasing service patronage when people are seeking maternal health care services (Alvarez et al., 2009).

With regards to disadvantaged pregnant women in society and complication they have. Birth preparedness towards skilled delivery becomes the perceived outcome. Also, most expectant mothers consider how welcoming the skilled staff are, their competency and availability of modern equipment, drugs all residing in completely adequate physical infrastructure will influence the choice of skilled health facility delivery. Again women with an hour's reach to the facilities gave birth at the facility (Nina et al., 2008).

2.3.5 ANC Attendance

A Multiple Indicator Cluster Survey (MICS) conducted in year 2011 concluded that 68.4% of women in Ghana were delivered by the assistance of skilled birth attendant which implies that 257,858 women gave birth without qualified skilled services. About 86.6% of pregnant women in Ghana had optional number of visits to health provider during pregnancy for antenatal services (Zone et al., 2015).

Also, healthcare providers were more likely to convince on health facility delivery for those with known risks than those with normal pregnancies. This led to women with normal pregnancies delivering at home in or other settings. ANC services coverage and skilled personnel attending to births have two measures that are always recognized to be vital in reducing the MMR. We often find figures in SSA range between 50% and 80% for these indicators (Alvarez et al., 2009).

In 2008, a research conducted in Bangladesh highlighted the positive correlation between ANC services during pregnancy and the tendency to opt for skilled attendant at delivery. This was confirmed by the revelation that most women who attended more than four visits and those who learnt of the free maternal care package seized the opportunity and had better pregnancy outcomes (Carroli et al., 2008).

2.3.6 Cost of Service

Mothers choose home delivery due to a wide range of factors. It is cheaper in comparison to orthodox method, it is easily accessible and even convenient at the invitation of the TBA into the house of the one in labour, and it is without transportation (Nina et al., 2008).

Skilled delivery seeks to prevent both death and to improve on the health of WIFA and babies. But this service has deleterious financial expenses on family resource, mostly in places where out of pocket payment is the case. This calls for adequate accumulation of

funds to face the challenge of having skilled attendant at delivery (Douangvichit et al., 2012).

Cost of service delivery is a key determining factor when decision making is on choice on place of delivery. Convenience and access to delivery services also counts as at the invitation of the TBA she makes herself available no matter the venue of service (Nina et al., 2008).

It is a very expensive procedure for pregnant women to undergo Caesarian section compared to normal vaginal assisted delivery. Out of every four women who delivery one is impoverish to the level that she cannot afford to pay for skilled services, hence they attached themselves to unskilled services at home (Douangvichit et al., 2012).

killed services disparities are more prevalent in Kanya but better in comparison with Equatorial Guinea where skilled attendance is considerably lowest worldwide. In their findings it is as a result of high cost of skilled services that has influenced high patronage of TBA unskilled cheaper services (Kitui, Lewis, and Davey, 2013).

In Nepal and Pakistan a comparable method was used by two authors whose studies conducted on the average expenses incurred by the kind of delivery among these two countries were in tandem, although both studies were carried out at five years apart. Another study conducted in the Scotland in 2002 considered only cost of Caesarean Section in relation to natural deliveries which confirmed that it far more expensive in

using emergency and obstetric mode of deliver as compared to normal vaginal delivery (Caulfield et al., 2016).

Even in the state of charges for legal services, the trend found in making illegal fees for skilled delivery services to even extending it to family members who accompany pregnant women to deliver. Most maternal and neonate deaths accompanying low patronage in skilled services is mainly as a results of cost of services. Developing countries are the most disadvantaged because of the prevailing high rate of maternal and deaths of neonates as a result of poverty (Borghi et al., 2006; Enuameh et al., 2016).

Although most studies found, NHIS card could influence skilled attendance, in this study, most expectant mother were not ready to take advantage of this exemption policy. Most participants had their expenses born by NHIS others by their employers. Most clients paid their bill with ease and a few complained of the cost as being exorbitant. Others complained of buying decontaminants for sterilization of instruments and disposables when on admission after safely evacuation of their babies and after the birth (Esen and Sappor, 2013).

2.3.7 Geographical Access

Data validation from Kinoneni Health Centre (KHC) provided low skilled attendant falling far below the Kenyan natural targeted rate for 2010. The Kenyan Demographic Health Survey (KDHS) best interpret the disparities in such a facility with lower coverage when compared the cost which is associated with low patronage of skilled

services. In migration of indigenous women to and fro is one important contributing in this province, mainly from Kikoneni Health Centre to Msambweni District Hospital for supervised skilled services KHC do not offer 24 hours service, and most of all, their staff live outside the facility. Poor road network was again a factor which led to clients trekking to KHC. Finally expectant mothers never exclude the habit of reporting first to KHC without planned delivery at the main hospital at Msambweni (Kitui et al., 2013).

Another study found time taken to reach the facility is not a factor to health facility delivery. Its importance finding is that participants who took shorter than 30 minutes to reach the health facility delivered more by skilled health personnel compared to other groups. There was no association between where treatment was sought and health facility delivery. A few of the respondents who seek ANC services at this health facility also delivered at the health facility while majority attended ANC services but did not turn up for skilled delivery (Onyango, 2014).

In this study by Caulfield et al., (2016) it identified buildup to the problem of distance to health as being adequate far, lack of means to reach the hinterlands. The lack of emergency ambulatory services in times of need and poor access roads compounds the already volatile problem. Transportation cost is extremely high from remote cottages to the health facility location. Several factors interplay at the peak of the rains when cost of transporting a labored woman is exorbitantly higher and sometimes cars cannot move because of the bad roads condition. The deprived poor rural have the low skilled delivery outcomes.

In most communities with skilled attendants available in their health facilities, labored women choose to walk to avoid cost of transportation and as such at the early first stage of labour they trek with ease to the facility (Caulfield et al., 2016).

In another study by Adewemimo et al., on Utilization of skilled birth attendance in Northern Nigeria, they found that the factors responsible for unskilled outside health facility delivery include: Extremely long distance to health facility, onset of labour was at night and lack of transportation (Adewemimo et al., 2014).

Results from this study by J. O. Alouch, (2014) on the factors influencing uptake of institutional delivery service by skilled attendants shows that time taken to reach health facility had significant impact on use of skilled delivery care, those taking less than one hour to reach their destination deliver at the health facility. Cost of delivery is associated with place of delivery and delivery assisted by skilled birth attendant. Discernment on quality of care was found to have no significant relationship with place of delivery or delivery assisted by skilled delivery attendant.

2.3.8 Staff Attitude

Aluoch, (2016) in his findings on Factors influencing uptake of institutional delivery are not exceptional or different but rather considered the attitude of skilled workers towards their client as an impediment to achieving skilled health care for pregnant women in Kenya, and most parts of under developing countries. It is apparent that disregard for needs, values and insensitivities to pregnant women by skill staff impede utilization of

maternal care. In Kenya, skilled personnel are mostly not friendly and are mean to pregnant women especially the poor.

Customers of health care services often consider attitude of health workers when determining where to seek medical care. Women often mentioned poor attitude of health workers as a major deterrent for the utilization of health services particularly established skilled delivery. The women reported varied indications. Poor reception, poor provider attitude, poor interpersonal relationship between staff and their clients and not being attended to timely resulting in undue delays were emphasized as being responsible for low supervised delivery rates (Aluoch, 2016).

2.3.9 Conclusion

Considering the three specific objectives of this study, the discussion centered on the findings of authors on similar studies taking into consideration staff attitude, cost involved in skilled services, national health insurance status of expectant mothers, availability of skilled staff, distance to health facility, ANC attendance, infrastructure and equipment. The literature reviewed considered factors that are maternal-related which influence skilled delivery services utilization relating to age, place of delivery, religion and educational level, number of children marital status and place of delivery of mothers. Under family and community-related factors, religious beliefs, cultural beliefs, taboos, family norms were considered. Health facility-related factors considered distance to facility, availability of skilled personnel; staff attitude and cost of services were reviewed.

CHAPTER THREE

METHODS

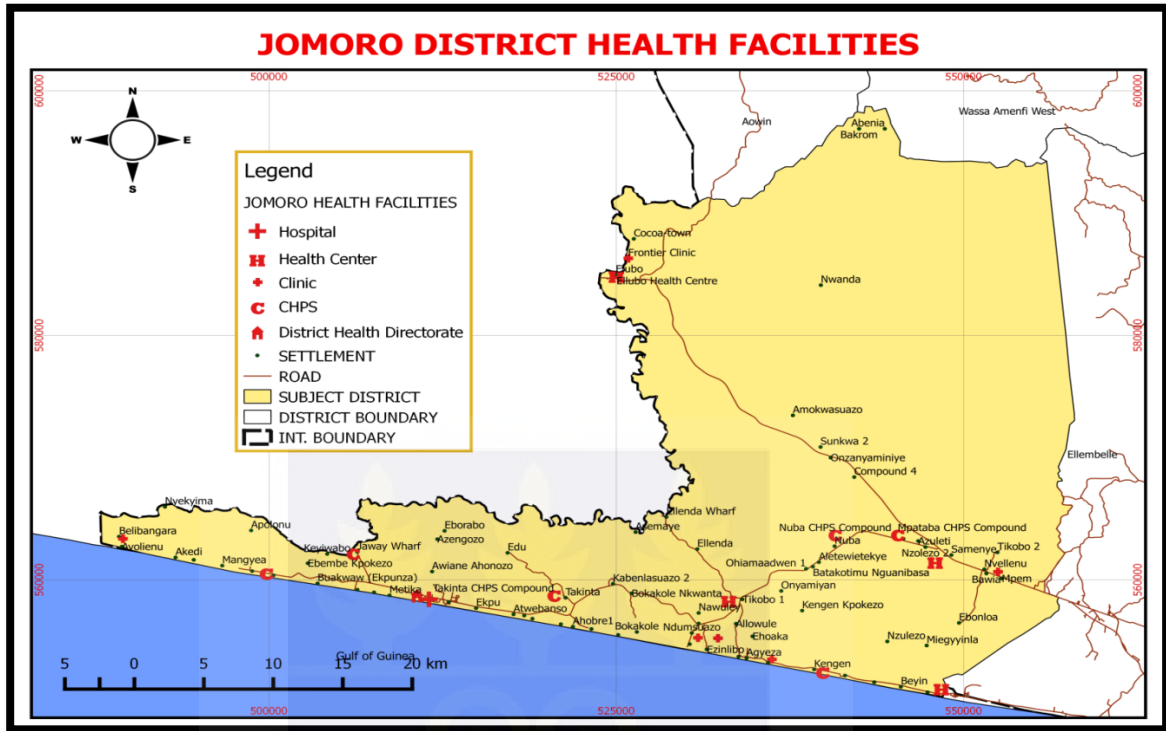
3.0 Introduction

This chapter discusses the study design, population for the study and area, variables, sample size, sampling methods of data collection and processing, sample size determination, data collection and analysis. Ethical issues are also discussed.

3.1 Study area

The study was conducted in the Jomoro district in the south-western part of Western region and shares boundaries with Aowin-Suaman, Wassa Amenfi West districts, the Gulf of Guinea, the Ellembelle District and the Republic of La Cote d' Ivoire in the North, South, East and West respectively. The district has a land size of 1,344sq.km about 5.6% of the total land area of Western Region. The District has a total population of 169,045. Males contribute 49% (82,832) whilst females contribute 51% (86,231). The indigenes are predominately Nzemas and Aowins. However, other minority settler ethnic groups notably, Fantes, Ewes and Ashanti's, are also located in the district. The major occupations of the people in the district are farming, fishing and petty trading. Fishing is the primary occupation of the Fantes and Ewes, whose movement corresponds to the strength of the fishing period.

Figure 2: Map of Jomoro District Showing Health Facilities



Source: Jomoro District Assembly, 2017.

The Jomoro district is officially divided into four Sub-districts namely;- Half Assini, Beyin, Tikobo1 and Elubo sub-districts. However, for easy operational purposes the district has been further demarcated into six sub-districts as one each has been carved out of Tikobo I and Half Assini sub-district. This sub-division was informed by the difficulty in managing the population as a result of the land area. This was and also to ensure effective supervision of service delivery and facilitate effective program implementation in the district. Thus, the Jomoro district is currently operating with six Sub-districts namely;- Half Assini East and West sub districts, Beyin, Tikobo I, Tikobo II and Elubo sub-districts The core mandate is to reduce inequalities in access to health care; improve

coverage, quality and use of health services including skilled delivery through periodic monitoring, supervision and evaluation of activities in all health facilities.

The district had thirty-seven (37) facilities reporting on services delivered within their catchment areas comprising eighteen functional CHPS, two public community clinics, two private clinics, four health centers and one public hospital. These services are rendered in public; community- donated and rented structures and outreach points. It has a total of 37 health facilities comprising one Hospital, four Health Centers, three Community Clinics, one Private Clinic, one Christian Health Association of Ghana (CHAG) facility and twenty-seven (27) Community Health Planning and Services (CHPs) with seventeen (17) Midwives four (4) Physician Assistants and three (3) Medical Doctors managing these facilities at various levels. Only ten of the facilities in the district offer skilled delivery services.

3.2 Study design

The study was cross sectional, using quantitative method.

3.3 Study population

The target populations of this study was mothers of child bearing age between (18-49) years with two children or more who were delivered in the Jomoro district. This population was targeted due to the perceived encounter with multiple birth attendants, with varied experiences and would be able to give useful information for this study. Data

from the district also showed low uptake of skilled delivery services among this population hence the need for this study.

3.4 Sample Size Determination.

The sample size of the study was determined by adopting the formula by (Daniel, 1999).

According to him it is determined by:

$$n = \frac{Z^2 p (1-p)}{d^2}$$

Where: n = sample size

Z = Z statistic for a level of confidence: 1.96

P = expected prevalence or proportion: 0.24

d = precision: 5% margin of error ($d=0.05$)

DHIMS reports on deliveries recorded unskilled delivery rate of 32.5% last year 2015, with skilled attendant delivery of 67.5%.

Considering these records, the actual sample size for the study is calculated using the formula:

$$n = \frac{1.96^2 \times 0.33 (1-0.33)}{0.05^2}$$

$n = 339.8 = 340$ respondents

The total sample estimated is 340 and considering 10% for participants who may refuse to include themselves in the study because of personal or political circumstances ($340 \times 10\% = 34$). Then, the sample size (n) = $(340 + 34) = 374$. The 10% non-response rate

was due to compensate for unforeseen circumstances by respondents or any withdrawal from the study.

3.5 Sampling method

A multi-stage sampling was used to select communities and study participants. The district has six existing sub-districts which were used as clusters. Projected population of Women in Fertility Age (WIFA) was calculated for each sub-district, a simple random sampling technique without replacement was used to select eighteen (18) communities three from each sub-district. Purposefully, all mothers with more than one child who attended CWC during the data collection period were selected to participate in the study. Based on the number of participants allocated to each selected community, simple balloting was used to select eligible participants. This procedure was used until the sample size for each sub-district was exhausted. The selected mothers were interviewed with their consent.

3.6 Variables

The dependent variable was the utilization of skilled delivery services in Jomoro district.

Independent variables include factors such as maternal-related factors, community and family-related and health system-related factors. Tables 9, 10 and 11 best describes the variables used for this study. These are presented in tables attached in the appendix section.

3.7 Data collection Technique and tools

A designed structured questionnaire was administered through interviewing respondents individually. The questionnaire contained open and closed ended questions. Questions were written guided by the variables of the study. The questionnaire contained the background characteristics of the participants, family and community-related factors and health facility-related factors that influence utilization of skilled delivery services. The questions were written in English language and translated into Nzema and Twi during the interview process.

A day's training for data collectors was organized, for correct interpretation of the tool to ensure that the correct questions and responses were asked with the right feedbacks. The questionnaire was pre-tested among 20 (reliability coefficient= 7.2) mothers at a CWC session in the Jomoro district. A few ambiguous questions were identified and corrected to conform with the study objectives to match the information asked by the research assistants to ensure that the correct feedback gotten from respondents. The questionnaire was constructed in simple English language for easy understanding which facilitated easy translation into Nzema and Twi languages.

3.8 Data Processing and Analysis

The administered questionnaires were retrieved, cleaned, coded and entered into Microsoft Excel. The data was then exported to STATA Version 14 for analysis. Descriptive statistical analysis was performed to describe maternal-related factors that influence utilization skilled delivery in the Jomoro district. Cross-tabulation and

regression analysis (Logistic regression) was employed to determine the factors that influence skilled delivery services utilization by mothers of child bearing age in Jomoro district. Confidence level was held at 95% and $P < 0.05$ (at 5% level of significance) was considered as significant.

3.9 Limitations

1. There may be bias in the sampling method which was purposive in selecting respondents.
2. There could be information bias because responses from participants could not be the realities on the ground
3. Not all factors that influence skilled delivery were included in this study. Example; cost of the kind of delivery.

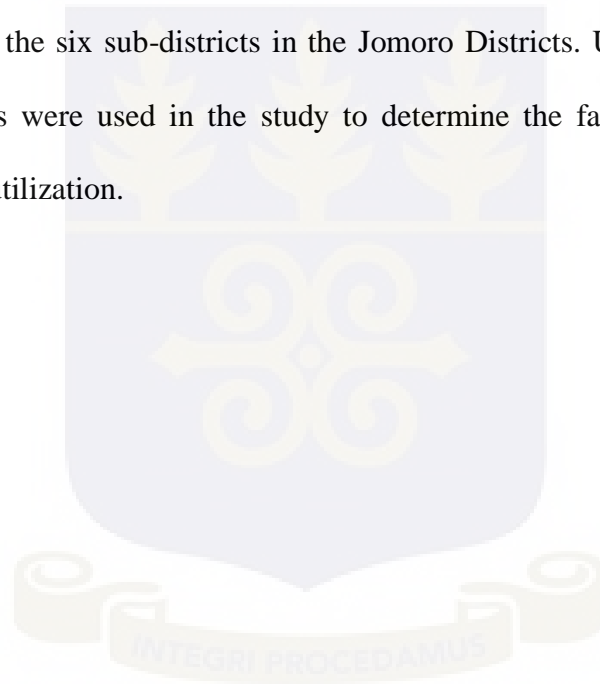
3.10 Ethical clearance

Ethical clearance was sought from the Ghana Health Service Ethical Review Board for approval of this study. Permission was taken from the District Health Director of Jomoro District for the study to be carried out in the district. Participants consent was sought for their approval using Informed Consent Forms duly signed to be used as source of information for this study. Participants were assured of the strict confidentiality and privacy for any information they gave. Also it is stored electronically formatted on different researcher's personal computers and as hard copies under key and lock in fire-proof lockers. Apart from those assistants in this study, no other party was given access to the data collected from participants without the consent of the participants.

Participation in this study was completely voluntary. Participants were free to withdraw from the study at any time, before or and at any stage of the study. Withdrawal from participation did not affect the participant in any way.

3.11 Conclusion

This chapter (3) contains the methods sections that discusses the study area, study design, study population, how sample size was determined, etc. A sample of 374 mothers was selected from all the six sub-districts in the Jomoro Districts. Using a formula adopted, these respondents were used in the study to determine the factors that influence skill delivery service utilization.



CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter outlines the results of the study. It focuses on the presentation of the responses of respondents sampled for the study. It is divided into three sections. It presents findings on the three specific objectives namely maternal, family and community and health facility-related factors.

4.1 Socio-demographic characteristics of respondents

Most of the respondents fall among the 25-34 years age group with 158 representing about 42.3% with the lowest among the 45-49 years age group. These age groups recorded about 39.1% and 7.8% of skilled deliveries respectfully (Table 1).

Christians formed about 82.2% among all respondents with other forms of religions were (17.8%). Although, it may seem majority of respondents about 58.6% who have skilled delivery are Primary/Junior High graduates, respondents with tertiary education. Out of 15, 13(86.7%) delivered in a health facility. From the analysis, married women formed about 63.9% of the respondents, out of which about 66.69% had skilled delivery.

Table 1: Socio-demographic characteristics of respondents

Variable	Number of Respondents N=374(%)	Number of Skilled deliveries N (%)
Age of Respondents(years)		
18-24	62(16.58)	40(17.29)
25-34	158(42.25)	90(39.13)
35-44	123(32.89)	82(35.65)
45-49	31(8.29)	18(7.83)
Religion of Respondents		
Christian	299(79.95)	190(82.61)
Muslim	66(17.65)	38(16.52)
African traditional religion	7(1.87)	1(0.43)
Others	2(0.53)	1(0.43)
Educational level		
Never attended school	95(25.40)	54(23.48)
Primary/JHS	219(58.56)	128(55.65)
Secondary education	45(12.03)	35(15.22)
Tertiary	15(4.01)	13(5.65)
Marital status		
Single	113(30.21)	67(29.13)
Married	237(63.36)	154(66.69)
Divorced	12(3.21)	6(2.16)
Widow	12(3.21)	3(1.30)

Table 2: Simple logistic regression analysis of demographics variables

Variable	COR	AOR	95% Confidence Interval	<i>p</i> -value
Age				
18-24	Ref			
25-34	0.71	0.73	0.39-1.30	0.27
35-44	1.14	1.01	0.60-2.17	0.69
45-49	0.80	0.76	0.33-1.97	0.64
Religion				
Christian	Ref			
Muslim	0.88	0.78	0.51-1.53	0.83
African Traditional Religion	0.10	0.10	0.01-0.81	0.02
Others	0.57	0.57	0.04-9.26	0.05
Educational level				
Never attended school	Ref			
Primary/JHS	1.05	1.67	0.65-1.72	0.66
Secondary	2.55	2.66	1.12-5.74	0.03
Tertiary	4.27	4.94	1.00-22.13	0.70
Marital status				
Single	Ref			
Married	1.29	1.24	0.81-2.04	0.83
Divorced	0.69	0.69	0.21-2.26	0.02
Widow	0.29	0.29	0.07-1.20	0.09

Comparing between ages 25-34years and those of older years age group in Table 2, the 25-34 years age group are likely to have skilled delivery than between 18-24 years age group. The *P*-value is not significant ($P=0.27$).The odds of 0.71 implies the older age

group has 29.0% chances less likely to have skilled delivery than the lower age group. Women belonging to the African Traditional Religion have a 90% less chance of having skilled attendant taking care of her during labour. This was found to be statistically significant ($P=0.02$). Mothers with Senior High Secondary school education were more likely to have skilled delivery and have a P -value of ($P=0.03$), and it is statistically significant.

Widows among the respondents in the study have only 29% likelihood of being delivered by a skilled attendant compared to divorcees who are 71% more likely to be delivered by a skilled attendant. The P -value is statistically significant ($P=0.02$). There were no statistically significant values under the variable age.

4.2 Family and Community-related factors

Table 3 indicates that about 73.2% of the participants would visit the health facility first when they get into labour. The rest would either visit the TBA's, Spiritualist with only 0.53% visiting the herbalist first when labour strikes her. Mothers with 3 children formed about 28.1% of the respondents. Most of the participants for the study, about 51.6% were traders. About 61.2% of the participants had their babies delivered by skilled personnel.

Table 3: Analysis of Factors Influencing skill delivery service utilization in Jomoro district

Variable	Number of respondents	Percentage (%)
Place visited first when in labour		
Health facility	270	72.19
TBA	97	25.94
Spiritualist	5	1.34
Herbalist	2	0.53
Number of children		
2	91	24.33
3	105	28.07
4	84	12.57
5	47	7.75
6	29	3.21
7	12	3.21
8	5	1.34
9	1	0.27
Occupation		
Farmer	87	23.26
Trader	193	51.60
Professional	43	11.50
Unemployed	51	13.64
Delivered by		
At home by TBA	89	23.80
Home alone	10	2.67
At TBA's place	42	11.23
Health facility(Skilled)	229	61.23
Others	4	1.07

Table 4: Family and community related factors

Variables	Number of respondents	Percentage%
Ethnicity		
Nzema	214	57.2
Akan	102	27.3
Ewe	9	2.4
Anyiee	12	3.2
Others	37	9.9
Cultural beliefs(Taboos)		
Yes	0	0
No	374	100
Religious beliefs		
Yes	0	0
No	374	100

Nzemas formed majority, about 57.2% of all the participants in the study, with Ewes 2.4% forming the least. The participants did not indicate any known cultural or religious beliefs that hinder the uptake of skilled care and services in Jomoro district, although the district is a busy commercial location within the Abidjan-Togo Corridor with varied ethnic groups responded in this study and no participant from elsewhere in the country responded otherwise.

4.3 Health facility-related factor

Most of the study participants (Table 5) show that, about 80.5% had health facilities in their community of residence with about 42.3% with skilled personnel in the facilities. With regards to transportation cost, 80.0% pay twenty cedis or less for transportation to facilities with skilled health staff.

Most participants in Table 5 were pleased with the attitude of staff describing them as having very good attitude (54.8%). Staff attitude was described by some as poor, insulting and unfriendly represented by 3.2%, 2.5% and 17.6% respectively. These poor attitude 38(10.2%) seems to deter mothers from using skilled attendant services. 89.8% participants said staffs attitude has encouraged them to use skilled delivery services

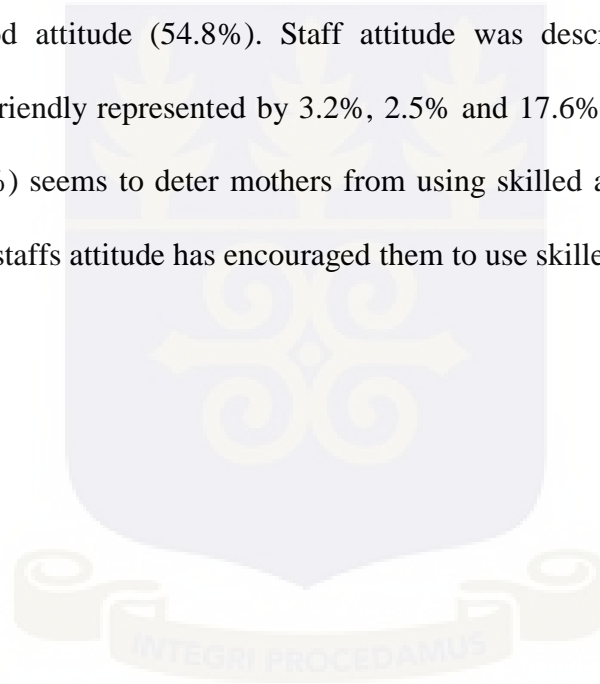


Table 5: Health facility related factors

Variable	Number of respondents	Percentage (%)
Availability of health facility		
Yes	301	80.5
No	73	19.5
Availability of skilled staff		
Yes	158	42.3
No	216	57.6
Transportation(¢)		
<20.00	299	80.0
>20.00-50.00	49	11.5
>50.00-100.00	9	2.4
>100.00-200.00	3	0.8
No transport cost	20	5.4
Distance to skilled service(Km)		
<20(Very close)	316	84.5
>20-40(Within reach)	40	10.7
>40(Very far/hard to reach)	13	3.5
Others	4	0.3
Staff attitude		
Very good	205	54.8
Fair	80	21.4
Poor	12	3.2
Insulting	11	2.9
Unfriendly	66	17.6
Staff attitude as deterrents		
Yes	38	10.2
No	336	89.8
Staff attitude as encouragement		
Yes	239	63.9
No	135	36.1

Figure 3: Cost of skilled delivery services

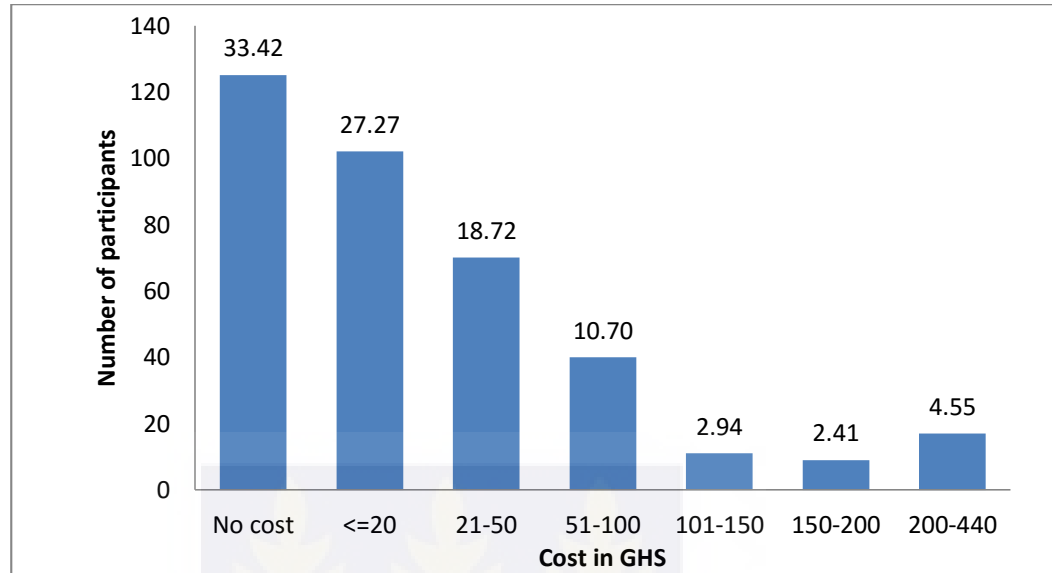
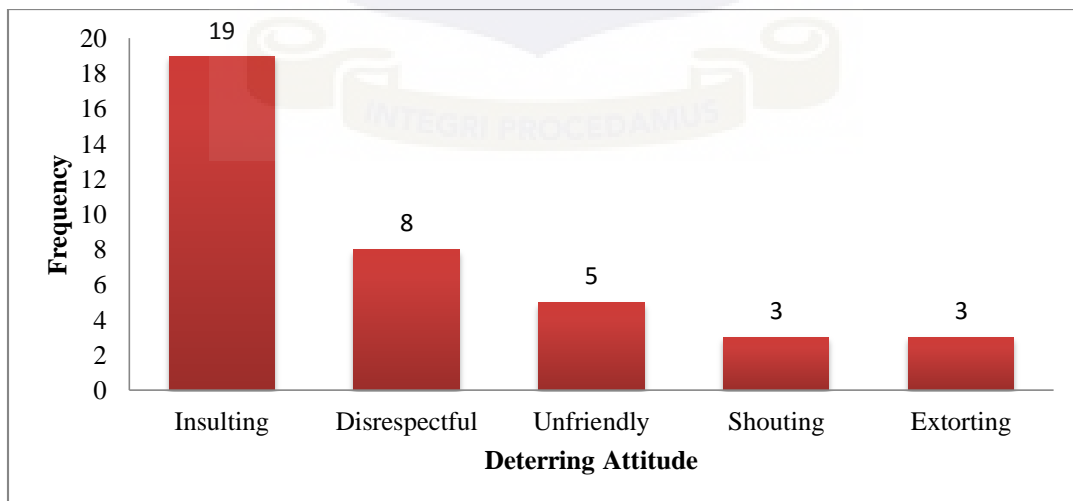


Figure 3 feature the cost of service delivery paid by pregnant women across the Jomoro district. About (33.4%) had free maternal health care for skilled delivery services. All the remaining of about (66.58%) paid for services ranging between (<=¢20.00 to ¢440.00)

Figure 4: Staff attitude that deter accessing skilled delivery service



Responses from participants in Figure 4 above indicate deterring staff attitudes that would prevent seeking skilled delivery services by expectant mothers when they are in

labour. Responses described deterring staff attitude as being insulting, disrespectful and unfriendly. Others include shouting at pregnant women and extortion of money and various goods for delivering skilled services.

Table 6: Simple logistic regressions: Factors influencing skilled delivery.

Variable	Crude odds ratio	95% confidence interval	P-value
Individual-related factors			
Number of children	1.03	0.90-1.18	0.66
Occupation	0.99	0.79-1.24	0.91
Community and family-related factors			
Ethnicity	0.95	0.81-1.13	0.58
Cultural beliefs	1.72	0.51-5.58	0.37
Religious beliefs	3.30	0.30-36.7	0.33
Health system-related factors			
Availability of skilled staff	0.26	0.17-0.44	0.01
Cost of service	1.00	1.00-1.00	0.49
Distance to facility	1.12	0.83-1.50	0.47
Transport cost	1.26	0.99-1.61	0.06
Attitude of staff	0.97	0.84-1.11	0.63
Attitude as deterrent	1.53	0.78-3.02	0.21
Attitude as encouragement	0.54	0.35-0.83	0.01

From the simple logistic regression analysis in Table 6, the variables of interest that were found to be significant are availability of skilled staff and the attitude of skilled staff as a source of encouragement for utilisation of skilled delivery. The odds ratio of availability of a staff was 0.26(P-value<0.05) this shows that the odds of a midwife not being

available would increase unskilled delivery by 24.5% less than a midwife being available. Also the odds of attitude of skilled staff not being an encouragement to skilled delivery is 47% less than the odds of it being an encouragement(OR=0.54:P-value=0.01).

Table 7: Multiple logistic regressions on factors influencing skilled delivery utilization

Variable	Adjusted odds ratio	95% confidence interval	P-value
Religion	1.42	0.81-2.24	0.21
Educational level	1.19	1.25-2.88	0.02
Marital status	1.13	0.76-1.17	0.55
Availability of midwife	0.31	0.17-0.55	0.00
Encouraging staff attitude	0.72	0.43-1.22	0.22

The multiple logistic regression model above, shows the variables that are statistically significant for skilled delivery are educational level and availability of midwives in the health facilities with ($p=0.02$) and ($p<0.05$) respectfully.

4.4 Conclusion

In conclusion, skilled delivery among respondents was (61.6%). Staff attitude was not significant though expressed by some participants, there was payment for skilled services, educational level and availability of midwives in the health facilities with ($p=0.02$) and ($p<0.05$) respectfully.

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter discusses thoroughly the results in comparison to other researchers work in similar field of study. The chapter depends on the specific objectives with each section centering and discussing a distinct aspect of the research findings.

5.1 Demographic characteristics of respondents

Majority of the respondents were between the ages of 25-34 years representing about 42.3%. The proportion of women who had skilled delivery in the same age group was high about 39.1%. The simple logistic regression analysis shows that age was significantly associated with uptake of skill delivery services. Most of the respondents for the study fell among the 25-34 years age group with 158 representing about 42.3% with the lowest among the 45-49 years age group. These age groups recorded 39.13% and 7.83% of skilled deliveries respectfully. Comparing between ages 25-34years and those with older age group, the older year age group are less likely to have skilled delivery than between 18-24 years age group. Christians formed about 80.0% of all respondents with other forms of religions making up the remaining 20%.

Although, it may seem majority of respondents 58.6% who had skilled delivery were Primary/Junior High graduates, respondents with tertiary education was about 4.0%.

Implying that, out of every 15 females with tertiary education, 13 of them were delivered by skilled personnel. Alvarens, Gil and Hemandez, (2009) in their study found that well educated women are likely to deliver at the hospital by skilled assistance compared to the illiterate women who are delivered by unskilled persons. Also, other studies found a relationship between pregnancy-related maternal deaths and educational level reached by the women as was in Kelara, Yanagisawa et al., (2006) also found in another study in Colombia that there was a close linkage between the educational background and health facility participation (Ahmed et al., 2010; Ensor and cooper 2004; Essena and Sappor, 2013).

Also (GDHS 2003 & 2008; Kanini, Kimani, and Mwaniki, 2013) in various studies found that well educated women are more knowledgeable become aware of the risk factors associated with unskilled delivery and are more likely to use skilled services compared to those with lesser education and with lesser knowledge about these effects. It is also expected that a well-informed person is more likely to make rational decisions about life choices that promotes healthier living. A mother with a Senior High Secondary school certificate is more likely to have skilled delivery in comparison with the illiterate mother. Thus education tends to increase consciousness about basic maternity, delivery and care. To conclude, the higher the education, the more likely she seeks skilled delivery services.

Again, the Ghana DHS report for 2008 shows a similar trend. As was the case in this study, the number of years spent in school also showed a significant association with

seeking of skilled care during delivery with women who have more schooling years having a higher proportion of deliveries attended by skilled personnel compared to those with lesser schooling years, or never had formal school. Women with knowledge about risk factors were more likely to use health facilities for delivery compared to those without knowledge. And it is also expected that a better informed individual is better placed to make reasonable decisions (Mpembeni et al., 2007).

Studies on the Determinants of skilled delivery in rural Cambodia also established that maternal education had a strong effect on facility delivery, women who had at least seven years of schooling being six times more likely to deliver babies at a health facility than those who did not attend school (Chamroonsawasdi, Soe, Charupoonphol, & Srisorrachatr, 2015). In another study the respondents in both Laikipia and Samburu advocated that women without education do not having facility-based supervised deliveries (Caulfield et al., 2016).

Findings indicate that 73.2% of the participants would visit the health facility first when they get into labour. The rest would either visit the TBA's, Spiritualist with only 0.5% visiting the herbalist first when labour strikes her. Mothers with 3 children formed 28.07% of the respondents.

Most of the participants for the study about 51.6% were traders. About 61.2% of the participants had their baby's delivery by skilled personnel Al, (2013) discovered in his

study that unsupervised delivery is common among the poor than well-to-do women. In a study in Nepal, a higher proportion of females with higher salary gave birth in a hospital in comparison with those with a lower income. Another study among WIFA in Ghana confirmed that households in the highest income were more likely to seek institutional delivery (Karmacharya, Jasienska, Bissell, Wasti, & Bajracharya, 2016).

Similarly, studies by Kesterton had showed that women's use of skilled delivery care is guided by their demographic upbringing individualities and their social and economic standing. It confirms that globally, studies have proven close relationship between poverty and the quest for seeking unskilled delivery. The highly developed nations of the world have high skilled attendance rates compared to those parts of the world that has high skilled attendants compared to other poorer nations with lesser health resources that do not meet the most poor and deprived in society. In most societies, women are highly discriminated against compared to males which worsens the plight of women when matter (Karmacharya, Kesterton, Pradhan 2005; Nketiah et al 2009 and Alvarez et al., 2009).

Also a study in pastoral India showed that skilled delivery is common for first births compared to subsequent births Kesterton et al. (2010). Similar studies by Nketiah et al. (2009) shows likewise. Pradhan (2005) and Alvarez et al, (2009) also established that economic factors are related to the aforementioned factors and therefore will be very difficult to improve health without consideration.

5.2 Family and community-related factors

Whilst this study did not find any cultural or religious beliefs that may hinder utilization of skilled delivery services in the Jomoro district, other studies found otherwise. Most cultural settings in Uganda have a strong belief for the handling of the birth which is considered the ‘second child’. They consider the placenta disposal ritual as a determinant of future prosperity or calamity in the family and as such if not carefully dealt with by skilled attendants could lead to high level of unskilled deliveries in such cultures (Anyiait et al., 2012).

The GDHS, (2006) found that certain Ghanaian cultures especially Northern Ghana, women in labour have to seek approval from husband or an in law for approval before she can go to seek the services skill attendant. This can put the life of the woman in danger. Nina et al. (2008) found feeling irritable by pregnant women the response by majority of them, arguments with husband over flimsy issues, “over thinking depression”. Moving to stay with relatives for supportive care in the third trimester of the gestation was deemed important. Doubts were described, also ill-health and even expiry during labour. Responses were that at labour is a life threatening issue. In their culture, value is highly given to home birth. Giving birth at home was done by majority of women in the fertility age group.

The GHS. (2006) found that lack of sovereignty regarding cultural norms for women is one of the barriers to skilled attendance, in that certain cultures maintain that women must wait for approval from male relatives before seeking help which additional make

the situation worsen. Braveness and respect is given to women who are able to keep mute even when in pains at labour with she's protecting herself from attacks by witches. They even go to the extent of delivering alone to keep away on lookers and its even skill delivery is for those who have difficulty in giving health Unskilled home delivery is an acceptable way of saving money for the family (Nina et al., 2008).

In another study by Anyait et al., (2012) among the indigenous Maasais, if a woman is uncircumcised, she will be circumcised by unskilled by the TBA at labour. So to avoid this, women do self-delivery which could endanger the lives of both mother and baby to prevent being circumcised. Others believe that birth at home is considered optimum because it saves a family from financial hardship

5.3 Health facility-related factors

This study found that most women paid for skilled delivery services rendered to them in health facilities across the Jomoro district. 66.58% Amount paid for services ranging between C20.00 to C440.00, Douangvichit et al. (2012) also in their study confirmed that high health care expenses impede skilled delivery. Nina et al., (2008) also discovered similar findings in a study entitled Social cost of skilled delivery services in rural Ghana. Cost of delivery was the most important consideration why mothers choose home delivery among a wide range of factors. It is cheaper in comparison to the orthodox method; it is easily accessible and more convenient.

Mothers choose home delivery due to a wide range of factors. It is cheaper in comparison to the orthodox method, it is easily accessible and even convenient at the invitation of the TBA into the house of the one in labour, it is without transportation cost (Nina et al., 2008). In poorer countries rather, high cost of skilled facility as compared to the richer world has led to low attendants and the resultant impoverishment and mortalities for women and their newborns (Enuameh et al., 2016).

Responses described deterring staff attitude as being insulting, disrespectful and unfriendly. Others include shouting at pregnant women and extortion of money and various goods such as soap, Dettol, bleach among others for delivering at health facilities by skilled personnel.

Another study by Nina et al., (2008) on Social Cost of skilled attendants in rural Ghana further proved that a woman's health is more enhanced with adequate healthcare facilities and the availability of skilled personnel could also influences her choice for skilled delivery.

The multiple logistic regression model showed the variable that is statistically significant for skilled delivery is availability of midwives in the health facilities, Nina et al. (2008) also in the study found similar results confirmed that odds of availability of a staff could enhance skilled delivery utilization.

Majority of the respondents 63.9% said staff attitude has encouraged them to always seek skilled attendants to deliver them whenever they are in labour. Several factors could attribute to this. Furthermore, an effective and efficient health care system especially during pregnancy and delivery, and access to safe drinking water are fundamental pillars for maternal health. We found a positive relationship not only with the health care system-related factors as other studies have shown, but also with educational and economic factors where attention should be focused (Alvareiz, Gil, and Hemandez, 2009).

The proportion of the respondents who were delivered by skilled personnel within health facility is about 61.6%. However, about 38.4% had their babies delivered by unskilled persons which comprised TBAs and others outside the health facility without any supervision of trained health staff. There were no known cultural or religious beliefs that prevent any respondents from seeking skilled delivery services even though respondents were of different cultural, ethnic and religious backgrounds from all over the regions of Ghana. A study by Anyait et al., (2012) among the indigenous Maasais, revealed that uncircumcised women will be circumcised during delivery. So to avoid this, the pregnant woman might deliver alone.

Fekadu and Regassa., (2014) also found in their study on Skilled delivery care and service utilization in Ethiopia: analysis of rural-urban differentials based on national demographic and health survey that most uncircumcised women choose to be delivered by skilled personnel because they want hide their circumcision status and also being

looked down upon by their community. Again delivering by unskilled person, the TBA will lead to being circumcised at labour which they want to avoid. This is rather leading to high skilled deliveries because of their culture.

This study on the Factors that influence skilled delivery utilization indicated negative staff attitudes could prevent seeking skilled delivery services by expectant mothers when they are in labour. Responses described deterring staff attitude as being insulting, disrespectful and unfriendly. Others include shouting at pregnant women and extortion of money and various goods for delivering skilled services. Anyait et al., (2012) also found that skilled staffs who conduct deliveries also need the appropriate skills to manage labour in alternative delivery positions but not the only known orthodox method of using the hospital delivery bed.

5.4 Conclusion

Major issues discussed that influence skilled delivery utilization includes the variables that were significant or otherwise. They comprise, age, educational background, cultural beliefs, cost of skilled services. The rest are economic background of participants and staff attitude. All the above mentioned factors could affect skilled delivery utilization. Paying positive attention to these could help improve skilled delivery services.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.0 Summary

This study was to identify the factors that influence the utilization of skilled delivery services in the Jomoro district of the Western region of Ghana. Generally, skilled delivery services uptake is considered low countrywide comparing expectant mothers who attend antenatal care and deliveries conducted by skilled attendants in the health facilities.

In all, 374 women in fertility age participated in the study. 61.6% of the participants were delivered by skilled personnel in the various health facilities.

Results from the multiple logistic regression analysis on the variables; religion, educational level, marital status, availability of skilled staff, and staff attitude out of which availability of skilled staff and educational level of respondents were statistically significant for the utilization of skilled delivery services in Jomoro district. The variables that were not significant include religion, marital status and staff attitude. Other studies elsewhere found variables such as cultural beliefs, number of children, and cost of service delivery as important determinants for utilization of skilled delivery services.

6.1 Conclusions

Women within age-group 25-34 years and those with secondary education are more likely to have skilled delivery services. The skilled delivery rate among respondents was 61.2%. There were no known cultural or religious beliefs that hinder the utilization of skilled delivery services in the district. Despite the free maternal health care policy about 66.6% participants paid for skilled services ranging between C20.00 to C440.00. Factors that influence skilled delivery utilization significantly are age, educational background, cultural beliefs, cost of skilled services. The rest are socio demographic characteristics of participants and staff attitude.

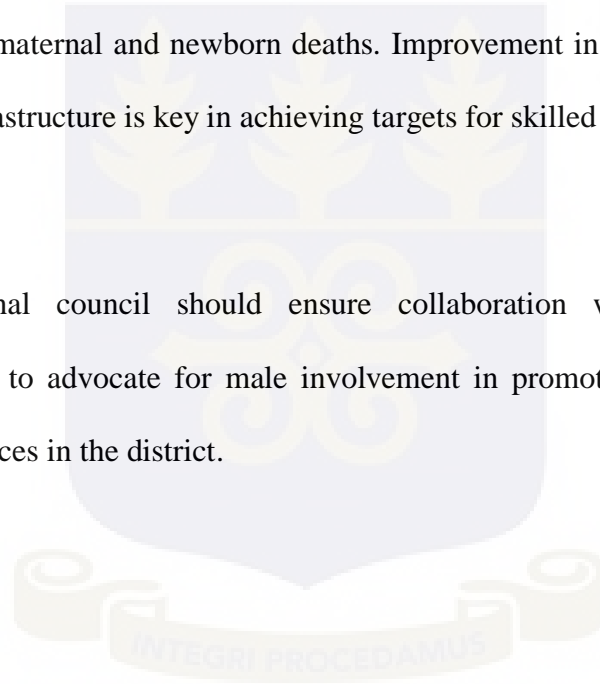
Staff attitude was not significant though expressed by some participants as a deterrent for them to accessing to skilled attendant services, cash payment for skill services was common in the study, low educational level of participants and unavailability of midwives in some health facilities culminates to the low skilled delivery among the participants. Most participants 89.8% said staff attitude had not deterred them from accessing skilled delivery services whilst the rest 38(10.2%) vowed never to seek the services of skilled attendants because of their negative attitudinal experiences some health personnel.

6.2 Recommendations

Based on the findings of the study, the following recommendations are made.

1. Regional Health Directorate should ensure general strengthening of health education and promotion on the importance and need for skilled attendants usage to improve skilled delivery rate in the district.
2. The entire staff led by the District Health Promotion Officer, the midwives, CHNs, and other nurses should collaborate with all stakeholders such as FM Radio stations, queen mothers, traditional birth attendants chiefs and elders to educate the general public on the importance and benefits of skilled delivery.
3. In-service training for all health staff especially skilled attendants on customer care and quality assurance to improve on client-health worker relationship. This should be done in collaboration with, Regional Health Directorate and cooperate organizations who have the expertise to train health staff to achieve this purpose. The District Health Directorate in collaboration with the Regional Health Directorate to encourage nurses to pursue midwifery to upgrade them and to improve on the number of skilled staff in the district. Also the Regional Health Directorate should motivate Community Health Nurses and Enrolled Nurses by offering more slots for study leave with pay to pursue midwifery training to bridge the disparities in unavailability of midwives in some health facilities.

4. The District Health Management Team in collaboration with the District Hospital Management and Stakeholders should find means of funding skilled maternal services. This could be done in collaboration with the District Assembly, NGOs, cooperate organizations, private transport unions and philanthropists to raise funds to support skilled delivery services. This can improve the service utilization in the district.
5. The policy of focus antenatal care and services be adhere to in order to assist the reduction of maternal and newborn deaths. Improvement in structural and upgrading of health infrastructure is key in achieving targets for skilled delivery.
6. The traditional council should ensure collaboration with Community based organizations to advocate for male involvement in promoting utilization of skilled delivery services in the district.



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APPENDICES

Consent Form for Participation in the study

Study Title: Factors influencing utilization of skilled delivery services in Jomoro district

Principal Investigator: Samuel Nyarko

Address: School of Public Health, University of Ghana, Legon

Greetings, my name isand I am conducting this interview on behalf of Samuel Nyarko a Master of Public Health student of School of Public Health (University of Ghana). Legon.

Skilled delivery services in this district are recording low patronage.

This study needs to determine reasons and find solution to improve on the health of mothers and their new born. You are invited to participate in the study because I understand you know the importance of your health, especially quality of maternal health care in our health facilities.

I would like you to be part of my study on agreement to participate; I would like you to respond to a few questions centered on factors influencing utilization of skilled delivery services in Jomoro. This will take about 30 minutes of your time. If you agree to participate, you be among the respondent participating in this study in this district. Participating is entirely voluntary. You have the right to withdraw at any point you wish and will not affect your rights in anyway, especially to seek your healthcare needs but would be most grateful to see you participate to the end. There are no direct benefits or risks in participating. You will not be paid or compensated for your participation.

However, the information gathered will help us to understand the factors influencing skilled delivery utilization in Jomoro district and Western Region as a whole and help in solving them. The questions are not very sensitive. However, you may feel uncomfortable answering some of them and you can choose not to answer them. Information collected from you will be treated strictly as confidential and will be used for the intended purpose only. You will not be identified by name in any dissemination reports or publications resulting from this study.

The Ghana Health Service Ethics Review Committee has reviewed and given approval for this study to be conducted

Do you have any questions for clarifications?

However, If you have any further questions regarding this study, which I could not satisfy you with the appropriate answer, you may contact Samuel Nyarko on telephone number: 0243114040 and e-mail address: sknyarko@gmail.com or Mr. Kwabena Opoku-Mensah (Supervisor) School of Public Health on Tel. 0244273182 or e-mail: opokumens@hotmail.com and Hannah Frimpong, Ghana Health Service Ethical review Committee on Tel. 0507041223 or email: ghserc@gmail.com.

Participant Consent

I have been adequately informed about the purpose, procedure, potential risks and benefits of this study. I have had the opportunity to ask questions and have been provided answers to my satisfaction. I know that I can refuse to participate in this study without any loss of benefit for which I would be entitled to. I understand that even if I agree or as I have agreed, I can withdraw my consent at any time without losing any benefits or

services to which I am entitled. I also understand that the information collected will be treated confidentially and will be used only for the purpose informed. Finally findings/results may assist us in policy development with regards skilled delivery service improvement.

I freely agree to participate in this study.

ID of participant.....

Signature or right thumb print of participant

Date.....



QUESTIONNAIRE:

Factors influencing the utilization of skilled delivery services in Jomoro district.

Number of Participant.....

Section A: Socio-demographic characteristics. Please mark (x) as appropriate. 1.

1. What is your age? (Years)

2. Religion.

- a) Christian. ()
- b) Muslim. ()
- c) African Traditional religion. ()
- d) Others (specify).....

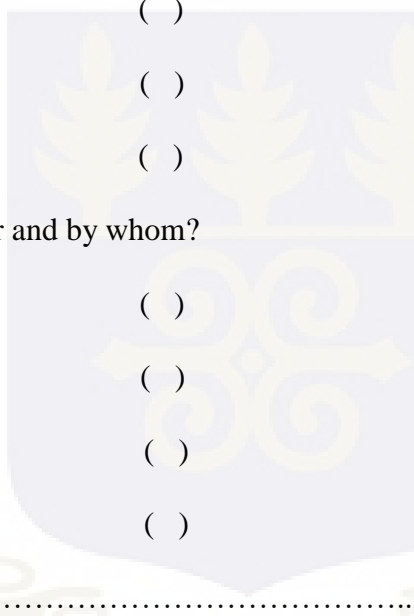
3. Educational level.

- a) Never attended school. ()
- b) Primary/ Junior high school. ()
- c) Secondary education ()
- d) Tertiary education ()

4. Marital status.

- a) Single. ()
- b) Married. ()
- c) Divorced. ()
- d) Widow. ()

5. Where do you go first when in labour?

- a) Health facility. ()
 - b) TBA. ()
 - c) Spiritualist. ()
 - d) Herbalist. ()
6. How many children do you have?
7. What is your occupation?
- a) Farming. ()
 - b) Trading. ()
 - c) Professional. ()
 - d) Unemployed. ()
8. Where did you deliver and by whom?
- a) At home by a TBA. ()
 - b) At home alone. ()
 - c) At the TBA's place. ()
 - d) Health facility. ()
 - e) Others, (specify).....
- 

Section B: Community and family-related factors

9. What is your ethnicity?
- a) Nzema. ()
 - b) Fanti ()
 - c) Ewe. ()
 - d) Anyiee. ()
10. Is there any cultural belief (taboos) that hinders skilled delivery utilization?

- a) Yes. ()
- b) No. ()

11. If yes, what are the.....

12. Is there any religious belief that hinders you from assessing skilled delivery?

- a) Yes. ()
- b) b) No. ()

13. If yes, what are they?

.....
.....

Section C: Health facility related factors.

14. Is there a health facility in your community?

- a) Yes. ()
- b) No ()

15. Are there any skilled personnel (midwife) available in this facility?

- a) Yes. ()
- b) No ()

16. Did you pay for cost of services during pregnancy and delivery?

- a) Yes. ()
- b) No. ()

17. How much did you pay for the service?

18. What is the distance from home to the health facility with skilled attendant?

- a) < 20 km. Close to skilled delivery facility. ()
- b) 20<40 km. Within reach of skilled delivery facility. ()
- c) < 40 km. Very far and with difficult access. ()
- d) Others, (specify).....

19. How much do you pay for transport to reach this facility?

- a) <C20-00 ()
- b) C30-C50.00 ()
- c) C60-C100.00 ()
- d) C100-C200.00 ()
- e) Others (specify).....

20. What is the attitude of staff during Antenatal Care and delivery?

- a) Very good. ()
- b) Fair. ()
- c) Poor ()
- d) Insulting. ()
- e) Friendly ()

21. Has the attitude of any staff that deters you not to ever deliver at a health facility?

- a) Yes. ()
- b) No. ()

22. If yes how?

.....

23. Has the attitude of any staff encouraged you to have your children in a health facility in future?

a. Yes. ()

b. No. ()

24. If yes, how.....

Name of research assistants;

1. Signature.....

2. Signature.....

3. Signature.....

Factors influencing skilled delivery services

Maternal-related factors	Family and community-related factors	Health-related factors
Age	Ethnicity	Availability of health facility
Religion	Cultural beliefs	Distance to facility
Educational level	Religious beliefs	Availability of skilled personnel
Marital status		Cost of services
Health seeking behaviour		Staff attitude
Number of children		

Maternal-related factors

Variable	Operational definition	Scale of measurement	Data source
Age	Age of respondent at last birthday	Continuous-discrete in years	Interview
Religion	Religious affiliation	Nominal Christian Muslim African traditional religion	Interview
Educational level	Respondent formal highest education attained	Ordinal None Primary Secondary Tertiary	Interview
Marital status	Respondent's legal marital status	Nominal Married Single Not married	Interview
Health seeking behaviour	Where respondent deliver	Ordinal Skilled Unskilled	Interview
Number of children	Number of biologically Children	Ratio(Discrete)	Interview
Occupation	Work of respondents	Nominal Farmer Trader professional Unemployed	Interview

Family and community-related factors

Variable	Operational definition	Scale of measurement	Data source
Ethnicity	Where respondent heals from	Nominal Nzema Akan Ewe Anyiee Others	Interview
Cultural beliefs	Cultural beliefs of respondent	Nominal Yes No	Interview
Religious beliefs	Religious beliefs of respondent	Nominal Yes No	Interview

Health facility-related factors

Variable	Operational definition	Scale of measurement	Data source
Availability of health facility	Presence of health facility in community	Nominal Yes No	Interview
Distance to health facility	Distance from home to facility	Continuous in kilometers	Interview
Availability of skilled personnel	Presence of midwife	Nominal Yes No	Interview
Cost of services	Amount paid for skilled delivery services	Continuous in Ghana cedis	Interview
Staff attitude	Attitude exhibited by staff	Interval Good Fair Insulting Friendly	Interview