UNIVERSITY FOR DEVELOPMENT STUDIES

SOCIAL CONSTRUCTION OF KNOWLEDGE OF CAESAREAN SECTION AMONG WOMEN WHO HAVE UNDERGONE THE PROCESS IN THE TAMALE TEACHING HOSPITAL, NORTHERN REGION.

BY

AMIKE JOANA

2020

UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE

SOCIAL CONSTRUCTION OF KNOWLEDGE OF CAESAREAN SECTION AMONG WOMEN WHO HAVE UNDERGONE THE PROCESS IN THE TAMALE TEACHING HOSPITAL, NORTHERN REGION

BY

AMIKE JOANA

UDS/MPH/0037/18

THESIS SUBMITTED TO THE DEPARTMENT OF COMMUNITY HEALTH AND FAMILY MEDICINE, SCHOOL OF MEDICINE AND HEALTH SCIENCES, UNIVERSITY FOR DEVELOPMENT STUDIES, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PUBLIC HEALTH DEGREE

FEBRUARY, 2020

DECLARATION

Student

I hereby declare that this submission is my work for Masters of Public Health (MPH) and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the university, except where due acknowledgement has been made in the text.

AMIKE JOANA Signature ..... Date 29/09/2020

Supervisor

I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines on supervision of dissertation/thesis laid down by the University for Development Studies.

YIDANA ADADOW (PhD) Signature..... Date..30/09/2020

ABSTRACT

Caesarean section (CS) is usually indicated when a vaginal delivery would put the baby or mother at risk. Even though women know the benefits of CS, they were interested in vaginal delivery to be recognized as women in their social context. The study sought to determine the prevalence of caesarean section among women who delivered at the Tamale Teaching Hospital within a five-year duration and to assess the social construction of knowledge of those who delivered through caesarean section within the study period. This hospital-based descriptive cross-sectional study was conducted among women who reside in the Tamale Metropolis. The study employed both qualitative and quantitative methods to assess the prevalence, the knowledge, acceptance, and socio-cultural factors influencing the delays and/or refusal of caesarean section. A total of 10,604 caesarean sections were conducted during the five periods under review with an average yearly procedure of 2,120 sections. The prevalence of CS in the study was found to be high (27.4%). Majority of respondents had adequate knowledge about caesarean section (risks and effects) and expressed different understanding of caesarean sections based on their experiences and knowledge with a great influence of culture. Women did not have a choice to decline the caesarean section in the study hospital because they were performed as an emergency CS or with indication. The findings from the study revealed that participants beliefs about CS were obtained through significant others (community members). Major reasons given for not wanting to undergo CS were fear of complications, fear of pain during and after surgery and it not being a natural process. Social perception of womanhood emerged strongly as an order of socialization and showed that women in the study experienced some form of social abuse in their respective communities after the CS. Ministry of Health should ensure that all health personnel especially nurses and midwives have location-based training on socio-cultural beliefs about CS and health care providers should ensure organized tailored-made programs on psychosocial counselling for women before and after CS.

ACKNOWLEDGEMENT

In His own time, he makes everything beautiful. I thank the almighty God for this opportunity given to me, for without Him this would not have been possible. His abundant grace, love and protection saw me through and His name will forever be glorified.

My profound gratitude goes to all lecturers of the Department of Community Medicine and Family Medicine, School of Medicine and Health Sciences, University for Development Studies, Tamale, who imparted the appropriate knowledge of Research in Public Health to enable me to undertake this project.

I extend my heartfelt thanks to my supervisor, Dr. Yidana Adadow. His guidance and unending patience saw this work from beginning to the end. Thank you for your expert guidance and support. I wish to thank Dr. Napoleon B Sam for his invaluable and constant support albeit academic, psychological, or spiritual.

I thank the Nurses and midwives at the Child welfare clinic and Maternity ward of the Tamale Teaching Hospital as well as the other clinics I visited for interactions for their massive support.

The study participants gave me maximum co-operation during the data collection period. For this, I wish to thank them. Without them, the study would not have been a reality.

Sincere gratitude to Dr Abass Alhassan, Mr Kwame Opare-Asamoah and Mr. Samuel Papa Yankson all of the School of Medicine and Health Sciences, UDS as well as Mr. Solomon Chikpah of the Faculty of Agriculture. Special thanks also go to Mr. Dominic Obeng Afful. These individuals all had diverse contributions to the success of this work.

I am also grateful to my colleagues and friends who in many ways contributed to the successful completion of this scrip.

DEDICATION

I dedicate this thesis to my husband Saeed F. Majeed and my children; Kamal-Deen Ayodele, Nathan Oluwafumi and Selina Modupe Majeed.

LIST OF ABBREVIATIONS

ANC Antenatal Clinic

BLF Belief

CBR Crude Birth Rate

CS Caesarian Section

CT Computerized Tomography Scan

CWC Child Welfare Clinic

ECG Electrocardiogram

EmOC Emergency Obstetric Care

GSS Ghana Statistical Service

HCP Health Care Providers

HIC High Income Countries

LI Legislative Instrument

LMIC Low- and Middle-Income Countries

MOH Ministry of Health

MRI Magnetic Resonance Imaging

PCC Post Caesarian Section Consequence

POS Perceived Order of Socialization

SDG Sustainable Development Goal

SOP Sources of Perception

SVD Spontaneous Vaginal Delivery

TCA Thematic Content Analysis

WHO World Health Organization

Definition of terms and concepts

Caesarian Section: The process whereby an incision is made on the abdomen to remove a baby.

Social construction: The beliefs and meaning society attach to a thing or an event or a situation.

Assisted birth: Giving birth with the help of medical intervention rather than normal vaginal delivery.

Significant other: This refers to friends, relatives, religious leaders, husbands, siblings.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

This chapter comprises of the background of the study, problem statement,

Research questions and objectives of the study, justification of the study and theorectical framework operational definitions

of key terms.

1.1 Background of Study

Among the challenge's women face during childbearing years is the choice of the mode of delivering a baby and its acceptability in their social context (Boz *et al.*, 2016). Choosing between spontaneous vaginal delivery and delivery through surgery is a crucial moment especially when women are nearer to the time of delivery (Shahoei *et al.*, 2014). Different reasons are given for choosing one birth method over another even though the most preferred mode of delivery is spontaneous vaginal delivery when it safe to do so. However, the trend is changing due to the changing lifestyle and social role of most women and thus some women now choose to deliver through caesarean sections for purely personal reasons other than health issues (Souza *et al.*, 2016). A Caesarean section is usually indicated when conditions arise such that if a woman is to deliver through the vagina, the baby or the mother would be in danger or risk (Shirazian & Gertz, 2013). These indications for CS include obstructed labour, twin pregnancy (with opposing presentation with the possibility of resulting in chin locking, cord tie), hypertension in the mother, when the baby presents with the bottom first (breech), issues concerning the placenta, pelvic shape, and history of CS (Caughey *et al.*, 2014).

However, after CS, there is a future possibility of birth per vagina. Some Caesarean sections can also be electively performed. The World Health Organization (WHO) recommends that they are indicated on medical needs (Betran *et al.*, 2016). A caesarean – section usually lasts from 45 minutes to one hour. The procedure may involve the use of spinal anaesthesia during which the woman is conscious. It can also be done by putting the woman under general anaesthesia. A woman can usually commence breastfeeding right after she becomes conscious and is taken to the recovery room (Shirazian & Gertz, 2013).

The increased risk includes respiratory problems in the baby and issues with embolism in the amniotic fluid as well as post-partum bleeding in the mother (American Congress of Obstetricians & Gynecologist, 2014).

Studies by WHO have shown that CS may be an unavoidable option for a pregnant woman and recommends it at 10% to 15% rate total births (Manyeh *et al.*, 2018). Among high income (HIC) countries and some low- and middle-income countries (LMIC), studies have revealed that the provision of CS exceeds the rates which have been recommended. A current WHO report revealed that from 1990 to 2014 there was a rise in the average global CS rate from 12.4% to 18.6%. This figure varied from 6% up to 27.2% based on the region studied with a 4.4% average rate per year (Betran *et al.*, 2016). Africa had the least (7.3%). This was followed by Asia, Europe, Oceania, and North America. The regions with the highest rates were the Caribbean and Latin America which had 40.5% (Betran *et al.*, 2016). The Sustainable Development Goal 3 aims to ensure good health and wellbeing by 2030. The international community has invested substantial resources in health programs with an emphasis on maternal health. African countries including Ghana have responded by developing strategic policies.

The major condition that necessitates the choice of CS on the African continent includes abruption placentae, previous CS, malpresentation, foetal distress, eclampsia or preeclampsia, placenta Previa, prevention of HIV transmission to the new-born as well as the most common cause, the obstruction of labour (Ugwu & de Kok, 2015). Obstruction of labour can lead to major obstetric as well as perinatal complications which can affect the quality of life and lead to vesicovaginal and rectovaginal fistula with the resulting stress incontinence in the absence of CS. Ultimately, this can lead to the death of either or both the mother and baby (Shirazian & Gertz, 2013). Defining the third sustainable development goal with a trickle-down negative effect on all the remaining 16 as adequate health and wellbeing is the pivot of the sustainable development goals.

Women will prefer Caesarean Section over normal birth because it relieves them of the pain in normal vaginal delivery and their life and that of the baby is protected from danger as well (Fenwick *et al.*, 2010). On the other hand, vaginal delivery is regarded as a choice of birth that creates a bond between the mother and the baby from the moment the baby is delivered. It is easier for mothers to get back to their daily routine of work and it frees them from the danger that is associated with caesarean delivery (Rishworth *et al.*, 2016). From a study by (Abbaspoor *et al.*, 2014) financial capability, as well as views from significant others, influenced Iranian women's choice on a particular mode of delivery. Similarly, a study among Canadian women indicated that women's concern about their ability to assume satisfactory sexual relationship influenced their decision making on the method of birth (Stoll *et al.*, 2014). According to Shahoei *et al.* (2014), in Iran, women made their delivery choices based on positive information they obtained from their care providers regarding one method as better than the other. That aside, Birth experiences shared by women's significant others and through the social networks, served as a guide to women in taking decisions with regards to the mode of delivery (Boz *et al.*, 2016).

A study, (Hildingsson, 2008) reported a high CS underutilization among West African countries, compared to the large numbers of obstetrics morbidities which would have required CS. The low use of prompt caesarean delivery at crucial times at term in most countries in Africa is seen to be a major influence on the the ongoing increasing numbers of maternal as well as peri-natal morbidity and mortality (Okonofua, 2001).

The ideal rate of C-sections, calculated as the number of CS deliveries in a population needing CS, ranges from 5 to 15% as already mentioned (Dumont *et al.*, 2001).

In the National Assessment Emergency Obstetric and Newborn care manual for compiled in August 2011 for Ghana, the CS performed in all facilities resulted in a national population-based CS rate of 7%. The CS rates in all facilities for the region ranged from 2% in the Northern region to 16% in Greater Accra region. The three regions in the Northern part of the country were the only ones where the CS rate in all facilities was less than 5%.

The national met-need for Emergency Obstetric and Newborn care was 34%. Regions that recorded percentage scores below the national average were Northern, Upper East, Upper West, Brong-Ahafo and Ashanti regions. Ashanti region recorded a met need of 24% next to 21% for the Northern Region which recorded the lowest among all the regions.

Data analysed retrospectively from the Demographic and Health Survey from 42 developing countries, found delivery rates of caesarean sections often found less than 1% either in the poorest 20% of the population or in all but the richest 20% (Ronsmans et al., 2006). The caesarean section rate in Ghana as of 2015 was 3.33% by the WHO (Central Intelligence Agency; World Bank factbook, 2015).

More attention has been given to the highest acceptable threshold of the caesarean section than the lowest acceptable threshold. Very low rates indicate poor access to surgical care and

the consequent risk of unnecessary deaths. About 1 to 2% of total deliveries may require the intervention of CS to preserve the mother's life an that of the unborn child. Caesarean delivery rates of less than 2% are thought to depict a real deficit in access to quality obstetric care and are linked with high maternal mortalities (Brooks *et al.*). This stands to reason that, Ghana's rate of 3.22% may reflect a deficit but may not be highly significantly associated with it. In a study, it was argued that one of the very effective ways by which maternal mortality could be reduced was to increase the access to CS for women who would have need for it (Dumont et al., 2001). The issue does not only involve the low CS rates but also involves the increases in the rates of emergency CS. In a study by Gulati and Hjelde on indications which lead to Caesarean sections at the Korle Bu Teaching Hospital in Ghana in 2012, it was revealed that in the period from 08/12/2010 until 10/02/2011, there were 548 CS; 70% of which were emergency/S (Gulati & Hjelde, 2012).

Delays which occur in the accessing of maternal health services may take place in three ways. The first is as a result of the mother, husband or family not deciding on seeking the appropriate quality medical care at the right time. The second is associated with the delay between the onset of labour or any morbidity and reaching an appropriate health care facility. The third phase involves the delay in that occurs at health facilities in the delivery of care to the mothers requiring their services. Delays on decision making (Phase 1) are most relevant to the CS delays.(Moyer *et al.*, 2014)

Some studies in Ghana have reported the aversions by women's regarding CS which may lead to prolonged delays or complete refusal to undertake CS (Chigbu & Iloabachie, 2007). Aversion seems to be grounded in the fear that CS can result in serious health complications which may lead to infertility, or even result in death (Chigbu & Iloabachie, 2007) and also in the attachment of social and cultural meanings to CS (Aziken *et al.*, 2007a). This study seeks

to further the understanding of the influence of social construction of knowledge of caesarean section among women who have undergone the process leading to acceptance or refusal of CS. The study draws on the classic arguments by the anthropologist, Kleiman that systems in medical practice are similar to cultural systems including kinship and also religious systems, and are intertwined with meanings, behavioural norms and values (Kleinman & Benson, 2006) Moreover, the medical systems tend to embrace multiple areas within which people manage sickness. A lot of problems with health are ameliorated in what may be described as the 'popular arena' which means the social networks provided by families. Social experience reactions eventually determine the health-seeking behaviours. The success of 'Folk healers' who are present in quite a number of communities may be related to their ability to 'cure' the symtoms of illnesses instead of curing the actual diseases.

Concerning complications in pregnancy and CS, the professional, folk, and popular models become mismatched. Although C-Sections are often viewed as appropriate interventions in the medical as well as professional arena, it may be viewed as 'failure of reproductive abilities' of the woman. This can lead the woman towards desiring to go through vaginal delivery. This therefore becomes a major reason for the refusal of CS.

The capacity to make an appropriate health-related decision by a woman can be severely limited by social and cultural factors therefore increasing the risk of complications which may become life-threatening (Okojie, 1994). Furthermore, faith becomes a factor as religious providers are seen reshaping the ANC landscape and choice of delivery methods by making promises of positive results which are based on the concept of 'faith' and or 'divine' protection 'rather than on the mother's ability to deliver safely (Ugwu & de Kok, 2015). The study further highlights the issues of gender, religion, social and cultural factors which underpin the refusal of CS and use of alternate providers.

1.2 Problem Statement

Ghana was placed 32nd among 184 countries with maternal mortality prevalence or rate of 319 deaths/100,000 live-births by the World Bank Central Intelligence Agency which is statistically and clinically significant and does not correlate with strides made in implementing programs and policies on reproductive health (Richelson, 2015).

Emergency Obstetric Care (EmOC) provision such as C-section is a key initiative for the great reduction in numbers of pregnancy and delivery related high maternal death ratio in this part of our setting (Dumont *et al.*, 2001)

It appears however that, the creation of accessible EmOC facilities is not the only thing needed to reduce the incidences of maternal and child mortality which makes CS initiative a necessary but not sufficient factor to curb the problem.

Ghana and for that matter, Tamale is a town bound by strong family ties guided by norms and values held in high esteem. These values and norms are created and re-created in line with how societal perception of the world as they lived it. Despite the knowledge mothers have on the role caesarean section plays in saving them from difficult deliveries, they are much particular about its negative effects on them and their families (Rishworth *et al.*, 2016). Research has shown that 71% and 25% of women in northern Ghana deliver either at home or in a health facility respectively (Dako *et al.*). It, therefore, stands to reason that with the high percentage of 71% of home deliveries, a lot of factors might have contributed to this, one of which might be to avoid Caesarean Section. This puts an individual in a social construct where people usually tend to do what is socially regarded acceptable in some instances even at the expense of their lives. For instance, people hold the myth that a woman's inability to deliver vaginally suggests incomplete womanhood and to some an engagement in adultery and therefore a punishment from the gods. This may seem irrelevant but tends to affect the

health-seeking behaviour of people and may contribute to CS refusal and subsequent loss of lives. This myth cannot be proven scientifically yet it is of clinical significance as women who receive assistance during delivery, may receive criticism from society in the context of engaging in adultery (Furber, 2013; Mboho, 2013). Several other social constructs affect women's delivery preferences and may result in subsequent refusal of CS when indicated especially if the first CS was considered a reproductive function failure by family, friends etc. Socio-cultural issues appear to deter women from accepting CS when indicated.

The social critics may also stem out of the fact that caesarean section limits the number of delivery that a woman can engage (Mboho, 2013). These ideas and beliefs each woman have regarding their preferred mode of delivery as a result of cultural and societal influence (Litorp *et al.*, 2015). For this reason, the choices of mode of delivery must be tackled and appreciated within women's world view (Bohren *et al.*, 2014). This is of worry in the social context as the family size is of much relevance in many rural homes in the study area.

The prevailing socio-cultural factors which impresses on a mother to deliver vaginally is a major reason some women resort to unorthodox providers such as religious leaders in a desperate attempt to achieve 'normal childbirth' (through the vagina thereby avoiding CS even if it is the only live-saving initiative at that time (Prah *et al.*, 2017). The undesirable, different views of social origin about Caesarean Section may jeopardize the fight against maternal and neonatal deaths because it can lead to underutilization of surgical birth in low-income countries as an alternate means of childbirth when complications do occur (Furber, 2013).

Based on the researchers own experience and observation within the study area, most women refuse to undergo caesarean section even when there is an obvious medical indication, most of which result in infant deaths and maternal morbidities. Most woman who had experienced

CS nevertheless may wish for vaginal delivery in their subsequent deliveries. In the study area, CS is viewed with disdain, misconception, anxiety, guilt, misery, and anger. Consequently, childbearing women do not opt for CS due to the negative socio-cultural perception of the procedure as outlined above.

It is in this regard that this study sought to illuminate the social constructs underpinning CS refusal and how these social constructs trickle down to influence the health and wellbeing of women who undergo Caesarean delivery.

1.3 Research Questions

1. What is the prevalence of caesarean sections in the Tamale Teaching Hospital?
2. What is the knowledge level of women on caesarean sections in the Tamale Teaching Hospital?
3. How could socio construct of knowledge lead to delays and refusals of caesarean section?

1.4 Research Objectives

1.4.1 General objective

The study examined the social construction of knowledge of caesarean section among women who have undergone the process of caesarean section in the Tamale Teaching Hospital.

1.4.2 Specific Objectives

1. The study examined the prevalence of caesarean section in Tamale Teaching Hospital.

2. The study determined the knowledge level of women on a caesarean section in the Tamale Teaching Hospital.

3. To find out how social construct of knowledge lead to delays or refusal to accept caesarean sections.

1.5 Justification of the study

Extremely low rates are indicators that, access to surgical care is poor and women are dying unnecessarily. About 1 to 2% of all births are associated with conditions that require CS to preserve the life of the pregnant mothers life and save the unborn child (Ronsmans & Graham, 2006).

Not only the low rates is the problem but also the high emergency Caesarean-section. This indicates there are delays in accessing maternal health service This leads to delivery complications such as disability, infertility, and death.

The findings of the study would serve as a benchmark for further research on delivery preferences and its determinants. Stakeholders would use the research findings to fine-tune their policies or programs geared towards an improved, effective, and sustainable maternal and child health. Barriers to emergency CS on that part of clients or family members would be explored to enable efforts targeted towards minimizing them if not eradicating them.

The findings of the study finally would help complement efforts in the attainment of SDG 3 and the subsequent realization or near realization of the rest as the health of humans pivots the realization of the remaining 16 goals in the study area. The finding will also equip nurses and midwives with knowledge on the meaning, beliefs, and behaviour of women towards caesarean sections. This will enable them to give better education to women during antenatal on the indication for CS which will lead to the acceptability of the procedure when medically indicated.

1.6 Conceptual framework

1.6.1 Theoretical framework of the study: The social construction reality theory

The social construction of reality theory seeks to describe how ideas, beliefs and values in each society are created by its inhabitants and tend to influence how they perceive, act, and

react to a situation in their everyday lives. In social construction, the main tenets of the theory are on how meaning is given to an event or situation which is not a real characteristic of it but one ascribed to it by society (Burr, 1995). It also emphasizes on the belief that what an individual acquires as knowledge is dependent on socialization within the social network. Thus, the way an individual views and embraces situations in life to a larger extent, is as a result of how the social context perceives and accepts it (Cojocaru, 2010).

The social construction theory was originally proposed by Berger and Luckman (1966). There are three major means through which reality is generated: externalization, objectivation and internalization.

1.6.1.1 Externalization

In the context of the model, new practice emerges when individual share their beliefs, norms and principles with significant others that become socially acceptable with time. Beliefs and labels that are assigned to events and situations by individuals through socialization, informs what is considered appropriate and meaningful in a social context (Berger & Luckman, 1966).

1.6.1.2 Objectivation

According to Berger and Luckman (1966), human beings are born into an environment that is both natural and of humankind. The individual thus, grows biologically yet his life is shaped through his constant association and interaction with significant others who create realities and are being governed by them (values, beliefs, rules). Naively, the individual interacts with the societal norms, beliefs, and practices and with time conforms to them as the ethics of the society. Thus, the beliefs the individual holds about an event or situation is influenced by the culture and acquired through interaction with significant others.

1.6.1.3 Internalization

Internalization, as used in the model, seeks to explain the process of practising what others have practised before; their objectified norms, values, and beliefs that direct how things are done in the society. Berger and Luckman, (1966) emphasized that once reality exists in any given society, individuals are members of a society only when they can identify with their neighbours and society, by believing and engaging in their practice. Once the individual becomes conscious of these predetermined realities it becomes part and parcel of his life. This is achieved through individual interaction with significant others and role modelling. Subsequently, the inherited reality influences how the individual behaves acts and identifies with significant others in emotional ways (Berger & Luckmann, 1966).

The social construction of reality theory as postulated by Berger and Luckman has been found suitable for this study because, the women's conception of CS as a reality stemmed from their beliefs as gathered from the society, that an ideal woman is someone who gives birth vaginally (externalization).

These norms or beliefs are obtained from significant others through the socialization process (objectivation). These beliefs manifest in the need for everywoman to deliver vaginally as a reality to be regarded as a "woman" in their social context. This pre-ordered arrangement may make women want to deliver through the vagina, such that women may not prefer CS even if there is the need (internalization).

1.6.2 Concept of social construction explained

Social construction seeks to explain how individuals and groups assign meaning, views, concept to situations and events which are accepted as standards in the society. It means that the idea only came to be because society created it to serve a purpose. This implies that a different meaning could be assigned to society's events at any time based on society interest.

It also means that the constructed view and meaning can be discarded once it does not meet societal needs (Boghossian, 2001). The meaning or situation forms part of societal principles and is being adhered to and practised by members of the society.

However, this same meaning or notion placed on the event or situation cannot be replicated in another environment. It only pertains to the society in which it was constructed. The jointly developed ideology is transmitted and made meaningful through language during daily interaction as human beings (Berger & Luckmann, 1966).

1.7 Chapter arrangement

Chapter one is comprised of an introduction, background**,** Problem Statement**,** Research Question, Objectives, Conceptual Model, and Justification of the study. Chapter two contains a review of relevant literature. Chapter three contains methodology comprising, Study Area, Study Type / Design, Study Population, Study Unit, Sample Size and Sampling Method, Study Instruments, Plan for Analysis and Results Presentation as well as Quality Control, Ethical Issues, Study Limitations and Plan for the Dissemination of results. Chapter four contains Results and Analysis, chapter five contains a discussion of the results and chapter six contains Conclusion and Recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter deals with the review of related literature. Sources of data included; published data, journals, books, and internet. Databases accessed include; HINARI, PUBMED, Science Direct, Medline, google scholar, Cinahl. The literature was reviewed according to the objectives of the study.

2.2 Overview of Caesarean Section

Among the challenge's women face during childbearing years is the choice of the mode of delivering a baby and its acceptability in their social context (Boz *et al.*, 2016). Choosing between spontaneous vaginal delivery and delivery through surgery is a crucial moment especially when women are nearer to the time of delivery (Shahoei *et al.*, 2014). Different reasons are given for choosing one birth method over another.

Caesarean section is a procedure used by surgeons to deliver a baby when the expectant mother can't do so by herself based on health reasons or difficulties encountered during childbirth. It is also chosen by some expectant mothers and their significant others because they regard it as an excellent way to bring forth a child (Souza *et al.*, 2016).

Caesarean section, or C-section or simply CS, is the resort to surgery in the delivery of one or more babies. It is usually indicated when delivering per vagina would be a risk to the life od the mother or the child (Shirazian & Gertz, 2013). This among others include obstruction of labour, multiple pregnancies such as twins (with opposing presentation with the possibility of resulting in chin locking, cord tie etc), maternal hypertension, breech presentation, placenta problems, shape of the pelvis and previous caesarean – section (CS) (Caughey *et al.*, 2014). However, after CS, normal delivery by the vagina may be likely in some of these situations.

Some Caesarean- sections are also conducted electively. The WHO recommendation is that they should be done when indicated on medical needs (Betran *et al.*, 2016). A caesarean – section usually last from 45 minutes up to one hour. The procedure can be carried out using spinal anaesthesia with the mother being concsious or performed with general anaesthesia. The mother can usually start to breastfeed the infant after waking up or being moved out of the theatre to the recovery room (Shirazian & Gertz, 2013).

Caesarean section (CS), is the procedure whereby the foetus(baby) is delivered via a surgical incision (a small cut in the abdomen) into the wall of the uterus after 28 weeks gestation (Kwawukume & Emuveyan, 2002; Ugwu & de Kok, 2015). It has been reported occasionally throughout the course of medicine but was only recommended as safe for both the mother and her foetus in the 20th Century, probably because of technological advancements (Dickson & Schwarze, 1999). Nkwo and Onah (2002) reported that caesarean section is the most conducted major obstetric procedure worldwide, and it has led to vast improvements in obstetric care. CS is typically recommended when delivery by vagina is seen as dangerous to mother or foetus. Although the CS is the most major surgical procedure conducted in obstetrics and has led to vast improvements in obstetric care worldwide; concerns still exist about the attitudes and preference of women on the process worldwide. CS is often indicated in Nigeria as an emergency process for critical situations like foetal distress, antepartum haemorrhage, previous incidence of CS and obstructed labour (Bukar *et al.*, 2009; Geidam *et al.*, 2009; Oladapo *et al.*, 2004).

Research has proven that the first CS performed can be traced to the time of Hammurabi (1795-1750 BC), re-counting the delivery of a baby boy removed from the uterus of a dead woman (Lurie, 2005). 'Sectio Caesarea' is a name invented by a French obstetrician Guillimeau in 1598. It was a method used to bring forth a child especially when the pregnant woman dies. Three different explanations exist concerning the origin of the name of the

procedure. In 715 BC, Numa Pompilius, the then Roman emperor, organized Roman lawsmaking it illegal to dispose of a dead woman who was pregnant without removing the baby. If a baby boy was removed it was called a "caeson". This law, the Lex Caesaris or Lex Caesarea, is assumed to have been the origin for the name of the process "cesarean section"(Todman, 2007).

2.3 Prevalence of Caesarean Section

In a study carried out by (Betrán *et al.*, 2016) to observe the trend of caesarean birth at the global, regional and national levels, it was observed that, from to the data collected from a total of 150 countries, 18.6% of all births occurred by CS. This ranged from 6% in the least to 27.2% among the most developed regions. Latin America and the Caribbean areas had the highest CS rates (40.5%). Northern America follows with (32.3%), Oceania with (31.1%), Europe with (25%), Asia with (19.2%) and finally Africa with (7.3%). From a data of 121 countries, the trend analysis indicated that from 1990 and 2014, the average global C-section rate increased by12.4% (from 6.7% to 19.1%). The average rate of increase annually was 4.4%. The most absolute increments were in Latin America and the Caribbean (19.4% increase, from 22.8% to 42.2%) Asia followed with (15.1% increase , from 4.4% to 19.5%), Oceania (14.1%, from 18.5% to 32.6%), Europe (13.8%, from 11.2% to 25%), Northern America (10%, from 22.3% to 32.3%) and Africa with (4.5%, from 2.9% to 7.4%). Asia and Northern America were the regions with the greatest and least average rate of increase annually (6.4% and 1.6%, respectively). At present, 40.5% of all births are by C-sections in Latin America with the Caribbean and Southern America sub-regions having the highest rates of CS in the world with 42.9%. Africa has the least average rate of C-sections with 7.3%, which is a weighted average between 3.5% in sub-Saharan Africa and 27.8% in Northern Africa. The trend analyses indicate that with the exception of two countries (Guinea and Nigeria) where the C-section analyses show that CS rates have reduced and one (Zimbabwe)

which maintained the same rate, all other countries had the use of CS increasing at various levels. The absolute and annual increase in CS rates are more striking in less developed countries. Latin America and the Caribbean's exhibited the highest absolute increases in CS rates (19.4%) much above any other region during the period. Africa had the least absolute increase (4.5%) and remained as the regional area with the least C-section rates. Sub-Saharan Africa showed no increase in the rate whereas North African countries showed steep increases especially from 2000. Asia had the second highest absolute increase and the largest AARI, although currently it has the second-lowest CS rate worldwide (19.2%), behind Africa. Some countries have had remarkable rises in their rates. Egypt, Turkey, Dominican Republic, Georgia, and China have all experienced over 30% increase in their rates of C-sections over the last 24 years.

In another study by Ye et al. (2016) to find the link between the rates of delivery by CS and maternal and child mortality, it was ascertained that the rates of C-section from the year 2000 was 12.0% while in the year 2012, it rose to 15.5%. A total of 159 countries which reported at least one caesarean section rate during period had an inclusion in the analyses, representing 98.0% of global live births in 2005. Among them, 41, 75, and 43 were the least, less, and the more developed countries, respectively. Current rates of C-sections, with the exception of the least developed countries, are much higher than medically recommended (Organization, 2018). The scientific, public health and medical communities have raised concerns about this global problem while the search for various ideas and interventions to reduce unwarranted C-sections is on-going (Chen *et al.*, 2018; Khunpradit *et al.*, 2011). Rational and responsible decrease in unnecessary C-sections is not an easy task and would involve a lot of time and great effort. Monitoring the rate and outcome of C-sections is imperative to make sure that policies, practices, and actions to optimise the use of CS leads to an improvement in maternal and infant health outcomes.

In a study by (Mazzoni *et al.*, 2011), delivery rates in institutions varied widely from 90% in urban to 21% in rural India. The percentages of charitable facility and births delivered at private facilities by caesarean section was, 5% in rural 18% in urban India, It was also 30% in rural Nepal, and 73% in Bangladesh. Their results indicated that women with high educated were more prone to deliver by CS in private institutions in urban India. They also suggested that the choice of caesarean delivery may be hihg among more educated women and that both individual and provider level factors are involved in increasing the rates of C-sections. Rates of CS among the private institutions, and their attendeant mother and child health outcomes, need to be closely monitored.

A lot of institutions have shown the results of their experiences to indicate why C-Sections were conducted and the determining indicators. A study in Tanzania involving chart review and staff interviews found a lower than optimal management occurring in most of the cases and also discovered the absence of awareness and use of established evidence-based protocols, which often resulted in unwarrented C-sections (Litorp *et al.*, 2013; Maaløe *et al.*, 2012).

Related results were observed by scientists in Burkino Faso and Ethiopia, who also discovered that close examinations of the medical need for caesarean sections were crucial together with the development of effective clinical management protocols to decrease the rate of unwarranted C-sections (Fesseha *et al.*, 2011; Kouanda *et al.*, 2014). In terms of actual indications cited, a Medicines and Frontiers multi-country studies done in sub-Saharan Africa, observed that the indications which led to C-sections were obstructed labour (31%), malpresentation of the foetus (18 %), previous caesarean section (14%), foetal distress (10%), ruptured uterus (9%), and antepartum haemorrhage (8%); no observations were made concerning the appropriateness of the indicating signs or about whether a certain proportion of these C-sections were clinically unindicated (Chu *et al.*, 2012b).

With global increases in CS rates, it is very important to find out why the provision of this intervention has become more frequent. and at very steeply rising rates in a lot of regions, although much lower rates in Sub Saharan Africa..

Studies have observed social and demographic risk factors which have led to an increasing risk of C-sections in some populations. An Ethiopian study observed that mothers who had secondary or education or more were almost two times more likely to go through C-sections than the women who had none or just primary schooling, that 'richer' mothers were much more likely to obtain CS than those from 'poor' or 'middle' income households, and that mothers who had their deliveries in private facilities were twice as likely to be go through CS than those who had their deliveries in the public facilities (Gebremedhin, 2014). The observation that rich mothers are more likely than poor mothers to obtain C-sections is observed in a consistent pattern across many studies. A study on the trends of CS rates by country and wealth quintiles in southern Asian and sub-Saharan African countries found that among the very poor 20% of the population, C-sections made up below 2% of the maternal births among a majority of countries studied. In some of the countries, the rate was lower than 1 % among the very poor 80% of the population (Cavallaro *et al.*, 2013).

In terms of non-monetary factors linked with CS, an epidemiologic study of 86,505 women who delivered in referral hospitals in Senegal and Mali showed independent individual factors which were linked with CS (Briand *et al.*, 2012). The authors discovered an intrapartum CS rate of 14%, an emergent CS (which was not eidently defined) rate of 3%, and that 2% of CS were elective (Briand et al., 2012). Notably, the presence of obstetricians and/or medical anaesthetists were found to be associated with a high prevalence of elective C-sections (Briand et al., 2012). For all types of CS, the main maternal risk factors were prior CS, referral from another facility, suspected disproportionate cephalopelvic, vaginal bleeding

near term, hypertensive factors, prior CS, and premature rupture of membranes (Briand et al., 2012).

The greatest burden of maternal mortality falls on Low and Middle-Income Countries (LMIC), accounting for around 99% of the estimated 300,000 mortalities that occur yearly (WHO, 2009). One evidence-based intervention for decreasing maternal morbidity and mortality involves enhancing the process of delivery in a facilities by skilled birth attendants, which includes access to C-sections (Stanton *et al.*, 2007). However, access to CS is bedevilled with challenges in Sub Saharan Africa. A review article wich analysed studies from 16 nations observed that key challenges to achieving higher rates of CS (the average rate was 3.6%) were poverty and limited access to healthcare services, as well as a shortage of healthcare providers (Irani & Deering, 2015).

In Tanzania, a study observed that women who had been referred for delivery to a health institution had greater rates of CS and more poor neonatal outcomes which suggests that the formal referral system identifies high-risk pregnancies, but also indicates the need to target women much earlier for professional intrapartum care (Sørbye *et al.*, 2011). A similar study done in Kenya observed that mothers in rural areas have a much higher risk of mortality during pregnancy and childbirth, therefore the improvement of the access to life-saving interventions in such underserved regions should be made a priority (Echoka *et al.*, 2014).

In a analysis of qualitative data from 34 countries as to determine the characteristics which promotes or represents a barrier to institution-based delivery for women in LMIC, the conclusion was that the ability to access health institution-based delivery care involves the input from many actors and is affected by a number of physical and sociocultural factors (Bohren *et al.*, 2014). They discovered that mothers often seek for the supportive attendance, the privacy, and the familiar practices that they through when delivering at home and the lack

of these prevents them from seeking facility based delivery (Bohren *et al.*, 2014). Additionally, they observed that the difficulty of assessing facilities due to geographical barriers and the attendant higher costs when delivering in facilities become very important barriers as well (Bohren *et al.*, 2014). The conclusion was that government policies, insurance schemes, and other public health programs most of the time do not adequately reduce these barriers as a result of poor mechanisms to implement them and that mistreatment, abuse, and neglect by health workers have created dissatisfaction, mistrust, and the avoidance of facility-based delivery care in a lot of contexts (Bohren *et al.*, 2014). This article suggests that the access to delivery care in SSA and LMIC, in general, may be more complicated than the "three delays" model that previously described complications related to facility delivery (Thaddeus and Maine, 1994). The three delays model was introduced by Thaddeus and Maine, which seeks to suggests that delays in health care delivery in a healthcare institution can occur at three different levels: (1) delay in taking the decision to seek appropriate care, (2) delay in getting to the appropriate facility and (3) delay in the provision of the needed care in the facility (Thaddeus & Maine, 1994).

Studies among LMIC have shown that though they have demonstrated the capacity to perform CS, the health care systems are not well resourced. These studies have described extensively the high maternal and perinatal mortalities among pregnant women citing the inadequacy in equipment, medications and staffing in Asian, African as key contributing factors (Manasyan *et al.*, 2013).

It was observed that only 20% of the hospitals in Africa had full-time physicians, only 70% of hospitals in Africa and Asia had conducted a C-section in the prior 6 months, and blood was not available in 80% of African and Asian hospitals (Manasyan *et al.*, 2013). A similar study which assessed the availability of CS in 26 LMIC found out that whereas 73.8% of the health institutions reported the ability to conduct C-sections; 47.3% of these had not reported

the presence of any anaesthesia provider, and 17.9% reported the absence of obstetrician/gynaecologists or surgical providers (Ologunde et al, 2014).

According to reports by GHS 2016, the rate of caesarean section was above the WHO recommendation of between 5% and 15% of all birth. The proportion has increased from 14.6% in 2015 to 16.0% in 2016. Greater Accra contributed the highest percentage (24.3%) and the Northern region recorded the lowest percentage (8.7%).

Among last live births and stillbirths in the 5 years before a particular study, among mothers with ages 15-49 that were delivered in a health facility, 16% had deliveries through CS; slightly more C-sections were decided on before the onset of labour pains (9%) than after the onset of labour pains (7%). Instrument deliveres made up for 4% of live births and stillbirths, blood transfusions were received in 5% of the deliveries, and intravenous fluid was given during 58% ((GSS) *et al.*, 2018).

In a cross-sectional study to determine the socioeconomic inequalities in the use of caesarean section Ghana, CS delivery was 11.5% out of 4294 respondents. All the same, CS delivery percentages range from 5% of respondents in the poorest quintile to 27.5% in the richest quintile (Dankwah *et al.*, 2019a; Dankwah *et al.*, 2019b).

2.4 Knowledge of caesarean section

From a study by (Ashimi *et al.*, 2013), it was concluded that 93.8% of their respondents had heard or were aware of CS with 40.9% feeling they had adequate knowledge of the procedure and 2.7% knew that before the procedure can be carried out, they needed to give a signed consent. This was explained by the fact that most of the respondents surveyed were not educated and were unemployed, hence they solely depended on their husbands' for guidance and financial support (Ashimi *et al.*, 2013). This would imply that if an emergency CS is required, obtaining consent for the procedure would constitute a form of delay at the health

facility as the patient may have to wait for her husband to come before she can give consent. This supports the results of (Bako *et al.*, 2011) in a cross-sectional study among women who presented with obstetric emergencies at a tertiary hospital in northeast Nigeria to determine informed consent practices and implication. Bako and colleagues found out by implication that, consent was significantly delayed when given by husbands, relatives, and others and this contributed significantly to the increased maternal and foetal morbidity and mortality among the group with delayed consent. The study Bako and colleagues conducted placed the reasons for the very high acceptance level of CS reported to be due to information bias where the women report acceptance since obviously, they knew that the researcher was interested in a positive attitude towards CS. Also, Bako reported that since only a third of pregnant women in northwest Nigeria utilize antenatal care as also reported by (Oguntayo & Albert, 2009), caution should be exercised in extrapolating the findings to the whole community. Nevertheless, they felt useful information regarding CS in the setting was generated. Also, according to the same study conducted by (Bako *et al.*, 2011), they reported a 94% awareness level of caesarean section in their setting.

A similar study conducted by Adageba *et al.* (2008) in the ANC of the Komfo-Anokye Teaching Hospital (KATH), Kumasi, Ghana, revealed that of 317 women interviewed 304 (96%) had heard of the procedure; however, only 43 (13.5%) could mention specific indications for it. There is a high level of awareness of caesarean delivery among ANC attendants at the Komfo-Anokye Teaching Hospital. The study has found out that most pregnant women attending the antenatal clinic were aware of caesarean section as the alternative to vaginal delivery. This finding was consistent with that of a similar study done in an urban setting in Nigeria (Aziken *et al.*, 2007a).

The study conducted by Aziken et al. (2007) revealed that all the respondents reported that they have heard of caesarean section and were able to identify CS (among 4 options) as

'delivery by operation through the abdomen'. Regarding their sources of information, 99 (24%) reported that they obtained the information from doctors, 232 (52.2%) obtained it from nurses, while 39 (9.4%) were told by their friends. The source of information about CS was not reported by 43 (10.4%) of the women.

However, a study conducted to assess Trinidadian women's knowledge, perceptions, and preferences regarding caesarean section: How do they make choices? (Mungrue *et al.*, 2010), it revealed that majority of the participants had a low level of knowledge about CS. An association was found between the level of knowledge of CS and the educational level of respondents. Respondents who had the highest score for level of knowledge also had the highest level of education. Likewise, respondents who were categorized as not knowing CS had the lowest level of education. Participants who had a previous CS also did better than those who did not. An association also existed between the respondent's personal preference and the amount of information they had. Those with a preference for CS had adequate or high levels of knowledge of CS. The main source of information about CS was predominantly a friend or relative (50%), followed by the mass media (28.5%), like tabloids, television, radio. Health care professionals (19%) and other sources (2.5%) ranked the lowest. The study tested whether the source of information was associated with the level of knowledge and found a strong association for each of the following categories: a respondent receiving information from the mass media or a health care professional was more likely to have high or adequate levels of knowledge. Participants whose source of information was a layperson were more likely to be ranked in the category of a low level of knowledge. Also, participants who had a CS were more likely to receive their information from a health care provider. On the other hand, participants who did not have a CS were more likely to receive their information from a friend or relative (Mungrue *et al.*, 2010).

Another study conducted by (Ajeet *et al.*, 2011) indicated that the majority of women (65.1%) were found to have very little knowledge about CS. Most of the women were aware of CS, but their knowledge level was low (47.7%) and (17.4%) had no knowledge. When an association between educational status and level of knowledge on CS among women was seen, it was found that women who had the highest level of knowledge also had the highest level of education. Likewise, women who were categorized as not know CS had the lowest level of education. An association was also seen between women's who had a previous CS and level of knowledge. Those having a previous CS had adequate or high levels of knowledge of CS. The commonest sources of information about CS were from friends or relatives (54.7%), media (24.5%) and health workers (20.8%) (Ajeet *et al.*, 2011).

A descriptive cross-sectional study was conducted Tamale Teaching Hospital in 2017 among pregnant women attending the antenatal clinic to assess their knowledge on Caesarean Section. Out of 360 pregnant women, thirty-two per cent (32%) of respondents had good knowledge regarding caesarean section, 48% and 20% had fair and poor knowledge on the procedure respectively (Afaya *et al.*).

2.5 Socio cultural beliefs of women about caesarean section

According to (Aziken et al., 2007), it came to light that all respondents were informed on the importance of CS and how it's been carried out. Loke et al, study revealed that CS was seen as an uncomplicated and quite pleasant mode of delivery among the study participants and mothers have enough time to prepare for delivery (Loke *et al.*, 2015).

In a study conducted in Sweden to find out caregivers and women's perspective of CS in low resource setting, the women believed that CS can only be done if the woman agrees that there is a possibility of her death during the procedures (Litorp *et al.*, 2015).

Many research conducted revealed that women believe CS delivery is not natural, it is man-made and God frowns on it, therefore women believe that vagina delivery is what is ordained by God (Abbaspoor *et al.*, 2014; Mboho, 2013). Women assign different reasons for planned Caesarean Section. Among them are a way of escaping death during delivery, to be relieved of pain, to maintain their self-worth and to protect their babies from stress (Ajeet *et al.*, 2011; Fenwick *et al.*, 2010; Karlstrom *et al.*, 2011). Apparently, 91.5% of respondents were in support of vaginal birth as their preferred mode of delivery in the study of Ajeet et al. (2011). The indication was that women opt for a caesarean section because of the expert attention coupled with the relaxed atmosphere they experience from health facilities. They also found out that most (68.5%) of the study participants will embrace CS as their preferred mode of delivery because it frees them of the pain associated with childbirth. On the contrary, 44% of these mothers felt CS rather inflicts more pain on the mother.

Findings from Kurdistan research depicted that caesarean section cannot be assured of safe delivery and one misses the first cry of the baby. Therefore women frown at the procedure. (Shahoei *et al.*, 2014) In research findings from qualitative studies, women were of the view that any woman who gives birth through surgery is weak and unfaithful to the husband. For these women, CS is also a form of punishment to a disrespectful woman by her immediate associates and a curse from the ancestors (Mboho, 2013; Sahlin *et al.*, 2013; Ugwu & de Kok, 2015). Furthermore, in (Litorp *et al.*, 2015; Rahnama *et al.*, 2015) study, a cross-section of the study participants believes it's the will of God for a woman to undergo through CS. They also believe that with CS one cannot attain the ideal family size in most African settings which necessitates the need for a rival to prove her worth to the husband as custom demands. This serves as a basis for the rejection of the Caesarian Section as a mode of delivery (Qazi *et al.*, 2013); (Ugwu & de Kok, 2015). On the contrary, other studies revealed that women will prefer a small number of children resulting from CS to ensure better care of them. (Litorp *et*

al., 2013). It is also a belief (Abbaspoor *et al.*, 2014; Stoll *et al.*, 2014) that, the concern of women about the preservation of their genital organs and being able to return to a satisfactory sexual relationship after CS, informs their choice of CS as a mode of delivery instead of vaginal birth

Inability to deliver as planned by their maker is considered a reproductive failure and influences the choice of delivery according to a research work carried out by Fenwick, Holloway, and Alexander (2009). In a qualitative study in Nigeria, women will have to prove themselves by giving birth vaginally because they are referred to as men after surgery. Their children even try to deny them as their biological mothers once they get to realize a scar on their abdomen because, for them, children are not born through the abdomen (Mboho, 2013).

Several qualitative studies have indicated that women are against CS because they spend more days at the hospital after delivery. This prevents them from carrying out their daily activities at home and engaging in economic ventures (Rishworth *et al.*, 2016; Shahoei *et al.*, 2014). However, in Stoll et al., (2014) study, women regarded CS as a way of giving good care to the baby. Findings from (Fenwick *et al.*, 2009; Liu *et al.*, 2012) study reported that the women in the study expressed that delivery through the vagina was considered the best for them, reasons being that, they will be able to carry on with their works at home immediately after a vaginal delivery.

Furthermore, some studies indicate that most women describe CS as a disease and will not want to die or suffer from any disability which will affect them for the rest of their lives (Qazi *et al.*, 2013; Rishworth *et al.*, 2016). For instance, in a descriptive review study by Quazi et al., (2013), it was observed that 36.1% of the research participants associated CS with death while (23.1%) believed that CS comes with impairments.

According to findings from another study conducted by (Fenwick *et al.*, 2010), fourteen (14) of the study participants suffered from one effect of CS or the other ranging from wound infections, uncontrolled vomiting and complications resulting from the anaesthesia that was administered to them. Similarly, in a study conducted in Tehran, 26.4% of mothers who had caesarian delivery indicated that they agreed to undergo CS because they did not know the possible effects CS could have on them.

In other studies, women believe there are retained products if a woman undergoes CS whereas everything is expelled through vagina delivery (Boz *et al.*, 2016; Rahnama *et al.*, 2015; Roudsari *et al.*, 2015). For fear of this, some women are against CS as a birth strategy.

Other authors revealed in their findings that, women have the belief that, there is an increase in the beauty of the woman after vaginal delivery because sweating during delivery enhances smooth skin and clears and removes all sports on the fa1ce. Apart from the above, women equally are of the view that God responds to their needs better when they deliver through the vagina which is not the case in CS delivery (Boz *et al.*, 2016).

Experiences such as women not been able to conceive immediately after CS, difficulty women encounter in shedding belly fat as a result of scars acquired through CS, and the pain felt on the abdomen during the cold whether influence women's unwillingness to accept CS as a birth strategy (Agbozo *et al.*, 2016; Boz *et al.*, 2016).

2.6 Indications for Caesarean Section

Caesarean sections performed appropriately and following an appropriate medical indication are potentially life-saving procedures. In this context, the provision of timely and safe caesarean sections in high maternal mortality countries is a major challenge faced by local health systems (Ronsmans & Graham, 2006). At the same time, in many settings, 11 women are increasingly undergoing caesarean sections without any medical indication which may

contribute to the worldwide secular trend towards higher rates of caesarean sections (Betran *et al.*, 2016). Over the last two decades, there has been a debate about the appropriateness of caesarean sections performed due to maternal request or following the indication of health care professionals but without a clear medical reason for this surgical procedure. Safety, costs, women's rights and wishes, maternal and professional satisfaction have been elements of this debate (Christilaw & E, 2006; Villar *et al.*, 2007). One factor that certainly favoured the liberalization of caesarean section in clinical practice has been the perception of caesarean section as a generally safe procedure, despite the increased costs associated with it. However, the assessment of the intrinsic risk of caesarean sections is complicated by substantial limitations in the existing medical literature (Caughey *et al.*, 2014; Guise *et al.*, 2004). Strong evidence would be provided by a well-designed randomized controlled trial, in which healthy women without co-existing medical conditions would be allocated to either intentionally to deliver by elective caesarean section or expectant management (Lavender *et al.*, 2005). Obviously, ethical constraints prevent such a trial.

In a study by (Stjernholm *et al.*, 2010), where they compared the indication for CS in the 1990s as against the indications for CS in the mid-2000s, they concluded the main indications for an elective cesarean in 1992 to either be a pathological foetal lie or a uterine factor. The dominant indication for an elective cesarean in 2005 was a psychosocial indication defined as maternal fear of childbirth or maternal request without any co-existing medical indication. Presumed foetal compromise and prolonged labour remained the main indications for urgent and emergency caesareans. No apparent alterations in population characteristics could be identified for these years.

Also, in a study by (Mylonas & Friese, 2015a) on the indications for and risks of caesarean section, they divided the indications of caesarean section as absolute and relative indications and based an elective caesarean section solely by the mother’s wish as a separate indication,

as they viewed the reasons for a caesarean section to be based primarily on the reason for the surgery and as to what is best for the mother and child in saving their lives. The study grouped absolute disproportions of the mother's pelvis, chorioamnionitis (amniotic infection syndrome), maternal pelvic deformity, eclampsia and HELLP (Haemolysis, Elevated Liver enzymes, low platelet count) syndrome, foetal asphyxia or foetal acidosis, umbilical cord prolapse, placenta previa, abnormal foetal lie and presentation and uterine rupture as absolute indications for a caesarean section. The study also grouped the reasons for a C-section under relative indications as pathological cardiotocography (CTG), failure to progress in labour (prolonged labour, secondary arrest) and previous caesarean section. The study, however, cited a few risk factors associated with the performance/ rise in the rates of caesarean sections, and some of these included, increased maternal age, obesity and diabetes mellitus and fertility treatment (Mylonas & Friese, 2015b).

In a prospective study by (Chu *et al.*, 2012a), the results indicated that 1276 women underwent a Caesarean section, giving a frequency of 6.2%. The most common indications were antepartum haemorrhage (101, 8%), uterine rupture (117, 9%), foetal distress (128, 10%), previous caesarean section (184, 14%), poor presentation (233, 18%), and obstructed labour (399, 31%),

2.7 Preferences of women towards caesarean section and spontaneous vaginal delivery

In a study by (Angeja *et al.*, 2006) conducted to assess the preference of Chilean women regarding the mode of delivery, the result of the study showed that majority of women (77.8%) preferred vaginal delivery, 9.4% preferred caesarean section, and 12.8% had no preference. There was no statistical difference in preference between the public clinic (11% preferred caesarean) and the private clinic (8% preferred caesarean), but of the 180 women completing the questionnaire, 90 were interviewed at a private clinic (caesarean delivery rate 60%) and 90 were interviewed at a public clinic (caesarean delivery rate 22%). Overall,

women preferring caesarean birth were slightly older than other groups, but there were otherwise no differences in parity, income, or education. On a scale of 1–7, women preferring caesarean birth rated vaginal birth as more painful, while women preferring vaginal birth rated it as less painful. Whether vaginal or caesarean, each group felt that their preferred mode of delivery was safer for their baby. The study concluded that Chilean 22 women do not prefer a caesarean section to vaginal delivery, even in a practice setting where caesarean delivery is more prevalent. Thus, women, preference is unlikely to be the most significant factor driving the high caesarean rates in Chile.

Another study (Buyukbayrak *et al.*, 2010) was aimed at assessing the preference of pregnant women for a mode of delivery in uncomplicated pregnancy and reasons of their choice, also to determine if maternal characteristics were predictors of maternal preference. Pregnant women applying to the antenatal clinic for a routine control visit were recruited. After verbal consents, a questionnaire was administered to 1,588 pregnant women. Of the women questioned, 84.1% opted for vaginal delivery whereas only 15.9% opted for an elective caesarean delivery. The main reasons for vaginal delivery preference were; earlier healing and earlier hospital discharge, being a more physiological way of delivery and previous vaginal delivery history. The most common reasons for choosing caesarean delivery were; fear of vaginal delivery, tubal ligation demand and to avoid labour pain. Educational status, occupation and gestational age were not found to be influencing factors but age, parity and monthly income were found to be influencing factors for maternal preference.

In a study (Hildingsson, 2008), the result showed that 8.2% of the women would prefer to have a caesarean section. A wish for caesarean section was associated with parity, age, civil status, residential area, and obstetric history. Women preferring caesarean section were more depressed and worried, not only about giving birth but also about other things in life. A multivariate logistic regression model showed three factors being statistically associated with

a wish for caesarean section: a previous caesarean section, fear of giving birth and previous negative birth experience. Relatively few women wish to have a caesarean section when asked in early pregnancy, and these women seem to be a vulnerable group.

In a recent study conducted (Torloni *et al.*, 2013) to assess the preference of Italian women towards caesarean sections, the results revealed that 80% of the participants declared that they would prefer a vaginal birth if they could opt for the route of delivery. Preference for CS was higher among younger women; almost 35% of those < 25 years preferred a CS compared to less than 16% of those > 35 years. Similarly, the proportion of women with lower education who preferred CS was significantly higher than those with higher education (20.5% versus 13.4%). Women with a previous delivery were more likely to prefer vaginal delivery than those without any deliveries (82.3% versus 77.3%). Within the group of over 500 women with previous births, those without a previous CS were even more likely to prefer a vaginal delivery than women who had undergone at least one previous CS (94.2% versus 60.0%, respectively).

Among women preferring a CS, 77% strongly agreed or agreed that they feared the pain of birth and 74.5% strongly agreed or agreed that a reason for preferring CS was the convenience of scheduling the delivery. Almost two-thirds (64%) of the women who preferred a CS strongly agreed or agreed that this route of delivery was safer for the mother and that it caused less suffering for the baby. Approximately 40% agreed that they preferred a CS because it allowed a quicker return to sexual activity, or because they had good reports from friends who had delivered through this route or because they had had a previous CS. The statement with the lowest rate of agreement among women who preferred to deliver through CS was because the hospital offered no epidurals for vaginal deliveries (32.3%).24 Statements with highest levels of disagreement for preferring CS were: having had a previous

CS (57.3% of women strongly disagreed or disagreed), the experience reported by others (51.6%) and not having the epidural available for the vaginal delivery (45.6%).

Over half of the participants responded that their obstetricians were an important source that influenced their preferred route of delivery. Other important influences were friends or relatives, cited by approximately 22% of Italian women. Various forms of media or public resources were also reported to influence the preferred route of delivery; newspapers were the most influential (17%) and television the least influential (7%). 5% of women indicated that their husbands or partners had influenced their preferences.

Locally in Ghana, a study conducted by Danso et al. (2009) showed a similar trend in the preference of Ghanaian women towards C-section and vaginal delivery. It, however, was slightly lower in the preference to vaginal delivery, as most respondents, 80/145 (55.2%), responded that they prefer vaginal delivery to caesarean delivery. In Kumasi, 61.0% of women preferred vaginal delivery while in Accra, this was slightly over half (51.2%). The difference in delivery preference by site was not statistically significant. Nearly a quarter of all women in the study had no preference for a delivery mode (24.1%) according to their comments to the open-ended questions. Women, who had ever given birth, before this caesarean delivery, were more likely to prefer vaginal delivery. Those women who had only ever experienced caesarean delivery were more likely to not state a delivery preference while those who had experienced both caesarean and vaginal delivery were more likely to prefer vaginal delivery. Nearly 60% of women had prior vaginal deliveries.

Similar studies conducted in Ghana (Adageba *et al.*, 2008) reinforced the global trend in preference of a mode of delivery, with results showing that 296 women (93.3%) preferred vaginal delivery against planned CS. 11 women (3.5%) preferred planned CS. 10 women had no preference. The reasons given for preferring vaginal delivery to CS were: a natural way to

deliver, 205 (64.7%); a safer way to deliver, 61 (19.2%); less expensive, 15 (4.7%); reduced post-delivery morbidity, 36 (11.4%) and early discharge from hospital. Of those who preferred caesarean delivery, the avoidance of labour pains was the main reason given.

Naa Gandau *et al* revealed that more than 80% of respondents preferred spontaneous vaginal delivery (SVD) to caesarean section and a little above 70% said they were willing to undergo caesarean section if necessary. Long recovery was among the reasons women preferred spontaneous vaginal delivery (SVD). (Naa Gandau *et al.*, 2019)

In a study conducted at Tamale Teaching Hospital to find out women preferred mode of delivery and the factors influencing their choices of delivery, it was revealed vaginal delivery was the most preferred followed by vaginal delivery with epidural anaesthesia and caesarean section being the least preferred respectively (Walana *et al.*, 2017).

CHAPTER THREE

METHODOLOGY

3.1 Study area

The study was conducted at the Tamale Teaching Hospital. The research was conducted at the antenatal and postnatal care units of obstetrics and gynaecology department of Tamale Teaching Hospital (TTH), Ghana, a primary health care hospital that serves people of Tamale and its environs.

The Obstetrics and Gynaecological department is one of the clinical departments and it provides free antenatal care services, childbirth and postpartum services and child health services. It also serves as a referral hospital for several health centres and polyclinics and the hospitals within the northern, Savanna region, Upper East-west and North-East regions. The hospital has a bed capacity of over one thousand and serves as a clinical teaching institution for all health training institutions in the Northern Region. It is equipped with state of the art and modern health care delivery services such as ECG, CT scan, MRI, and carry out major surgical procedures. All deliveries are attended by midwives and doctors. It is a tertiary health facility that has medical and surgical departments. Whiles located in an urban area, the community represents a mixture of urban and rural life. The Tamale Metropolitan Assembly was established by legislative instrument (LI 2068) which was elevated to a Metropolis in 2004. Tamale is the Metropolitan capital city as well as the regional capital of the Northern Region (Ghana Statistical Service, 2014) The Tamale Metropolis is positioned in the central part of the Region and shares borders with the Sagnarigu District to the west and north, Mion district to the east, East Gonja to the south and Central Gonja to the south-west. The Metropolis has a total projected land size of 646.90180 km^2 (GSS-2014). Geographically, the Metropolis lies between latitude 9 16 and 9 34 North and longitudes 0 36 and 0 37 West. Tamale is strategically situated in the Northern Region and by this strategic location serves as

a point where most farm produce from the nearby districts are brought for sale. Based on the location of the metropolis within the region, the area stands to benefit from markets within the West African region from countries such as Burkina Faso, Niger, Mali and the northern part of Togo and also en-route through the area to the southern part of Ghana (GSS, 2014).

The metropolis has a total of 219,971 families. Averagely, each family has a household size of 6.3% majority of whom are children representing 40.4% and the elderly make up 16.1% of the household population. Spouses form about 9.4% while significant others form 12.9% of the population. The extended family system structure is mostly seen within the Metropolis (head, spouse(s), Children, and head's relatives) which represents a greater proportion of (46.1%) than that of any other type of household structure. Only a small percentage (19.5%) of the nuclear family structure (head, spouse(s) and children) is seen in the metropolis (GSS, 2014). The community is a Muslim dominating one and described as people who align themselves with the cultural practices and custom of the land. There are few Christians and Traditionalists and polygamy is common among these groups.

3.2 Study design

This is a hospital-based descriptive cross-sectional study which employed both qualitative and quantitative methods to enable the researcher makes inferences about possible relationships of the variables measured simultaneously. In this study, a descriptive design was employed as this design was considered as the most appropriate to obtaining answers on how women give meaning to caesarian section after the procedure.The design is highly favored for research enquiries which seek to get an in-depth understanding of a situation, to generate new ideas based on participants responses and to have a better insight to a phenomenon(Creswell & Poth, 2016) As a result, this approach was deemed fit in the quest to obtain first-hand information and a contextually rich understanding on how women construct CS in this part of the country and to give better understanding of the phenomenon. The researcher also

employed retrospective study to dertemine the prevenlence of caesarean section in the Tamale Teaching hospital. The researcher adopted sequential mixed methods so that the findings of the qualitative method could be used to elaborate on the findings of the quantitative method.

3.3 Study Population

The study population comprised of all women who underwent caesarean section within the Tamale Metropolis at the time of the study. All participants were recruited within the hospital premises and included post-CS women.

3.4 Study Unit

Post caesarean section woman: A woman who has delivered her baby using surgical procedure due to an indication such as prolonged labour, big baby, breech presentation, medical conditions, bleeding, or request by the woman. It is usually by elective CS or Emergency CS (if during labour she's not able to deliver SVD).

3.5 Sample Size Determination

For the quantitative part of the study, a total of 336 was estimated. The sample size was calculated using the Epi info with the desired confidence level (95%) = 1.96. This was adjusted to accommodate for a possible data loss of 5%. However, a final sample of 362 was obtained. For the qualitative 12 participants were recruited to form one focus group

3.6 Sampling Technique.

The study employed a purposive sampling technique to recruit participants for both quantitative and qualitative study. In this technique, participants with knowledge and experience about the particular topic under study are sampled (Tongco, 2007). In other words, the researcher decides on the type of participants needed for the study and goes in search for them. This sampling method ensured that the researcher selected women who have

undergone a caesarean section to share meanings and experiences after the procedure. The respondents were approached in the child welfare clinic (CWC) units of the Tamale Teaching Hospital and spoken to about the reason for the study, the importance and what information would be required from them. They were also informed that their identities were going to be kept confidential. A total of 362 respondents were approached to get involved in the study (qualitative) and all 362 showed interested, hence took part giving a response rate of 100%. The administration of the questionnaires was done by reading out and explaining the content of the questionnaires to respondents. To those who could not read or write, the questionnaires were translated to their local dialect by the interviewer, and for those, the interviewer could not understand, translators were found in the setting to help respondents answer the questionnaire. For the qualitative part, the addresses and phone number were taken and contacted later and a date was fixed for the focus group discussion. 12 respondants parciparted in the study.

3.7 Inclusion

Inclusion criteria were specified and included; the participant had to be married, over 18 years, undergone CS within the last 2 months to two years and speak English or Dagbani or Twi. The women must be living within Tamale Metropolis and willing to participate in the study.

3.8 Exclusion Criteria

Women who lost their babies during the CS and are emotionally unstable or where medical or clinical evidence suggests a potential participant is mentally retarded were excluded.

3.9 Data Sources

Primary data was be from the questionnaire and the interview guide by respondents.

Secondary data wassourced from the Gynecological Department of TTH and the review of the literature from articles and books.

3.10 Data collection and Study instruments

3.10.1 Quantitative data

For the quantitative data, a structured questionnaire consisting of both closed and open-ended questions was used to assess postnatal attendants, knowledge, and perceptions, identify how often women decline CS. and socio-cultural issues contributing to delays and or refusal of Caesarean section (CS) delivery. It took about 20mins to complete each questionnaire with the respondant

3.10.2 Qualitative data

For the qualitative data, a semi-structured interview guide with only open-ended questions was used in this study to collect the primary data from the focus groups. The semi-structured interview guide was designed in line with the study objective four which was developed from the constructs of the model serving as the framework for this study. The focus group discussion lasted for about 1:30mins.

3.10.3 Focus group discussion

During the focus group discussion and administering questionnaires session, the researcher communicated with the participants in the language both parties could understand. The researcher equally trained a translator to obtain information from participants especially in Dagbani the language most spoken among inhabitants in the metropolis. The information was then transcribed to the English by the same translator. All data that was gathered was audiotaped using a digital audio recorder in addition to written field notes. On average, the interview lasted for about forty minutes.

3.11 Data Analysis

Each questionnaire was assigned a serial number. Data were entered into MS Excel version 2010 for Windows. Data were cleaned for data entry errors and exported to Statistical Package for the Social Sciences (SPSS) version 23 for Windows for data analysis. Skewness test was performed to check for the distribution of the data. Entered data was intermittently cleaned to avoid any data entry errors and inconsistent entries. Frequencies, percentages, graphical representations, relationship, and significance testing were done where appropriate.

Qualitative data were analysed by transcribing verbatim and crossed checked for accuracy and completeness by replaying the audiotape information and comparing with transcribed data severally. Thematic analysis was employed for interpretation of the transcribed qualitative data. This involved reading the data repeatedly until patterns were identified and classified into themes and sub-themes. Both descriptive themes and analytical themes were identified and coded. Descriptive themes refer to tangible and easily identifiable aspects that may not need much interpretation while analytical themes relate to more abstract, theoretical notions that require inference on the part of the researcher

3.12 Quality control:

The interview guide and questionnaires were pre-tested using five and ten women respectively who met the inclusion criteria from Seventh Day Advertise (SDA) Hospital. The pretesting was done to obtain first-hand information on the feasibility of using the topic guide, comprehensibility of the question by participants and to ensure flow and coherence in the flow of questions. Any ambiguous questions were noted and reviewed at this stage. Following the pre-test exercise, the interview guide and questionnaires were then revised, restructured and the necessary corrections were made before the actual fieldwork was carried

out. To avoid false information during the actual field study, women that were used for the pre-test were different from those that were used for the actual study.

3.13 Ethical Consideration

Ethical approval to conduct the study was obtained from the Institutional Review Board of University for Development Studies. A thumb-printed consent to participate was obtained from all study participants after the objectives had been explained to them. A letter of certificate of authorization to conduct the research from the TTH research unit was then given to the Gynaecological unit. Study participants received oral information in local language regarding the nature and purpose of the study. Participants were reminded and reassured that they were under no obligation to partake in the exercise and that refusing to partake would not affect their access to hospital services. They were also informed that they could decline to comment on any issues or withdraw from the exercise at any moment without having to necessarily offer any explanations.

Confidentiality of all information and anonymity of statements and person were ensured by replacing names with codes. Soft data was stored in a password – locked computer and hard copies kept in a secure box to which only the researcher had access.

3.14 Limitations of the study:

The study did not involve men who are considered the key stakeholders in decision making on the caesarean section.

A planned focus group discussion with nurses at the study facility was no longer feasible because there were recorded cases of COVID19. Hospital policies did not favour such occasions which brings people together and a limited number of patients and staff were allowed at the facility at any given time. The few rarely get the time of their duty for focused group discussion.

CHAPTER FOUR

RESULTS

4.1 Socio-demographic characteristics of respondents

A total of 362 respondents of post caesarean women of different duration participated with a mean age of 30.80 and Std. deviation of 31.00. The maximum age was 44 and the minimum age was 17 with a range of 47. The respondents within the 30-39 age group was the highest with 187(51.1%) with respondents less than 20 being the least age group with 5(1.4%). A high number of respondents of 102(28.2%) had no formal education whiles the least number 25(6.5%) had tertiary education. Self-employment was very high among respondents with a total of 145(40.1%) and the number of students being the least 26(7.2%). Islam is the dominating religion with a total respondent number of 270(74.6%) and traditional religion as the least religion with 1(0.3%). Married respondents were in the majority with 327(90.3%) with widows being the least 4(1.1%). Majority of respondents were Dagombas 263(72.7%) with 63(17.4%) being other smaller ethnic groups including Akan, Dagaare, Hausa, Moshe etc. see table 4.1.

Table 4. 1 Socio-demographic characteristics

Category	Frequency N=362	Percentage
Age		
Mean ± SD	30.80 ± 5.97	
Age categories		
<20	5	1.4
20 – 29	148	40.9
30 – 39	185	51.1
40 – 49	24	6.6
Highest Level of formal Education		
No formal Education	102	28.2
Primary school	52	14.4
Junior secondary school	56	15.5
Senior secondary school	58	16.0
Vocational / Technical	69	19.1
Tertiary	25	6.9
Occupation		
Unemployed	112	30.9
Self employed	145	40.1
Salaried worker	79	21.8
Student	26	7.2
Religion		
Christianity	91	25.1
Islam	270	74.6
Traditional	1	0.3
Marital status		
Single	15	4.1
Married	327	90.3
Co-habiting	16	4.4
Widowed	4	1.1
Ethnicity		
Dagomba	263	72.7
Gonja	14	3.9
Frafra	12	3.3
Mamprusi	10	2.8
Others	63	17.4

Source: Field survey, 2020

4.2 **Obstetrics history**

The average number of children of the respondents was 2.58 ± 1.21. The minimum age was 1 and the maximum age was 8 with a range of 7. The median age was 2, the same value as the modal age. The majority 104(28.7%) respondents had 2 children and one person (0.3%) each had 6 and 8 children respectively. Also, 253(69.9%) of the respondents had not lost any

pregnancy/stillbirth whiles 109(30.1) had a history of lost pregnancies/stillbirth. of this number as 109, 83(76.1%) had lost one pregnancy and 2(1.8%) had lost as many as 3 pregnancies. See table 4.2.

Table 4.2 Obstetrics history of respondents

Characteristic	Frequency	Percent
Number of children		
Mean ± SD	2.58 ± 1.21	
Number of children/Parity		
1	78	21.5
2	104	28.7
3	97	26.8
4	61	16.9
5	20	5.5
6	1	0.3
8	1	0.3
Total	362	100
History of Lost pregnancy/ Stillbirth		
Yes	109	30.1
No	253	69.9
Total	362	100
Number of Lost pregnancy/Stillbirths (n=109)		
1	83	76.1
2	24	22
3	2	1.8
Total	109	100

Source: Field survey, 2020

4.3 **Prevalence of caesarean section**

Total deliveries average 7,671.4 for the period 2015 to 2019. The maximum was in 2019 (8,842) and minimum in 2015(6,813). Within the same period, normal deliveries averaged 5535.4 (72.4% of the total). The maximum was in 2019, 6,160(69.7%) with the minimum in 2015, 4,960(72.8). Vacuum deliveries averaged 15.2(0.2%) with a maximum in 2015, 25(0.4%) and the minimum in 2016, 7(0.1%). The total C – sections averaged 2,120 with a prevalence of 27.4%. The highest was recorded in 2019, 2,670(30.2%) and the minimum was

in 2016(22.7%). It was observed that while there were increases in both normal and CS deliveries during the period, there was a gradual decrease in the percentage of Anormal deliveries and a gradual increase in the percentage of Caesarean section deliveries (Table 4.3, Fig. 4.1 a and b)

Table 4.3 Distribution of types of delivery from 2015 - 2019

	2015		**2016**		**2017**		**2018**		**2019**		**Average**	
	No	%	No	%	No	%	No	%	No	%	**No**	**%**
Normal Deliveries	4960	72.8	5338	77.2	5455	71.4	5764	70.8	6160	69.7	**5535.4**	**72.4**
Vacuum Delivery	25	0.4	7	0.1	12	0.2	20	0.2	12	0.1	**15.2**	**0.2**
Forceps Delivery	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	**0.0**	**0.0**
Total C-Sections	1828	26.8	1569	22.7	2176	28.5	2361	29.0	2670	30.2	**2120.8**	**27.4**
Total Deliveries	6813	100	6914	100	7643	100	8145	100	8842	100	**7671.4**	**100.0**

Source: Tamale Teaching Hospital records 2015 - 2019.

Total caesarean deliveries average 2120.8 for the period 2015 to 2019. The maximum was in 2019 (2670) and minimum in 2016(1569). Within the same period, emergency caesarean deliveries averaged 1342.2 (63.8% of the total). The maximum was in 2019, 1608(60.2%) with the minimum in 2016, 1013 (64.6%). Elective caesarean deliveries averaged 598.0(28.0%) with a maximum in 2019, 794 (29.7%) and the minimum in 2015, 440(24.1%). It was observed that while the was increases in both emergency and elective CS deliveries during the period, there was a gradual decrease in the percentage of elective CS deliveries in 2019 and a gradual increase in the percentage of Emergency Caesarean section deliveries. Caesarean with a complication within the same period was 180.6 (5.2%.) average. The maximum was in 2019, 268(10.0%) with a minimum in 2015, 98(5.4%). (Table 4.4, Fig. 4.1 c and d).

Table 4.4 Types of Caesarean section from 2015 to 2019

	2015		2016		2017		2018		2019		Average	
Type of CS	No	%	No	%	No	%	No	%	No	%	**No**	**%**
Emergency CS	1290	70.6	1013	64.6	1385	63.6	1415	59.9	1608	60.2	**1342.2**	**63.8**
Elective CS	440	24.1	451	28.7	583	26.8	722	30.6	794	29.7	**598.0**	**28.0**
CS with complications	98	5.4	105	6.7	208	9.6	224	9.5	268	10.0	**180.6**	**8.2**
Total C-Sections	**1828**	**100**	**1569**	**100**	**2176**	**100**	**2361**	**100**	**2670**	**100**	**2120.8**	**100.0**

Source: Tamale Teaching Hospital records 2015 - 2019.

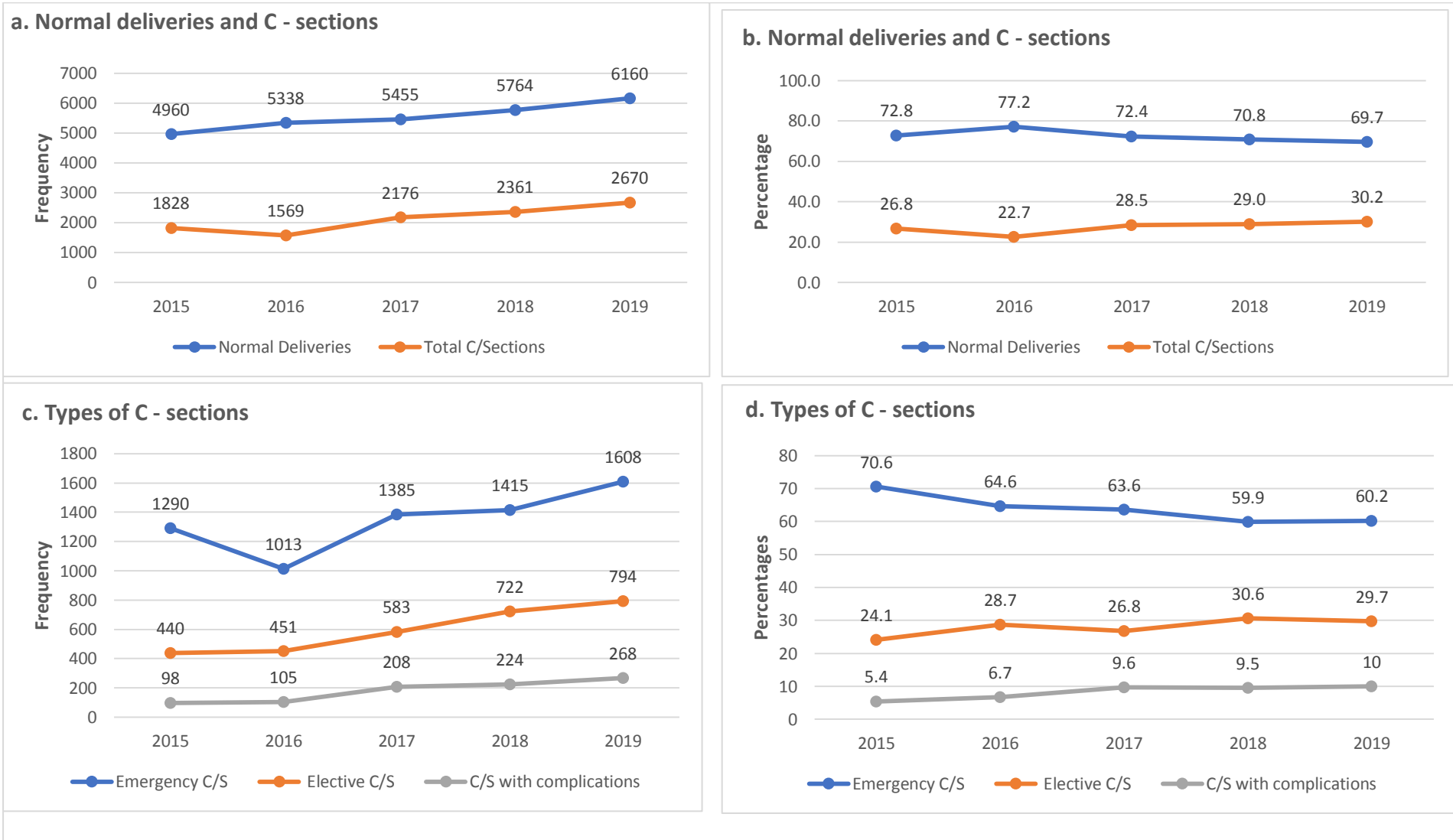

Figure 4.1 Five year trends in types of deliveries and CS sections in the study hospital.

4.4 **Cause of pregnancy loss**

The top three highest causes of pregnancy lost among the respondents were spontaneous abortions 29(26.6%), prolonged labour 27(24.8%) and Stress (16.5%). The among the stated causes was diabetes in pregnancies 1(0.9%) Other causes made up 16(14.7%). See table 4.5.

Table 4.5 Cause of pregnancy loss

Cause of pregnancy loss	Count N=109	Percent
Spontaneous Abortion	29	26.6
Prolonged labour	27	24.8
Stress	18	16.5
Hypertension in pregnancy	12	11.0
Do not know	11	10.1
Malaria in pregnancy	8	7.3
Induced Abortion	8	7.3
Infection	6	5.5
Diabetes in pregnancy	1	0.9
Other reasons	16	14.7

4.5 **Indication for Caesarean section (CS)**

Respondents were asked to indicate Yes and No to various identified reasons as the indication for their caesarean sections. The top three reasons identified were prolonged labour 95(26.2%), baby not lying well 83(22.9%) and previous CS 65(18.0%). 3(26.2%) indicated not being told the reason for the caesarean section while 61(16.9%) indicated reasons beyond the stated ones. See table 4.6.

Table 4.6 Indication for Caesarean section (CS)

Indication for CS	Yes	No
Prolonged labour	95(26.2%)	267(73.8%)
Baby not lying well	83(22.9%)	279(77.1%)
Previous CS	65(18.0%)	297(82.0%)
Big baby	61(16.9%)	301(83.1%)
Complicated Hypertension in pregnancy	37(10.2%)	325(89.8%)
Bleeding (Antepartum Haemorrhage)	33(9.1%)	329(90.9%)
Maternal request	27(7.5%)	335(92.5%)
Repeated Miscarriages	13(3.6%)	349(96.4%)
Not told the reason for Caesarean section	3(26.2%)	359(99.2%)
Others	61(16.9%)	301(83.1%)

Sum of rows = 362 *Source: Field Survey, 2020*

4.6 **Consent giver for CS**

From the study, 285(78.7) indicated their husbands' as the consent giver for the CS. Mothers 36(9.9%) and sisters 19(5.2%) played a second and third role while brother 2(0.6) was least. See table 4.7.

Table 4.7 Consent giver for CS

Consent giver	Frequency	Percent
Husband	285	78.7
Mother	36	9.9
Sister	19	5.2
In-laws	11	3.0
Father	5	1.4
Self	4	1.1
Brother	2	0.6
Total	362	100.0

4.7 **Willingness to undergo CS**

The majority of the respondents 206 (56.9%) said Yes they had willingly accepted to undergo the caesarean section and 156 (43.1%) said no they did not willingly accept to undergo the caesarean section. See figure 4.2.

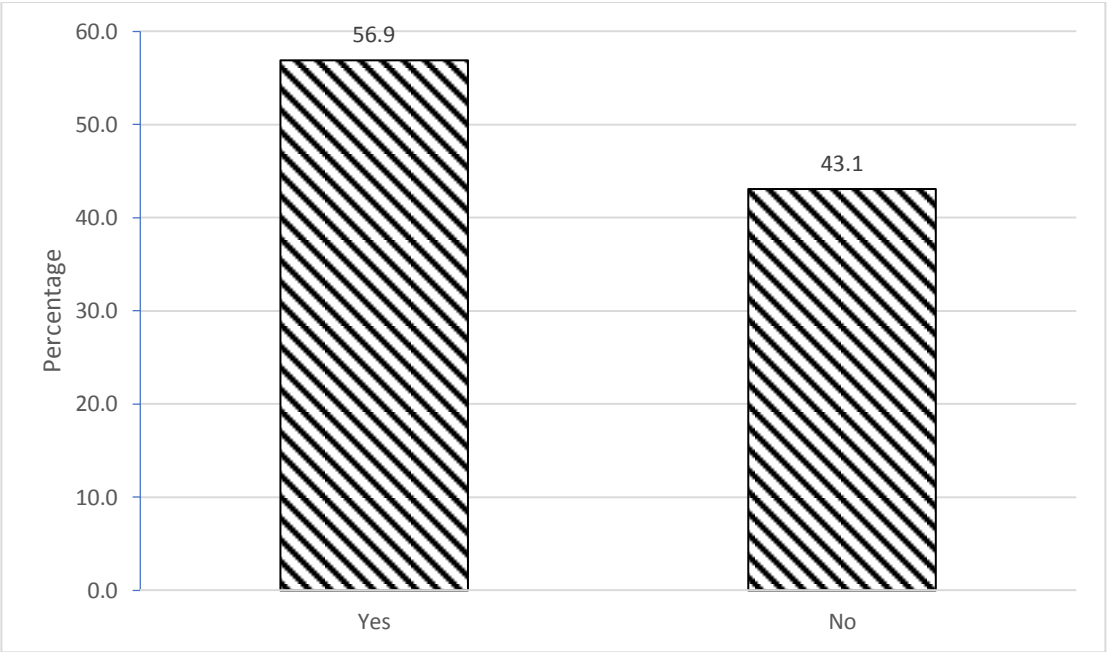

Figure 4.2 Willingness to undergo CS

4.8 **Reasons for unwillingness to undergo CS**

Out of the number of respondents who were unwilling to undergo the CS, the three major reasons stated were Cultural/traditional beliefs80(51.3%), restriction on the number of future deliveries 78(50.0% and fear of dying 54(34.6%). The least reason stated was fear of the child not surviving 6(3.8%) with 4(2.6) responding, stating other reasons apart from the stated ones. See table 4.8.

Table 4.8 Reasons for unwillingness to undergo CS

Reason	**Count N = 156**	**%**
Cultural/traditional beliefs	80	51.3
Restriction on the number of future deliveries	78	50.0
Fear of dying	54	34.6
Fear of being scorned	28	17.9
Fear of late lactation	25	16.0
Fear of child not surviving	6	3.8
Others	4	2.6

4.9 **Description of CS experience**

Respondents were asked to rate their experiences during their caesarean sections using based on a set of stated criteria by choosing Yes or No. The highest number of respondents 335(92.5%). indicated the caesarean section experience was good 276(76.2%) stated the experience was painful 184(50.8%) agreed on the long stay in hospital. 80(22.1%) indicated the bad attitude of the staff. See table 4.9.

Table 4.9 Description of CS experience

CS experience	Yes	No
Good	335(92.5%)	27(7.5%)
Painful	276(76.2%)	86(23.8%)
Long stay in hospital	184(50.8%)	178(49.2%)
Bad attitude of staff	80(22.1%)	282(77.9%)
Other	11(3.0%)	351(97.0%)

For each row, N = 362

4.10 **Overall description of Caesarean section**

A Likert scale was used to rate the overall experience of the caesarean section. The majority responded positively with very good 86(23.8%) and good 130(35.9%) making a total of 216(59.7%) favourable responses. The poor and very poor responses sum up to 9(2.5%) of the responses. See figure 4.3.

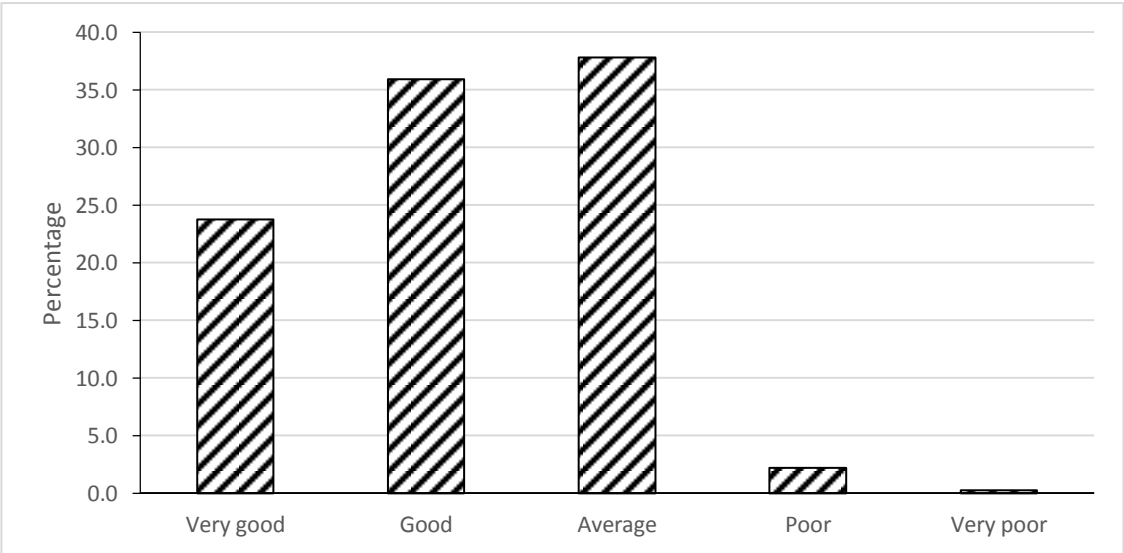

Figure 4.3 Overall description of Caesarean section **Source:** Field Survey, 2020

4.11 Information wished to have known before the Caesarean section

Majority 287 (79%) wished to have known the complication of the surgery and minority of 118(32.6%) wished to have known the cost of the CS before the caesarean section. See table 4.10.

Table 4.10 Information wished to have known before the Caesarean section

Information wished to have known	Count N= 362	%
Complications of the surgery	287	79.3
Reason for having the caesarean section	184	50.8
Duration of stay in hospital	153	42.3
Effects of medications on baby	138	38.1
Cost of the caesarean section	118	32.6

Source: field survey, 2020

4.12 Improving the caesarean section (CS) experience

From the study, 282(77.9%) said relatives being allowed to care for the baby would have made their CS experience better as well as education on CS at antenatal clinic 241(66.6). 11(3.0%) indicated other reasons not stated here. See table 4.11.

Table 4.11 Factors that would have improved the (CS) experience

Factor	Count N= 362	%
Relative being allowed to care for baby	282	77.9
Education on CS at the antenatal clinic	241	66.6
Better care of baby by nurses	189	52.2
Better staff attitude	159	43.9
Shorter stay at hospital	129	35.6
Other	11	3.0

Source: Field Survey, 2020

4.13 Early access to information on about having CS.

Half of the respondents of 183(50.6%) indicated that they were not told earlier on about having to undergo CS.12(3.3%) said they were not sure if they were told or not. See table 4.12.

Table 4.12 Early access to information on about having CS.

	Frequency	Percent
Yes	167	46.1
No	183	50.6
Not sure	12	3.3
Total	362	100.0

Source: Field Survey, 2020

4.14 Explanation of general Procedure before caesarean section'

241(66.6%) of the total respondents agreed that the procedure was explained to them whiles 121(33.4%) answered in the negative. See table 4.13.

Table 4.13 Explanation of general procedure before CS

	Frequency	Percent
Yes	241	66.6
No	121	33.4
Total	362	100.0

Source: Field Survey, 2020

4.15 Form of Anaesthesia used for surgery

Spinal anaesthesia 302(83.4%) was the highest of the forms of anaesthesia used during the surgery followed by general anaesthesia 60(16.6%). See table 4.14.

Table 4.14 Form of Anaesthesia used for surgery

Form of Anaesthesia	**Frequency**	**Percent**
Spinal	302	83.4
General	60	16.6
Total	362	100.0

Source: Field Survey, 2020

4.16 Complications of Caesarean section experienced.

Majority of respondents had no complication 278(76.8%). The highest number of complications experienced was the reaction to anaesthesia 29(8.0%)11(3.0%) had experienced bleeding as a complication. See table 4.15.

Table 4.15 Complications of Caesarean section experienced

Complication experienced	Count N= 362	%
No complications	278	76.8
Reaction to anaesthesia medications	29	8.0
Infection of wound	14	3.9
Sick baby	13	3.6
Bleeding	11	3.0
Other complications	26	7.2

Source: Field Survey, 2020

4.17 Prior knowledge of CS

Results from the study show that 308(85.1%) being the majority had heard of the caesarean section before undergoing one while 54(14.9) had not heard about CS. See table 4.16.

Table 4.16 Prior knowledge of CS

Prior knowledge	Frequency	Percent
Yes	308	85.1
No	54	14.9
Total	362	100.0

Source: Field Survey, 2020

4.18 Knowledge of reasons caesarean section

Respondents were asked to indicate their knowledge on the various reasons for CS by answering yes or no. Correct knowledge (Yes) on all the various reasons were above 70% except for the request of the mother 240(66.3%) and repeated miscarriages 203(29.0%) which had below 70% correct responses. See table 4.17.

Table 4.17 Knowledge of reasons caesarean section

Knowledge of reasons for CS	Yes	No
Baby not lying well	325(89.8%)	37(10.2%)
Big baby	323(89.2%)	39(10.8%)
Prolonged labour	295(81.5%)	67(18.5%)
Previous CS	282(77.9%)	80(22.1%)
Baby in distress	270(74.6%)	92(25.4%)
Complications of hypertension	268(74.0%)	94(26.0%)
Bleeding	261(72.1%)	101(27.9%)
Complications of diabetes	259(71.5%)	103(28.5%)
Request of mother	240(66.3%)	122(33.7%)
Repeated miscarriages	203(56.1%)	159(43.9%)
Other reasons	105(29.0%)	257(71.0%)
Total frequency of rows = 362		

Source: Field Survey, 2020

4.19 Ability to give birth vaginally after caesarean section.

Majority of respondents 301(83.1%) agreed that a woman can give birth vaginally after a previous CS while 26(7.2%) indicated they did not know. See table 4.18.

Table 4.18 Ability to give birth vaginally after caesarean section

Vaginal delivery after CS	Frequency	Percent
Can give birth vaginally	301	83.1
Cannot give birth vaginally	35	9.7
I don't know	26	7.2
Total	362	100.0

Source: Field Survey, 2020

4.20 Need for client education on Caesarean section at the antenatal clinic.

The majority 353(97.5) of the respondents agreed on the need for client education on caesarean section and few 9(2.5) respondents stated there was no need for client education. See table 4.19.

Table 4.19 Need for client education on Caesarean section at antenatal clinic

Need for client education	Frequency	Percent
Yes	353	97.5
No	9	2.5
Total	362	100.0

Source: Field Survey, 2020

4.21 Type of delivery method preferred

More than half of the respondents which is 292(80.7%) preferred vaginal delivery and 64(17.7%) preferred caesarean section. Less than 2% were indecisive. See table 4.20.

Table 4.20 Type of delivery method preferred

Type of delivery	Frequency	Percent
Caesarean section	64	17.7
Vaginal delivery	292	80.7
I don't know	6	1.7
Total	362	100.0

Source: Field Survey, 2020

4.22 Willingness to undergo another caesarean section if the need be.

Respondents were asked to indicate their willingness or otherwise if faced with another CS. 249 (68.8%) respondents answered in the affirmative while 49 (13.5%) were undecided**.** See table 4.21.

Table 4.21 Willingness to undergo another caesarean section if the need be

Willingness to undergo another CS	Frequency	Percent
Yes	249	68.8
No	64	17.7
Undecided	49	13.5
Total	362	100.0

Source: Field Survey, 2020

4.23 Reasons for not wanting to have another caesarean section

The respondents were given a list of reasons and asked to select if each of the reasons corresponds to their reason for not wanting another CS. The major reasons given were fear of complications 57 (89.1%), fear of pain during and after surgery 56 (87.5%) and Not being a natural process 50 (78.1%). The reason least selected was; may not see my baby 3 (4.7%). See table 4.22.

Table 4.22 Reasons for not wanting to have another caesarean section

Reasons against CS	Yes	No	Don't know
Fear of complications	57(89.1%)	7(10.9%)	0(0.0%)
Fear of pain during and after surgery	56(87.5%	7(10.9%)	1(1.6%)
Not natural	50(78.1%)	14(21.9%)	0(0.0%)
Long recovery time	48(75.0%)	13(20.3%)	3(4.7%)
Fear of being mocked	34(53.1%)	28(43.8%)	2(3.1%)
Not God's wish	16(25%)	48(75.0%)	0(0.0%)
Expensive	15(23.4%)	46(71.9%)	3(4.7%)
To avoid getting a scar	15(23.4%)	48(75,0%)	1(1.6%)
Blood may be given in the process	12(18.8%)	48(75.0%)	4(6.3%)
It prevents bonding with baby	6(9.4%)	56(87.5%)	2(3.1%)
May not see my baby	3(4.7%)	59(92.2%)	2(3.1%)

Sum of rows N = 64 **Source:** Field Survey, 2020

4.24 Perception of women who deliver by caesarean section.

A greater number of respondents 318(87.8%) view women who delivered by caesarean section as the wish of God and 69(19.1%) said they are perceived as having cheated on their husbands. See figure 4.4.

Figure 4.4 Perception of women who delivered by caesarean section

Source: Field Survey, 2020

4.25 Reason for selection of CS

From the study, 285(78.7%) think a woman would select caesarean section because its less embarrassing and 25(6,9%) chose fast recovery. See figure 4.5.

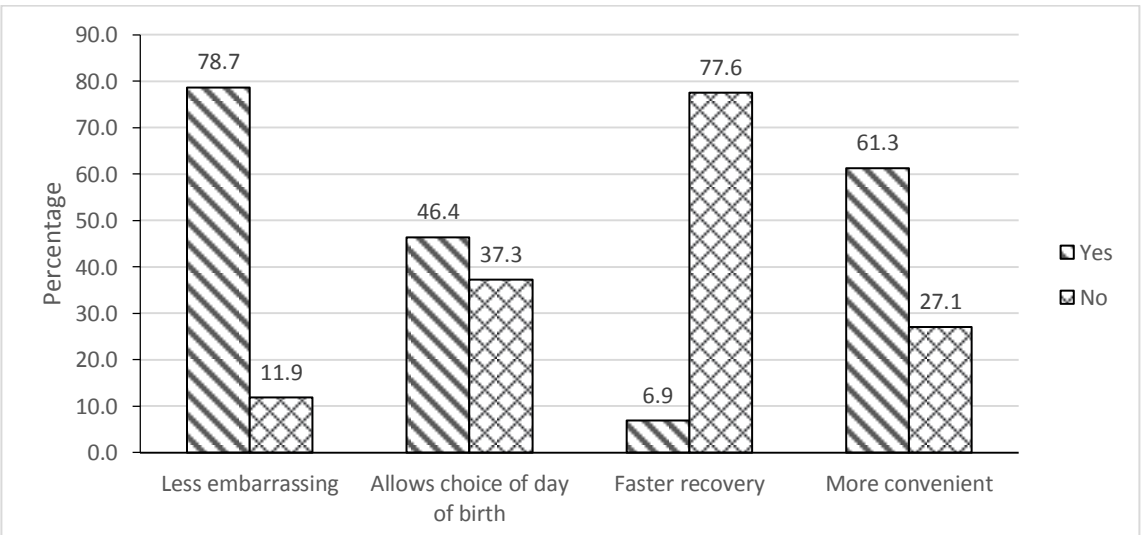

Figure 4.5 Reasons for selection of caesarean sections **Source:** Field Survey, 2020

4.26 Willingness to undergo CS compared with demographic factors

In a comparative analysis, age (p=.021), Highest Level of formal Education (p=.00), occupation (p=.00) and marital status (p=.00) are statistically significant in respondents willingness to undergo the caesarean section whiles number of children (p=.064) and some previous caesarean section (p=.054) did not show any association with respondents willingness to undergo the CS. See table 4.23.

Table 4.23 Willingness to undergo CS and demographic factors:

	Yes	No	Total	Valid cases, Chi-square, df, P-value
Age categories				
<20	0(0.0%)	5(100.0%)	5.0(100%)	Valid cases = 362, Chi-square = 9.744a, df = 3, p-value = 0.021
20 – 29	79(53.4%)	69(46.6%)	148.0(100%)	
30 – 39	110(59.5%)	75(40.5%)	185.0(100%)	
40 – 49	17(70.8%)	7(29.2%)	24.0(100%)	
Highest Level of formal Education				
No formal Education	47(46.1%)	55(53.9%)	102.0(100%)	Valid cases = 362, Chi-square = 29.642a, df = 5, p-value = 0.00
Primary school	24(46.2%)	28(53.8%)	52.0(100%)	
Junior secondary school	26(46.4%)	30(53.6%)	56.0(100%)	
Senior secondary school	37(63.8%)	21(36.2%)	58.0(100%)	
Vocational / Technical	57(82.6%)	12(17.4%)	69.0(100%)	
Tertiary	15(60.0%)	10(40.0%)	25.0(100%)	
Occupation				
Unemployed	49(43.8%)	63(56.3%)	112.0(100%)	Valid cases = 362, Chi-square = 30.695a, df = 3, p-value = 0.00
Self employed	90(62.1%)	55(37.9%)	145.0(100%)	
Salaried worker	60(75.9%)	19(24.1%)	79.0(100%)	
Student	7(26.9%)	19(73.1%)	26.0(100%)	
Marital status				
Single	1(6.7%)	14(93.3%)	15.0(100%)	Valid cases = 362, Chi-square = 21.753a, df = 3, p-value = 0.00
Married	197(60.2%)	130(39.8%)	327.0(100%)	
Co-habiting	5(31.3%)	11(68.8%)	16.0(100%)	
Widowed	3(75.0%)	1(25.0%)	4.0(100%)	
Number of children				
1	33(42.3%)	45(57.7%)	78.0(100%)	Valid cases = 362, Chi-square = 11.925a, df = 6, p-value = 0.064
2	67(64.4%)	37(35.6%)	104.0(100%)	
3	56(57.7%)	41(42.3%)	97.0(100%)	
4	36(59.0%	25(41.0%)	61.0(100%)	

5	13(65.0%)	7(35.0%)	20.0(100%)	
6	1(100.0%)	0(0.0%)	1.0(100%)	
8	0(0.0%)	1(100.0%)	1.0(100%)	
Number of previous caesarean section				
1	33(84.6%)	6(15.4%)	39.0(100%)	Valid cases = 53, Chi-square = 1.234a, df = 2, p-value = 0.054
2	6(85.7%)	1(14.3%)	7.0(100%)	
3	7(100.0%)	0(0.0%)	7.0(100%)	

Source: Field Survey, 2020

4.27 **Overall description of the Caesarean section compared with the demographics**

Age categories (p=.001), the highest level of education p=.000), and several children (p=.000) are significant and therefore associated with the total experience of caesarean section. In the same vein; occupation (p=.227), marital status (p=.780) and many previous caesarean sections (p=.386) did not have any significant association with the total experience of caesarean section. See table 4.24.

Table 4.24 Overall description of CS and demographics

	Very good	Good	Average	Poor	Very poor	Total	
Age categories							
<20	2(40.0%)	1(20.0%)	1(20.0%)	1(20.0%)	0(0.0%)	5.0(100%)	Valid cases = 362, Chi-square = 33.600a, df = 12, p-value = 0.001
20 – 29	34(23.0%)	53(35.8%)	61(41.2%)	0(0.0%)	0(0.0%)	148.0(100%)	
30 – 39	40(21.6%)	71(38.4%)	68(36.8%)	6(3.2%)	0(0.0%)	185.0(100%)	
40 – 49	10(4.7%)	5(20.8%)	7(29.2%)	1(4.20%)	1(4.20%)	24.0(100%)	
Highest Level of formal Education							
No formal Education	15(14.7%)	41(40.2%)	41(40.2%)	5(4.9%)	0(0.0%)	102.0(100%)	Valid cases = 362, Chi-square = 50.189a, df = 20, p-value = 0.000
Primary school	10(19.2%)	12(23.1%)	29(55.8%)	1(1.9%)	0(0.0%)	52.0(100%)	
Junior secondary school	15(26.8%)	13(23.2%)	27(48.2%)	1(1.8%)	0(0.0%)	56.0(100%)	
Senior secondary school	17(29.3%)	22(37.9%)	19(32.8%)	0(0.0%)	0(0.0%)	58.0(100%)	
Vocational / Technical	21(30.4%)	35(50.7%)	12(17.4%)	1(1.4%)	0(0.0%)	69.0(100%)	
Tertiary	8(32.0%)	7(28.0%)	9(36.0%)	0(0.0%)	1(4.0%)	25.0(100%)	
Occupation							
Unemployed	23(20.5%)	37(33.0%)	47(42.0%)	5(4.5%)	0(0.0%)	112.0(100%)	Valid cases = 362, Chi-square = 15.264a, df = 12, p-value = 0.227
Self employed	33(22.8%)	54(37.2%)	55(37.9%)	2(1.4%)	1(0.7%)	145.0(100%)	
Salaried worker	23(29.1%)	34(43.0%)	22(27.8%)	0(0.0%)	0(0.0%)	79.0(100%)	
Student	7(26.9%)	5(19.2%)	13(50.0%)	1(3.8%)	0(0.0%)	26.0(100%)	
Marital status							
Single	2(13.3%)	4(26.7%)	8(53.3%)	1(6.70%)	0(0.0%)	15.0(100%)	Valid cases = 362, Chi-square = 8.049a, df = 12, p-value =
Married	77(23.5%)	121(37.0%)	122(37.3%)	6(1.8%)	1(0.3%)	327.0(100%)	
Co-habiting	6(37.5%)	3(18.8%)	6(37.5%)	1(6.3%)	0(0.0%)	16.0(100%)	
Widowed	1(25.0%)	2(50.0%)	1(25.0%)	0(0.0%)	0(0.0%)	4.0(100%)	

	Very good	Good	Average	Poor	Very poor	Total	
							0.781
Number of children							
1	25(32.1%)	24(30.8%)	28(35.9%)	1(1.3%)	0(0.0%)	78.0(100%)	
2	21(20.2%)	42(40.4%)	39(37.5%)	1(1.0%)	1(1.0%)	104.0(100%)	
3	20(20.6%)	35(36.1%)	39(40.2%)	3(3.1%)	0(0.0%)	97.0(100%)	Valid cases = 362, Chi-square = 62.317a, df = 24, p-value = 0.00
4	13(21.3%)	26(42.6%)	20(32.8%)	2(3.3%)	0(0.0%)	61.0(100%)	
5	6(30.0%)	3(15.0%)	11(55.0%)	0(0.0%)	0(0.0%)	20.0(100%)	
6	1(100.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	1.0(100%)	
8	0(0.0%)	0(0.0%)	0(0.0%)	1(100.0%)	0(0.0%)	1.0(100%)	
Number of previous caesarean section							
1	11(28.2%)	15(38.5%)	13(33.3%)	0(0.0%)	0(0.0%)	39.0(100%)	Valid cases = 53, Chi-square = 4.169a, df = 4, p-value = 0.384
2	1(14.3%)	4(57.1%)	2(28.6%)	0(0.0%)	0(0.0%)	7.0(100%)	
3	3(42.9%)	4(57.1%)	0(0.0%)	0(0.0%)	0(0.0%)	7.0(100%)	

Source: Field Survey, 2020

4.28 Knowledge of whether vaginal birth is possible after caesarean section compared with the demographics.

Age category (p=.001), the highest level of education (p=.014), occupation (p=.029), marital status p=.002) and overall description of caesarean section was found to be significant when accessing respondent's knowledge on whether a woman can give birth vaginally after caesarean section. A number of previous caesarean section was nonsignificant. See table 4.25.

Table 4.25 Knowledge of whether vaginal birth is possible after CS and demographics

Categories	Can give birth vaginally	Cannot give birth vaginally	I don't know	Total	
Age categories					
<20	3(60.0%)	1(20.0%)	1(20.0%)	5(100%)	
20 – 29	116(78.4%)	11(7.4%)	21(14.2%)	148(100%)	Valid cases = 362, Chi-square = 22.549a, df = 6, p-value = 0.001
30 – 39	161(87.0%)	21(11.4%)	3(1.6%)	185(100%)	
40 – 49	21(87.5%)	2(8.3%)	1(4.2%)	24(100%)	
Highest Level of formal Education					
No formal Education	73(71.6%)	16(15.7%)	13(12.7%)	102(100%)	
Primary school	44(84.6%)	4(7.7%)	4(7.7%)	52(100%)	
Junior secondary school	45(80.4%)	7(12.5%)	4(7.1%)	56(100%)	
Senior secondary school	52(89.7%)	4(6.9%)	2(3.4%)	58(100%)	Valid cases = 362, Chi-square = 22.289a, df = 10, p-value = 0.014
Vocational / Technical	67(97.1%)	1(1.4%)	1(1.4%)	69(100%)	
Tertiary	20(80.0%)	3(12.0%)	2(8.0%)	25(100%)	
Occupation					
Unemployed	82(73.2%)	17(15.2%)	13(11.6%)	112(100%)	
Self employed	124(85.0%)	11(7.6%)	10(6.9%)	145(100%)	Valid cases = 362, Chi-square = 14.094a, df = 6, p-value = 0.029
Salaried worker	73(92.4%)	4(5.1%)	2(2.5%)	79(100%)	
Student	22(84.6%)	3(11.5%)	1(3.8%)	26(100%)	
Marital status					
Single	8(53.3%)	3(20.0%)	4(26.7%)	15(100%)	Valid cases = 362, Chi-square =
Married	278(85.0%	29(8.9%)	20(6.1%)	327(100%	

Categories	Can give birth vaginally	Cannot give birth vaginally	I don't know	Total	
	)			)	20.435a, df = 2, p-value = 0.002
Co-habiting	13(81.3%)	1(6.3%)	2(12.5%)	16(100%)	
Widowed	2(50.0%)	2(50.0%)	0(0.0%)	4(100%)	
Number of previous caesarean section					
1	35(89.7%)	3(7.7%)	1(2.6%)	39(100%)	Valid cases = 362, Chi-square = 3.757a, df = 4, p-value = 0.44
2	5(71.4%)	1(14.3%)	1(14.3%)	7(100%)	
3	7(100%)	0(0.0%)	0(0.0%)	7(100%)	
Overall description of Caesarean section					
Very good	71(82.6%)	7(8.1%)	8(9.3%)	86(100%)	
Good	112(82.6%)	6(4.6%)	12(9.2%)	130(100%)	
Average	114(83.2%)	18(13.1%)	5(3.6%)	137(100%)	Valid cases = 362, Chi-square = 37.185a, df = 8, p-value = 0.00
Poor	4(50.0%)	4(50.0%)	0(0.0%)	8(100%)	
Very poor	0(0.0%)	0(0.0%)	1(100%)	1(100%)	

Source: Field Survey, 2020

4.29 Willingness to undergo caesarean section if the need be compared to demographics

Age category (p=.323), the highest level of education (p=.139), occupation (p=.288), marital status (p.393) and a number of previous cesareans (p=.817) were all nonsignificant in the willingness of respondents to undergo another caesarean section if the need arises. See table 4.26.

Table 4.26 Willingness to undergo CS if the need be and demographics.

	Yes	No	Undecided	Total	
Age categories					
<20	4(80.0%)	0(0.0%)	1(20.0%)	5(100%)	Valid cases = 362, Chi-square = 6.975a, df = 6, p-value =
20 – 29	92(62.2%)	32(21.6%)	24(16.2%)	148(100%)	
30 – 39	134(72.4%)	30(16.2%)	21(11.4%)	185(100%)	
40 – 49	19(79.2%)	2(8.3%)	3(12.5%)	24(100%)	

	Yes	No	Undecided	Total	
					0.323
Highest Level of formal Education					
No formal Education	62(60.8%)	21(20.6%)	19(18.6%)	102(100%)	
Primary school	32(61.5%)	14(26.9%)	6(11.5%)	52(100%)	
Junior secondary school	38(67.8%)	9(16.1%)	9(16.1%)	56(100%)	Valid cases = 362, Chi-square = 14.808a, df = 10, p-value = 0.139
Senior secondary school	45(77.6%)	7(12.1%)	6(10.3%)	58(100%)	
Vocational / Technical	55(79.7%)	10(14.5%)	4(5.8%)	69(100%)	
Tertiary	17(68.0%)	3(12.0%)	5(20.0%)	25(100%)	
Occupation					
Unemployed	68(60.7%)	27(24.1%)	17(15.2%)	112(100%)	Valid cases = 362, Chi-square = 7.374a, df = 6, p-value = 0.288
Self employed	103(71.0%)	21(14.5%)	21(14.5%)	145(100%)	
Salaried worker	59(74.4%)	13(16.5%)	7(8.9%)	79(100%)	
Student	19(73.1%)	3(11.5%)	4(15.4%)	26(100%)	
Marital status					
Single	9(60.0%)	3(20.0%)	3(20.0%)	15(100%)	Valid cases = 362, Chi-square = 5.282a, df = 6, p-value = 0.393
Married	228(69.7%)	57(17.4%)	42(12.8%)	327(100%)	
Co-habiting	10(62.5%)	4(25.0%)	2(12.5%)	16(100%)	
Widowed	2(50.0%)	0(0.0%)	2(50.0%)	4(100%)	
Number of previous caesarean section					
1	33(84.6%	3(7.7%)	3(7.7%)	39(100%)	Valid cases = 53, Chi-square = 1.557a, df = 4, p-value = 0.817
2	6(85.7%)	1(14.3%)	0(0.0%)	7(100%)	
3	5(71.4%)	1(14.3%)	1(14.3%)	7(100%)	
Overall description of Caesarean section					
Very good	59(68.6%)	13(15.1%)	14(16.3%)	86(100%)	Valid cases = 362, Chi-square = 5.868a, df = 8, p-value = 0.662
Good	93(71.5%)	21(16.2%)	16(12.3%)	130(100%)	
Average	93(67.9%)	27(19.7%)	17(12.4%)	137(100%)	
Poor	3(37.5%)	3(37.5%)	2(25.0%)	8(100%)	
Very poor	1(100.0%)	0(0.0%)	0(0.0%)	1(100%)	

Source: Field Survey, 2020

4.30 Marital status compared with consent giver for CS

Marital status was strongly significant (p=.000) and therefore associated with the consent giver for the caesarean section. See table 4.27.

Table 4. 27 Marital status and consent giver for CS

Marital status	Husband	In laws	Mother	Father	Brother	Sister	Self	Total	
Single	0(0.0%)	0(0.0%)	9(60.0%)	3(20.0%)	0(0.0%)	3(20.0%)	0(0.0%)	15(100%)	Valid cases = 362, Chi-square = 233.045a, df = 18, p-value = 0.000
Married	285(87.2%)	10(3.1%)	15(4.6%)	0(0.0%)	1(0.3%)	12(3.7%)	4(1.2%)	327(100%)	
Co-habiting	0(0.0%)	0(0.0%)	11(68.8%)	2(12.5%)	1(6.3%)	2(12.5%)	0(0.0%)	16(100%)	
Widowed	0(0.0%)	1(25.0%)	1(25.0%)	0(0.0%)	0(0.0%)	2(50%)	0(0.0%)	4(100%)	

Source: Field Survey, 2020

4.31 The Principal Component Analysis

The Principal Component Analysis (PCA) was conducted to determine the relationship between age category, occupation, parity, marital status (MS), High-level of education (HLE), Number of lost pregnancy (NLP), Number of previous caesarean section (NPCS) and willingness to accept caesarean section (WACS). The PCA showed that three principal components accounted for a total variance of 59.85 % in the original data where PC 1, 2 and 3 explained 23.12%, 20.14% and 16.59 % of the variance respectively. The correlation loading plot from the PCA shown in Figure 5. The PC1 was described by occupation and high level of education on the positive axis and WACS along the negative axis. However, PC 2 was described by Parity, age category and NPCS along the positive axis and NLP on the negative axis whereas PC3 was mainly described NLP on the negative axis. The correlation plot of the PCA indicated that HLE, occupation, parity, age category, MS, and NLP had a relationship with WACS. See figure 4.6.

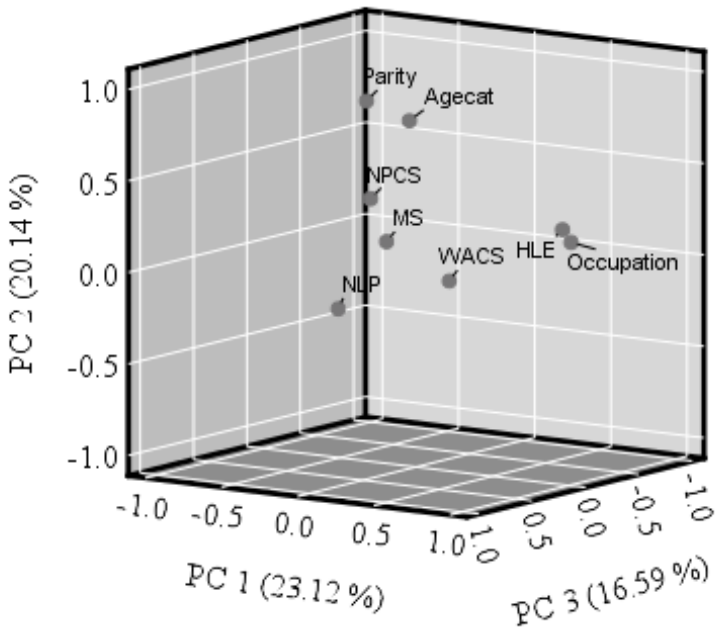

Figure 4.6 Correlation loading plot from Principal Component Analysis of factors affecting willingness to accept caesarean section

Source: Field Survey, 2020

(WACS). HLE =High level education, MS= marital status, NLP=Number of lost pregnancy, and NPCS = Number of previous caesarean section.

4.32 Focus group discussions

Five major themes and eleven sub-themes were identified as Social construction (externalization) under which the following sub-themes came up as meaning of CS, Beliefs of the meaning of CS, Beliefs about the restriction on family size, and Beliefs about the outcome. Source of perception about CS (objectivation); Significant others (community members), Perceived order of socialization about CS(internalization); Social perception of womanhood Emotions associated with CS; Fear, Anxiety. Sadness, Post CS consequences; Marital consequences, Social consequences

4.33 The social construction of Caesarean section

The social construction of CS refers to the individual subjective thoughts and societal beliefs about CS as mentioned by the respondents. Four subthemes were identified as; the meaning

of CS, beliefs about CS, beliefs about the restriction of family size and beliefs about the outcome of CS.

4.33.1 Meaning of CS.

Participants expressed different understanding of caesarean sections based on their experiences and knowledge. Participants understanding was associated with it being a type of delivery and involving cutting open the womb of the mother to remove the baby. The following are verbatim quotes from participants on their understanding;

"Oooh it is another way of giving birth, they cut open your abdomen and remove the baby". (Respondent 1)

"*It is when you are in labour and you are not able to deliver per vagina and they cut your abdomen open and remove the baby without the baby moving or turning to come out by itself".*

"It's another way of giving birth that they cut your abdomen open and remove the baby and leave a big wound" (Respondent 4)

These descriptions by participants indicated they had a basic understanding of CS and how it is done.

4.33.2 Beliefs on Caesarean Sections

Beliefs about reasons for CS is one of the subthemes that emerged from the social construction of CS. The women's belief about reasons for CS were expressed variedly: CS is performed on promiscuous women, a procedure for lazy women, a procedure for women who fear pain and a curse to a disrespectful woman. All the women in the interviews recognised the role of CS in saving their lives and that of their babies. They were, however, concerned about the socio-cultural perception of undergoing a CS.

"Operation is very good but you need to have people because in my case I was told I may need blood after the caesarean section so I had to get donors". (Respondent 4)

"Despite CS being able to save me and my baby you also need peoples to help because after CS you are not able to do very hard work so for me when I deliver, I must go back to my father's house because nobody will help me in my husband's house, that is my big challenge". (Respondent 2)

"You'll be thinking of how you will manage after the operation because you are left with a wound and the long recovery time compare to vaginal delivery. You will need some assistance from people and that alone is a problem because people don't see why you will deliver and they will have to be helping you with your daily work" (Respondent 7)

These findings have revealed that even though women knew the benefits of CS to save their lives and that of their babies they are much particular about its effects on them. They reported that CS comes with some form of burden and restrictions. This means that complications after the procedure may be contributing factors to women refusing to undergo caesarean sections

Respondents also reported that socially, it is the belief that CS is meant for weak, lazy and women who fear pain.

"*As for my family, they believe 'operation' is for weak and lazy women who are not mature enough to marry and deliver".* (Respondent 3)

"*Hmmmm, as for 'operation' my in-laws believe it is weakness, laziness, and hopelessness because you can't deliver per vagina and they don't think you can ever deliver per vagina".* (Respondent 5)

"*As for my friends and other women they see me as a weak woman, not strong and that I can't bear the pain that is why I went through operation"* (Respondent 3)

These beliefs about reasons for CS as expressed above gives an impression that people might not understand the reasons for which CS is done or why is medically necessary.

4.33.3 Beliefs about the restriction on family size

The results of the study revealed that undergoing CS restricts one's ability to have the desired number of children. These are socio-cultural perceptions which were a source of worry to some participants and their significant others. The following extracts make clear how CS limits one's ability to achieve her ideal family size;

"I prefer vaginal delivery because with the operation you have a limited number of children to deliver about 4 but in our cultural setting our husbands prefer having many children". (Respondent 5,)

"Now that I understand it is not about the number of children, I deliver but the future of the children and how you raise them I don't care what they say. If it is operation God has destined me to deliver, they should talk". (Respondent 9)

These findings are an indication that they viewed CS negatively given that it deprives them of having their ideal family size.

4.33.4 Beliefs about the outcome

The findings have revealed that even though women knew the benefits of CS to save their lives and that of their babies they are much particular about its effects on them. They reported that CS comes with some form of complications:

"You'll be thinking of how you will manage after the operation because you are left with a big wound and the long recovery time compared to vagina delivery". (Respondent 7)

"*Operation is a good and another form of delivering but I first didn't know and I ran home because I was scared, I will die and later when it became critical and I was in severe pain, I*

went back and ask them to save me. Here today I sit alive with my son, glory be to God". (Respondent 5)

This finding indicates that most women are not happy after CS because they hold the belief that CS comes with restrictions and complications.

4.33.5 Source of perception about CS (objectivation)

Sources of perception about CS provides a construct that has to do with how participants obtained information on beliefs about CS as a mode of delivery. From the study, it was established that all the participants have heard beliefs about CS but from different sources. The findings from the study revealed that participants beliefs about CS were obtained through significant others (community members).

4.33.5.1 Significant others (community members)

The study revealed how most of the women got information on CS from the community in which they live. Participants expression of the community members as a source of their information on beliefs about CS was based on instances where family members, neighbours and friends gave them information on CS.

"*It was my first time and I had heard bad stories about the operation so I was scared. My mother always said that if one goes through multiple operations your womb will be removed so that you cannot deliver again".* (Respondent 7)

"I was afraid of the pain during the operation and after the operation and the fact that people say they will kill you and remove your baby. I didn't want to die". (Respondent 10)

"As for my family, they say 'operation' is for weak and lazy women who are not mature enough to marry and deliver and I did want to be one". (Respondent 7)

It was revealed participants heard about beliefs on CS from friends and family which made them afraid and scared before they went through it. Some indicated that their sources of

information on CS were from social gatherings. These findings are an indication that beliefs and information on CS were obtained from various sources by the participants and based on the information received, participants reacted differently towards the procedure.

4.33.6 Perceived order of socialising about CS (internalization)

This theme seeks to describe the cultural perceptions surrounding CS and motherhood which may have a significant role in the decision-making process of women on a birth method. Social perception of womanhood emerged strongly as an order of socialization.

Socially women have been made to believe that a woman is one who can deliver vaginally (naturally) and one who can give birth to many children. As such women in this study, even though they knew the benefits of CS, were interested in vaginal delivery to be recognized as women in their social context. The following expressions by participants exemplified the societal perception of a woman as one who can deliver vaginally:

"I will not hesitate to go through another operation if required but if it is possible, I would like to go through a normal vaginal delivery to also be called a woman". (Respondent 7)

"*My tradition believes delivery is when a woman pushes a baby out from her vagina and if not this way then you are lazy, weak, not woman enough. It is not counted as a form of delivery".* (Respondent 9)

"I prefer vaginal delivery because with the operation you have a limited number of children to deliver about 4 but in our cultural setting our husbands prefer having many children". (Respondent 6)

These findings from the above theme clearly define a woman and womanhood socially as largely on woman's ability to deliver vaginally and being able to give birth to many children which most of the participants wanted to achieve.

4.33.7 Emotions associated with CS

This theme relates to how the women reacted to hearing that they were to undergo a caesarean section. The theme also indicates the level of acceptance of caesarean section as a birth method. Participants in this study exhibited different emotions towards CS which led to three main themes namely: sadness, anxiety, and fear. Most of the participants in the study reported that they were anxious after receiving the information that they were going to be operated. Their description of anxiety cantered on worry, being scared, afraid, and expressions of a heartbeat.

"I was afraid and anxious, went home without telling anyone and I went back for the operation after two days but I lost that child and so I accepted the second operation". (Respondent 2)

"*I was afraid and sad of the outcome of the operation because I heard of people dying during the operation but eventually accepted upon my family's advice and encouragement".* (Respondent 4)

"*I kept it to myself but I became afraid of losing my child so I told my husband and he convinced me and took me back to the hospital and it was done successfully".* (Respondent 6)

These findings revealed under emotions associated with CS suggest that, despite knowing the benefits of CS, to these women, it comes with different emotions. While some showed signs of sadness, others were anxious because they did not know what the outcome of CS might be. That notwithstanding, the news on CS was welcomed by a few participants because they felt they stood to gain should they agree to go through the procedure. This attitude of few participants was grounded on their earlier refusal to undergo the procedure which resulted in a negative outcome to them.

4.33.8 Post CS consequences

The participants expressed that in the social context in which they found themselves, the number of children a woman can give was important to the family and as such their marriages were being threatened based on the perception that CS restricted a woman's ability to give birth to many children. For some of these women their in-laws were advocating a second wife for their sons to give birth to additional children, others were verbally abused.

4.33.9 Marital Consequences

The participants expressed that in the social context in which they found themselves, the number of children a woman can give was important to the family and as such their marriages where being threatened based on the perception that CS restricted a woman's ability to give birth to many children. For some of these women, their in-laws were advocating a second wife for their sons to give birth to additional children, others were verbally abused.

"*Madam I'll prefer vagina to the operation because you know this our setting, we are many wives and operation delays are returned to active sexual relationship with our husbands about three months which can drive your man away from you". (Respondent 3)*

"I prefer vaginal delivery because with the operation you have a limited number of children to deliver about 4 but in our cultural setting our husbands prefer having many children". (Respondent 6)

4.33.10 Social Consequences

The results of the study showed that women in the study also experienced some form of social abuse in their respective communities after the CS. While others were seen as less of a woman, others were being teased, for some, they were poorly received at home after their second CS. The expressions below illustrate how socially women are treated after CS;

"For me, they use it to insult me that I'm weak and should not be counted as part of women who have delivered, I don't even have respect in the side of my co-wives and that I can't bear the pain. They mock at me that I haven't delivered yet". (Respondent 3)

"*They give more respect to women who have delivered normally compared to you that have delivered through operation, the man's family give more affection to the ones that delivered normally. They see me as less woman".* (Respondent 7)

"Also, the man's family members also say I waste more money as compared to those who delivered normal and that brings hatred in the family. It saddens me when they see me like that". (Respondent 8 and 3)

CHAPTER FIVE

DISCUSSION OF FINDING/RESULTS

5.1 Introduction

This chapter discusses the finding of the study in relation to existing literature. The demographic characteristics of participants are discussed first and followed by the major findings

5.2 Demographic characteristics

The findings of the study revealed that the majority (51.1%) of the mothers were in the age group (30-39) with a mean of 30.8. This was expected as this represents the reproductive age group commonly seen in the antenatal clinics, and it is consistent with studies carried out in other countries (Chigbu & Iloabachie, 2007; Sunday-Adeoye & Kalu, 2011).

Women from age 30-39 years are those in active delivery and are more likely to present obstetric complications, as compared to those less than 20 years.

The finding indicates the majority (90.3%) of the respondents were married. This implies that childbirth occurs mostly in marriage which is a virtue cherished in the Ghanaian culture and the research settings. This confirms with Manasyan *et al.* (2013) that said they were all staying with their husbands and children.

In the area of religion majority, 270 (74.6%) were Muslims and 91 (25.19) were Christians. Family size is important in this part of the country as in the social context in which the study was being carried out. Northern Ghana is generally a pro-natalist society where respect is given to the number of children a woman has. The more children a woman has the better reverence she commands from her husband and the community (Ugwu & de Kok, 2015). However, in a marriage where women deliver through CS, it puts a limit to the number of children a woman may desire to have. With the majority of these woman being Muslim, it stands to reason that their husband could marry again or reject them for other women who

can give birth to many children. This came out during the focus group discussion as one of the reasons women refuse or delay in accepting to undergo CS.

A higher number of participants had no formal education 102 (28.2%) and the least (6.5) had the tertiary level to be high (Ghotbi *et al.*, 2014) (2014(Neuman *et al.*, 2014). The differences in educational level indicate that giving birth through CS is not related to educational status.

5.3 Prevalence of Caesarean Section in the Tamale Teaching Hospital

This study results revealed a total average delivery of 7,671.4 for the period 2015 to 2019. Within the same period, normal deliveries averaged 5535.4 (72.4% of the total). A total of 10,604 caesarean sections were conducted during the five periods. The total C – sections averaged 2,120 with a prevalence rate of 27.4%. The caesarean section rate of 27.4% found in this study is similar to the findings of other studies conducted at health facilities in other parts of the world (Daniel *et al.*, 2014; Nkwo & Onah, 2002) and that of Prah *et al.* (2017). which had a 26.9% prevalence rate. In a similar study by (Dankwah *et al.*, 2019a) CS delivery percentages range from 5% of respondents in the poorest quintile to 27.5% in the richest quintile. The rate is however lower than the rate of 35% that was found in a study conducted at the Korle Bu Teaching Hospital in Ghana which is a tertiary level hospital (Gulati & Hjelde, 2012). The national caesarean delivery rate in Ghana is 13%. The high rate of CS in this study could be because the hospital serves as a referral centre for other hospitals, clinics and maternity homes and thus may receive more complicated pregnancies or women who are referred because they may need CS. Another reason for the high rate of CS in this study could be the rare use of instrumental delivery. Vacuum deliveries averaged 15.2 (0.2%) with a maximum in 2015, 25(0.4%) and the minimum in 2016, 7(0.1%). It was observed that while there were increases in both normal and CS deliveries during the period, there was a gradual decrease in the percentage of normal deliveries and a gradual increase in the percentage of caesarean section deliveries. The research further revealed an increased number

of emergency delivery in 2019, 1608 (60.2%). It was further observed that while there were increases in both emergency and elective CS deliveries during the period, there was a gradual decrease in the percentage of elective CS deliveries in 2019 and a gradual increase in the percentage of eemergency ccaesarean section deliveries. Caesarean deliveries with complication within the same period was 180.6 (5.2%.) average. This was as a result of delays in accepting to undergo the procedure.

The top three reasons indication identified among the study population were prolonged labour 95(26.2%), baby not lying well 83 (22.9%) and previous CS 65(18.0%). This finding was like that of (Penn & Ghaem-Maghami, 2001) and (Daniel *et al.*, 2014) that revealed that dominant indication for CS among the study population was previous CS (23.10%), followed by big baby (17.21%), failure in progress (13.21%) and fetal distress (10.70%).

5.4 Knowledge level of women on caesarean sections in the Tamale Teaching Hospital

The study revealed that majority had heard of the caesarean section before undergoing one while This conforms with the observations by Ashimi *et al.* (2013), which concluded that 93.8% of their respondents had heard or had knowledge of CS with 40.9% feeling they had adequate knowledge of the procedure and 2.7% knew that before the procedure can be carried out, they needed to give a signed consent. Similar studies conducted by (Adageba *et al.*, 2008) in the ANC of the Komfo – Anokye Teaching Hospital (KATH), Kumasi, Ghana, revealed that of 317 womenwho were interviewed 304 (96%) had heard of the procedure; however, only 43 (13.5%) could identify the specific indications for it. This finding was also consistent with that of a similar study done in an urban setting in Nigeria (Aziken *et al.*, 2007a). The study conducted by Aziken *et al.* (2007a) revealed that all the respondents reported that they have heard of caesarean section and were able to identify CS (among 4 options) as ‘delivery by operation through the abdomen’ A descriptive cross-sectional study was conducted at Tamale Teaching Hospital in 2017 among pregnant women attending the

antenatal clinic to assess their knowledge on Caesarean Section. Out of 360 pregnant women, thirty-two per cent (32%) of respondents had good knowledge regarding caesarean section, 48% and 20% had fair and poor knowledge on the procedure respectively (Afaya *et al.*).

From the focus group discussion, participants expressed a different understanding of caesarean sections based on their experiences and knowledge. Participants understanding was associated with it being a type of delivery and involving cutting open the womb of the mother to remove the baby. It was revealed that the majority of respondents 83.1% agreed that a woman can give birth vaginally after a previous CS while some indicated they did not know. Age category, the highest level of education, occupation marital status and overall description of caesarean section were found to be significant when accessing respondent's knowledge on whether a woman can deliver per vagina after a caesarean section. This is consistent with a study in Trinidadian which an association was found between the levels of the knowledge of CS and the level of education of respondents (Mungrue *et al.*, 2010).

The study findings revealed that previous experience of CS was significantly associated with pregnant women's knowledge on CS, this was in line with another study which stated this may be because, during pre-operation preparations for CS, women are educated on the procedure (Prah *et al.*, 2017). The high level of knowledge of respondents could also be attributed to the effective health education and promotion to all clients attending ANC and CWC by midwives and other health professionals in those departments.

5.5 Preference for caesarean sections.

Majority 292(80.7%) of the mothers preferred spontaneous delivery per vagina over caesarean section although a small proportion (17.7%) of the mothers preferred C-sections over spontaneous vaginal delivery. This was an expected finding and it is similar to a study conducted in Ghana which observed that 55% of pregnant women made a similar selection,

and other studies in Ghana found 93.3% (Adageba *et al.*, 2008) and 94% (Prah *et al.*, 2017) and (Naa Gandau *et al.*, 2019) and a study from Nigeria (Faremi *et al.*, 2014) reported 85.7%, 91.5% (Ajeet *et al.*, 2011) and in Italy where 80% of women preferred vaginal delivery (Montilla et al., 2012). This preference for vaginal delivery has been described as a reflection of the desire to have a natural birthing process rather than an aversion for CS (Adageba *et al.*, 2008).

Majority of respondents were willing to undergo another CS when the need arose which is similar to findings from other parts of country and Africa (Aziken *et al.*, 2007b; Naa Gandau *et al.*, 2019). Some women however would not undergo CS for different reasons. Major reasons given for not wanting to undergo CS were fear of complications, fear of pain during and after surgery and it not been a natural process. This finding is similar to findings from a community-based study in the Upper West Region and one from Burkina Faso (Abbaspoor *et al.*, 2014) and studies from Nigeria which reported fear of death and pain as the main dangers (Aziken *et al.*, 2007b; Faremi *et al.*, 2014). These fears may prevent women from delivering in hospitals when they perceive a higher chance of CS and they may delay in accepting emergency obstetric care required at the individual maternal level to prevent infant and maternal mortality.

A greater number of respondents 318 (87.8%) viewed caesarean sections as the wish of God. Contrary to research work by Abbaspoor *et al.* (2014) and (Mboho, 2013) indicated that most women hold the belief that vaginal delivery is Gods ordained way of giving birth and as such God frowns at the caesarean section as an initiative by man to alter what is considered natural. 86.7% viewed women who delivered by CS as weak women and 69 (19.1%) said they are perceived as having cheated on their husbands. In similar qualitative studies. Women were of the view that any woman who gives birth through surgery is weak and unfaithful to their husbands (Qazi *et al.*, 2013; Sahlin *et al.*, 2013; Ugwu & de Kok, 2015). Other reasons

that were given during the focus group discussion supports findings that even though women knew the benefits of CS to save their lives and that of their babies they were much particular about its effects on them. They reported that CS comes with some form of burden and restrictions. This means that complications after the procedure may be contributing factors to women refusing or delaying to undergo caesarean sections.

5.6 Social construction of knowledge factors contributing to delays and refusals of caesarean section

5.6.1 The social construction of Caesarean section

From the findings, different beliefs and connotations have been assigned to CS as a form of delivery as expressed by the study participants within their social context. The women had meanings for CS, beliefs about the procedure and the reasons for CS. The rest were restrictions on ideal family size and physical impairment. This implies that the different beliefs about CS as reported by the women tend to influence the acceptability or otherwise of CS as a birth strategy during the gestational age of a woman. The study posits that mothers who had CS associated it with a form of delivery that involved an act of cutting a pregnant woman to bring out the baby. These descriptions given by the participants indicated they had a basic understanding of what CS is and how it is performed. Similarly, the results of the study indicate that women had the belief that caesarean section involved "killing" the woman to remove the baby and "waking her up later". This finding supports the proposition by (Litorp *et al.*, 2015) whose findings suggest that the process of women undergoing CS under general anaesthesia is interpreted by these women as "killing" the woman and waking her after the procedure. Also, the present study showed that participants had varied beliefs for the procedure of CS to be carried out. Some of the reasons given by participants for not opting for CS include promiscuity, laziness, fear of childbirth, pain, and a curse to a disrespectful woman. These findings compare favourably with that of (Mboho, 2013; Sahlin *et al.*, 2013;

Ugwu & de Kok, 2015). These findings suggest a woman may avoid CS because of the negative societal construction of CS. For instance, women in the study area may avoid CS to escape being labelled as promiscuous or being cursed by their ancestors. Respondents also reported that socially, it is the belief that CS is meant for weak, lazy and women who fear pain. Other reasons women decline CS was the social perception of womanhood emerged strongly as an order of socialization.

Socially women have been made to believe that a woman is one who can deliver vaginally (naturally) and one who can give birth to many children. Similarly, in a mixed-method study conducted by Ugwu and de Kok (2015) in Nigeria, the qualitative findings reported that women suffered in their martial homes after they underwent CS in that, they had to either share husbands with other women who the family believed would give birth to other children to keep their lineage going. As such women in this study, even though they knew the benefits of CS, were interested in vaginal delivery to be recognized as women in their social context. Marital status was strongly significant (p=.000) and therefore associated with the consent giver for the caesarean section. The undesirable, different views of the social construction of CS may jeopardize the fight against maternal and infant mortality because it can lead to underutilization of surgical births as an alternative means of childbirth when complications occur. This finding is like that of (Litorp *et al.*, 2015). This gives an impression that the indications for CS may not be understood by these group of women or they might have the conviction that nothing happens by chance. For such women, based on this belief, it is unlikely for them to go back to such hospitals for delivery. This implies that more education must be provided for pregnant women attending antenatal services on the indications for CS. In terms of the number of children one can have, the findings postulate that undergoing CS restricted one's ability to have the desired number of children. These were sociocultural perceptions which were a source of worry to some participants, which was

also a worry to women in previous studies (Qazi *et al.*, 2013; Ugwu & de Kok, 2015). This finding is an indication that the women viewed CS negatively in terms of the number of children they can have, suggesting that CS deprives them of their ideal family size. This is attributable to the importance attached to large family size within the social context of the study area which is contrary to finding by (Litorp *et al.*, 2015) in which they found out that women will prefer smaller family size resulting from CS to give them better care.

In a social context where most household chores are solely the responsibility of the woman especially in the study area, a woman may refuse CS because of the perceived physical burden associated with it. Similar research revealed that; this prevents them from carrying out their daily activities at home and engaging in economic ventures (Rishworth *et al.*, 2016; Shahoei *et al.*, 2014). This may also increase the delay in seeking for hospital health care when complications develop during home delivery or even lead to women seeking health care from alternative providers when complications are perceived including prayer centres. All these could increase the risk of adverse maternal and neonatal outcomes including maternal and neonatal deaths.

5.6.2 Source of perception about CS (objectivation)

Sources of perception about CS provides a construct that has to do with how participants obtained information on beliefs about CS as a mode of delivery. From the study, it was established that all the participants had heard beliefs about CS but from different sources. The findings from the study revealed that participants beliefs about CS were obtained through significant others (community members). The study revealed most of the women got information on CS from the community in which they live. Participants expression of the community members as a source of their information on beliefs about CS was based on instances where family members, neighbours and friends gave them information on CS. It was revealed participants heard about beliefs on CS from friends and family which made

them afraid and scared before they went through it. Some indicated that their sources of information on CS were from social gatherings. These findings are an indication that beliefs and information on CS were obtained from various sources by the participants and based on the information received, participants reacted differently towards the procedure. others were afraid, some tried resisting the CS altogether. The rest attempted running from the hospital. This revelation is in tandem with those of (Fenwick *et al.*, 2009) and (Boz *et al.*, 2016) where four women absconded from the hospital after they were informed of the planned procedure to deliver their babies. The above analysis points to the fact that the education and counselling given at the ANC level does not address beliefs women might be holding about CS before and after delivery. This, therefore, calls for a conscious effort on the part of health care providers to provide tailored made education on the general indications for CS as a medical condition particularly during ANC attendance of pregnant mothers.

5.6.3 Perceived order of socialization about CS (internalization)

Perceived order of socialization about CS in this study seeks to describe the cultural perceptions surrounding CS and motherhood which influenced the decision-making process of women on a birth method. Social perception of womanhood emerged strongly as an order of socialization.

Socially women have been made to believe that a woman is one who can deliver vaginally (naturally) and one who can give birth to many children. As such women in this study, even though they knew the benefits of CS, were interested in vaginal delivery to be recognized as women in their social context. These findings from the above theme clearly define a woman and womanhood socially as largely on woman's ability to deliver vaginally and being able to give birth to many children which most of the participants wanted to achieve as also reported previously (Mboho, 2013; Qazi *et al.*, 2013; Ugwu & de Kok, 2015). These women may resist CS in their subsequent deliveries given that CS deprives them of being recognized as

"women". The undesirable views about womanhood may be rooted in socio-cultural beliefs that can hinder attempts to refer women in situations where there is/are threatened complications during delivery requiring surgical intervention. This is because undergoing caesarian section according to the participants is a perceived reproductive defeat.

5.6.4 Emotions associated with CS

These findings revealed under emotions associated with CS suggest that, despite knowing the benefits of CS, to these women, it comes with different emotions. While some showed signs of sadness, others were anxious because they did not know what the outcome of CS might be. The social belief that one is not a woman after CS, being a perceived adulterous woman were the concerns of these women which resulted in their worry. For some of these women, they expressed being afraid because they did not know how CS is done and what the outcome of CS might be as also revealed in the case of Ameresekere *et al.* (2011) in the United States of America, 8 women of Africa descent complained bitterly and felt frustrated when they were faced with CS as a choice of delivery. For those who were unhappy about CS, unplanned CS delivery coupled with longer hospital stay was a factor. The unexpected lengthy stay at the hospital could present challenges to these women, preventing them from fulfilling their socially-expected responsibilities at home. Similar results were also observed with (75.0%) of respondents not willing to undergo CS due to long recovery time. Related studies by Souza *et al.* (2016) and Naa Gandau *et al.* (2019) revealed long recovery time is significant in these areas since many of the rural mothers are poor subsistence farmers with several domestic roles.

The study identified marital and social consequences suffered by the women in their social context after the procedure. For some of these women, their in-laws were advocating a second wife for their sons to give birth to additional children, which is in line with findings of Ugwu and de Kok (2015) which also showed that women in the study experienced some form

of social abuse in their respective communities after the CS. While some were seen as less of a "woman", others were teased (Mboho, 2013). The results revealed a high level of ignorance about CS in the participants' communities. For some of the women, they were poorly received at home after their second CS. This issue was similarly reported by women in a previous study (Qazi *et al.*, 2013). Generally, the results bring to fore the urgent need for intensive education not only among women but the community on the right indications for CS as a birth strategy medically.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

The prevalence of CS in the study was found to be relatively high (27.4%). This could be because the hospital serves as a referral centre for other hospitals, clinics and maternity homes and thus may receive complicated pregnancies or women who are referred because they may need CS.

Majority of respondents had adequate knowledge about caesarean section (risks and effects) and expressed different understanding of caesarean sections based on their experiences and knowledge with a great influence of culture.

Women did not have a choice to decline caesarean section in Tamale Teaching Hospital because they were performed as emergency CS or with indication such as prolonged labour, breech presentation, foetal distress and previous CS. Most of the respondents preferred to deliver vaginally with the reasons provided centering on prolonged recovery time, their fears, attitudes, traditional and cultural values and beliefs. Most of the findings of the study conformed to the constructs of the social construction of reality model. These include the social construction of CS, sources of perception about CS, perceived order of socialization about CS. Those that were not consistent with the social construction of reality model were emotions associated with CS and post CS consequences. The findings indicated that women had varied beliefs about CS that tend to influence their acceptability of the procedure as a birth strategy. Women obtained beliefs about CS from various sources and based on the information obtained, they reacted differently towards the procedure. Furthermore, women's decisions about their preferred mode of delivery had cultural and social dimensions.

6.2 Recommendations

Based on the observations and analysis in this, these recommendations are being suggested to the Ministry of Health and Health care providers.

Ministry of Health should;

- Ensure that all health personnel especially nurses and midwives have location-based training on socio-cultural beliefs about CS. This should be targeted at community-specific social beliefs and norms regarding CS especially its social implications on the women and families in the specific social groupings or localities. It should also go beyond the broad picture and concentrate on specific tribes even when groups of tribes are found in the same localities or catchment areas.
- Intensify education of the public through the mass media (radio, TV, social media) on indications for CS to enrich their knowledge and to solicit the needed support from families and community members for women undergoing CS.

Health Care Providers (HCP) Should;

- Ensure that midwives in the Obstetrics and Gynaecology Unit of the Tamale Teaching Hospital as well as health facilities in the Tamale Metropolis make conscious efforts to provide tailored made education on the general indications for CS as a medical intervention.
- Empower the Public health education unit within the Metropolis to educate families and communities on the indications of CS during their routine visitation to communities
- Use all available means to get into contact with the communities to educate them on CS; its importance, effects, and benefits. There should be a conscious effort to

demystify the issues surrounding the choice and effects of CS. Community seminars, fora and durbars should be intensified.

- Organize tailor-made programmes on psychosocial counselling for women before and after CS.
- Institute measures to encourage husbands to accompany their wives to the hospital for antenatal classes

REFERENCES

(GSS) GSS, (GHS) GHS, & ICF (2018). Maternal Health Survey 2017, Key Indicators Report.

Abbaspoor Z, Moghaddam-Banaem L, Ahmadi F, & Kazemnejad A (2014). Iranian mothers' selection of a birth method in the context of perceived norms: a content analysis study. Midwifery 30**:** 804-809.

Adageba RK, Danso K, Adusu-Donkor A, & Ankobea-Kokroe (2008). Awareness and perceptions of and attitudes towards caesarean delivery among antenatal. Ghana medical journa 42**:** 137.

Afaya RA, Bam V, Apiribu F, Agana VA, & Afaya A Knowledge of Pregnant Women on Caesarean Section and their Preferred Mode of Delivery in Northern Ghana.

Agbozo F, Abubakari A, Der J, & Jahn A (2016). Prevalence of low birth weight, macrosomia and stillbirth and their relationship to associated maternal risk factors in Hohoe Municipality, Ghana. Midwifery 40**:** 200-206.

Ajeet S, Jaydeep N, Nandkishore K, & Nisha R (2011). Women's knowledge, perceptions, and potential demand towards caesarean section. National Journal of Community Medicine

2**:** 244-248.

Ameresekere M, Borg R, Frederick J, Vragovic O, Saia K, & Raj A (2011). Somali immigrant women's perceptions of cesarean delivery and patient–provider communication surrounding female circumcision and childbirth in the USA. International Journal of Gynecology Obstetrics 115**:** 227-230.

Angeja A, Washington AE, Vargas J, Gomez R, Rojas I, & Caughey (2006). Chilean women's preferences regarding mode of delivery: which do they prefer and why? BJOG: An International Journal of Obstetrics Gynaecology 113**:** 1253-1258.

Ashimi A, Amole T, & Aliyu L (2013). Knowledge and attitude of pregnant women to caesarean section in a semi-urban community in northwest Nigeria. Journal of the West African College of Surgeons 3**:** 46-61.

Aziken M, Omo-Aghoja L, & Okonofua F (2007a). Perceptions and attitudes of pregnant women towards caesarean section in urban Nigeria. Acta obstetricia et gynecologica Scandinavica 86**:** 42-47.

Aziken M, OMO- AGHOJA L, & Okonofua F (2007b). Perceptions and attitudes of pregnant women towards caesarean section in urban Nigeria. J Acta obstetricia et gynecologica Scandinavica 86**:** 42-47.

Bako B, Umar N, Garba N, & Khan N (2011). Informed consent practices and its implication for emergency obstetrics care in azare, north-eastern Nigeria. Annals of medical health sciences research 1**:** 149-158.

Betrán AP, Torloni MR, Zhang J-J, Gülmezoglu A, Section WWGoC, Aleem H, *et al.* (2016). WHO statement on caesarean section rates. BJOG: An International Journal of Obstetrics

Gynaecology 123**:** 667-670.

Betran AP, Ye J, Moller AB, Zhang J, Gulmezoglu AM, & Torloni MR (2016). The Increasing Trend in Caesarean Section Rates: Global, Regional and National Estimates: 1990-2014. PLoS One 11**:** e0148343.

Bohren MA, Hunter EC, Munthe-Kaas HM, Souza JP, Vogel JP, & Gulmezoglu AM (2014). Facilitators and barriers to facility-based delivery in low- and middle-income countries: a qualitative evidence synthesis. Reprod Health 11**:** 71.

Boz I, Teskereci G, & Akman G (2016). How did you choose a mode of birth? Experiences of nulliparous women from Turkey. Women and birth : journal of the Australian College of Midwives 29**:** 359-367.

Briand V, Dumont A, Abrahamowicz M, Traore M, Watier L, & Fournier P (2012). Individual and institutional determinants of caesarean section in referral hospitals in Senegal and Mali: a cross-sectional epidemiological survey. BMC pregnancy childbirth 12**:** 114.

Brooks EC, Genna CW, & Mannel R The Lactation Consultant: Roles and Responsibilities.

Bukar M, Audu B, & Massa A (2009). Caesarean delivery at the Federal Medical Centre Gombe: a 3-year experience. Nigerian journal of medicine: Journal of the National Association of Resident Doctors of Nigeria 18**:** 179-183.

Buyukbayrak E, Kaymaz O, Kars B, Karsidag A, Bektas E, Unal O, *et al.* (2010). Caesarean delivery or vaginal birth: preference of Turkish pregnant women and influencing factors. Journal of obstetrics Gynaecology 30**:** 155-158.

Caughey AB, Cahill AG, Guise JM, & Rouse DJ (2014). Safe prevention of the primary cesarean delivery. American journal of obstetrics and gynecology 210**:** 179-193.

Cavallaro FL, Cresswell JA, França GV, Victora CG, Barros AJ, & Ronsmans C (2013). Trends in caesarean delivery by country and wealth quintile: cross-sectional surveys in southern Asia and sub-Saharan Africa. Bulletin of the World Health Organization 91**:** 914-922D.

Chen I, Opiyo N, Tavender E, Mortazhejri S, Rader T, Petkovic J, *et al.* (2018). Non-clinical interventions for reducing unnecessary caesarean section. Cochrane Database Syst Rev 9**:** CD005528-CD005528.

Chigbu CO, & Iloabachie GC (2007). The burden of caesarean section refusal in a developing country setting. BJOG 114**:** 1261-1265.

Christilaw, & E J (2006). Cesarean section by choice: constructing a reproductive rights framework for the debate. International Journal of Gynecology Obstetrics

94**:** 262-268.

Chu K, Cortier H, Maldonado F, Mashant T, Ford N, & Trelles M (2012a). Cesarean section rates and indications in sub-Saharan Africa: a multi-country study from Medecins sans Frontieres. PloS one 7**:** e44484-e44484.

Chu K, Cortier H, Maldonado F, Mashant T, Ford N, & Trelles M (2012b). Cesarean section rates and indications in sub-Saharan Africa: a multi-country study from Medecins sans Frontieres. PloS one 7.

Creswell JW, & Poth CN (2016) *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Dako P, Adongo PB, Aikins M, Aryeetey R, & McGough L The influence of socio-cultural interpretations of pregnancy threats on health-seeking behavior among pregnant women in urban Accra, Ghana.

Daniel S, Viswanathan M, Simi B, & Nazeema A (2014). Study of maternal outcome of emergency and elective caesarean section in a semi-rural tertiary hospital. Natl J Med Res 4**:** 14-18.

Dankwah E, Kirychuk S, Zeng W, Feng C, & Farag M (2019a). Socioeconomic inequalities in the use of caesarean section delivery in Ghana: a cross-sectional study using nationally representative data. International journal for equity in health 18**:** 162.

Dankwah E, Kirychuk S, Zeng W, Feng C, & Farag M (2019b). Socioeconomic inequalities in the use of caesarean section delivery in Ghana: a cross-sectional study using nationally representative data. %J International journal for equity in health

18**:** 162.

Dickson TD, & Schwarze RW (1999). Enclosure apparatus for processing devicesGoogle Patents.

Dumont A, de Bernis L, Bouvier-Colle MH, & Breart G (2001). Caesarean section rate for maternal indication in sub-Saharan Africa: a systematic review. Lancet (London, England) 358**:** 1328-1333.

Echoka E, Dubourg D, Makokha A, Kombe Y, Olsen ØE, Mwangi M, *et al.* (2014). Using the unmet obstetric needs indicator to map inequities in life-saving obstetric interventions at the local health care system in Kenya. International journal for equity in health 13**:** 112.

Faremi AF, Ibitoye OF, Olatubi MI, Koledoye PN, & Ogbeye GB (2014). Attitude of pregnant women in south western Nigeria towards caesarean section as a method of birth. 3**:** 709-714.

Fenwick J, Staff L, Gamble J, Creedy DK, & Bayes S (2010). Why do women request caesarean section in a normal, healthy first pregnancy? Midwifery 26**:** 394-400.

Fenwick S, Holloway I, & Alexander J (2009). Achieving normality: the key to status passage to motherhood after a caesarean section. Midwifery 25**:** 554-563.

Fesseha N, Getachew A, Hiluf M, Gebrehiwot Y, & Bailey P (2011). A national review of cesarean delivery in Ethiopia. International Journal of Gynecology Obstetrics 115**:** 106-111.

Furber C (2013). Mboho M Furber CM Waterman H. (2013). Socio-cultural factors influencing maternal mortailty in Akwa Ibom, Nigeria. African Journal of Midwifery and Women's Health, 7(1), 26-31. African Journal of Midwifery and Women's Health 7**:** 26.

Gebremedhin S (2014). Trend and socio-demographic differentials of Caesarean section rate in Addis Ababa, Ethiopia: analysis based on Ethiopia demographic and health surveys data. Reproductive health 11**:** 14.

Geidam AD, Audu BM, Kawuwa BM, & Obed JY (2009). Rising trend and indications of caesarean section at the university of Maiduguri teaching hospital, Nigeria. J Annals of African Medicine 8.

Ghotbi F, Akbari Sene A, Azargashb E, Shiva F, Mohtadi M, Zadehmodares S, *et al.* (2014). Women's knowledge and attitude towards mode of delivery and frequency of cesarean section on mother's request in six public and private hospitals in T ehran, I ran, 2012. Journal of Obstetrics Gynaecology Research 40**:** 1257-1266.

Guise J-M, Berlin M, McDonagh M, Osterweil P, Chan B, & Helfand MJO (2004). Safety of vaginal birth after cesarean: a systematic review. Obstetrics

Gynecology 103**:** 420-429.

Gulati D, & Hjelde GI (2012). Indications for Cesarean Sections at Korle Bu Teaching Hospital, Ghana.

Hildingsson I (2008). How much influence do women in Sweden have on caesarean section? A follow-up study of women's preferences in early pregnancy. Midwifery 24**:** 46-54.

Irani M, & Deering S (2015). Challenges affecting access to cesarean delivery and strategies to overcome them in low-income countries. International Journal of Gynecology Obstetrics 131**:** 30-34.

Karlstrom A, Nystedt A, Johansson M, & Hildingsson I (2011). Behind the myth--few women prefer caesarean section in the absence of medical or obstetrical factors. Midwifery 27**:** 620-627.

Khunpradit S, Tavender E, Lumbiganon P, Laopaiboon M, Wasiak J, & Gruen RL (2011). Non- clinical interventions for reducing unnecessary caesarean section. Cochrane Database of Systematic Reviews

Kleinman A, & Benson P (2006). Anthropology in the clinic: the problem of cultural competency and how to fix it. PLoS Med 3**:** e294.

Kouanda S, Coulibaly A, Ouedraogo A, Millogo T, Meda BI, & Dumont A (2014). Audit of cesarean delivery in Burkina Faso. International Journal of Gynecology Obstetrics 125**:** 214-218.

Kwawukume E, & Emuveyan E (2002). Comprehensive Obstetrics in the Tropics. Ashante

Hittscher, Damsona**:** 321-329.

Lavender T, Kingdon C, Hart A, Gyte G, Gabbay M, & Neilson JP (2005). Could a randomised trial answer the controversy relating to elective caesarean section?

National survey of consultant obstetricians and heads of midwifery. BMJ 331**:** 490-491.

Litorp H, Kidanto HL, Nystrom L, Darj E, & Essén B (2013). Increasing caesarean section rates among low-risk groups: a panel study classifying deliveries according to Robson at a university hospital in Tanzania. BMC pregnancy childbirth 13**:** 107.

Litorp H, Mgaya A, Kidanto HL, Johnsdotter S, & Essen B (2015). 'What about the mother?' Women's and caregivers' perspectives on caesarean birth in a low-resource setting with rising caesarean section rates. Midwifery 31**:** 713-720.

Liu L, Johnson HL, Cousens S, Perin J, Scott S, Lawn JE, *et al.* (2012). Global, regional, and national causes of child mortality: an updated systematic analysis for 2010 with time trends since 2000. The Lancet 379**:** 2151-2161.

Loke AY, Davies L, & Li S-f (2015). Factors influencing the decision that women make on their mode of delivery: the Health Belief Model. BMC health services research 15**:** 274.

Lurie S (2005). The changing motives of cesarean section: from the ancient world to the twenty-first century. Archives of gynecology obstetrics 271**:** 281-285.

Maaløe N, Bygbjerg IC, Onesmo R, Secher NJ, & Sorensen BL (2012). Disclosing doubtful indications for emergency cesarean sections in rural hospitals in Tanzania: a retrospective criterion- based audit. Acta obstetricia et gynecologica Scandinavica 91**:** 1069-1076.

Manasyan A, Saleem S, Koso-Thomas M, Althabe F, Pasha O, Chomba E, *et al.* (2013). Assessment of obstetric and neonatal health services in developing country health facilities. American journal of perinatology 30**:** 787-794.

Manyeh AK, Amu A, Akpakli DE, Williams J, & Gyapong M (2018). Socioeconomic and demographic factors associated with caesarean section delivery in Southern Ghana: evidence from INDEPTH Network member site. BMC Pregnancy Childbirth 18**:** 405.

Mazzoni A, Althabe F, Liu NH, Bonotti AM, Gibbons L, Sánchez AJ, *et al.* (2011). Women's preference for caesarean section: a systematic review and meta- analysis of observational studies. an international journal of obstetrics gynaecology 118**:** 391-399.

Mboho M (2013). Perception Of Nigerian Women towards Caeserean Section: A Case Study Of Women Of Reproductive Age In Akwa Lbom State, Nigeria. Academic Research International 4**:** 272.

Moyer CA, Adongo PB, Aborigo RA, Hodgson A, Engmann CM, & DeVries R (2014). "It's up to the woman's people": how social factors influence facility-based delivery in Rural Northern Ghana. Matern Child Health J 18**:** 109-119.

Mungrue K, Nixon C, David Y, Dookwah D, Durga S, Greene K, *et al.* (2010). Trinidadian women's knowledge, perceptions, and preferences regarding cesarean section: How do they make choices? International journal of women's health 2**:** 387.

Mylonas I, & Friese K (2015a). Indications for and Risks of Elective Cesarean Section. Dtsch Arztebl Int 112**:** 489-495.

Mylonas I, & Friese K (2015b). Indications for and risks of elective cesarean section. Deutsches Ärzteblatt International 112**:** 489.

Naa Gandau BB, Nuertey BD, Seneadza NAH, Akaateba D, Azusong E, Yirifere JY, *et al.* (2019). Maternal perceptions about caesarean section deliveries and their role in

reducing perinatal and neonatal mortality in the Upper West Region of Ghana; a cross-sectional study. BMC pregnancy and childbirth 19**:** 350-350.

Neuman M, Alcock G, Azad K, Kuddus A, Osrin D, More NS, *et al.* (2014). Prevalence and determinants of caesarean section in private and public health facilities in underserved South Asian communities: cross-sectional analysis of data from Bangladesh, India and Nepal. BMJ open 4**:** e005982.

Nkwo PO, & Onah HE (2002). Feasibility of reducing the caesarean section rate at the University of Nigeria Teaching Hospital, Enugu, Nigeria. Tropical Journal of Obstetrics Gynaecology 19**:** 86-89.

Oguntayo A, & Albert (2009). Determinants of place of delivery among booked patients in tertiary institution. International Journal of Gynecology Obstetrics 107**:** S501-S501.

Okojie CE (1994). Gender inequalities of health in the third world. J Social science 39**:** 1237-1247.

Okonofua F (2001). Optimising caesarean-section rates in west Africa. The Lancet 358**:** 1289.

Oladapo O, Sotunsa J, & Sule-Odu A (2004). The rise in caesarean birth rate in Sagamu, Nigeria: reflection of changes in obstetric practice. Journal of obstetrics gynaecology 24**:** 377-381.

Organization WH (2018) *WHO recommendations on intrapartum care for a positive childbirth experience*. World Health Organization.

Penn Z, & Ghaem-Maghami (2001). Indications for caesarean section. J Best practice research Clinical obstetrics gynaecology 15**:** 1-15.

Prah J, Kudom A, Afrifa A, Abdulai M, Sirikyi I, & Abu E (2017). Caesarean section in a primary health facility in Ghana: Clinical indications and feto-maternal outcomes. J Public Health Afr 8**:** 704.

Qazi Q, Akhtar Z, Khan K, & Khan AH (2013). Pregnant women view regarding cesarean section in Northwest Pakistan. J Trop Med Surg 1**:** 1-4.

Rahnama P, Mohammadi K, & Montazeri A (2015). Salient beliefs towards vaginal delivery in pregnant women: A qualitative study from Iran. J Reproductive health 13**:** 7.

Richelson JT (2015) *The US intelligence community*. Hachette UK.

Rishworth A, Bisung E, & Luginaah I (2016). "It's Like a Disease": Women's perceptions of caesarean sections in Ghana's Upper West Region. Women and birth : journal of the Australian College of Midwives 29**:** e119-e125.

Ronsmans C, & Graham WJ (2006). Maternal mortality: who, when, where, and why. Lancet (London, England) 368**:** 1189-1200.

Roudsari RL, Zakerihamidi M, & Khoei EM (2015). Socio-cultural beliefs, values and traditions regarding women's preferred mode of birth in the North of Iran. International journal of community based nursing midwifery 3**:** 165.

Sahlin M, Carlander-Klint A-K, Hildingsson I, & Wiklund I (2013). First-time mothers' wish for a planned caesarean section: deeply rooted emotions. Midwifery 29**:** 447-452.

Shahoei R, Rezaei M, Ranaei F, Khosravy F, & Zaheri F (2014). Kurdish women's preference for mode of birth: a qualitative study. Int J Nurs Pract 20**:** 302-309.

Shirazian T, & Gertz E (2013). Around the globe for women's health : a practical guide for the health care provider.

Sørbye IK, Vangen S, Oneko O, Sundby J, & Bergsjø P (2011). Caesarean section among referred and self-referred birthing women: a cohort study from a tertiary hospital, northeastern Tanzania. BMC pregnancy childbirth 11**:** 55.

Souza JP, Betran AP, Dumont A, de Mucio B, Gibbs Pickens CM, Deneux-Tharaux C, *et al.* (2016). A global reference for caesarean section rates (C-Model): a multicountry cross-sectional study. Bjog 123**:** 427-436.

Stanton C, Blanc AK, Croft T, & Choi Y (2007). Skilled care at birth in the developing world: progress to date and strategies for expanding coverage. Journal of biosocial science 39**:** 109-120.

Stjernholm YV, Petersson K, & Eneroth E (2010). Changed indications for cesarean sections. Acta obstetricia et gynecologica Scandinavica 89**:** 49-53.

Stoll K, Hall W, Janssen P, & Carty E (2014). Why are young Canadians afraid of birth? A survey study of childbirth fear and birth preferences among Canadian University students. Midwifery 30**:** 220-226.

Sunday-Adeoye I, & Kalu C (2011). Pregnant Nigerian women's view of cesarean section. Nigerian journal of clinical practice 14**:** 276-279.

Thaddeus S, & Maine D (1994). Too far to walk: maternal mortality in context. Social science medicine 38**:** 1091-1110.

Todman D (2007). A history of caesarean section: from ancient world to the modern era. Australian New Zealand Journal of Obstetrics Gynaecology 47**:** 357-361.

Tongco MDC (2007). Purposive sampling as a tool for informant selection. Ethnobotany Research applications 5**:** 147-158.

Torloni MR, Betrán AP, Montilla P, Scolaro E, Seuc A, Mazzoni A, *et al.* (2013). Do Italian women prefer cesarean section? Results from a survey on mode of delivery preferences. BMC pregnancy childbirth 13**:** 78.

Ugwu NU, & de Kok B (2015). Socio-cultural factors, gender roles and religious ideologies contributing to Caesarian-section refusal in Nigeria. Reprod Health 12**:** 70.

Villar J, Carroli G, Zavaleta N, Donner A, Wojdyla D, Faundes A, *et al.* (2007). Maternal and neonatal individual risks and benefits associated with caesarean delivery: multicentre prospective study. BMJ 335**:** 1025.

Walana W, Acquah S, Vicar E, Muhiba A, & Dedume J (2017). Preference of birth delivery modes among women attending antenatal and postnatal clinics in the tamale metropolis of Ghana. Preg Child Health 4**:** 2.

APPENDICES

APPENDIX I: Questionnaire

The social construction of knowledge of caesarean section among women who have undergone the process in the Tamale Teaching Hospital, N/R

My name is Amike Joana, a Master of Public Health student of the University for Development Studies (UDS)-Tamale campus. I would appreciate your voluntary participation in this study. Accepting to complete this questionnaire implies that you have consented to be part of the research. Please answer all the questions with all sincerity and honesty. I, however, assure you that the information that you give for this study shall be confidential and it's for purely academic purposes. Please tick (√) or fill in appropriately where necessary.

BACKGROUND CHARACTERISTICS OF STUDY PARTICIPANTS

1. Place of residence of respondent

_____

2. 1. Age of respondent in years

_____

3. Highest Level of formal Education.

Mark only one oval.

- ◯ No formal Education
- ◯ Primary School
- ◯ Junior Secondary School
- ◯ Senior Secondary School
- ◯ Vocational / Technical
- ◯ Tertiary

4. Occupation

Mark only one oval.

- ◯ Unemployed
- ◯ Self employed
- ◯ Salaried worker
- ◯ Student
- ◯ Other

5. Religion

Mark only one oval.

- ◯ Christianity
- ◯ Islam
- ◯ Traditional

6. Marital Status

Mark only one oval.

- ◯ Single
- ◯ Married
- ◯ Co-habiting
- ◯ Widowed
- ◯ Divorced

7. Ethnicity

_____

MATERNAL OBSTETRIC HISTORY

8. Number of children (Parity)

_____

9. History of Lost pregnancy/ Stillbirth?

Mark only one oval.

- ◯ Yes
- ◯ No

10. Number of Lost pregnancy/Stillbirths?

_____

11. Causes of the pregnancy loss (multiple response)

Check all that apply.

- [ ] Do not know
- [ ] Infection
- [ ] Stress
- [ ] Hypertension in pregnancy
- [ ] Diabetes in pregnancy
- [ ] Malaria in pregnancy
- [ ] Spontaneous Abortion
- [ ] Induced Abortion
- [ ] Prolonged labour
- [ ] Other reasons

MATERNAL EXPERIENCE WITH CAESAREAN SECTION

12. Number of previous caesarean section

_____

13. Indication for caesarean section (multiple response)

Mark only one oval per row.

	Yes	No
A. Big baby	◯	◯
B. Previous Caesarean section	◯	◯
C. Baby not lying well	◯	◯
D. Bleeding (Antepartum Haemorrhage)	◯	◯
E. Repeated Miscarriages	◯	◯
F. Complicated Hypertension in pregnancy	◯	◯
G. Maternal request	◯	◯
Prolonged labour	◯	◯
H. Not told the reason for Caesarean section	◯	◯
I. Others	◯	◯

14. Who gave consent for your CS?

Mark only one oval.

- ◯ Husband
- ◯ In laws
- ◯ Mother
- ◯ Father
- ◯ Brother
- ◯ Sister
- ◯ Other: _____

15. Did you willingly accept to undergo the CS?

Mark only one oval.

- ◯ Yes
- ◯ No

16. If No why were you not willing

Check all that apply.

- ☐ Cultural/traditional beliefs
- ☐ Fear of dying
- ☐ Fear of child not surviving
- ☐ Restriction on number of future deliveries
- ☐ Fear of being scorned
- ☐ Fear of late lactation

Other: ☐ _____

17. Description of Caesarean section experience (multiple response)

Mark only one oval per row.

	Yes	No
Good	◯	◯
Painful	◯	◯
Long stay in Hospital	◯	◯
Bad attitude of Staff	◯	◯
Other	◯	◯

18. Overall description of Caesarean section

Mark only one oval.

	1	2	3	4	5	
Very good	◯	◯	◯	◯	◯	Very poor

19. Information wished to have known before the Caesarea section (multiple response)

Check all that apply.

- ☐ Reason for having the caesarean section
- ☐ Complications of the surgery
- ☐ Duration of stay in hospital
- ☐ Cost of the caesarean section
- ☐ Effects of medications on baby

20. What would have made your caesarean section (CS) experience better (Multiple response)

Check all that apply.

- ☐ Education on CS at antenatal clinic
- ☐ Better staff attitude
- ☐ Shorter stay at hospital
- ☐ Better care of baby by nurses
- ☐ Relative being allowed to care for baby
- ☐ other

21. Were you told earlier on about having CS?

Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Not sure

22. Was the general Procedure explained before caesarean section?

Mark only one oval.

- ◯ Yes
- ◯ No

23. Form of Anaesthesia used for surgery

Mark only one oval.

- ◯ Spinal
- ◯ General

24. Experienced complication of Caesarean section. (Multiple response)

Check all that apply.

- [ ] Bleeding
- [ ] Infection of wound
- [ ] Sick baby
- [ ] Reaction to anaesthesia medications
- [ ] No complications
- [ ] Other complications

KNOWLEDGE LEVEL

25. Did you hear of caesarean section before you underwent one?

Mark only one oval.

- ◯ Yes
- ◯ No

26. Did you know why women have caesarean section?

Mark only one oval per row.

	Yes	No
Big baby	◯	◯
Previous caesarean section	◯	◯
Baby not lying well	◯	◯
Baby in distress	◯	◯
Bleeding	◯	◯
Repeated miscarriages	◯	◯
Complications of hypertension in pregnancy	◯	◯
Complications of Diabetes in pregnancy	◯	◯
Request of mother	◯	◯
Prolonged labour	◯	◯
Other reasons	◯	◯

27. Can a woman give birth vaginally after caesarean section?

Mark only one oval.

- ◯ Can give birth vaginally
- ◯ Cannot give birth vaginally
- ◯ I don't know

28. Is there a need for client education on Caesarean section at antenatal clinic?

Mark only one oval.

- ◯ Yes
- ◯ No

29. Which would you have preferred; planned caesarean section versus vaginal delivery.

Mark only one oval.

- ◯ Caesarean section
- ◯ Vaginal delivery
- ◯ I don't know

30. Are you willing to undergo caesarean section if the need be.

Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ Undecided

31. Reasons for not wanting to have caesarean section.

Mark only one oval per row.

	Yes	No	Don't know
Fear of been mocked	◯	◯	◯
Fear of pain during and after surgery	◯	◯	◯
Expensive	◯	◯	◯
Long recovery time	◯	◯	◯
To avoid getting a scar	◯	◯	◯
It prevents bonding with baby	◯	◯	◯
Not natural	◯	◯	◯
Not God's wish	◯	◯	◯
Blood may be given in the process	◯	◯	◯
May not see my baby	◯	◯	◯
Fear of complications	◯	◯	◯

32. How do people view a woman who delivered by caesarean section?

Mark only one oval per row.

	Yes	No
Normal	◯	◯
Weak	◯	◯
Feel sorry for her	◯	◯
God's wish	◯	◯
Cheated on her husband	◯	◯

33. Why would you think a woman would select CS?

Mark only one oval per row.

	Yes	No	Don't know
C/S delivery is less embarrassing	◯	◯	◯
C/S allows to choose the day of birth	◯	◯	◯
Woman's body recovers faster with C/S	◯	◯	◯
C/S delivery is more convenient	◯	◯	◯

Thank you for your response

APPENDIX II: Interview Guide for focus group mothers

Guiding Questions

A: Women beliefs about Caesarian section

1. What do you know about Caesarian section?
2. In your family, what do they say about Caesarian section?
3. What is your impression about Caesarian section as an option of giving birth?
4. Tell me some of the cultural beliefs about caesarian section?

B: Social construction of Caesarian section

1. Whose decision was it for you to do the Caesarian section?
2. How do your colleague women see you after going through a Caesarian section?
3. How has the Caesarian section imparted your life?
4. Can you tell me how to manage your social and cultural beliefs with the Caesarian section?

C: Behaviors of women towards the Caesarian section

1. How was your reaction when you were being informed that you will be operated?
   - Why did you react the way you did?
   - What decision did you take?

2. In your next delivery, will you prefer a Caesarian section? (probe for answers)

3. Can you give a narration of difficulties you go through after the Caesarian Section?

APPENDIX III: Consent form for respondents

CONSENT FORM

Statement of person obtaining informed consent:
I have fully explained this research to _____ and have given sufficient information about the study, including that on procedures, risks and benefits, to enable the prospective participant make an informed decision to or not to participate.

DATE: _____ NAME: _____

Statement of person giving consent:
I have read the information on this study/research or have had it translated into a language I understand. I have also talked it over with the interviewer to my satisfaction.

I understand that my participation is voluntary (not compulsory).

I know enough about the purpose, methods, risks and benefits of the research study to decide that I want to take part in it.

I understand that I may freely stop being part of this study at any time without having to explain myself.

I have received a copy of this information leaflet and consent form to keep for myself.

NAME:_____

DATE: _____ SIGNATURE/THUMB PRINT: _____

Statement of person witnessing consent (Process for Non-Literate Participants):

I _____ (Name of Witness) certify that information given to

_____(Name of Participant), in the local language, is a true reflection of what l have read from the study Participant Information Leaflet, attached.

MOTHER'S SIGNATURE (maintain if participant is under 18 years): _____

MOTHER'S NAME: _____

FATHER'S SIGNATURE (maintain if participant is under 18 years): _____

FATHER'S NAME: _____

APPENDIX IV: Letter of introduction

UNIVERSITY FOR DEVELOPMENT STUDIES

School of Medicine and Health Sciences

(Department of Community Health and Family Medicine)

Tel : 03720 - 93295
E-Mail :
Local : 5:7811/106.15
Internet: www.uds.edu.gh

Post Office Box TL 1883,
Tamale, Ghana, West Africa.

Office of the Head 13/02/2020

The Head of Research
Tamale Teaching Hospital
Tamale, N/R

LETTER OF INTRODUCTION

Amike Joana

This is to introduce to you, Ms Amike Joana, a Master of Public Health student of School of Medicine and Health Sciences, University for Development Studies. Ms Amike is currently working on her thesis titled: ***The Social Construction of Knowledge of Caesarean Section (S/C) among women who have undergone the process in Tamale Teaching Hospital, Northern region***. Ms Amike wants to have access to postnatal mothers from the hospital to enable her to carry out this important academic exercise. I would be grateful if you could grant her access and any other assistance she may need.

Thank you.

Yidana Adadow *(PhD)*
(HoD, CH&FM)

Dr. Yidana Adadow
SENIOR LECTURER H O D
DEP OF COM. HEALTH & FAM MED
SMHS-UDS, TAMALE

APPENDIX V: Certificate of authorization

Department of Research &Development
Tamale Teaching Hospital

TTH/R&D/SR/021
0203/2020

TO WHOM IT MAY CONCERN

CERTIFICATE OF AUTHORIZATION TO CONDUCT RESEARCH IN TAMALE TEACHING HOSPITAL

I hereby introduce to you **Ms. Amike Joana,** a Master of Public Health Student, Department of Community Health and Family Medicine, UDS. The student has been duly authorized to conduct a study titled **"The Social Construction of Knowledge of Caesarean Section (C/S) among Women who have undergone the Process in Tamale Teaching Hospital, Northern Region".**

Please accord the candidate the necessary assistance to enable her completes the study. If in doubt, kindly contact the Research Unit on the second floor of the administration block or on Telephone 0209281020. In addition, kindly report any misconduct of the Researcher to the Research Unit for necessary action.

The candidate is required to furnish the hospital a copy of the dissertation/Study upon completion.

Please note that this approval is given for a period of six months, beginning from 2nd of March, 2020 to 1st of September, 2020.

Thank You.

ALHASSAN MOHAMMED SHAMUDEEN.

APPENDIX VI: Turnitin results

THE SOCIAL CONSTRUCTION OF KNOWLEDGE OF CAESAREAN SECTION AMONG WOMEN WHO HAVE UNDERGONE THE PROCESS IN THE TAMALE TEACHING HOSPITAL, NORTHERN REGION

by Joana Amike

Submission date: 30-Sep-2020 10:49AM (UTC+0000)
Submission ID: 1401183841
File name: HE_PROCESS_IN_THE_TAMALE_TEACHING_HOSPITAL,_NORTHERN_REGION.docx (2.15M)
Word count: 24036
Character count: 126562

30/09/2020

THE SOCIAL CONSTRUCTION OF KNOWLEDGE OF CAESAREAN SECTION AMONG WOMEN WHO HAVE UNDERGONE THE PROCESS IN THE TAMALE TEACHING HOSPITAL, NORTHERN REGION

ORIGINALITY REPORT

19%	17%	13%	8%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	www.ncbi.nlm.nih.gov Internet Source	5%
2	mhnpjournal.biomedcentral.com Internet Source	2%
3	preview-bmcpregnancychildbirth.biomedcentral.com Internet Source	1%
4	reproductive-health-journal.biomedcentral.com Internet Source	1%
5	journals.plos.org Internet Source	1%
6	www.numidhorizon.com Internet Source	1%
7	njcmindia.org Internet Source	1%
	www.omicsonline.org	