

**UNIVERSITY OF GHANA**

**FACTORS INFLUENCING WOMEN'S SATISFACTION  
WITH CHILD BIRTH SERVICES IN THE TAMALE METROPOLIS**

**BY**

**NDEOGO AMADU ABDALLAH**

**(10599324)**

**THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN  
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MPhil  
DEGREE IN HEALTH SERVICE MANAGEMENT.**

**JULY 2018**

**DECLARATION**

I hereby declare that this research work on factors influencing women's satisfaction with child birth services in the Tamale metropolis that I submit for the degree of Master of Philosophy at the University of Ghana, Legon is my own work and all academic materials used have been acknowledged by way of proper referencing. This work has not been presented before for any other degree in this or any other University.

.....

**NDEOGO AMADU ABDALLAH**

**(10599324)**

.....

**DATE**

**CERTIFICATION**

I hereby certify that this thesis was supervised in accordance with procedures laid down by the University.

.....

**DR. ROGER A. ATINGA**  
**(SUPERVISOR)**

.....

**DATE**

## **DEDICATION**

This thesis is dedicated to the memory of my exemplary parents, Samuel and Anastasia, who took me to school and insisted I stay but did not live long to see how far I will travel along the academic ladder and to my younger siblings, Frank, Benjamin and Pius. Finally, I dedicate this work to Akudugu Mercy Akpelimbod for her best wishes and encouragements.

## **ACKNOWLEDGMENT**

I am highly indebted to Dr. Roger A. Atinga for not only being a supervisor during the conduct of this study but also being a mentor who provided exceptional support for this project to be successful.

I wish to acknowledge the contribution of all who helped in diverse ways during this study. Of special mention is Dr. Aaron Assibi Abousi and Dr. Nana Nimo Appiah-Agyekum both senior lecturers at the University of Ghana Business School (UGBS) who offered useful suggestions during this study. I am grateful to Mr. Stephen Atasige of Ghana Health Service (GHS), Gushegu in the northern region of Ghana and Mr. Kusi Louis Frimpong (Ph.D. candidate) Department of Geography, University of Ghana who read the work and offered useful suggestions that helped shape the study. I cannot forget Mr. Akologo Alexander of Bawku Presbyterian Eye services for his concern and support from the start to the end of this work.

Lastly, am grateful to the management of the study hospitals for allowing me to collect data from the facilities.

## TABLE OF CONTENTS

DECLARATION .....	i
CERTIFICATION .....	ii
DEDICATION .....	iii
ACKNOWLEDGMENT.....	iv
LIST OF ABBREVIATIONS.....	xi
LIST OF TABLES .....	xiii
LIST OF FIGURES .....	xiv
ABSTRACT.....	xv
CHAPTER ONE .....	1
INTRODUCTION .....	1
1.0 Introduction .....	1
1.1 Background of the study .....	1
1.2 Problem statement .....	4
1.3 Objective of the study .....	6
1.3.1 Specific objectives(s).....	6
1.4 Research questions .....	6
1.5 Significance of the study.....	6
1.6 Scope of the study .....	7
1.7 Definitions of key terms.....	7
1.8 Study outline .....	8
1.9 Chapter Summary.....	9

CHAPTER TWO .....	10
LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK .....	10
2.0 Introduction .....	10
2.1 Definition and operationalisation of satisfaction .....	10
2.2 Conceptualising satisfaction in healthcare .....	11
2.3 Disconfirmation paradigm .....	14
2.4 Level of satisfaction with child birth services.....	15
2.5 Theoretical framework .....	18
2.6 Satisfaction with childbirth services across Donabedian framework of structure, process and health outcome.....	19
2.6.1 Structure.....	19
2.6.1.1 Physical Environment.....	19
2.6.1.2 Availability of adequate human resource.....	21
2.6.1.3 Medicines, supplies and service.....	21
2.7 Process.....	22
2.7.1 Prompt care.....	22
2.7.2 Interpersonal care .....	22
2.7.3 Privacy .....	23
2.7.4 Provider competence .....	24
2.7.5 Cognitive and emotional support.....	24
2.7.6 Preference of a female healthcare provider .....	25
2.8 Health outcome .....	26
2.9. Demographic characteristics .....	26
2.9.1. Age.....	26
2.9.2 Education .....	27

2.9.3. Marital status .....	27
2.9.4 Income status .....	28
2.9.5 Location .....	28
2.9.6 Mode of delivery .....	28
2.9.7 Status of pregnancy .....	29
2.9.8 Parity.....	30
2.10 Cost of care.....	30
2.11 Distance to Health Facility.....	31
2.12 Referral link.....	32
2. 13 Maternal health initiatives in Ghana .....	33
2.13.1. Safe motherhood programme (SM).....	33
2.13.2 Free maternal health care policy.....	34
2.14 Chapter summary .....	36
CHAPTER THREE .....	37
METHODS FOR DATA COLLECTION .....	37
3.0 Introduction.....	37
3.1 Study setting.....	37
3.1.1 Location and size .....	38
3.1.2 Health care system.....	40
3.2 Research design.....	41
3.3 Study population .....	42
3.4 Sampling technique .....	42
3.5 Inclusion criteria.....	44
3.6 Sample size determination .....	44

3.7 Type and source of data .....	45
3.8 Data collection instruments .....	45
3.8.1 Dependent variable .....	46
3.8.2 Independent variables .....	46
3.9 Data collection methods .....	47
3.10 Data analyses .....	47
3.11 Ethical consideration .....	49
3.12 Chapter summary .....	50
CHAPTER FOUR.....	51
PRESENTATION OF RESULTS .....	51
4.0 Introduction .....	51
4.1 Demographic characteristics of respondents .....	51
4.2 Structural factors of child health services .....	53
4.3 Process factors of child health services .....	53
4.4 Women’s level of satisfaction with child birth services .....	54
4.5 Chi-square test of association between women’s demographic characteristics and satisfaction with child birth services .....	56
4.6 Association of structural factors with satisfaction with child birth services.....	59
4.7 Process related factors associated with satisfaction of child birth services .....	59
4.8 Logistic regression of factors associated with satisfaction with child birth services satisfaction.....	60

4.9 Chapter Summary.....	63
CHAPTER FIVE .....	64
DISCUSSION OF FINDINGS .....	64
5.0 Introduction .....	64
5.1 Level of satisfaction with facility-based child birth services.....	64
5.2 Association between demographic characteristics and satisfaction.....	65
5.3 Factors influencing women’s satisfaction.....	68
5.4 Summary findings .....	70
5.5 Conclusions .....	71
5.6 Contribution to knowledge.....	72
5.7 Recommendation(s) .....	72
5.8 Limitations and opportunities for future research.....	73
5.9 Chapter summary .....	74
REFERENCES .....	75
APPENDICES .....	96
Appendix 1: Questionnaire women’s satisfaction with child birth services.....	96
Appendix 2: Ethical clearance from ECH-ISSER.....	99
Appendix 3: Permission from northern region health directorate.....	100
Appendix 4: Permission from Tamale Teaching hospital.....	101

Appendix 5: Rotated component matrix for PCA with Varimax rotation of three-factor solution of the 13 SCBS items ..... 102

Appendix 6: KMO and Bartlett's Test..... 103

Appendix 7: Comparing Eigen Values from Monte Carlo PCA and Actual Eigen Values.... 104

## LIST OF ABBREVIATIONS

ANC	Antenatal Care
CHPS	Community Based Planning Services
ECH	Ethics Committee for Humanities
EmOC	Emergency Obstetric Care
FOC	Fear of Child Birth
GHS	Ghana Health Service
GSS	Ghana Statistical Service
HIRD	High Impact Rapid Delivery
ISSER	Institute of Statistical, Social and Economic Research
MDG	Millennium Development Goals
MOH	Ministry of Health
NGO	Non- Governmental Organisation
NHIA	National Health Insurance Authority
SAHS	School of Allied Health Sciences
SDHMT	Sub District Health Management Team
SM	Safe Motherhood
SPO	Structure Process outcome

SVD	Spontaneous Vaginal Delivery
TBA	Traditional Birth Attendant
TCH	Tamale Central Hospital
TTH	Tamale Teaching Hospital
TWH	Tamale West Hospital
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Emergency Fund
W H O	World Health Organisation

## LIST OF TABLES

Table 3. 1 Facility-based deliveries in the Tamale metropolis 2013-2017.....	45
Table 4. 1 Socio-demographic characteristics of respondents.....	52
Table 4. 2 Structural factors within the study hospitals.....	53
Table 4. 3 Process related factors .....	54S
Table 4.4 Chi-square test of the relationship between women’s demographic characteristics and satisfaction .....	57
Table 4.4 Continued. Chi-square test of the relationship between women’s demographic characteristics and satisfaction.....	58
Table 4. 5 Association of structural factors with satisfaction with child birth services .....	59
Table 4. 6 Process related factors associated with satisfaction with child birth services .....	60
Table 4. 7 Logistic regression analysis of significant variables associated with child birth services satisfaction .....	62

## LIST OF FIGURES

<i>Figure 2. 1: Conceptual framework: Adopted from Donabedian's SPO model.....</i>	<i>19</i>
<i>Figure 3. 1 Map of districts in the northern region of Ghana.....</i>	<i>39</i>
<i>Figure 3. 2 Organogram of metropolitan health services directorate.....</i>	<i>40</i>
<i>Figure 4. 1 Distribution of satisfaction items with respect to child birth services.....</i>	<i>55</i>
<i>Figure 4. 2 Satisfaction with child birth services among postnatal women.....</i>	<i>56</i>

## ABSTRACT

In spite of several interventions put in place to encourage the patronage of facility-based child birth services in Ghana, the rate of facility-based delivery is still low (57%). Poor quality and dissatisfaction with facility-based child birth services account for the low utilisation of facility-based child birth services. In order to attain the national target of having 80% facility-based deliveries in Ghana, there is the need to provide quality child birth services that meet women's expectation. The purpose of this study is to examine the factors that influence women's satisfaction with child birth services in the Tamale metropolis of Ghana. A cross-sectional survey using a structured questionnaire was employed to get the responses of 385 postnatal women delivered through Spontaneous Vaginal Delivery (SVD) and Caesarean Section (CS) in postnatal wards of the study hospitals. Data were analysed by using frequencies, chi-square test of independence and logistic regression model to identify the factors that influence women's satisfaction with child birth services. The logistic regression showed that the main factors that influenced women's satisfaction with child birth services were: cost of child birth services (OR =1.73,  $p = 0.023$  ), availability of a waiting area for clients and their relatives (OR=2.36,  $p = 0.020$ ), assurance of privacy (OR=1.73,  $p = 0.042$ ) and age of the respondents, 21-30 years (OR= 2.36,  $p = 0.000$ ) and above 30 years (OR = 5.67,  $p = 0.000$  ). There is, therefore, the need to sustain the policy exempting women from direct payment for child birth services as well as improve the quality of the infrastructure in the study hospitals by providing waiting areas for clients and their relatives.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

This chapter examined the background of the study, the research problem statement, overall and specific objective(s) as well as research questions. Further, study significance, scope, limitation and definitions of key terms are presented. The chapter concludes with a discussion on the outline of the entire study.

#### **1.1 Background of the study**

Satisfaction with healthcare services is a complex and multidimensional issue, but one which also seems to have attracted considerable attention from researchers in recent times and recent past (Hollins Martin & Fleming, 2011; Sawyer et al, 2013). Additionally, measuring service recipient satisfaction with healthcare, child birth services included has been identified as a strategy to improve the quality of healthcare (Goodmann et al, 2004; Srivastava et al, 2015).

Studies thus far have shown that pregnancy-related causes and complications during child birth claim the lives of about 289,000 women every year, globally. About 99% of these deaths are from developing countries, especially from Sub-Saharan Africa and southern Asia (WHO & UNICEF, 2012). According, to the World Health Organisation (WHO, 2012), one out of six women in developing countries die from pregnancy-related cause compared to one out of 30,000 in the advanced countries. This can be attributed to the fact that healthcare delivery in developing countries is characterised by poor medical care, an insufficient number of highly skilled health professionals, poor referral systems and wrong diagnosis and treatment (Soma-Pillay et al, 2008).

Facility-based child birth services, in particular, is attributed to the poor quality and lack of adequate care to effectively and timely manage pregnancy and child birth complications that are life-threatening (Althabe et al, 2008).

To end all these preventable deaths that arise from pregnancy-related causes requires the provision of good quality antenatal, delivery and postnatal services (Avortri et al, 2011) as well as focused attention on high impact interventions and strategies aimed at improving quality of healthcare (Chou et al, 2015). Some of these strategies include institutionalisation of quality assurance measures to obtain information from mothers regarding facility-based child birth services for appropriate and corrective timely decision making (Avortri et al, 2011).

Incorporating care recipients (in this case postnatal women) views in healthcare decisions result in improved medical care and better healthcare decisions that enhance acceptability and utilisation of facility-based child birth services (Vahdat et al, 2014). Mother's views in making health care decisions are also identified as a way through which greater satisfaction with child birth services can be attained (Matejić et al, 2014). Adopting a friendly approach to delivering facility-based child birth services is also necessary to reduce dissatisfaction among women thereby increasing the uptake of child birth services in health facilities (Okonofua et al, 2017).

The WHO has also for the past two decades maintained that, the provision of healthcare that meets recipients expectations should be a major objective of health systems (WHO, 2000) and recommends that an assessment of women health care satisfaction during pregnancy-child birth continuum be carried out to improve healthcare quality (Althabe et al, 2008; WHO, 2004).

Sixma et al, (1998), defined satisfaction as *“the state of pleasure or contentment with an action, event or service and it is to a large extent determined by care recipient's expectation and experience”* (Sixma et al, 1998). Models of patient satisfaction (discrepancy and fulfillment

theory) are relied on to define maternal healthcare satisfaction (Christiaens & Bracke, 2007). Fulfillment theory states that a service recipient satisfaction is determined by the outcome of present experience, past experiences are not of the essence. The discrepancy theory suggests that satisfaction is determined by the difference between what is expected and what actually happens (Sawyer et al, 2013).

Measuring clients satisfaction with healthcare has gained a lot of attention because, it is regarded as a means to ensure efficiency, effectiveness and accountability in health systems and a key indicator component of the quality of care that health facilities provide ( Camgöz- Akdağ & Zineldin, 2010).

Satisfaction with child birth services is influenced by multiple factors and provides ways by which health facilities can improve child birth services (Gungor & Beji, 2012). Satisfaction with child birth services makes women confident throughout their healthcare encounter and influences maternal-neonatal well-being (Leap et al, 2010; Meleis, 2010). Studies in the past suggest that dissatisfaction with child birth services increased the risk of developing post-partum depression and anxiety, resulting in aversion for future birth in health facilities (Bertucci et al, 2012; Mohammad et al, 2011; Waldenström et al, 2006).

The WHO, (2008) identified seven (7) domains through which satisfaction with healthcare can be assessed. These domains are; general satisfaction, interpersonal aspect of care, communication, the technical quality of care, time spent with a healthcare provider, the financial component of healthcare and lastly, the ease with which healthcare provider is contacted. Aside the above-mentioned domains, care recipient's personal characteristics such as age and sex, income, educational status among others are partly responsible for their attitudes towards the care process and the value they accord health care (Findik, Unsar, & Sut, 2010).

In order to improve upon the quality of healthcare, particularly among women seeking child birth services, researchers, academics and policymakers rely on information from satisfaction surveys which tend to provide objective perspective of women perceptions and experiences with child birth services (Al-Abri & Al-Balushi, 2014). Notwithstanding the immense importance of satisfaction surveys in the healthcare delivery process, little attention and priority are given to the actual implementation of findings and conclusions originating from these surveys (Boyer et al, 2006 ). Following the scale up efforts to reduce maternal mortality determining factors that influence women satisfaction with child birth services has become necessary (Coeytaux et al, 2011). This study sought to assess the factors that influence women's satisfaction with child birth services in the Tamale metropolis of Ghana. It is expected that findings from this study will reveal aspects of child birth services that either cause satisfaction or dissatisfaction among women with an intent to advocate for an improvement in child birth services.

## **1.2 Problem statement**

Quality of healthcare in Ghana is affected by poor staff attitude, long waiting times, the high cost of healthcare services, inadequate healthcare staff, the policy of paying for health services, frequent referrals to hospitals and lack of ambulances at health facilities (Turkson, 2009). Child birth services are poor with the northern part of the country having to deal with the greatest of this challenge due to inadequate healthcare infrastructure, poor access to health facilities and lack of proper referral systems (Ministry of Health, 2008).

Over the years in Ghana, measures have been put in place to improve the quality of maternal services in order to reduce the number of women that die from pregnancy-related causes (Osei et al, 2005). For instance, the National Safe Motherhood (SM) Programme was launched in 1995

aimed at improving the quality of maternal services. Other notable interventions such as the Community-based Planning and Services (CHPS) concept, free antenatal care (ANC) to all pregnant women and exemptions from facility-based delivery fees among many other initiatives are in place to increase the utilisation of facility-based maternal services (GHS, 2009; GSS, 2008).

In the midst of all these measures, the proportion of deliveries that occur at health facilities where skilled delivery is readily available in Ghana is 56.2% which is below the national target of 80% (GHS, 2017). The situation is even worst in the northern region where this study is conducted with the proportion of facility-based delivery at 37% with the region witnessing an increased risk of maternal mortality from 2014 – 2016 (GHS, 2017). Poor quality of care and dissatisfaction with child birth services remain the main reason for the underutilisation of facility-based childbirth services. For instance, poor healthcare provider's attitudes (shouting and scolding) have discouraged several women from using facility-based child birth services and causing them to resort to home deliveries (Yidana & Issahaku, 2014).

In Ghana, a number of studies have been conducted to determine the factors that influence women's satisfaction or dissatisfaction with child birth services ( Avortri et al, 2011; Moyer et al, 2013). Nonetheless, satisfaction with child birth services studies has often focused on normal deliveries. This study, therefore, sought to assess the factors that influence women's satisfaction with child birth services in the Tamale metropolis of the northern region of Ghana using normal and caesarean deliveries. The findings of this study will provide aspects of child birth services that cause satisfaction or dissatisfaction among women and inform policy direction.

### **1.3 Objective of the study**

The main objective of this study is to assess postnatal women's satisfaction with child birth services provided at three selected public hospitals in the Tamale metropolis of Ghana.

#### ***1.3.1 Specific objectives(s)***

The specific objectives are to:

1. Assess postnatal women's level of satisfaction with child birth services.
2. Examine the effects of demographic characteristics on satisfaction with child birth services.
3. Identify health facility factors that influence women's satisfaction with child birth services.

### **1.4 Research questions**

The research questions addressed by this study are:

1. What is the level of postnatal women's satisfaction with child birth services?
2. Do the demographic characteristics of postnatal women affect their satisfaction with child birth services?
3. To what extent do health facility factors influence women's satisfaction with child birth services?

### **1.5 Significance of the study**

The study significance is in line with policy, practice, theory development and research. Pertaining to policy, determinants of postnatal women's satisfaction with child birth services will be identified. Understanding of factors that determine women's satisfaction with child birth services

will assist both health policy makers and planners to come out with tailored programs aimed at meeting women's expectations and to review health policies in line with best practices.

Literature has it that an indicator that can be used to measure healthcare quality is the satisfaction of the care receiver. Healthcare providers (both clinical and non - clinical) will through this study get a better understanding of aspects of child birth services that are of acceptable quality and otherwise. This understanding will guide healthcare providers in the discharge of their duties. Conducts of health professionals that result in unfulfilled or unsatisfied health outcome will be better addressed.

Using the Donabedian's framework of structure, process and outcome will help to test the framework's efficacy within the Ghanaian context. Lastly, this study builds upon the growing current knowledge that exists on women's satisfaction with child birth services. It could also serve as a reference material to both students and researchers that intend embarking on future research on women's satisfaction with child birth services.

### **1.6 Scope of the study**

The study focusses on factors influencing women's satisfaction with child birth services in the Tamale metropolis of the northern region of Ghana. The study is limited to the three public hospitals (Tamale Teaching Hospital (TTH), Tamale West Hospital (TWH) and Central Hospital (TCH) in the Tamale metropolis with a focus on postnatal women in postnatal wards of the study hospitals.

### **1.7 Definitions of key terms**

Satisfaction: Wish, expectation, need or pleasure derived from the use of a service or product.

Maternal satisfaction: Mother's need, expectation or wish.

Child birth services: Health facility-based services women receive during pregnancy, delivery and post-delivery.

Caesarean deliveries: A surgical procedure in which a baby is born by an incision of the abdominal walls and uterus.

## **1.8 Study outline**

The entire study will be organised into five (5) chapters.

Chapter one presents a discussion on satisfaction with healthcare, particular reference to child birth services. Included in this chapter is the research problem statement, the overall and specific objective(s) which directs the study, research questions, significance and scope of the study. Finally, key terms in the study are defined.

Chapter two reviews relevant existing theoretical and empirical literature on satisfaction with child birth services. It gives an overview of the conceptual framework adapted for this study.

Chapter three discusses the methodology which outlines the processes and procedures used in obtaining data and the literature for the entire study. This study employed a quantitative approach where a cross-sectional survey is adopted. The location of the study is the Tamale metropolis, the northern regional capital. Purposively, the three public hospitals in the metropolis were chosen for the study and survey questionnaire was used to elicit information from the target respondents.

Chapter four provides the findings. These findings are the results of the data collected from the study area (Tamale). Frequencies and percentage are used in this chapter to present the findings.

Chapter five discusses the findings from the study in line with the objectives to confirm if it conforms to what exist in literature or otherwise. It also provides a summary of key findings, the implication of the study, conclusions and recommendation based on the findings, limitations and possible suggestions for future research.

### **1.9 Chapter Summary**

Developed countries provide health care services of high quality to clients. Developing countries, on the other hand, are still having to deal with issues of health care quality. Following the global call for the provision of healthcare that meets client's expectation and the scale-up efforts to reduce maternal mortality especially in sub-Saharan Africa and southern Asia, it has become imperative for governments of developing countries of which Ghana is no exception to address the issue of health care (especially child birth services) quality by identifying factors that cause dissatisfaction among women when they seek facility-based child birth services. This study sought the views of postnatal women who use facility-based child birth services. The study has the potential of facilitating the process of providing and maintaining an acceptable quality of child birth services to women.

## CHAPTER TWO

### LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

#### 2.0 Introduction

This chapter examines the relevant existing literature on satisfaction with child birth services. It begins with definition and operationalisation of satisfaction and a review of the disconfirmation paradigm. Patients and level of satisfaction are discussed. The framework for this study is based on the Donabedian's structure, process and outcome model and review is done in line with the constructs in the framework.

A modification is made to add demographic characteristics of postnatal women in the framework. The review is done in order to relate findings from the literature to that of the findings from the field survey so that a meaningful conclusion can be drawn. This chapter concludes with an overview of maternal health initiatives in Ghana.

#### 2.1 Definition and operationalisation of satisfaction

Satisfaction is a critical issue that pertains to the service sector. It is justified by the oriented philosophy of the customer and the need for continuous improvement in modern-day ways of service delivery. Due to this, customer satisfaction ought to be measured and translated into a number of measurable parameters. Satisfaction measurement is regarded as an effective means through which clients preferences and experiences with services can be meaningfully and effectively identified (Arokiasamy, 2013).

The term satisfaction defies a singularly accepted definition (McCollough, 2000). It was conceptualised as a cognitive process by tradition (Westbrook, 1987). Others also hold the view

that satisfaction is an affective response (Yi, 1990). This has led to the ongoing debate on the extent to which satisfaction is regarded as an emotional state or a cognitive process (Mill, 1990). Hunt, (1977, p. 459), defined satisfaction as “*an evaluation rendered that the consumption experience was at least as good as it was supposed to be*”. According to Oliver, (1981, p. 27), satisfaction is defined as “*a summary psychological state resulting when emotion surrounding disconfirmed expectation is coupled with consumers prior feelings about the consumption experience*”. This definition of satisfaction is an indication that, satisfaction is regarded as an evaluation process.

Other researchers suggest that satisfaction should be viewed as a response to the evaluation process (Giese & Cote, 2000). Some of these definitions include; “*the response to the evaluation of the perceived discrepancy between prior expectation (or some norm of performance) and the actual performance of the product (or service) as perceived after its consumption*” (Tse & Wilton, 1988, p. 204). Mano & Oliver (1993) defined Satisfaction as “*an attitude-like post consumption evaluative judgment*”. Based on the definitions above, satisfaction can be both an emotional and a cognitive process (Oliver & Rust, 1994) with a particular emphasis on expectation, product or service and consumption experience. Pascoe (1983), holds the same view that satisfaction is both an emotional state as well as a cognitive process. In this study, satisfaction is conceptualised as the delight associated with the consumption of child birth services by women.

## **2.2 Conceptualising satisfaction in healthcare**

The involvement of patients in healthcare delivery became more evident during the later parts of the 1960s and the early 1970s consumer movement which regarded patients as important consumers of healthcare services (Kupfer & Bond, 2012). The Movement continued with a change

in focus from consumerism to a focus on patient experience and the reliance on patient satisfaction to assess the process of care and the standard of technical care that patients receive (Williams, 1994). This resulted in the widespread use of patient satisfaction as measures of health care outcomes. In France for example, assessing patient's satisfaction with healthcare has become compulsory for all hospitals since 1998. This is not necessarily for care improvement but improving the hospital amenities, environment and facilities aimed at satisfying patients (Boyer et al, 2006; Gill & White, 2009).

In healthcare delivery, patient satisfaction surveys are generally carried out for two specific purposes. These are for marketing and quality assurance purposes (Sajid & Baig, 2007; Senić & Marinković, 2013). From a marketing point of view, patient satisfaction is associated with patients informed choice of healthcare provider and results in increased market shares for health facilities (Hibbard et al, 2005). Patient satisfaction is also useful as it provides feedback from health programmes for improvements (Riiskjær et al, 2010).

Patient's satisfaction with healthcare is regarded as a significant indicator when assessing healthcare in order to make improvements (Saila et al, 2008). In order to get patients personal assessment of healthcare, healthcare organisations the world over rely on satisfaction surveys as they are regarded as appropriate and widely used in such assessments (Hekkert et al, 2009).

Despite the fact that, satisfaction with healthcare has been extensively studied in the medical literature, there is no singularly accepted definition of the concept (Christiaens & Bracke, 2007). Most researchers hold the view that, satisfaction with healthcare involves what the care recipient expects and what the healthcare environment can offer (Stevens et al, 2012). Pasco defines satisfaction with healthcare as *“a healthcare recipient's reaction to salient aspects of context,*

*process and results of clients service experience*” (Pascoe, 1983, p. 189). This implies that recipient satisfaction is a judgment of services rendered and experience. Ahmad et al, (2011), defined satisfaction with healthcare as a service recipient opinion towards healthcare in general or aspects of healthcare. Mohan & Kumar (2011), defined it as the recipient emotion, feelings and perceptions towards their care encounter.

Patients are satisfied with a particular health service or product when their expectations are met after consuming such a health service or health product (Mishra & Mishra, 2014). In healthcare delivery, patients satisfaction with healthcare is very critical and regarded as an important indicator when assessing the quality, efficacy as well as feasibility of healthcare services (Jlala et al, 2010). Qureshi et al, (2013), hold the view that, the patient best evaluates his or her satisfaction with health care and this evaluation influences the quality of care that patients will expect from health facilities when seeking health care.

The level of patient satisfaction with health corresponds with patient general well-being. Studies in the past have clearly attributed low compliance and less understanding of medical information to lower satisfaction levels (Jlala et al, 2010). Also, patient satisfaction with health care is affected by the technical competence of the healthcare provider (Afzal et al, 2014).

It is said that the needs and expectations of patients vary accordingly. This is because satisfaction affects the objective of medical cure, longer times spent at hospitals, legal suits and the delivery of quality healthcare focused on the patient. Patients satisfaction is therefore critical to measure the success or otherwise of health facilities and health care providers (doctors and nurses) as well (Hamilton et al, 2013).

### 2.3 Disconfirmation paradigm

Disconfirmation paradigm is most frequently relied on to explain satisfaction (Oh & Parks, 1997). Satisfaction is related to the size and the direction of the disconfirmation experience, where disconfirmation is related to the person's initial expectation (Perdue et al, 2004). The expectation, perceived performance, disconfirmation and satisfaction are the four constructs that make up the disconfirmation paradigm (Churchill Jr & Surprenant, 1982).

- Expectation: The perception a consumer has formed before consuming a good or service (Barsky, 1992).
- Perceived performance: The actual performance of a good or service by the customer (Oliver, 1993).
- Disconfirmation: Results when there is a variation between the pre-expectation and the actual performance of the good or service (Churchill Jr & Surprenant, 1982).
- Satisfaction: The end results after a good or service is consumed compared to the cost incurred and any unforeseen harm from the use of good or service (Churchill & Surprenant, 1982).

Satisfaction conclusion is made after comparing new service experience to a set of developed standards. How the service performs is dependent on how well it (service) measures up to the set standards (Oliver, 2009). Satisfaction level ranged from positive disconfirmation, negative disconfirmation and lastly confirmation (simple). Negative disconfirmation leads to dissatisfaction or unfulfilled outcomes and occurs when a good or service performed poorly than is expected of it (Churchill & Surprenant, 1982). Positive disconfirmation leads to satisfaction or fulfilled outcomes and arises when specific performance of a product or service exceeds customer

expectation and lastly simple confirmation is said to take place when there is no difference in the specific performance of a product or service and customer expectation or when services performance equals customer expectation (Churchill & Surprenant, 1982).

#### **2.4 Level of satisfaction with child birth services**

Satisfaction is an individual's state of being delighted with an event, service or action. The event, service or action, in this case, is the health care delivery before, during and after child birth. A woman's satisfaction with child birth services may have a substantial influence on her general health status and the ability to bond with her child. Opinions and satisfaction pertaining to child birth services are women specific and therefore making it more women-friendly will possibly influence their satisfaction (Jha et al, 2017).

The broad nature of satisfaction with health services is well-known and measuring women satisfaction with healthcare of which child birth services are inclusive, has become a global cost-effective way of evaluating service quality (Jha et al, 2017). While increasing service accessibility, affordability, availability and maintaining acceptable quality standards, it is vital to assess women's satisfaction with childbirth services in order to make it more responsive and culturally acceptable for improved utilisation and outcomes.

At a time when global efforts to bring down maternal mortality have been stepped up, maternal satisfaction and its determinants also need to be addressed (Srivastava et al, 2015). Evidence from literature points to the fact that women attach importance to being treated respectfully, irrespective of their socio-cultural or economic context when they seek healthcare. It is, therefore, necessary for quality improvement and assurance efforts especially in developing countries to focus on

strengthening the process of care while paying special attention to the interpersonal aspect of healthcare delivery (Jha et al, 2017 & Srivastava et al, 2015).

It is known that a lot of factors influence satisfaction but there exist many discrepancies among researchers. Nonetheless, client satisfaction surveys have the potential of assuring clients a quality care and empowerment to be in control of their own healthcare. In terms of child birth services, evidence shows that level of satisfaction with care boosts women's sense of accomplishment and self-esteem; which in turn increases their expectation of many positive future child birth experiences and promotes exclusive breastfeeding practice (Avortri et al, 2011). On the other hand, when women go through very tough, unsatisfactory and traumatic birth experiences, it brings about memories of pain, anger and fear that could expose mothers to postpartum depression, the extreme distress which leads to neglect and abuse of children.

Maternal health satisfaction is directly linked to the extent to which general health service needs are met. Subsequently, satisfied women are more likely to comply with treatment, take responsibility for their own health status, trust and continue using health care services confidently (Changole et al, 2010).

According to Amdemichael et al, (2014) women play a pivotal role in caring for children, management of the home and the family for which their loss or displeasure from pregnancy-related causes is a significant social and personal tragedy. Also, their study showed that satisfaction level with the delivery services rendered at the health facility was 80.7% and affected by the cleanliness and other environmental factors. Socio-demographic characteristics such as age, educational level and religion of respondents were found to be significantly associated with satisfaction with services (Amdemichael et al, 2014).

A survey on patient's satisfaction with maternity services in Australia revealed that women are generally satisfied with maternity services in public hospitals (South Australian government, 2007). Additionally, a cross-sectional study on women's satisfaction with child birth services in Felege Hiwot referral hospital also revealed that about 75% of the women were satisfied with the level of child birth services provided in the hospital (Mekonnen et al, 2015). Similarly, about 81.7% of women in Debre Markos town of northwestern Ethiopia reported being satisfied with child birth services provided in public hospitals (Bitew, Ayichiluhm, & Yimam, 2015). Contrary, Amdemichael et al, (2014) in a study of gynaecology and obstetrics maternal satisfaction with delivery services in Assela hospital, Arsi indicated that maternal satisfaction with the services was suboptimal. Also, two studies in Kenya reported women's satisfaction of 54.4% and 56% (Bezant & Koenig, 2009; Gichangi & Mwanda, 2018).

In a three-year analysis survey of patient's satisfaction carried out in Germany, Sweden, Switzerland, the United Kingdom and the United States, it was found that patient satisfaction surveys could assist in indigenous quality improvement efforts and facilitate the identification of poor quality care for further investigation and interventions among others. It was however clear that in all the five countries, women were dissatisfied with information and education, coordination of care, respect for patients' preference, emotional support, physical comfort, family and friends involvement, continuity and transition of care (Changole et al, 2010; Ahmad & Din, 2010).

The presence of maternal health services does not guarantee its use by women; neither does the use of maternal health services assure optimal outcomes for women. The World Health Organization recommends integrated supportive supervision, monitoring and evaluation of women's satisfaction to improve the quality, effectiveness and efficiency of health care before,

during and after child birth on health care delivery services and its associated factors (Bitew et al, 2015).

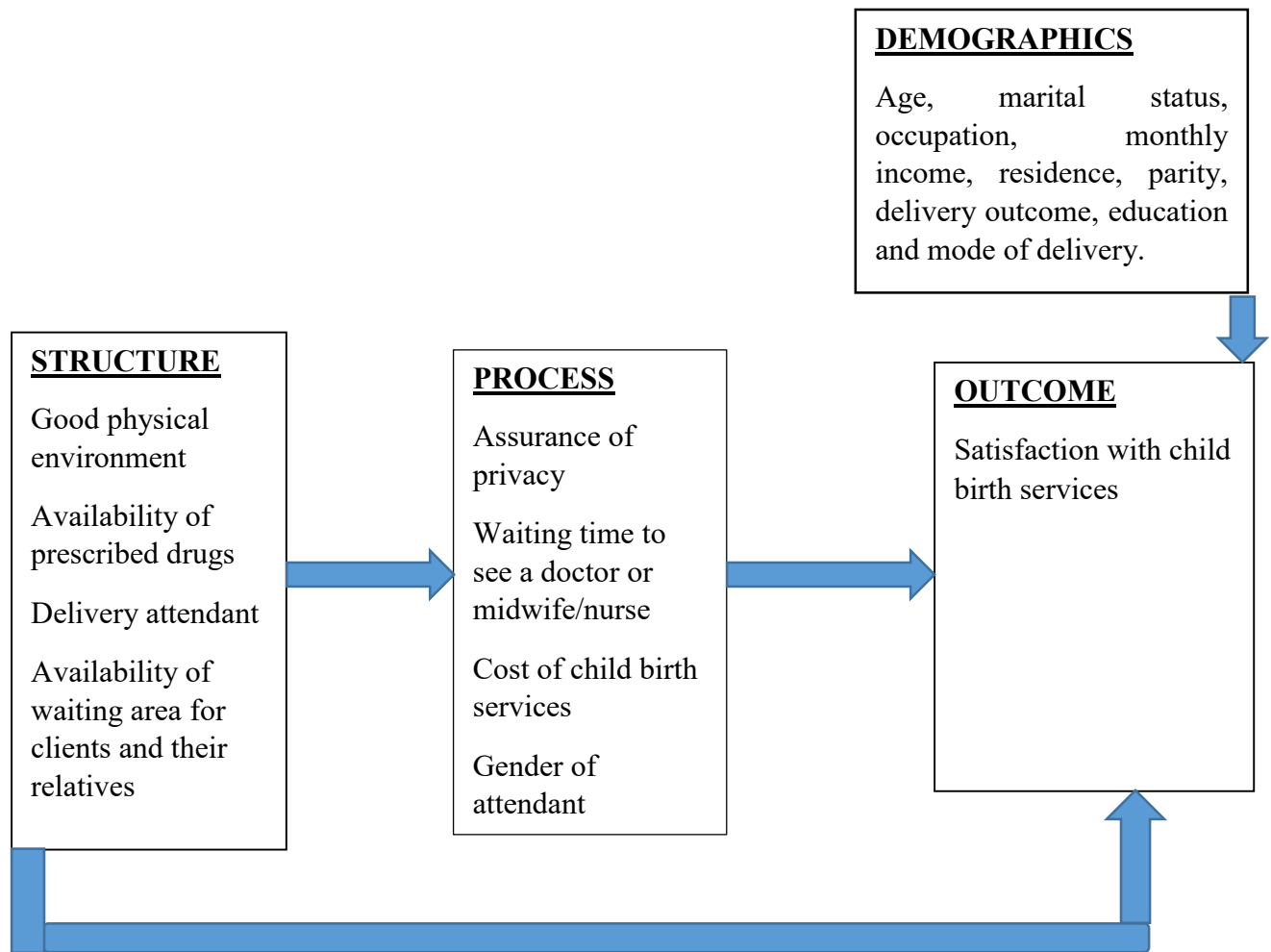
## **2.5 Theoretical framework**

Avedis Donabedian's model of structure, process and outcome (SPO) offer an explanatory framework that is used to assess health services systems, measure and evaluate the quality of healthcare and gives an insight into the factors that accounts for satisfaction or dissatisfaction among clients (Donabedian, 1988).

The model as presented by Donabedian is a linear representation of the three constructs in the model, Structure, Process and Outcome. Good structure is said to result in a good process which leads to a good outcome (Grossbart & Agrawal, 2001).

The structure represents features within the health facility where care is provided (material and human resources). Process indicates activities that both care providers and recipients engage in order for care to be provided. Example patient's activities of getting care and provider's activities of diagnosis and treatment. Outcome describes the effectiveness of the care encounter on patients and populations or satisfaction or otherwise (Donabedian, 1988).

The model is regarded as being too rigid due to its linear form (Mitchell et al, 1998). Despite this limitation, the model has proved valuable in evaluating clinical care quality of healthcare and has been extensively used for over three decades now (Blair & Fottler, 2011). Based on the Donabedian framework, the model below is adapted to assess the influence that structure, process has on the outcome (in this case satisfaction with child birth services). A modification is made to add demographic characteristics of women.



**Figure 2. 1: Conceptual framework: Adopted from Donabedian’s SPO model**

*Source: Author’s construct (2018).*

## **2.6 Satisfaction with childbirth services across Donabedian framework of structure, process and health outcome**

### **2.6.1 Structure**

#### **2.6.1.1 Physical Environment**

The physical environment under which health care is provided determines to a large extent the satisfaction care recipients get. Therefore rendering health care services within a good physical environment is necessary to influence women’s satisfaction with child birth services (D’Ambruoso

et al, 2005). According to Melese et al, (2014) the physical environment within which child birth services are offered is regarded as one of the factors that determine satisfaction with services or otherwise. Hasan (2007), revealed in a study that in hospitals where facilities such as, electricity, beds, water supply, adequate room space and waiting areas were available and good, then women would be satisfied with child birth services compared to hospitals where the above-mentioned facilities were lacking or poor.

Further, the degree to which the physical environment of a health facility is tidy impacts on women's satisfaction with child birth services. Review of literature from developing countries on determinants of maternal satisfaction with child birth services revealed that maintaining clean and hygienic physical hospital environment influenced women's satisfaction with child birth services (Srivastava et al, 2015). A study by Cham et al, (2009) in the Gambia, revealed that women expressed mixed responses to certain aspects of their care. They, however, expressed satisfaction with the frequent changing of hospital bedspreads. In a study of barriers to the utilisation of child birth services in a rural birthing centre of Nepal, it was revealed that women were dissatisfied with the use of the centre greatly due to the unfriendly environment (Khatri et al, 2017).

A study to identify predictors of child birth services satisfaction in Ghana showed health facility cleanliness correlated to mother's satisfaction. Cleanliness of the hospital's environment, labour and delivery rooms resulted in satisfaction with child birth services (Avortri et al, 2011). Hollins et al. (2011), revealed in their study that clean labour and delivery rooms reduced the risk of acquiring infections from the facility leading to satisfaction with childbirth services.

### ***2.6.1.2 Availability of adequate human resource***

Doctors and midwives/nurses been available to render services (especially during emergencies) is suggested to be a necessity for improving women's satisfaction with child birth services in rural Bengal, India (Pal et al., 2010). The availability of healthcare professional is regarded as a source of satisfaction to women. In Ghana, the unavailability of requisite healthcare professionals to attend to women especially those that seek child birth services is regarded as a great source of dissatisfaction (D'Ambruoso et al, 2005).

### ***2.6.1.3 Medicines, supplies and service***

Availability of essential services at health facilities have been regarded as good predictors of women's satisfaction with child birth services. Studies conducted in Nigeria, Uganda India, Gambia and Oman, established that, been able to get prescribed medicines from facility pharmacy, availability of essential care delivery apparatus such as, thermometers or blood pressure monitors, and access to laboratory services within health facilities were significant determinants of satisfaction with child birth services (Srivastava et al, 2015). Tetui et al, (2012) revealed that women were unsatisfied with child birth services in Ugandan hospitals due to the unavailability of prescribed medicines. Laboratory service combined with the long queues women have to endure especially during the morning hours was found to be a source of dissatisfaction among women seeking child birth services in the Musandam region of Oman (Ghobashi & Khandekar, 2008). Lack of drugs and supplies was reported to be the major cause of dissatisfaction among clients seeking healthcare at Jimma University specialised hospital because about 70% of clients could not get prescribed drugs from the hospital pharmacy (Assefa & Mosse, 2011).

## **2.7 Process**

The processes of care is another dimension of the determinants of women's satisfaction with child birth services and are reported to be the leading determinant of satisfaction with child birth services especially in developing countries (Srivastava et al, 2015). The process factors are; promptness of care, interpersonal behaviour, privacy, perceived provider competence, cognitive and emotional support and preference of a female provider.

### ***2.7.1 Prompt care***

The urgency with which healthcare is provided to women seeking child birth services has been identified as an important determinant of their satisfaction with the services (Changole et al, 2010; Liabsuetrakul et al, 2012). Women are either satisfied or dissatisfied with child birth services depending on how long they wait to be attended to. It is reported that attending to women's health care needs in less than an hour of arrival at Malawian hospitals caused satisfaction (Changole et al, 2010). To collaborate with this, studies in Nigeria and Iran revealed that, women were dissatisfied with child birth services due to the prolonged time they waited before been attended to by healthcare professional (Heidari et al, 2008; Oladapo & Osiberu, 2009). Improving child birth services will require a reduction in the length of time women will have to stay in the hospital before being attended to when they seek child birth services (Ghobashi & Khandekar, 2008; Pal et al, 2010).

### ***2.7.2 Interpersonal care***

It has been established in studies conducted in Malawi, Gambia and Nigeria that healthcare providers influenced women's satisfaction with child birth services. Attending to a women's health care needs with respect, courtesy and in a dignified manner left women extremely satisfied (Cham

et al, 2009; Changole et al, 2010b; Oladapo & Osiberu, 2009). In Ghana, interpersonal behaviour (staff friendliness) and therapeutic communication (listening, politeness, prompt pain relief, kindness, approachability and smiling demeanour), caring behaviour (attentive to needs, making clients feel accepted and coaxing clients) and interpersonal skills of staff (staff confidence and competence) were the themes identified as influencing women's satisfaction with child birth services (Dzomeku, 2011 & Avortri et al, 2011). Negative health care providers attitude (ineffective communication, neglect and unfriendliness) such as frowning, shouting, belittling women among many other negative conducts were a source of dissatisfaction with the tendency of women refusing to use facilities to future births or arriving late for facility-based child birth services (Dzomeku, 2011).

### **2.7.3 Privacy**

Privacy ought to be provided for women seeking facility-based child birth services, for physical examinations as well as the delivery process (Srivastava et al, 2015). A study conducted to assess clients satisfaction with child birth services in rural Bengal, India, Pal et al. (2010) revealed that the majority of the clients (women) were satisfied with their privacy during the care encounter. Jha et al, (2017) in a survey of postnatal women in Chhattisgarh, India reports that, the process under which child birth services are provided, for example, ensuring personal privacy when rendering child birth services correlated to higher satisfaction with the service. A procedure such as shaving in time of labour is regarded as embarrassing and ought to be done under strict privacy because most women even feel shy to mention it leading to less satisfaction with child birth services (Kabakian-Khasholian et al, 2000). Providing and maintaining privacy throughout all procedure involved in child birth services is reported as a need by Egyptian women (Ghani et al, 2011). In

the Amhara region of Ethiopia, the lack of privacy when receiving child birth services was a source of dissatisfaction to women that sought such services (Taye et al, 2011).

#### ***2.7.4 Provider competence***

Women are more satisfied with child birth services when they perceive the technical quality of care to be good or view the care provider as being technically competent (Srivastava et al, 2015). In rural Nepal, low quality in child birth services is attributed to poor healthcare provider skills and competence. Lack of adequate and competent skill to deliver child birth services causes dissatisfaction among women hence their resolve to do home deliveries despite the dangers associated with doing so (Khatri et al, 2017). In Ethiopia, despite the availability of facility-based child birth services at lower cost, women still preferred to deliver at home due to poor healthcare provider competence (Shiferaw et al, 2013). In Ghana, satisfaction with child birth services is correlated to the care provider's skill and competence (Dzomeku, 2011).

#### ***2.7.5 Cognitive and emotional support***

Providing women with cognitive and emotional support when they seek facility-based child birth services makes women satisfied (Srivastava et al, 2015). Providing women with cognitive care by way of ensuring effective communication between care providers and women, especially communication on women's health condition and treatment procedure is critical to ensuring that women are satisfied with child birth services (Fawole et al, 2008). Care provider's commitment, time and the ability to overcome any language barrier as well as the content of the message correlated to women's satisfaction with child birth services in Musandam region of Oman (Ghobashi & Khandekar, 2008). The process of counseling and imparting the information regarding women's care as well as channels through which feedback can be registered were

important facets of cognitive care (Oladapo & Osiberu, 2009). In Ghana, Dzomeku (2011), revealed that providing women with the necessary information during child birth services (especially during labour) made women feel that they influenced the care process and left them satisfied. Women who were examined without the necessary information given were highly dissatisfied with child birth services.

Similarly, companionship such as providing women with the companion they desire when they seek child birth services has a positive influence on women's overall satisfaction in Brazil (Bruggemann et al, 2007). Providing women emotional support during child birth service is necessary for reassurance and comfort during their care encounter and it is in this vein that the WHO recommends that women seeking child birth services should be accompanied by people they trust such as spouse and relations (Srivastava et al, 2015).

#### ***2.7.6 Preference of a female healthcare provider***

Regarding the gender of the healthcare provider, women in Riyadh city of Saudi Arabia have made it an important issue and insist that they prefer female healthcare provider to male in child birth service utilisation (Moawed et al, 2009). This insistence can be attributed to their religious affiliation. In Senegal, Faye et al, (2011) in their study revealed that the healthcare personnel influenced whether women will patronise facility-based child birth services in their subsequent delivery or otherwise. Women were found to prefer female healthcare providers compared to their male counterparts.

## **2.8 Health outcome**

In Ghana, Gambia, India and Thailand the end results of pregnancy (mother alive despite foetal loss or having a live and healthy baby) is said to affect women's satisfaction with child birth services (Srivastava et al, 2015). Successful maternal outcome despite birth complications where both mother and new-born survived affected women's overall satisfaction with child birth services in Nairobi, Kenya (Bazant & Koenig, 2009). Birth complications are related to satisfaction. In the Amhara region of Ethiopia, 57 women representing 13% that delivered with complication were unsatisfied with overall service delivery compared to 32 women representing 7.7% that delivered with no complications (Tayelgn et al, 2011). This satisfaction is attributed to the survival of both mother and new-born (Bazant & Koenig, 2009).

## **2.9. Demographic characteristics**

Demographic characteristics such as women's age, educational background, marital status and income status affect women's satisfaction with child birth services (Srivastava et al, 2015).

### ***2.9.1. Age***

Age is a characteristic that is correlated to women's satisfaction with child birth services. Zasloff et al. (2007), revealed in a Swedish study that, younger women are said to be less satisfied with child birth services compared to older women. The satisfaction among older women is attributed to their experience and maturity (Srivastava et al, 2015). Women aged below 20 and between 24 and 34 seeking child birth services in the city of Bahir Dar expressed less satisfaction with care compared to women aged between 35 and 49 (Mekonnen et al, 2015). In the southeastern United States, satisfaction with child birth services was found to correlate with age of mothers where older

women tend to be more satisfied with child birth services compared to younger women (Goodman et al, 2004).

### ***2.9.2 Education***

Educational background of women has been found to be associated with women's satisfaction with child birth services. Educational backgrounds of women significantly influenced their satisfaction with child birth services (Matejić et al, 2014). Women with higher educational background have been found to be dissatisfied with child birth services. Those with little or no education are said to be satisfied with child birth services (Melese et al, 2014). In Gambia, Ghana and Nigeria, the educational status of women aided the care assessment and determined to large extent women's satisfaction with child birth services (Dzomeku, 2011; Jallow et al, 2012; Oladapo & Osiberu, 2009). Women with no or lower education levels and by extension non-working class women tend to be satisfied with child birth services compared to their educated and working-class counterparts (Overgaard et al, 2012). In Ghana, it is reported that women who had less education perceived the quality of child birth services such as ANC as negative resulting in dissatisfaction with the service (Atinga et al, 2014).

### ***2.9.3. Marital status***

It has also been established that marital status is linked to satisfaction with child birth services (Gfk NOP Social Research, 2006; Quintana et al, 2006). According to Quintana et al. (2006), married women reported higher satisfaction with child birth services. Being married is associated with overall satisfaction with child birth services. Unmarried women reported less level of satisfaction with child birth services (Oladapo & Osiberu, 2009). Married women in the Amhara

region of Ethiopia expressed greater satisfaction with child birth services compared to unmarried women (Tayelgn et al, 2011).

#### ***2.9.4 Income status***

Income status has been found to influence satisfaction with childbirth services where high-income women expressed greater satisfaction with health care provider attitude (Melese et al, 2014). In the Felege Hiwot referral hospital located in the city of Bahir Dar, Northwest Ethiopia, a cross-sectional study on women's satisfaction with child birth services identified that income status of women significantly correlated to satisfaction with child birth services (Mekonnen et al, 2015). In the Arsi Zone of Oromia region, monthly income of women was positively and significantly correlated with satisfaction with child birth services (Amdemichael et al, 2014).

#### ***2.9.5 Location***

Location of residence been rural or urban is associated with satisfaction with childbirth services. Rural women seeking child birth services in urban centres are said to be satisfied with child birth services compared to urban women dwellers. These difference might result from low expectation from rural women who have accessed child birth services in rural areas where the standards are below that of the urban towns (Melese et al, 2014). Similarly, a study in one of Brazil's poorest state, Ceara, on users satisfaction with primary care services reported that rural dwellers showed greater satisfaction with services compared to urban dwellers (Atkinson & Haran, 2005).

#### ***2.9.6 Mode of delivery***

Mode of delivery (birthing) is said to correlate with satisfaction. Vaginal deliveries result in higher satisfaction with child birth services among women (Siassakos et al, 2009). In Ghana, Danso et al,

(2009) report that women had a preference for spontaneous vaginal delivery as opposed to caesarean delivery. Karlströmet et al, (2011) in a longitudinal cohort study among 693 women of which 420 were multiparas in Sweden compared women's experience and feelings during pregnancy and child birth. The study findings revealed that women who preferred delivery through Caesarean section and actually had Caesarean delivery had a higher fear of child birth compared to women who preferred vaginal delivery and had Spontaneous Vaginal Delivery (SVD). Also, Nilsson et al, (2012) in self-reported fear of child birth (FOC) and its association with women's birth experience and mode of delivery revealed that FOC during pregnancy was associated with women's previous negative experience. Most of these women still maintained this negative experience on years after birth.

According to Matejić et al, (2014) Serbian women who preferred normal or spontaneous vaginal delivery and actually had it were more fulfilled with child birth services compared to those who had assisted or caesarean births. In Athens, Greece, mode of delivery was found to be associated with women's satisfaction with child birth services. Majority of the women preferred vaginal births since it resulted in greater satisfaction compared to caesarean births (Sachsanidis, 2018).

### ***2.9.7 Status of pregnancy***

The status of pregnancy be it wanted or unwanted determined the extent to which women are satisfied with child birth services. In the Amhara region of Ethiopia, pregnant women who really wanted the pregnancy were more satisfied with childbirth services compared to women with unwanted pregnancies (Tayelgn et al, 2011). Being happy and concerned about giving birth and raising children influenced women's satisfaction with child births services. In Nairobi, Kenya,

unintended pregnancies correlated to lower satisfaction with child birth services (Barant et al, 2009).

### **2.9.8 Parity**

The parity status of women (para parous/multiparous) affects women's satisfaction with child birth services. Okumu & Oyugi, (2018) in a comparative study between women attending public and private health facilities in Limuru sub-county, Kiambu, Kenya revealed that parity did not influence women's satisfaction with child birth services. However, in a study to investigate Dutch women's experiences with child birth services three years after delivery, Rijnders et al, (2008) revealed that Dutch multiparous women were more satisfied with child birth services compared to para parous women. Also, in a comparative study to analyse women's child birth satisfaction and obstetric outcomes across two different models of maternity care, Ferrer et al. (2016) revealed that parity affected women's satisfaction with child birth services. The study reports that multiparous women were more satisfied with child birth services compared to primiparous women.

### **2.10 Cost of care**

Access to care and cost of care have emerged as determinants of maternal satisfaction (Srivastava et al, 2015). In a study conducted in Nigeria, the high cost of services was the reason for dissatisfaction among women seeking care in referral hospitals (Okonofua et al, 2017). Issues such as lack of transportation options and poor transportation infrastructure can result in increased costs of health care visits (Brooks et al, 2017). A study conducted on the availability and quality of emergency obstetric care in Gambia's main referral hospital showed that there were substantial difficulties in obtaining emergency obstetric care (Cham et al, 2009). Health system inadequacies together with lack of blood for transfusion, shortage of essential medicines especially

antihypertensive drugs considerably hindered timely and adequate treatment for obstetric emergencies (Cham et al, 2009). Such inadequacies also bloated the treatment costs to between 5 and 18 times more than standard fees. Blood transfusion and hypertensive treatment were also associated with the largest costs (Cham et al, 2009). Amount of money paid for child birth services is reported to influence women's satisfaction with the service in the Amhara region of Ethiopia. Women who paid less were more satisfied compared to those who paid more for the service (Tayelgn et al, 2011). Contrary, Gichangi & Mwanda, (2018) indicate that in Kenya cost of child birth services was not a factor contributing to women's satisfaction and that other factors accounted for women's satisfaction with child birth services.

### **2.11 Distance to Health Facility**

Previous studies have shown that proximity to health facilities is a major factor for pregnant women in seeking delivery services (Dibley MJ, 2010). In Indonesia, Brooks et al, (2017) highlighted the challenges associated with accessing maternal health services of which distance to a health facility was one of the causes. Another study conducted on the influence of travel time on emergency obstetric care-seeking behaviour among the urban poor of Bangladesh found that, when there is an increase in travel time to the nearest emergency obstetric care facility, women are deterred from seeking care (Pancieria et al, 2016). The study also indicated that a 5-minutes increase in travel time to the nearest EmOC facility is associated with a 30 % decrease in the likelihood of delivery at an EmOC facility rather than at home (Pancieria et al, 2016). Again, a study conducted by Mariam, (2001) reports that the referral-arrival time interval ranged from 15 minutes to 66 hours. These referrals were from within and outside of Addis Ababa (Mariam, 2001). Moreover, the main means of transportation from the referring health institution was mainly by a

taxi, which was 72% of the respondents, outsiders mostly used buses which accounted for 62% of respondents with ambulances being used by 4.5% of patients (Mariam, 2001).

Also in Tanzania, a study was conducted to find the relationship between maternal mortality and distance to health facilities. The study revealed that maternal mortality was linked to distance to hospitals and this is similar to studies in rural Burkina Faso (De Allegri et al, 2011). Another study conducted on the distance from health facility and mothers' perception on quality of facility-based child birth services in northern Ethiopia by Fisseha et al, (2017), found that about half (49.9%), of the mothers reported that the distance from home to facility took more than thirty minutes on foot and about 35.9% mothers reported that it was hard to get the transportation service from home to the nearest health facility resulting in resolve to do home deliveries (Fisseha et al, 2017).

## **2.12 Referral link**

In health care delivery, patients are often expected to seek health care at the primary level and referred to a higher level when a need arise. Improper referral systems invariably affect health systems performance leading to dissatisfied health outcomes. This phenomenon is prevalent in most developing countries (Kamau et al, 2017).

According to Nkyekyer, (2000) reports in Ghana's largest hospital which serves as a teaching hospital for the University of Ghana, of the 2041 deliveries that have occurred at the hospital, 17.6% were referred to the hospital for delivery. Further, 8.8% were referred with complications in the third stage of labour or immediately after delivery from primary levels. About 0.3% of women delivered in the ambulance en route to the hospital.

A study conducted by Holmer et al, (2015) revealed that the global need for emergency obstetric care was 45%. The WHO, UNFPA, & UNICEF (2009), Handbook on monitoring emergency

obstetric care, outlined timely identification, referral to emergency obstetric care facilities and prompt treatment of potentially life-threatening conditions to be one strategy to tackle maternal mortality.

In Ethiopia, a study conducted to assess client's satisfaction in a maternal referral health care setting found the proportion of mothers who were completely satisfied with health care ranged between 2.4 to 21% with pain control being the poorest source of satisfaction with 82% of the women reporting dissatisfaction (Melese et al, 2014). Also in India, Singh et al, (2014) found that factors like anaemia, infection, delayed referral or transport and low moribund conditions were mainly responsible for morbidity and mortality. This may also be causes of dissatisfaction with referral link among women. The study also found ruptured uterus to be the commonest indication for an emergency obstetric hysterectomy which accounted for 59.04% of the cases. These were partly due to delayed referral systems (Singh et al, 2014).

## **2. 13 Maternal health initiatives in Ghana**

It is important to note that, in Ghana, several initiatives have been put in place all aimed at reducing maternal mortality. Some of these include the High Impact Rapid Delivery (HIRD), maternal death notification and audit, the safe motherhood programme and the fee-free exemption policy for maternal services among many others (MOH, 2008). This review is however limited to the safe motherhood programme and the fee-free maternal health policy introduced in Ghana.

### ***2.13.1. Safe motherhood programme (SM)***

In its quest to reduce the high incidence of maternal deaths (540:100,000) then, the safe motherhood programme (a component of the National reproductive health policy) was launched

with sole funding from the government of Ghana with support from other donor agencies as an effective means to reduce the occurrences (Okiwelu et al, 2007).

According to GSS, GHS, & Macro International, (2009) the focus of the programme was to reduce maternal mortality with the other objectives been:

- To improve access to comprehensive and basic essential obstetric care
- To improve the capacity of family and community members in home-based, life-saving skills
- To Increase the proportion of deliveries conducted by skilled attendants (Doctors and midwives alike)
- To increase the ANC and postnatal care coverage, content and quality of services.
- To ensure the availability of comprehensive abortion care services as permitted by law

### ***2.13.2 Free maternal health care policy***

In an attempt to reduce the number of women that die needlessly from pregnancy-related cause and in an effort to attain the then Millennium development goal five (to reduce by three quarters, between 1990 and 2015, the maternal mortality ratio), the then government of Ghana exempted pregnant women from paying for obstetric services in 2003. The initiative which first began in the four less resourced regions of the country (central and the three regions of the north) exempted women seeking maternal health services in public and private hospitals from paying for such services. The policy was later extended to cover the remaining six regions in the year 2005. There was an increase in the number of facility-based deliveries from 300,000 in 2007 to 500,000 in 2011 (Hera & Health partners, 2012). There were, however, inadequate and inconsistent funds to carry

out this initiative and as a result, most health facilities reintroduced fees for obstetric services (Witter & Adjei, 2007).

The high prevalence of maternal mortality in 2008 rendered it a national emergency issue that required concerted efforts. With a 42.5M support grant from the UK government, the free maternal health care policy was introduced in the same year (MOH, 2008). This programme offered pregnant women free medical care. Following abuse of the system, the National Health Insurance Authority (NHIA) reviewed the implementation strategies in 2010 to encourage pregnant women to register with the scheme before they can be offered the free maternal care (NHIA, 2010). The policy span from the pregnancy period, through delivery and up to ninety days post-delivery (Ghana Health Nest, 2013).

These and other initiatives helped reduce maternal mortality from 634 in 1990 to 319 in 2015 (WHO, UNICEF, UNFPA, World Bank Group, & United Nations Population Division, 2015). Though these reductions were commendable, Ghana missed the target of reducing maternal mortality to 54 deaths per 100,000 live births in 2015 as stipulated in millennium development goals (Ministry of Health, 2008). Evidence in the literature suggests that these initiatives are faced with certain challenges.

Exemption from user payments does not financially relieve pregnant women entirely as other cost such as transportation cost and formal and informal wage lost discourages pregnant women from the use of free maternal health services. Though the exemption had tremendously reduced the extent of inequalities that exist among the poor and the rich when accessing skilled birth care, the benefits to the poor pregnant women are insignificant (Johnson et al, 2016).

In the northern sector where this initiative began, Dalinjong et al, (2018) in a study revealed that maternal health services under the policy are not entirely free as pregnant women are made to pay for drugs and ultrasound scans. Women that are unable to pay this extra cost do not get to access the free maternal health care. This might result in the non-realisation of reduced maternal mortality rates because this phenomenon will cause women to continue to do home deliveries. This will also have dire consequences on the attainment of universal health care as captured in the sustainable development goals.

#### **2.14 Chapter summary**

This chapter examined the existing literature on satisfaction with health care (child birth services). Donabedian's structure, process and outcome (SPO) framework served as the theoretical foundation for the study on factors influencing women's satisfaction with child birth services in public hospitals. The review (theoretical and empirical) was done in line with the constructs in the framework. A modification has been made to add demographic characteristics of women to the original framework.

## CHAPTER THREE

### METHODS FOR DATA COLLECTION

#### 3.0 Introduction

This study focuses on postnatal women delivered through vaginal and non- vaginal means specifically caesarean section in public health facilities using the three public hospitals in the Tamale metropolis as a case to evaluate the factors that influence women's satisfaction with child birth services.

This chapter discusses the setting of the study, research approach, study design and population, inclusion criteria, techniques for sampling, exclusion criteria, sample size determination, type and source of data, data collection instruments, study variables and data collection methods. Also included is how data was analysed. Research ethical considerations were addressed. Quantitatively, data was analysed using responses from the administered questionnaire.

#### 3.1 Study setting

The hospitals chosen for this study are the Tamale Teaching Hospital (TTH), Tamale Central Hospital (TCH) and the Tamale West Hospital (TWH).

The Tamale West Hospital (TWH) began operation as a polyclinic in 1998 and was subsequently upgraded to the status of a district hospital in the same year. It serves as one of the referral centres within the metropolis and operates on a 24-hour basis with seven functional wards.

The Tamale Central Hospital (TCH) was established in 1920 to provide health care services to the then people of the northern territory but was abandoned following the setting up of a regional hospital. Owing to the upgrade of the regional hospital to the status of a teaching hospital, the TCH

began operation again. It currently has a monthly outpatient department (OPD) attendance of about 3,000.

The Tamale Teaching Hospital (TTH) formerly known as the Tamale Regional Hospital was established in 1974 to deliver health care services to the people of the northern region. In the year 2005, it was upgraded to the status of a teaching hospital making it the third tertiary health facility in the country. It offers advanced health care, assist to train healthcare professional and conduct research aimed at improving health care quality.

Besides, financial and time restraints, it would have been unbearable to cover all (public, quasi-public, private and mission) health facilities in the Metropolis.

### ***3.1.1 Location and size***

Tamale metropolis is one of the twenty (26) administrative districts in the northern region of Ghana. It serves as both a metropolitan and regional capital and located in the centre of the region, about 175km east of longitude  $10^0$  west and latitude  $9^0$  north. The Savelugu/Nantong municipality bound Tamale to the north, to the south by West and East Gonja, to the east by Yendi municipality, and to the west by Tolon/Kumbungu District.

Tamale has a population of about 402,843 with a 2.9% projected regional growth rate according to the 2010 national population and housing census. The actual growth rate of the metropolis is 3.5% which is higher than the regional and national growth rates of 2.9% and 2.8% respectively.

Tamale has a surface area of about 1011 sq. km, which forms about 13% of the total land area of the northern region. Tamale's population density stands at 384 persons per sq. km.

There is ethnic multiplicity in the Tamale metropolis. However, the Dagombas constitute about 80% of the entire population. There are people from other regions with different ethnic

backgrounds in the metropolis. Islam is the predominant religion in Tamale, with about 84% of the population been Muslims. Christians represent 13.6%, whereas traditional worshippers constitute 1.6%, and other religious affiliation form less than 1% of the population in the metropolis.

The fertility rate in the Tamale metropolis is 2.8 which is below the regional fertility rate of 3.54. This implies that women in the reproductive age cohort of 15-49 years will on the average have two children before they exit this age bracket.



**Figure 3. 1** Map of districts in the northern region of Ghana

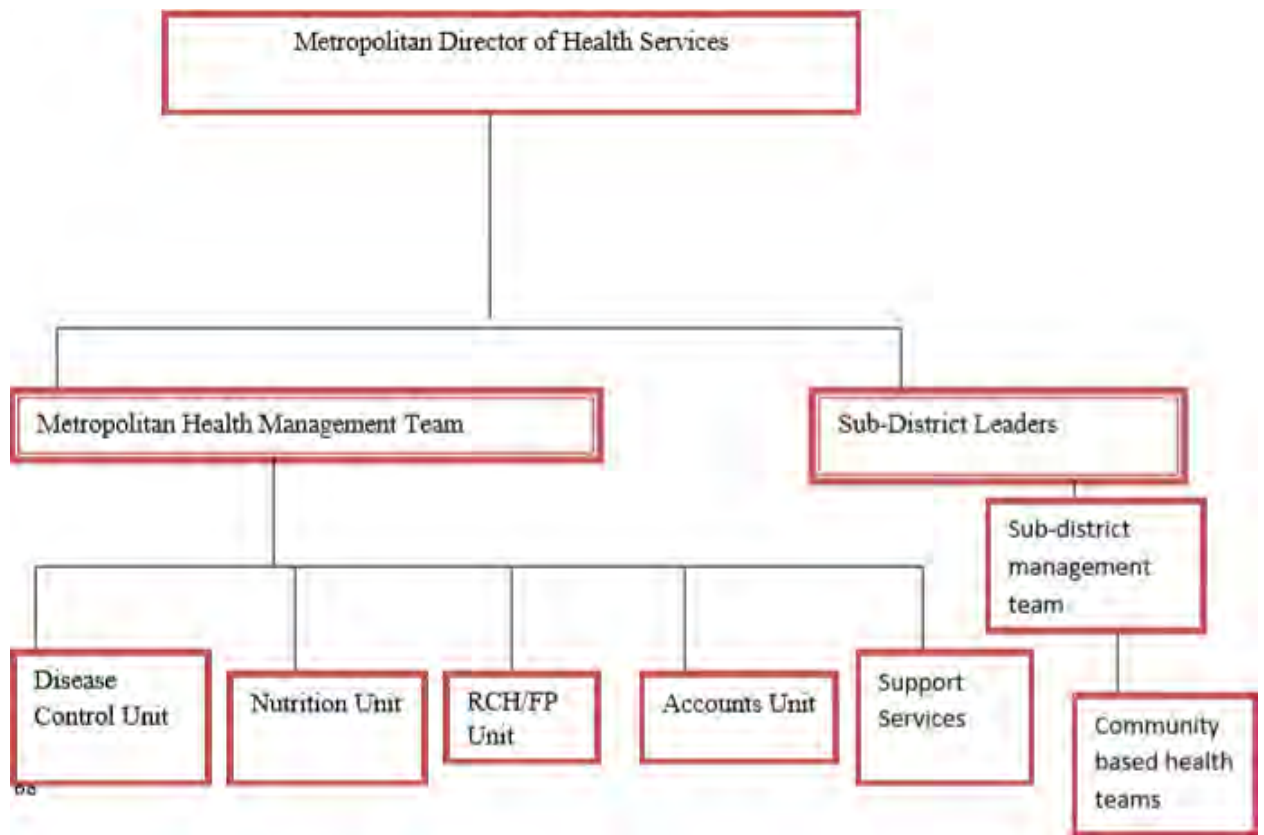
Source: [www.ghanadistricts.com](http://www.ghanadistricts.com)

### 3.1.2 Health care system

Health services in Tamale are managed at three levels:

- Metropolitan Health Administration Level: Responsible for overall and day to day planning, monitoring, supervision, evaluating, training, coordinating of all health programmes in the metropolis.

It is also responsible for conducting operational research and liaising with other agencies and non-governmental organisations (NGO's) in the area of health.



**Figure 3. 2 Organogram of metropolitan health services directorate**

Source: Medium Term Development Plan (2014-2017), Tamale Metropolitan Assembly.

- Sub-District Level: Each is made up of a management team known as the sub-district health management team (SDHMT). The sub-districts in Tamale are, Builpela, Tamale central and Vittin sub-districts. The SDHMT is responsible for programme planning and implementation of health activities at the sub-district level. These include disease control, growth monitoring and health education and promotion. The SDHMT also train and supervise activities of traditional birth attendants (TBA'S), community-based surveillance volunteers among many others.
- Community Level: Health care services are provided at the community level by sub-district staff and supported by trained community volunteers.

Tamale has forty (40) health facilities, with one Teaching hospital. There are fifteen state-owned health facilities in the metropolis comprising three health centres, nine clinics and three hospitals (which are used in this study). Aside from the public health facilities, there are several private hospitals and maternity homes that provide health care services in the metropolis to complement that of the public ones.

### **3.2 Research design**

In an attempt to find out the factors that influence women's satisfaction with child birth services, it is necessary to understand from women their experiences when they seek child birth services. Despite the fact that quantitative research methods have been extensively used in research circles, it is criticised for being adequate for quantification and not suitable in dealing with social complexities of a phenomenon (Bryman, 2013). It is, however, employed in this study based on its main assumption about the existence of objective truth in the world that can be unraveled through scientific means (Creswell, 2009).

Further, the quantitative research paradigm is best suited for this study with regards to getting to know women's view with child birth services as independent researcher.

A cross-sectional survey was conducted in postnatal wards of the three selected public hospitals (two district hospitals and one tertiary facility). A cross-sectional survey is a study in which respondents desired for a specific study are chosen at a single point in time to determine whether the respondents have a particular characteristic of interest (in this case satisfied with child birth services). Cross-sectional surveys offers a snapshot of health related characteristics at a given point in time (Bobak et al, 2003). Further, information gathered pertains to what is happening in the study hospitals at one point in time.

### **3.3 Study population**

The collection of well-defined subjects with similar characteristics a researcher wish to study is known as research population (Pollit & Beck, 2005). It is regarded as the group from which the information relating to the study can be obtained (Kasomo, 2006). The population in this study comprised of postnatal women within the reproductive age cohort (15-49), irrespective of their educational backgrounds, place of residence and socio-economic backgrounds that sought child birth services at the study hospitals.

### **3.4 Sampling technique**

Sampling techniques refer to the process of selecting respondents or subjects to be studied from a population (Alvi, 2016). The sampling techniques employed in this study are as follows;

Purposively, the Tamale metropolis was selected for this study.

The Tamale metropolis was selected due to the fact that, despite the several cost-effective interventions by government to reduce the number of women that die from pregnancy-related causes, there remain systematic and human challenges that hinder the efforts of government (GHS, 2017). Also, the reasons for which women do not patronise health facility-based services are not only prevalent in rural areas but are manifest in urban towns of which Tamale is no exception (Atinga et al, 2014).

Further, the study hospitals are the Tamale Teaching Hospital (TTH), the Tamale West Hospital (TWH) and the Tamale Central Hospital (TCH). These hospitals were selected due to the fact that they offer a variety of child birth services, serve as the main referral centres for health care in the metropolis, attend to both high and low-risk pregnant women, conduct both vaginal and non – vaginal deliveries and generally have a patient profile that is similar to other public hospitals in Ghana.

Simple random sampling was further used to select the first hospital for data collection where all three hospitals had an equal chance of being selected and independent of one another. Based on this, data collection for this study started in the Tamale Central Hospital then followed by the Tamale West Hospital and concluded at the Tamale Teaching Hospital.

Based on the needs of the study, a purposive sampling was carried out to identify the study participant or subjects from the hospital's respective postnatal wards. Purposive sampling ensured that the study is limited to women who had normal deliveries per World Health Organisation's definition of normal delivery (WHO,1996) and women who had uncomplicated caesarean births only participated in the study.

### 3.5 Inclusion criteria

Women in postnatal wards of the study hospitals who had either spontaneous vaginal delivery (normal delivery) as defined by the World Health Organisation (WHO, 1996) or uncomplicated caesarean births who were willing, consented to, aged above 18 and of sound mind at the time of data collection were invited to participate in the study.

### 3.6 Sample size determination

The sample size for this study was determined using the single population proportion based on the following assumptions  $N = (Z\alpha/2)^2 P (1-P)/d^2$ .

Where:

$N$  = the sample size

$Z\alpha/2$  = the standard normal value corresponding to the desired level of confidence

$P$  = is the estimated proportion of an attribute that is present in the population

#### Assumption;

1. The proportion of women satisfied with child birth services in the Tamale metropolis is unknown and therefore an assumption of 50% is made.
2. The margin of error  $d = 5\%$  is allowed.
3. Confidence interval of 95% is assured ( $Z\alpha/2 = 1.96$ ).

#### By computation:

$$= \frac{(1.96)^2 \times 0.5(1-0.5)}{(0.05)^2} = 385 \text{ postnatal women.}$$

The number of respondents from each of the study hospital was based on a review of health facility-based deliveries in the metropolis for the last five years as shown in Table 3.1 below.

**Table 3. 1 Facility-based deliveries in the Tamale metropolis 2013-2017**

	Tamale central hospital	Tamale west hospital	Tamale teaching hospital
Year	Number of deliveries	Number of deliveries	Number of deliveries
2013	2533	4054	7481
2014	3121	4172	7028
2015	3422	5215	6812
2016	3962	5534	7277
2017	5043	4883	7852

*Source: DHIMS2*

In this study, a decision was taken to proportionally allocate the number of study subjects from each hospital based on the number of facility-based deliveries for the year 2017. A total of 109, 106 and 170 postnatal women participated in the study respectively from TCH, TWH and TTH.

An additional 10% of the sample is included to account for non – response, withdrawal from the study and damaged questionnaire making the total sample size to be **424** postnatal women.

### **3.7 Type and source of data**

Primary data for this study was obtained from an administered questionnaire on postnatal women. This ensured that satisfaction with child birth services is rated based on the 5 points Likert scale. The questionnaire was designed based on the study’s objectives and questions.

### **3.8 Data collection instruments**

A structured questionnaire was developed and used to collect data. The questionnaire was studied by an experienced supervisor. The structured questionnaire (See Appendix 1) had a total of 34

items structured into two parts. The first part contained questions about demographic characteristics of respondents – age, marital status, occupation, and monthly income, place of residence, parity, delivery outcome, educational status and monthly income. The second part contained questions on postnatal women’s satisfaction and was further structured under two areas thus health facility and care provider related.

Questions related to the health facility included, satisfaction with distance travelled to health facility and satisfaction with information of service and questions related to the care provider included satisfaction with waiting time to see a doctor or midwife/nurse and satisfaction with courtesy and respect during service encounter.

Questions were measured on a 5 point Likert scale (1-very dissatisfied, 2- dissatisfied, 3-somewhat satisfied, 4-satisfied and 5-very satisfied). The questionnaire was given out to study subjects who could write and read fluently in English to respond to. However, the questions were read and translated into the local languages (Dagbani, Gonja, Mampruli and Bimoba) spoken in the area for respondents who could not read and write in the English language.

### ***3.8.1 Dependent variable***

Satisfaction with health facility-based child birth services.

### ***3.8.2 Independent variables***

- Socio-demographic characteristics of postnatal women.
- Structural and process factors within the hospital.

### **3.9 Data collection methods**

Data for this study were collected from February to March 2018. In order to ensure the quality of data collected, a five-member team made of the principal investigator and four final year nursing students from the School of Allied Health Sciences (SAHS) of the University of Development Studies (UDS-Tamale) with a better understanding of the dominant local languages (Dagbani, Bimoba, Mampruli and Gonja) spoken in the metropolis conducted face-to-face interview with study respondents by their bedside on the same day after vaginal delivery and first or second day after caesarean birth.

Schedule for data collection was done in consultation with ward in-charges in order not to disrupt ward rounds, medical treatments and procedures. The administered questionnaire was checked daily for completeness and accuracy and internal consistency.

Inclusion criteria were women who had either spontaneous vaginal delivery (normal delivery) as defined by the World Health Organisation (WHO, 1996) or uncomplicated caesarean births, aged above 18, of sound mind at the time of data collection and consented to participate in the study.

### **3.10 Data analyses**

The data for this study was analysed quantitatively. Analyses were done using STATA version 14 and excel. In order to calculate composite scores, an exploratory factor analysis (EFA) was performed with the 15 satisfaction with child birth services questionnaire and the output is presented in the appendix (see appendix 5). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.81, indicating that the present data were suitable for principal components analysis (PCA). Similarly, Bartlett's test of Sphericity was significant ( $p < 0.001$ ), indicating a sufficient correlation between variables to proceed with the analyses (see appendix 6).

Four factors were extracted in all with Eigenvalues greater than 1, cumulatively accounting for 53.81% of the total variance explained in the Varimax with Kaiser Normalization rotation solution. Factor loadings of less than 0.40 were suppressed. Overlaps such as one item loading unto more than one factor were noticed. Such item(s), satisfaction with the cost of child birth service and satisfaction with courtesy and respect were removed and the process repeated.

An inspection of the scree plot revealed a clear break after the first component. However, after having conducted a parallel analysis, the result showed three components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (15 variables  $\times$  385 respondents). Thus, it was decided to retain three components for further analyses.

The first four factors with Eigenvalues greater than 1 for the four factors were compared to the actual Eigenvalues from Monte Carlo PCA for parallel analysis (see appendix 7). The rule for accepting a factor using parallel analysis is that the actual Eigenvalue from PCA must be greater than the Criterion value from the parallel analyses. The result indicated that three factors must be retained.

An exploratory factor analysis (EFA) was further performed with the 13 SCBS questionnaire. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.78, indicating that the present data were suitable for principal components analyses. Similarly, Bartlett's test of sphericity was significant ( $p < 0.001$ ), indicating a sufficient correlation between variables to proceed with the analyses.

Three factors were extracted, and all with Eigenvalues greater than 1, cumulatively accounting for 49.53% of the total variance explained in the Varimax with Kaiser Normalization rotation solution, with factor 1 contributing 20.35%, factor two contributing 15.77%, and factor three contributing 13.41%. The internal consistency of each of the items in the satisfaction with child birth services questionnaire was assessed by coefficient alpha which exhibited acceptable internal consistency (Cronbach's Alpha= 0.79).

Chi-square test of independence was performed to test the association between the dependent and independent variables in the study. The binary logistic regression model was used to measure the strength and direction of the significant factors that are associated with women's satisfaction with child birth services from the chi-square test of independence.

### **3.11 Ethical consideration**

Approval for this study was obtained from the Ethics Committee for Humanities (ECH) University of Ghana, Legon (see appendix 2). Also, approval was obtained from the Ghana Health Service-Northern region health directorate to conduct this study in the Tamale West and Central hospitals (see appendix 3). The Research and Development Division of the Tamale Teaching Hospital gave permission for the study to be conducted (see appendix 4).

Oral or written consent of the participants was sought prior to the commencement of the study. Participation in the study was voluntary and participants reserved the rights to opt out at any point of the study without being penalised. In consonance with research ethics, no names or personal identifiers were required on the questionnaire. The responses obtained cannot be traced to any participant.

### **3.12 Chapter summary**

Outlined in this chapter is the setting of the study, research approach, study design and population, Inclusion criteria, techniques for sampling, exclusion criteria, sample size determination, type and source of data, data collection instruments, study variables and data collection methods and how data was analysed. Research ethical considerations were addressed.

This study was cross-sectional and employed quantitative method. Data was obtained from the postnatal women in postnatal wards of the study hospitals and analyses done using STATA version 14 and excel.

## CHAPTER FOUR

### PRESENTATION OF RESULTS

#### 4.0 Introduction

This chapter presents the findings of statistical analyses used to determine factors influencing women's satisfaction with child birth services in the Tamale metropolis of the northern region of Ghana. The presentation is done under the following thematic areas: The level of satisfaction with child birth services and the effect of demographic characteristics and health facility (structural and process) factors on satisfaction with child birth services.

#### 4.1 Demographic characteristics of respondents

The socio-demographic characteristics of the respondents are shown in Table 4.1. In all, 109 (28.3%), 106 (27.5%) and 170 (44.2%) postnatal women were sampled from the Tamale Central, Tamale West and Tamale Teaching Hospital respectively. All the respondents were between the reproductive age cohort of 15 - 49 years with a Mean (*M*) and (*SD*) of 27.56 and 5.25 respectively. Married women 346 (89.9%) dominated in the study. About 147 (38.1%) of the study subjects engaged in trading as a means of livelihood. A greater number of the study subjects earned monthly income in the range of 100-300 representing 116 (30.2%) in this study. Poverty levels in the northern half of the country is high and could possibly be accounting for the reported lower incomes levels. About 282 (73.2%) of the study subjects reported been urban dwellers. A large proportion of the study respondents were multiparous women 242 (62.9%), who had spontaneous vaginal deliveries 272 (70.7%) with a normal delivery outcome 340 (88.3%) and had no education 102 (26.5%).

**Table 4. 1 Socio-demographic characteristics of respondents**

<b>Characteristic</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Age</b>		
16-20years	58	15.1
21-30years	204	53.0
> 30years	123	31.9
<b>Mean (std. dev.)</b>	28 (5.25)	
<b>Marital status</b>		
Single	21	5.5
Married	346	89.8
Widowed	13	3.4
Divorced	6	1.3
<b>Occupation</b>		
Trader	147	38.1
Farmer	59	15.3
Housewife	41	10.7
Student	23	6.0
Others	115	29.9
<b>Monthly income</b>		
100-300	197	51.3
400-600	116	30.2
700-900	24	6.3
> 1000	47	12.9
<b>Place of residence</b>		
Urban	282	73.3
Rural	102	26.7
<b>Delivery outcome</b>		
Normal	340	88.3
With complication	45	11.7
<b>Education</b>		
No education	102	26.5
Primary	65	16.9
Secondary	123	31.9
Vocational	14	3.6
Technical	7	1.8
Tertiary	71	1.8
Professional	3	0.8
<b>Parity</b>		
	143	37.1
Primi para	242	62.9
Multi para		
<b>Delivery mode</b>		
Spontaneous Vaginal delivery(SVD)	272	70.7
Caesarean delivery(CS)	113	29.3

Source: Field survey (2018)

## 4.2 Structural factors of child health services

Tables 4.2 show women's responses to structural factors within the hospital during their child birth services encounter. Midwives/nurses 245 (63.6%) were the majority of health care providers that rendered health care service to the women. Of the total study respondents, 344 (89.4%) revealed that they got prescribed drugs from the respective hospital's pharmacy. About 297 (77.6%) confirmed to the availability of a waiting area for clients and their relatives whilst 250 (64.9%) women indicated that the environment of the hospitals was clean.

*Table 4. 2 Structural factors within the study hospitals*

Characteristic	Frequency	Percentage (%)
<b>Cleanliness of physical environment</b>		
Yes	250	64.9
No	135	35.1
<b>Availability of prescribed drugs</b>		
Yes	344	89.4
No	41	10.6
<b>Delivery attendant</b>		
Doctor	140	36.4
Midwife/nurse	245	63.6
<b>Presence of waiting area</b>		
Yes	297	77.6
No	86	22.4

*Source: Field survey (2018)*

## 4.3 Process factors of child health services

As shown in Table 4.3, about 254 (66.0%) reported that privacy was accorded them during their service encounter. Waiting time to see a doctor or midwife/nurse was short as indicated by 256 (66.5%) respondents. Females 237 (61.6%) dominated the gender of care providers. This can be

attributed to the fact the nursing and midwifery profession in Ghana is dominated by females. Cost of child birth services was indicated to be low by 253 (65.7%). This might be due to the policy of exempting women from paying direct user fees when seeking child birth services.

**Table 4. 3 Process related factors**

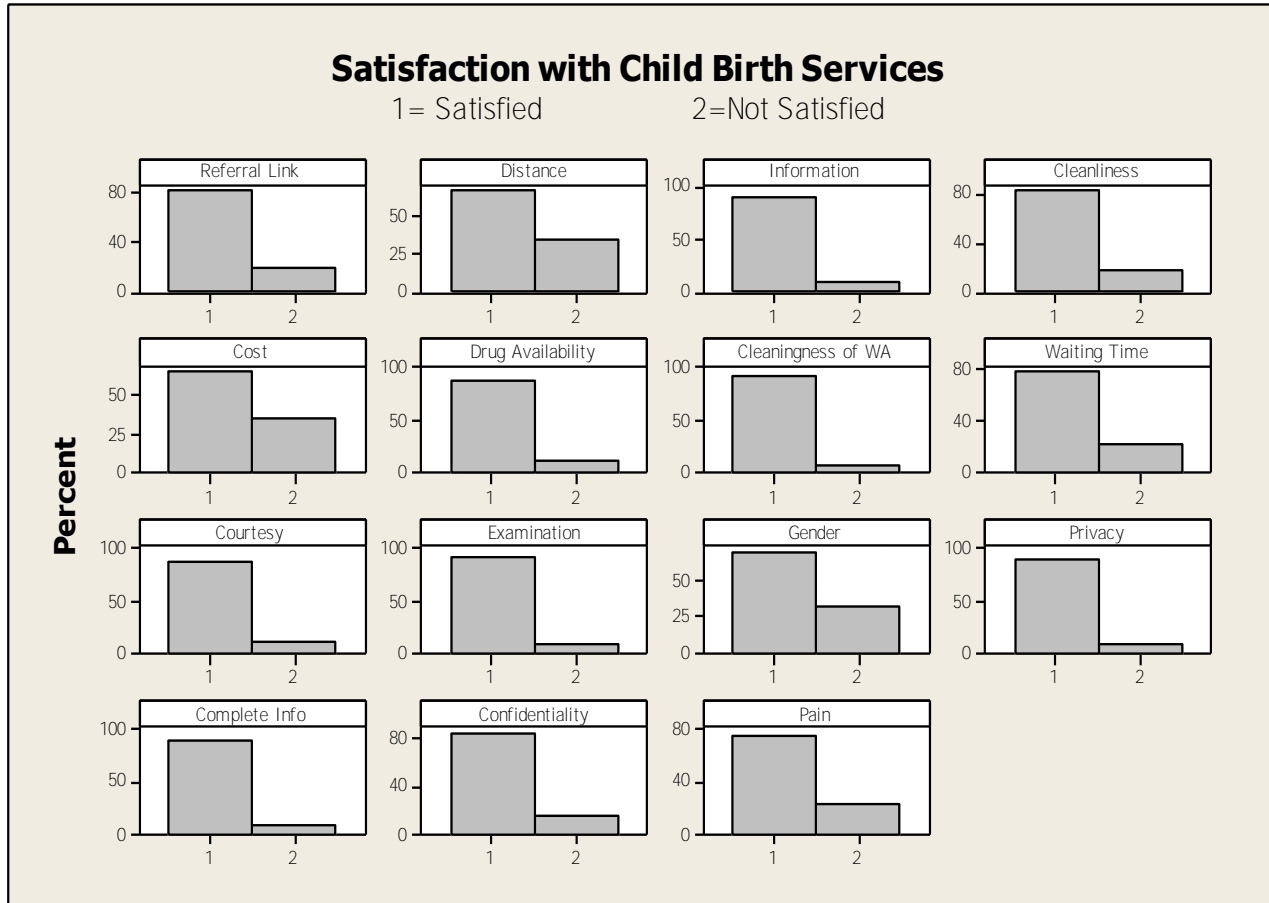
<b>Characteristic</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Assurance of privacy</b>		
Yes	254	66.0
No	131	34.0
<b>Waiting time to see a doctor or midwife/nurse</b>		
Long	129	33.5
Short	256	66.5
<b>Sex of delivery attendant</b>		
Male	148	38.4
Female	237	61.6
<b>Cost of services</b>		
High	132	34.3
Low	253	65.7

*Source: Field survey (2018).*

#### **4.4 Women's level of satisfaction with child birth services**

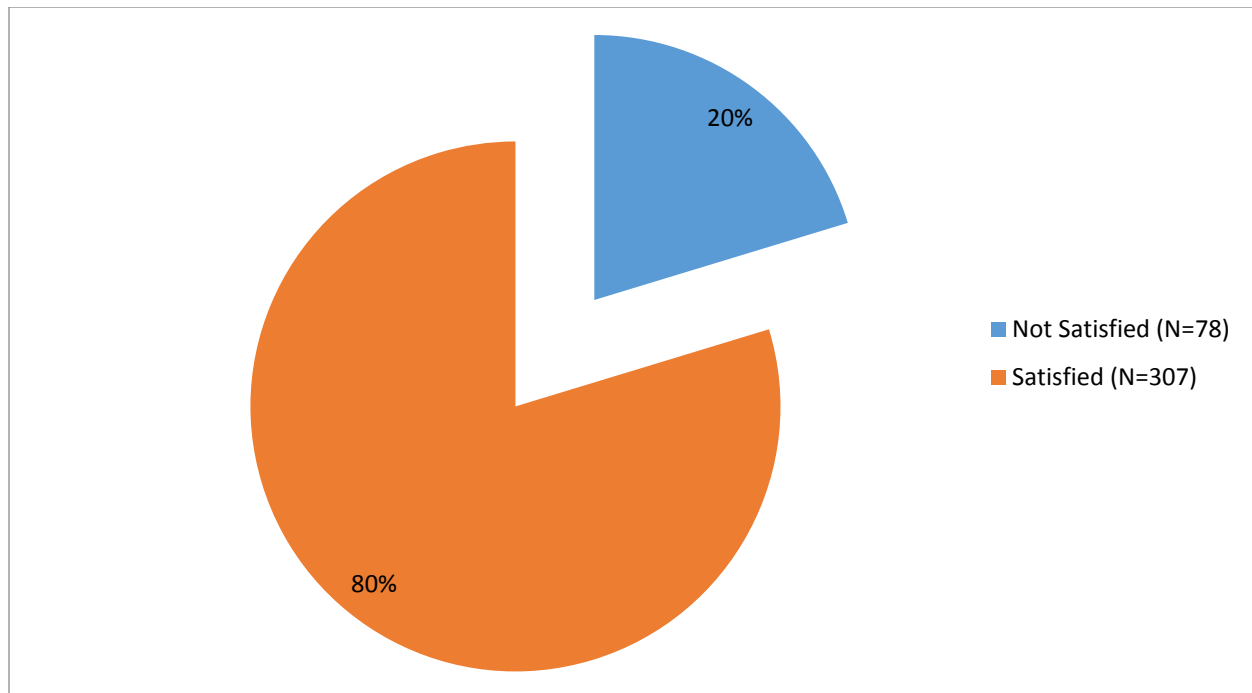
To assess the level of satisfaction with child birth services among postnatal women in the Tamale metropolis, a composite score was generated from 13 items in the Principal Component Analysis (PCA) with Varimax rotation. The composite score was computed by summing all the responses of the items measured on the 5-point Likert scale. The Likert scale responses with their corresponding numeric values are as follows: very satisfied (5), satisfied (4), somewhat satisfied (3), dissatisfied (2), and very dissatisfied (1). A score between 3-5 on the Likert scale was categorised as *satisfied*, and a score of 1-2 on the Likert scale was categorised as *dissatisfied*.

Approximately 80.0% of the postnatal women were satisfied with child birth services compared to (20.0%) who were not satisfied as presented in Figure 4.2.



**Figure 4. 1** Distribution of satisfaction items with respect to child birth services

Source: Field survey (2018)



**Figure 4. 2 Satisfaction with child birth services among postnatal women**

*Source: Field survey (2018).*

#### **4.5 Chi-square test of association between women’s demographic characteristics and satisfaction with child birth services**

Chi-square test of independence was performed to test the association between women’s demographic characteristics with satisfaction with child birth services. The chi-square analysis showed that age of women ( $p < 0.01$ ), type of occupation ( $p < 0.01$ ), place of residence ( $p < 0.01$ ) and delivery outcome ( $p < 0.01$ ) were the significant demographic factors that were associated with satisfaction with child birth services. Table 4.4 presents results from the chi-square analyses.

**Table 4.4 Chi-square test of the relationship between women's demographic characteristics and satisfaction**

Variable	Child Birth Services, n (%)		$\chi^2$
	Not satisfied	Satisfied	P-value
<b>Age</b>			
16-20years	18(4.7)	40(10.4)	0.004**
21-30years	46(11.9)	158(41.0)	
>30years	14(3.6)	109(28.3)	
<b>Marital status</b>			
Single	4(1.0)	17(4.4)	0.204
Married	72(18.7)	274(71.2)	
Widowed	0(0.0)	13(3.4)	
Divorced	2(0.5)	3(0.8)	
<b>Ethnicity</b>			
Dagomba	40(10.4)	167(43.4)	0.854
Gonja	7(1.8)	29(7.5)	
Mamprusi	11(2.9)	31(8.1)	
Bimoba	7(1.8)	23(6.0)	
Others	13(3.4)	57(14.8)	
<b>Religion</b>			
Christian	29(7.5)	88(22.9)	0.343
Muslim	48(12.5)	215(55.8)	
Others	1(0.3)	4(1.0)	
<b>Educational background</b>			
No education	23(6.0)	79(20.5)	0.454
Primary	18(4.7)	47(12.2)	
Secondary	22(5.7)	101(26.2)	
Vocational	3(0.8)	11(2.9)	
Technical	2(0.5)	5(1.3)	
Tertiary	10(2.6)	61(15.8)	
Professional	0(0.0)	3(0.8)	

\*\*p<0.01, \*p<0.05 Source: Field survey (2018).

**Table 4.4 Continued. Chi-square test of the relationship between women's demographic characteristics and satisfaction**

Variable	Child Birth Services, n (%)		$\chi^2$
	Not satisfied	Satisfied	P-value
<b>Occupation</b>			
Trader	27(7.0)	120(31.2)	0.001**
Farmer	23(6.0)	36(9.4)	
Housewife	10(2.6)	31(8.1)	
Student	3(0.8)	20(5.2)	
Others	15(3.9)	100(26.0)	
<b>Level of income</b>			
100-300	45(11.7)	152(39.5)	0.295
400-600	24(6.2)	92(23.9)	
700-900	4(1.0)	20(5.2)	
>1000	5(1.3)	42(10.9)	
<b>Place of residence</b>			
Urban	48(12.5)	234(60.8)	0.009**
Rural	30(7.8)	73(19.0)	
<b>Parity</b>			
Primi-para	22(5.7)	121(31.5)	0.067
Multi-para	56(14.5)	186(48.3)	
<b>Mode of delivery</b>			
Spontaneous vaginal delivery	57(14.8)	215(55.8)	0.598
Caesarean section	21(5.5)	92(23.9)	
<b>Delivery outcome</b>			
Normal	61(15.8)	279(72.5)	0.002**
With complications	17(4.4)	28(7.3)	

\*\*p<0.01, \*p<0.05 Source: Field survey (2018).

#### 4.6 Association of structural factors with satisfaction with child birth services

Chi-square analysis showed that that only presence of waiting area ( $p < 0.05$ ) was significantly associated with satisfaction with child birth services. The results of the chi-square test are presented in Table 4.5.

**Table 4. 5 Association of structural factors with satisfaction with child birth services**

Variable	Child Birth Services, n (%)		$\chi^2$ P-value
	Not satisfied	Satisfied	
<b>Physical facility</b>			
Yes	53(13.8)	197(51.2)	0.532
No	25(6.5)	110(28.6)	
<b>Availability of prescribed drugs</b>			
Yes	73(19.0)	271(70.4)	0.174
No	5(1.3)	36(9.4)	
<b>Delivery attendant</b>			
Doctor	25(6.5)	115(29.9)	0.375
Nurse/Midwife	53(13.8)	192(49.9)	
<b>Presence of waiting area</b>			
Yes	67(17.4)	230(59.7)	0.048*
No	11(2.9)	75(19.5)	

Source: Field survey (2018) \*\* $p < 0.01$ , \* $p < 0.05$

#### 4.7 Process related factors associated with satisfaction of child birth services

Chi-square test of independence was performed to test the association between process factors with satisfaction with child birth services. It was found that assurance of privacy thus as attending to women in separate rooms or under screened areas ( $p < 0.05$ ) and service cost ( $p < 0.05$ ) had significant association with women's satisfaction with child birth services. The results of the chi-square tests are presented in Table 4.6.

**Table 4. 6 Process related factors associated with satisfaction with child birth services**

Variable	Child Birth Services, n (%)		$\chi^2$
	Not satisfied	Satisfied	P-value
<b>Assured privacy</b>			
Yes	44(11.4)	210(54.5)	0.046*
No	34(8.9)	97(25.2)	
<b>Waiting time to see a doctor or Midwife/Nurse</b>			
Long	31(8.1)	98(25.5)	0.191
Short	47(12.1)	209(54.3)	
<b>Sex of delivery attendant</b>			
Male	27(7.0)	121(31.4)	0.437
Female	51(13.2)	186(48.3)	
<b>Cost of service</b>			
High	34(8.8)	98(25.5)	0.049*
Low	44(11.4)	209(5.3)	

*Source: Field survey (2018) \*\*p<0.01, \*p<0.05*

#### **4.8 Logistic regression of factors associated with satisfaction with child birth services satisfaction**

Binary logistic regression was used to measure the strength and direction of the significant factors that are associated with women's satisfaction with child birth services from the chi-square test. It was revealed that women who were aged 21-30 years (OR=2.32, 95% C.I=1.39-3.88) were approximately 2 times more likely to be satisfied with the child birth services as compared to those aged 16-20 years. Also, women aged above 30 years (OR=5.67, 95% C.I=2.84-11.29) were approximately 6 times highly likely to be satisfied with services as opposed to those aged 16-20 years. Women who responded no to the availability of a waiting area for client and relatives at the study hospitals hospital (OR=2.36, 95% C.I=1.14-4.83) were approximately 2 times more likely to be satisfied regarding child birth services than those who did observe a waiting area. Respondents who indicated no to the assurance of privacy (OR=1.73, 95% C.I=1.08-2.77) were

found to be 76% highly likely to be satisfied with the child birth services as opposed to those assured of privacy. Among women who indicated that cost of service was low (OR=1.73, 95% C.I=1.08-2.76), it was found that they were also 76% more likely to be satisfied with child birth service as compared to those who indicated the cost of child birth services were high. The results of the logistic regression analysis are presented in Table 4.7.

**Table 4. 7 Logistic regression analysis of significant variables associated with child birth services satisfaction**

<b>Explanatory Variables</b>	<b>n (%)</b>	<b>Coefficients</b>	<b>Odds ratio</b>	<b>95% C.I</b>
<b>Socio-demographic factors</b>				
<b>Age (years)</b>				
16-20(ref)	58(15.1)			
21-30	204(53.0)	0.84**	2.32	1.39-3.88
>30	123(31.9)	1.73**	5.67	2.84-11.29
<b>Occupation</b>				
Trader (ref)	147(38.1)			
Farmer	59(15.3)	-0.37	0.69	0.33-1.46
House wife	41(10.7)	-0.13	0.88	0.37-2.06
Student	23(6.0)	0.74	2.09	0.54-8.07
Others	115(29.9)	0.56	1.75	0.89-3.42
<b>Residence</b>				
Urban (ref)	282(73.3)			
Rural	102(26.7)	-0.21	0.81	0.45-1.45
<b>Delivery outcome</b>				
Yes (ref)	340(88.3)			
No	45(11.7)	-0.31	0.73	0.32-1.59
<b>Structural related factors</b>				
<b>Presence of waiting area</b>				
Yes (ref)	297(77.6)			
No	86(22.4)	0.86	2.36*	1.14-4.83
<b>Process-related factors</b>				
<b>Assurance of privacy</b>				
Yes (ref)	254(66.0)			
No	131(34.0)	0.55	1.73*	1.08-2.77
<b>Cost of service</b>				
High (ref)	132(34.3)			
Low	253(65.7)	0.54	1.73*	1.08-2.76

Source: Field survey (2018) \*\*p<0.01, \*p<0.05; OR= Odds Ratio; C.I= Confidence Interval

#### **4.9 Chapter Summary**

Specifically, this study was designed to identify factors that influence women's satisfaction with child birth services. Findings of the study are presented in this chapter in line with the objectives set. It was presented under the following sub-units; the level of satisfaction with child birth services, demographic characteristics of postnatal women that affect satisfaction with facility-based child birth services and health facility-based factors that affect postnatal women's satisfaction with child birth services. Statistically, significant association is established between the dependent and independent variables. Credibility is therefore given to the conceptual framework used in this study which indicates that structure, process and demographic factors influence satisfaction with child birth services.

## CHAPTER FIVE

### DISCUSSION OF FINDINGS

#### 5.0 Introduction

This chapter presents a discussion of the findings from the study. This is done in relation to the objectives of the study and the literature reviewed. Again, the discussion is done to ascertain if the findings of this study conform to or contradict what exist in the literature. The discussion follows the order of the study objectives-the level of satisfaction with child birth services and demographic and health facility factors that influence child birth services satisfaction. It also provides a summary of key findings, the implication of the study, conclusions and recommendation based on the findings, limitations and possible suggestions for future research.

#### 5.1 Level of satisfaction with facility-based child birth services

Generally, 80% of women seeking child birth services in the three hospitals reported being satisfied with the level of care. This percentage reported is higher than findings from similar studies in, Felege Hiwot referral hospital where satisfaction was reported to be 75% (Mekonnen et al, 2015). Also, this study's finding is higher than findings from similar studies in Kenya under the free maternal health policy where reported satisfaction was 54.4% (Gichangi & Mwanda, 2018). Further, the finding from this study is greater than findings from the Amhara region of Ethiopia and Nairobi, Kenya where satisfaction was reported to be 61.9% and 56%% respectively (Bezant & Koenig, 2009; Tayelgn et al, 2011). However, reported satisfaction with child birth services in Debre Markos town of northwestern Ethiopia was 82% which is higher than the percentage of satisfaction in this study (Bitew et al, 2015).

Several possible reasons could be cited for the reported satisfaction with child birth services among postnatal women in the Tamale metropolis. The study was conducted in a teaching hospital and two other hospitals with a status similar to a district hospital. Healthcare delivery (child birth services inclusive) in these categories of hospitals are expected to be of high quality and could possibly have accounted for the reported satisfaction.

## **5.2 Association between demographic characteristics and satisfaction**

Several studies have been carried out to identify the determinants of satisfaction with healthcare by (Ampofo & Opoku-Danso, 2017; Srivastava et al, 2015). Unexpectedly, findings from these two studies are inconclusive and contradictory. The Influence of demographic characteristics of women on satisfaction with child birth services remains varied in the literature (Batbaatar et al, 2017).

Statistically, a significant association was established between some demographic characteristics of respondents such as age, occupation, place of residence and delivery outcome with satisfaction with child birth services in this study. This contradicts with findings by Ampofo & Opoku-Danso ,(2017) in which demographic characteristics of clients did not affect their satisfaction with healthcare services. It further contradicts findings from a study in the city of Riyadh in the kingdom of Saudi Arabia which concluded that demographic characteristic of patients did not affect their satisfaction with facility-based care received (Sakkak et al, 2008).

Even though the aboved mentioned studies revealed that there is no statistically significant association between the following demographic characteristics, marital status, education, income levels and parity with satisfaction with child birth services, the following was observed: Married women reported higher satisfaction compared to single or unmarried women. The finding is

consistent with findings reported by others researchers (Oladapo & Osiberu, 2009; Quintana et al, 2006; Tayelgn et al, 2011). These findings indicate that married women reported higher satisfaction with child birth services compared to single or unmarried women. Also, there was no statistically significant association between women's level of education and satisfaction with child birth services in this study. Women with no education reported higher satisfaction. Lack of education prevents women from assessing and appreciating the quality of care that is offered to them. This is consistent with findings by others (Atinga et al, 2014; Overgaard et al, 2012), who indicated that women with little or no education were more satisfied with child birth services compared to women with higher education. Income levels or economic status of patients influenced their satisfaction with health care in several ways. For example well-to-do clients are able to use their status to attract attention during their care process.

In this study, it is reported that the respondent's occupation was statistically significant and influenced satisfaction with child birth services. Respondents who engaged in trading activities as means of livelihood reported satisfied with child birth services. This is in contrast with finding by Overgaard et al, (2012) where non-working women reported higher satisfaction with child birth services.

Contrary to the fact that rural women report higher satisfaction with child birth services (Atkinson & Haran, 2005; Melese et al, 2014), in this study, urban dwellers (statistically significant) reported higher satisfaction than rural dwellers. Rural women often have low expectations because of their previous experiences with health facilities in rural areas that do not offer the same quality of child birth services as health facilities in urban areas. The reverse is the case in this study probably due to the fact that rural respondents were few (27%) in relation to the total sample size.

Being multi parous, women with two or more previous deliveries were more satisfied with child birth services compared to primiparous women (women delivering for the first time). This is consistent with Ferrer et al, (2016); Rijnders et al, (2008) who revealed that parity influences women's satisfaction where multiparas reported satisfied as compared to Primi-paras. Experiences from previous deliveries might be the reason why multiparous women report higher satisfaction. It, however, contradicts the findings of Okumu & Oyugi, (2018) which indicated that parity did not influence women's satisfaction with child birth services.

Mode of delivery (either SVD or caesarean section) is reported as having an effect on women's satisfaction with child birth services. Having an SVD is said to result in higher satisfaction compared to assisted or cesarean section (Siassakos et al, 2009). Findings from this study indicate that there is no statistically significant relationship between mode of delivery and women's satisfaction with child birth services. However, women who had SVD reported higher satisfaction compared to those that had caesarean section. Similarly, Sachsanidis, (2018) reports that women who had SVD reported higher satisfaction compared with child birth.

The experiences women undergo varies with the mode of deliveries. The joy that comes with having a successful delivery is enormous and has the possibility of eroding away the negative experiences that a woman goes through during delivery. This might possibly be the reason why the mode of delivery did not influence women's satisfaction with child birth services in the Tamale metropolis.

Delivery outcome was found to be statistically significant in this study. Having a normal or complicated delivery outcome influenced women's satisfaction with child birth services. Women with normal delivery outcome indicated that they were more satisfied with child birth services

compared to postnatal women with delivery complications. This is in contrast to findings from a study in Nairobi, Kenya (Bazant & Koenig, 2009) where women who experienced delivery complications reported satisfaction with child birth services. Contrary a study conducted in Amhara region of Ethiopia Tayelgn et al, (2011) reports that about 57 women representing 13% of postnatal women that suffered complications reported less satisfaction with child birth services compared to 32 postnatal women representing 7.7% reporting been satisfied with child birth services. The reported satisfaction associated with the complicated delivery outcome is often due to the survival of the mother and child.

### **5.3 Factors influencing women's satisfaction**

The age of the respondents, the presence of a waiting area for clients and their relatives, assurance of privacy thus attending to women in separate rooms or under screened areas and cost of child birth services were the main factors influencing women's satisfaction with child birth services in the Tamale metropolis from the logistic regression analyses.

Cost of child birth services emerged as one of the major determinants of women's satisfaction with child birth services where women who found the cost to be low were more likely to be satisfied with child birth services compared to those who found the cost to be high. Clearly, this is consistent with the findings of Tayelgn et al, (2011), where women who paid less for child birth services reported higher satisfaction. In contrast, Gichangi & Mwanda, (2018), revealed that cost of child birth services was not a factor responsible for women's satisfaction with child birth services and that other factors accounted for women's satisfaction. Due to the policy exempting women from direct payment of user fees when accessing child birth services in Ghana, women pay just a little or no fee at all when seeking child birth services. This makes it possible to have money to cater

for other needs that may arise during their pregnancy-child birth continuum. The joy of receiving child birth services without having to pay much is enormous and could possibly explain the reason for the reported satisfaction.

Women seeking child birth services would have to always endure long queues due to systematic and human challenges that confront the health care delivery process in Ghana. The presence of a waiting area for clients and their relatives was a major predictor of women's satisfaction in the study. Similarly, Hasan, (2007), revealed that, in hospitals where waiting area was available and spacious, women would be in a position to seek child birth services in such hospitals compared to hospitals where waiting areas were not spacious or lacking. Also, Tayelgn et al, (2011) reported similar findings where the presence of a waiting area for clients and relatives influenced women's satisfaction.

Another significant determinant of satisfaction with child birth services among women this study identified is the assurance of privacy such as attending to women in separate rooms or under screened areas. Providing and maintaining privacy throughout all procedures involved in child birth services is reported as a need by Egyptian women (Ghani et al, 2011). In this study, respondents who indicated no to the assurance of privacy were more likely to be satisfied with child birth services compared to those who indicated yes. This contradicts with findings by Tayelgn et al, (2011) in the Amhara region of Ethiopia, where the lack of privacy when receiving child birth services was a source of dissatisfaction to women that sought such services. Child birth services especially delivery comes with unpleasant experiences. Some of these experiences are often difficult to bear. The ultimate desire of women in such conditions is to deliver quickly and as such privacy would not be a matter of concern.

The influence of the client's age on satisfaction with healthcare is known in the literature. The age of respondents in this study statistically determined whether respondents will report being satisfied or otherwise with child birth services. Respondents within the age brackets of (16-20) and above 30 years reported higher satisfaction with child births services. This is in clear contradiction to the findings by Ferrer et al, (2016) which indicate that the age of women did not influence their satisfaction with child birth services. Similarly, a study conducted, in the southeastern United States, Goodman et al, (2004) revealed that older women tend to be more satisfied with child birth services compared to younger women. Satisfaction among older women is attributed to their experience and maturity (Srivastava et al, 2015). Zasloff et al, (2007) found that Swedish younger women were less satisfied with child birth services compared to older women. Findings from this study give credence to the fact that, the age of a woman has an influence on their satisfaction with child birth services.

#### **5.4 Summary findings**

Patient's satisfaction with the quality of healthcare is influenced by several quality dimensions which are dependent of the health facility being studied (Zineldin, 2006). That satisfaction with child births services is multi-dimensional and it is affected by several factors as well (Sawyer et al, 2013). The purpose of this study is to assess the level of satisfaction with child birth services among postnatal women as well as identify the factors that cause satisfaction or dissatisfaction with an intend to advocate for an improvement and also to inform policy direction.

Findings from the research show that more still needs to be done in the area of facility-based child birth services. Valuable results provided in this study can be used to improve the quality of child birth services in the study hospitals and other hospitals across the country. Four variables that is,

age of respondent, the presence of a waiting area for clients and their relatives, assurance of privacy such as attending to respondents in separate rooms and under screened areas and cost of child birth services were retained as significant variables from the logistic regression. This clearly shows the importance of these variables towards ensuring that child birth services are offered in a manner that meets the expectation of clients and as such should be the target of efforts aimed at improving child birth services.

## **5.5 Conclusions**

Over the years, a global consensus has been reached on the measures that are significant in reducing the number of women that die from a pregnancy-related cause. Skilled attendance is identified as one of the measures and it is used as a benchmark to monitor the progress of the target of having 80% of all deliveries in Ghana occurring in hospitals. Generally, skilled delivery attendance is associated with lower maternal mortality rates. In this regard, there is the need for health care professionals (especially midwives) to discharge their duties in a professional manner in order not to discourage women from the use of facility-based child birth services.

This study sought to assess the level of satisfaction with child birth services in the Tamale metropolis. Literature has it that, structural and process factors influence health outcome (in this case satisfaction with child birth services) (Srivastava et al, 2015). The Donabedian structure, process and outcome framework was adopted and a modification made to add demographic characteristics to assess the determinants of child birth services satisfaction.

The study findings indicate that about 80% of the women that participated in the study reported satisfied with child birth services whilst 20% reported dissatisfied. Cost of child birth services, assurance of privacy and the availability of a waiting area for clients and their relatives were the

key factors influencing women's satisfaction. It is therefore incumbent on the management of the study hospitals to work at increasing satisfaction levels since it is an indicator of health care quality especially, provision of privacy during service encounter and the availability of waiting area for clients and their relatives.

### **5.6 Contribution to knowledge**

A lot of cost-effective measures have been put in place in order to reduce maternal deaths which are associated with pregnancy. These measures include the provision of quality ANC, comprehensive package for nutrition and health services, access to family planning services, access to skilled delivery, availability of basic and comprehensive EmOC and exemption of pregnant women from direct user fees in public health facilities. Despite all these measures, the quality of child birth services is reported to be poor (Ministry of Health, 2008) and is affected by health care providers attitude (Yidana & Issahaku, 2014).

The study on factors that influence satisfaction with child birth services is useful in ensuring that quality child birth services that meet women's expectations are provided in health facilities. Health care planners and policy makers can through this ensure that child birth services that meet women's expectations are provided.

### **5.7 Recommendation(s)**

- There is the need for a concerted effort on the part of stakeholders in the area of health to work at sustaining maternal health policies especially exemption of women from direct fees payment for child birth services. It should be seen to be entirely free devoid of hidden and illegal charges from care providers which have the tendency to discourage women from patronising facility-based child birth services.

- Additionally, to make child birth services satisfying for women, there is an urgent need for management of the Tamale west and central hospitals to work on improving the quality of infrastructure of the hospitals especially the provision of a conducive waiting area for clients and their relatives that patronise child birth services.
- Lastly, management of the study hospitals should make clients privacy a priority. Strict privacy ought to be provided all women seeking child birth services thus women should be attended to privately in separate rooms or under screens.

### **5.8 Limitations and opportunities for future research**

Some challenges were encountered during data collection. In order to cater for their babies, some women hurriedly read and answered the questionnaire. This implies that care was not taken to understand the questions and responses that were needed. Retrieval of some questionnaires was a challenging task as some discharged women went home with the questionnaires.

The non-inclusion of women who had complicated SVD and caesarean delivery could possibly effect the results of this study since they have a different child birth experience and could possibly have a different perception about the quality of child birth services. Future research should consider interviewing such women in their homes after discharge from the hospital.

Views of women that attended private hospitals were left out since the study participants were drawn from only public hospitals. Future studies can consider drawing participants from private hospitals or maternity homes where child birth services are provided for a comparison to be made on the levels of satisfaction.

## **5.9 Chapter summary**

This chapter discussed the findings of the results. This discussion focused on the level of satisfaction as well as determinants of satisfaction with child birth services in the Tamale metropolis. The discussion revealed that satisfaction predictors are the age of respondents, the presence of waiting area for clients and their relatives, assurance of privacy such as attending to women in separate rooms or under screened areas and the cost of child birth services. Also, summary of key findings, the implication of the study, conclusions and recommendation based on the findings, limitations and possible suggestions for future research.

## REFERENCES

- Afzal, M., Rizvi, F., Azad, A. H., Rajput, A. M., Khan, A., & Tariq, N. (2014). Effect of demographic characteristics on patient's satisfaction with health care facility. *Journal of Postgraduate Medical Institute (Peshawar-Pakistan)*, 28(2).
- Ahmad, I., Nawaz, A., Khan, S., Khan, H., Rashid, M. A., & Khan, M. H. (2011). Predictors of patient satisfaction. *Gomal Journal Of Medical Sciences*, 9(2), 183–188.
- Ahmad, I., & Din, S. (2010). PATIENTS ' SATISFACTION FROM THE HEALTH CARE SERVICES, 8(1), 95–97.
- Al-Abri, R., & Al-Balushi, A. (2014). Patient satisfaction survey as a tool towards quality improvement. *Oman Medical Journal*, 29(1), 3–7. <https://doi.org/10.5001/omj.2014.02>
- Alhassan, R. K., Duku, S. O., Janssens, W., Nketiah-Amponsah, E., Spieker, N., Van Ostenberg, P., ... Rinke De Wit, T. F. (2015). Comparison of perceived and technical healthcare quality in primary health facilities: Implications for a sustainable National Health Insurance Scheme in Ghana. *PLoS ONE*, 10(10), 1–19. <https://doi.org/10.1371/journal.pone.0140109>
- Althabe, F., Bergel, E., Cafferata, M. L., Gibbons, L., Ciapponi, A., Aleman, A., ... Palacios, A. R. (2008). Strategies for improving the quality of health care in maternal and child health in low- and middle-income countries: an overview of systematic reviews. *Paediatric and Perinatal Epidemiology*, 22, 42–60. <https://doi.org/10.1111/j.1365-3016.2007.00912.x>
- Alvi, M. (2016). A Manual for Selecting Sampling Techniques in Research.
- Amdemichael, R., Tafa, M., & Fekadu, H. (2014). Maternal satisfaction with the delivery services in Assela Hospital, Arsi zone, Oromia region. *Gynecol Obstet (Sunnyvale)*, 4(257), 932–2161.

- Ampofo, H., & Opoku-Danso, R. (2017). Patient Satisfaction With Health Services In Cape Coast Metropolis, Ghana. *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, 4(6).
- Arokiasamy, A. R. A. (2013). the Impact of Customer Satisfaction on Customer Loyalty and Intentions To Switch in the Banking Sector in Malaysia. *The Journal of Commerce*, 5(1), 2218–8118.
- Assefa, F., & Mosse, A. (2011). Assessment of Clients' satisfaction with health service deliveries at jimma university specialized hospital. *Ethiopian Journal of Health Sciences*, 21(2), 101–110.
- Atinga, R., Baku, A., & Adongo, P. (2014). Drivers of prenatal care quality and uptake of supervised delivery services in Ghana. *Annals of Medical and Health Sciences Research*, 4(9), 264. <https://doi.org/10.4103/2141-9248.141970>
- Atkinson, S., & Haran, D. (2005). Individual and district scale determinants of users' satisfaction with primary health care in developing countries. *Social Science and Medicine*, 60(3), 501–513. <https://doi.org/10.1016/j.socscimed.2004.05.019>
- Avortri, G. S., Beke, A., Nkrumah, G. A., Avortri, G. S., & Abekah-nkrumah, G. (2011). Predictors of satisfaction with child birth services in public hospitals in Ghana. <https://doi.org/10.1108/09526861111116660>
- Barant E. Koenig M. (2009). Women's satisfaction with delivery care in Nairobi informal settlements. *Int J. Qual. Health Care*, 21(2), 79–86. <https://doi.org/10.1093/intqhc/mzn058>
- Barsky, J. D. (1992). Customer satisfaction in the hotel industry: meaning and measurement. *Hospitality Research Journal*, 16(1), 51–73.

- Batbaatar, E., Dorjdagva, J., Luvsannyam, A., Savino, M. M., & Amenta, P. (2017). Determinants of patient satisfaction: a systematic review. *Perspectives in Public Health, 137*(2), 89–101. <https://doi.org/10.1177/1757913916634136>
- Bertucci, V., Boffo, M., Mannarini, S., Serena, A., Saccardi, C., Cosmi, E., ... Ambrosini, G. (2012). Assessing the perception of the childbirth experience in Italian women: A contribution to the adaptation of the childbirth perception questionnaire. *Midwifery, 28*(2), 265–274.
- Bezant, E. S., & Koenig, M. A. (2009). Women's satisfaction with delivery care in Nairobi informal settlements. *Int J Qual Health Care, 21*(2), 79–86.
- Bitew, K., Ayichiluhm, M., & Yimam, K. (2015). Maternal Satisfaction on Delivery Service and Its Associated Factors among Mothers Who Gave Birth in Public Health Facilities of Debre Markos Town, Northwest Ethiopia. *BioMed Research International, 2015*, 1–7. <https://doi.org/10.1155/2015/460767>
- Blair, J. D., & Fottler, M. D. (2011). *Organization development in healthcare: Conversations on research and strategies*. Emerald Group Publishing.
- Bobak, M., Skodova, Z., & Marmot, M. (2003). Beer and obesity: a cross-sectional study. *European Journal of Clinical Nutrition, 57*(10), 1250.
- Boyer, L., Francois, P., Doutre, E., Weil, G., & Labarere, J. (2006). Perception and use of the results of patient satisfaction surveys by care providers in a French teaching hospital. *International Journal for Quality in Health Care, 18*(5), 359–364.
- Brooks, M. I., Thabrany, H., Fox, M. P., Wirtz, V. J., Feeley, F. G., & Sabin, L. L. (2017). Health facility and skilled birth deliveries among poor women with Jamkesmas health insurance in Indonesia: a mixed-methods study. *BMC Health Services Research, 17*(1), 1–

12. <https://doi.org/10.1186/s12913-017-2028-3>

Bruggemann, O. M., Parpinelli, M. A., Osis, M. J. D., Cecatti, J. G., & Neto, A. S. C. (2007).

Support to woman by a companion of her choice during childbirth: a randomized controlled trial. *Reproductive Health*, 4(1), 5.

Bryman, A. (2013). *Doing research in organizations*. Routledge.

Camgöz- Akdağ, H., & Zineldin, M. (2010). Quality of health care and patient satisfaction.

*Clinical Governance: An International Journal*, 15(2), 92–101.

<https://doi.org/10.1108/14777271011035031>

Cham, M., Sundby, J., & Vangen, S. (2009a). Availability and quality of emergency obstetric care in Gambia's main referral hospital: women-users' testimonies. *Reproductive Health*, 6(1), 5.

Cham, M., Sundby, J., & Vangen, S. (2009b). Availability and quality of emergency obstetric care in Gambia's main referral hospital : women-users' testimonies.

*Reproductive-Health-Journal*, 8, 1–8. <https://doi.org/10.1186/1742-4755-6-5>

Changole, J., Bandawe, C., Makanani, B., Nkanaunena, K., Taulo, F., Malunga, E., & Kafulafula, G. (2010a). Patients' satisfaction with reproductive health services at Gogo Chatinkha Maternity Unit, Queen Elizabeth Central Hospital, Blantyre, Malawi. *Malawi Medical Journal*, 22(1).

Changole, J., Bandawe, C., Makanani, B., Nkanaunena, K., Taulo, F., Malunga, E., & Kafulafula, G. (2010b). Patients' satisfaction with reproductive health services at Gogo Chatinkha Maternity Unit, Queen Elizabeth Central Hospital, Blantyre, Malawi. *Malawi Medical Journal*, 22(1), 5–9. <https://doi.org/10.4314/mmj.v22i1.55899>

Changole, J., Bandawe, C., Makanani, B., Nkanaunena, K., Taulo, F., Malunga, E., &

- Kafulafula, G. (2010c). Patients' satisfaction with reproductive health services at Gogo Chatinkha Maternity Unit, Queen Elizabeth Eentral Hospital, Blantyre, Malawi. *Malawi Medical Journal*, 22(1), 5–9. <https://doi.org/10.4314/mmj.v22i1.55899>
- Chou, D., Daelmans, B., Jolivet, R. R., Kinney, M., & Say, L. (2015). Ending preventable maternal and newborn mortality and stillbirths. *Bmj*, h4255. <https://doi.org/10.1136/bmj.h4255>
- Christiaens, W., & Bracke, P. (2007). Assessment of social psychological determinants of satisfaction with childbirth in a cross-national perspective. *BMC Pregnancy and Childbirth*, 7(1), 26. <https://doi.org/10.1186/1471-2393-7-26>
- Churchill Jr, G. A., & Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of Marketing Research*, 491–504.
- Coeytaux, F., Bingham, D., & Langer, A. (2011). Reducing maternal mortality: A global imperative. *Contraception*, 83(2), 95–98. <https://doi.org/10.1016/j.contraception.2010.10.009>
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Approaches (3rd Edition)*. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. <https://doi.org/10.2307/1523157>
- D'Ambruoso, L., Abbey, M., & Hussein, J. (2005). Please understand when I cry out in pain: Women's accounts of maternity services during labour and delivery in Ghana. *BMC Public Health*, 5, 1–11. <https://doi.org/10.1186/1471-2458-5-140>
- Dalinjong, P. A., Wang, A. Y., & Homer, C. S. E. (2018). Has the free maternal health policy eliminated out of pocket payments for maternal health services? Views of women, health providers and insurance managers in Northern Ghana. *PLoS ONE*, 13(2), 1–19.

<https://doi.org/10.1371/journal.pone.0184830>

- Danso, K., Schwandt, H., Turpin, C., Seffah, J., Samba, A., & Hindin, M. (2009). Preference of Ghanaian women for vaginal or caesarean delivery postpartum. *Ghana Medical Journal*, *43*(1), 29–33. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/19652752> <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC2709173>
- De Allegri, M., Ridde, V., Louis, V. R., Sarker, M., Tiendrebéogo, J., Yé, M., ... Jahn, A. (2011). Determinants of utilisation of maternal care services after the reduction of user fees: a case study from rural Burkina Faso. *Health Policy*, *99*(3), 210–218.
- Donabedian, A. (1988). The quality of care. How can it be assessed? Comentario. *Jama*, *260*(12), 1743–8. <https://doi.org/10.1001/jama.260.12.1743>
- Dzomeku, M. V. (2011). Maternal satisfaction with care during labour : A case study of the Mampong-Ashanti district hospital maternity unit in Ghana. *International Journal of Nursing and Midwifery*, *3*(March), 30–34.
- Fawole, A. O., Okunlola, M. A., & Adekunle, A. O. (2008). Clients' perceptions of the quality of antenatal care. *Journal of the National Medical Association*, *100*(9), 1052–1058.
- Faye, A., Niane, M., & Ba, I. (2011). Home birth in women who have given birth at least once in a health facility: Contributory factors in a developing country. *Acta Obstetrica et Gynecologica Scandinavica*, *90*(11), 1239–1243. <https://doi.org/10.1111/j.1600-0412.2011.01163.x>
- Ferrer, M. B. C., Jordana, M. C., Meseguer, C. B., García, C. C., & Roche, M. E. M. (2016). Comparative study analysing women's childbirth satisfaction and obstetric outcomes across two different models of maternity care. *BMJ Open*, *6*(8), e011362.

- Findik, U. Y., Unsar, S., & Sut, N. (2010). Patient satisfaction with nursing care and its relationship with patient characteristics. *Nursing & Health Sciences, 12*(2), 162–169.
- Fisseha, G., Berhane, Y., Worku, A., & Terefe, W. (2017). Distance from health facility and mothers' perception of quality related to skilled delivery service utilization in northern Ethiopia. *International Journal of Women's Health, 9*, 749–756.  
<https://doi.org/10.2147/IJWH.S140366>
- Gfk NOP Social Research. (2006). *NOP Social Research Annual Tracking Survey, General Medical Council, London.*
- Ghana Health Nest. (2013). *What is the free maternal care policy?*
- Ghana Health Service (GHS). (2009). *The Health Sector in Ghana: Facts and Figures 2009.*
- Ghana Health Service (GHS). (2017). 2016 Annual Report, 61.  
<https://doi.org/10.1136/bjo.2010.193169>
- Ghana Statistical Service (GSS). (2008). *Ghana Demographic and Health Survey 2008: Ghana Statistical Service, Ghana Health Service, Ghana AIDS Commission. Ghana Statistical Service (GSS) Ghana Demographic and Health Survey.*  
<https://doi.org/10.15171/ijhpm.2016.42>
- Ghana Statistical Service (GSS), Ghana Health Service (GHS), & Macro International. (2009). *Ghana Maternal Health Survey 2007.* Calverton, Maryland, USA:GSS,GHS, and Macro International.
- Ghani, A., Mahmoud, R., & Berggren, V. (2011). Parturient needs during labor: Egyptian women's perspective toward childbirth experience, a step toward an excellence in clinical practice. *Journal of Basic and Applied Scientific Research, 1*(12), 2935–2943.
- Ghobashi, M., & Khandekar, R. (2008). Satisfaction among expectant mothers with antenatal

- care services in the Musandam Region of Oman. *Sultan Qaboos University Medical Journal*, 8(3), 325.
- Ghobashi, M., & Khandekar, R. (2008). Satisfaction among Expectant Mothers with Antenatal Care Services in the Musandam Region of Oman. *Sultan Qaboos University Medical Journal*, 8(3), 325–32 date accessed 28/06/2013. Retrieved from <http://www.pubmedcentral.nih.gov/articlerend>
- Gichangi, P. B., & Mwanda, W. O. (2018). Satisfaction with Delivery Services Offered under the Free Maternal Healthcare Policy in Kenyan Public Health Facilities. *Journal of Environmental and Public Health*, 2018. <https://doi.org/10.1155/2018/4902864>
- Giese, J. L., & Cote, J. A. (2000). Defining consumer satisfaction. *Academy of Marketing Science Review*, 2000, 1.
- Gill, L., & White, L. (2009). A critical review of patient satisfaction. *Leadership in Health Services*, 22(1), 8–19.
- Goodman, P., Mackey, M. C., & Tavakoli, A. S. (2004). Factors related to childbirth satisfaction. *Journal of Advanced Nursing*, (46(2)), 212–219.
- Goodman, P., Mackey, M. C., & Tavakoli, A. S. (2004). Factors related to childbirth satisfaction. *Journal of Advanced Nursing*, 46(2), 212–219.
- Grossbart, S. R., & Agrawal, J. (2001). Conceptualization and Definitions of Quality. *Health Care Quality: The Clinician's Primer*, 9–24.
- Gungor, I., & Beji, N. K. (2012). Development and psychometric testing of the scales for measuring maternal satisfaction in normal and caesarean birth. *Midwifery*, 28(3), 348–357. <https://doi.org/10.1016/j.midw.2011.03.009>
- Hamilton, D. F., Lane, J. V, Gaston, P., Patton, J. T., Macdonald, D., Simpson, A. H. R. W., &

- Howie, C. R. (2013). What determines patient satisfaction with surgery ? A prospective cohort study of 4709 patients following total joint replacement. *BMC Open*, 1–8.  
<https://doi.org/10.1136/bmjopen-2012-002525>
- Hasan, A. (2007). *Patient Satisfaction With Maternal and Child*.
- Heidari, R., Borna, S., Haghollahi, F., Shariat, M., & Duaii, S. (2008). Satisfaction with the prenatal clinics in Zanjan, Iran. *Journal of Family and Reproductive Health*, 2(1), 41–47.
- Hekkert, K. D., Cihangir, S., Kleefstra, S. M., van den Berg, B., & Kool, R. B. (2009). Patient satisfaction revisited: a multilevel approach. *Social Science & Medicine*, 69(1), 68–75.
- HERA & HEALTH PARTNERS. (2012). *Evaluation of the Free Maternal Health Care Initiative in Ghana* (Vol. 1). Accra, Ghana & Reet, Belgium.
- Hibbard, J. H., Stockard, J., & Tusler, M. (2005). Hospital performance reports: Impact on quality, market share, and reputation. *Health Affairs*, 24(4), 1150–1160.  
<https://doi.org/10.1377/hlthaff.24.4.1150>
- Hollins Martin, C., & Fleming, V. (2011). The birth satisfaction scale. *International Journal of Health Care Quality Assurance*, 24(2), 124–135.  
<https://doi.org/10.1108/09526861111105086>
- Holmer, H., Oyerinde, K., Meara, J. G., Gillies, R., Liljestrand, J., & Hagander, L. (2015). The global met need for emergency obstetric care: A systematic review. *BJOG: An International Journal of Obstetrics and Gynaecology*, 122(2), 183–189. <https://doi.org/10.1111/1471-0528.13230>
- Hunt, H. K. (1977). *Conceptualization and measurement of consumer satisfaction and dissatisfaction*. Marketing Science Institute.
- Jallow, I. K., Chou, Y., Liu, T., & Huang, N. (2012). Women ' s perception of antenatal care

- services in public and private clinics in the Gambia. *International Journal for Quality in Health Care*, 24(6), 595–600.
- Jha, P., Larsson, M., Christensson, K., Skoog, A., & Larsson, M. (2017). Satisfaction with childbirth services provided in public health facilities : results from a cross- sectional survey among postnatal women in. *Global Health Action*, 10(1).  
<https://doi.org/10.1080/16549716.2017.1386932>
- Jlala, H. A., Caljouw, M. A., Bedford, N. M., & Hardman, J. G. (2010). Patient satisfaction with perioperative care among patients having orthopedic surgery in a university hospital. *Local and Regional Anesthesia*, 3, 49.
- Johnson, F. A., Frempong-Ainguah, F., & Padmadas, S. S. (2016). Two decades of maternity care fee exemption policies in Ghana: Have they benefited the poor? *Health Policy and Planning*, 31(1), 46–55. <https://doi.org/10.1093/heapol/czv017>
- Kabakian-Khasholian, T., Campbell, O., Shediak-Rizkallah, M., & Ghorayeb, F. (2000). Women’s experiences of maternity care: satisfaction or passivity? *Social Science & Medicine*, 51(1), 103–113.
- Kamau, K. J., Osuga, B. O., & Njuguna, S. (2017). Challenges Facing Implementation Of Referral System For Quality Health Care Services In Kiambu County, Kenya. *Health Systems and Policy Research*, 4(1), 1–8. <https://doi.org/10.21767/2254-9137.100067>
- Karlström, A., Nystedt, A., & Hildingsson, I. (2011). A comparative study of the experience of childbirth between women who preferred and had a caesarean section and women who preferred and had a vaginal birth. *Sexual and Reproductive Healthcare*, 2(3), 93–99.  
<https://doi.org/10.1016/j.srhc.2011.03.002>
- Kasomo, D. (2006). Research methods in humanities and education. *Egerton: Egerton*

University.

- Khatri, R. B., Dangi, T. P., Gautam, R., Shrestha, K. N., & Homer, C. S. E. (2017). Barriers to utilization of childbirth services of a rural birthing center in Nepal: A qualitative study. *PloS One*, *12*(5), e0177602.
- Kupfer, J. M., & Bond, E. U. (2012). Patient satisfaction and patient-centered care: necessary but not equal. *Jama*, *308*(2), 139–140.
- Leap, N., Sandall, J., Buckland, S., & Huber, U. (2010). Journey to confidence: women's experiences of pain in labour and relational continuity of care. *Journal of Midwifery & Women's Health*, *55*(3), 234–242.
- Liabsuetrakul, T., Petmanee, P., Sunittha, S., & Nurllesa, O. (2012). Health system responsiveness for delivery care in Southern Thailand. *International Journal for Quality in Health Care*, *24*(2), 169–175.
- Mano, H., & Oliver, R. L. (1993). Assessing the dimensionality and structure of the consumption experience: evaluation, feeling, and satisfaction. *Journal of Consumer Research*, *20*(3), 451–466.
- Mariam, D. H. (2001). Reasons for referrals and time spent from referring sites to arrival at Tikur Anbessa Hospital in emergency obstetric: A prospective study. *Ethiop. J. Health Dev.* *2001;15*(3):153-163, (2), 1–15.
- Matejić, B., Milićević, M. Š., Vasić, V., & Djikanović, B. (2014). Maternal satisfaction with organized perinatal care in Serbian public hospitals. *BMC Pregnancy and Childbirth*, *14*(1), 14. <https://doi.org/10.1186/1471-2393-14-14>
- McCollough, M. A. (2000). The effect of perceived justice and attributions regarding service failure and recovery on post-recovery customer satisfaction and service quality attitudes.

*Journal of Hospitality & Tourism Research*, 24(4), 423–447.

- Mekonnen, M. E., Yalew, W. A., & Anteneh, Z. A. (2015). Women ' s satisfaction with childbirth care in Felege Hiwot Referral Hospital , Bahir Dar city , Northwest Ethiopia , 2014 : cross sectional study. *BMC Research Notes*, 1–7. <https://doi.org/10.1186/s13104-015-1494-0>
- Meleis, A. I. (2010). *Transitions theory: Middle range and situation specific theories in nursing research and practice*. Springer publishing company.
- Melese, T., Gebrehiwot, Y., Bisetegna, D., & Habte, D. (2014a). Assessment of client satisfaction in labor and delivery services at a maternity referral hospital in Ethiopia. *Pan African Medical Journal*, 17, 2–9. <https://doi.org/10.11604/pamj.2014.17.76.3189>
- Melese, T., Gebrehiwot, Y., Bisetegna, D., & Habte, D. (2014b). Assessment of client satisfaction in labor and delivery services at a maternity referral hospital in Ethiopia. *Pan African Medical Journal*, 17, 1–9. <https://doi.org/10.11604/pamj.2014.17.76.3189>
- Mill, R. C. (1990). Strategic Implications For Management. *International Business & Economics Research Journal*, 1(6), 7–18. <https://doi.org/10.19030/iber.v1i6.3942>
- Ministry of Health. (2008). *Joint Ministry of Health - Partners Business Meeting*. Accra, Ghana.
- Ministry of Health. (2008). *National Consultative Meeting on the Reduction of Maternal Mortality in Ghana : Partnership for Action*. Ghana.
- Mishra, P. H., & Mishra, T. (2014). Study of Patient Satisfaction at a Super Specialty Tertiary Care Hospital. *Indian Journal of Clinical Practice*.
- Mitchell, P. H., Ferketich, S., & Jennings, B. M. (1998). Quality health outcomes model. *Journal of Nursing Scholarship*, 30(1), 43–46.
- Moawed, S. A. A., Gemeay, E. M., & Alshami, N. (2009). Identification of factors associated

- with maternal satisfaction with primary health care center in Riyadh City. *Tanta Med J*, 37, 1–15.
- Mohammad, K. I., Gamble, J., & Creedy, D. K. (2011). Prevalence and factors associated with the development of antenatal and postnatal depression among Jordanian women. *Midwifery*, 27(6), e238–e245.
- Mohan, D. R., & Kumar, K. S. (2011). A study on the satisfaction of patients with reference to hospital services. *Int J Bus Econ Manag Res*, 1(3), 15–25.
- Moyer, C. a, Dako-Gyeke, P., & Adanu, R. M. (2013). Facility-based delivery and maternal and early neonatal mortality in sub-Saharan Africa: a regional review of the literature. *African Journal of Reproductive Health*, 17(3), 30–43. <https://doi.org/10.2307/23485710>
- NHIA. (2010). *National Health Insurance Scheme, Annual Report 2010* (Vol. 209). <https://doi.org/10.1093/infdis/jit782>
- Nilsson, C., Lundgren, I., Karlström, A., Hildingsson, I., Karlström, A., & Hildingsson, I. (2012). Self reported fear of childbirth and its association with women's birth experience and mode of delivery: A longitudinal population-based study. *Women and Birth*, 25(3), 114–121. <https://doi.org/10.1016/j.wombi.2011.06.001>
- Nkyekyer, K. (2000). Peripartum referrals to Korle Bu teaching hospital, Ghana - A descriptive study. *Tropical Medicine and International Health*, 5(11), 811–817. <https://doi.org/10.1046/j.1365-3156.2000.00640.x>
- Oh, H., & Parks, S. C. (1997). Customer satisfaction and service quality: a critical review of the literature and research implications for the hospitality industry. *Hospitality Research Journal*, 20, 35–64.
- Okiwelu, T., Hussein, J., Adjei, S., Arhinful, D., & Armar-Klemesu, M. (2007). Safe

motherhood in Ghana: Still on the agenda? *Health Policy*, 84(2–3), 359–367.

<https://doi.org/10.1016/j.healthpol.2007.05.012>

Okonofua, F., Ogu, R., Agholor, K., Okike, O., Abdus-salam, R., Gana, M., ... Galadanci, H. (2017). Qualitative assessment of women's satisfaction with maternal health care in referral hospitals in Nigeria. *Reproductive Health*, 14(1), 44. <https://doi.org/10.1186/s12978-017-0305-6>

Okumu, C., & Oyugi, B. (2018). Clients' satisfaction with quality of childbirth services: A comparative study between public and private facilities in Limuru Sub-County, Kiambu, Kenya. *PloS One*, 13(3), e0193593.

Oladapo, O. T., & Osiberu, M. O. (2009). Do sociodemographic characteristics of pregnant women determine their perception of antenatal care quality? *Maternal and Child Health Journal*, 13(4), 505–511.

Oliver, R. L. (1981). Measurement and evaluation of satisfaction processes in retail settings. *Journal of Retailing*.

Oliver, R. L. (1993). A Conceptual Model of Service Quality and Service Satisfaction: Comparative Goals, Different Concepts. *Advances in Service Marketing and Management*, 2, 65–85.

Oliver, R. L. (2009). A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(4), 460–469.

Oliver, R. L., & Rust, R. T. (1994). Service quality: Insights and managerial implication from the frontier. *Journal of Service Quality*, 15(4), 32–43.

Onah HE, Ikeako LC, I. G. (2006). Factors associated with the use of maternity services in Enugu, southeastern Nigeria. *Soc Sci Med*, 7.

<https://doi.org/http://doi.org/10.1016/j.socscimed>

Osei, I., Garshong, B., Banahene, G. O., Gyapong, J., Killian, R., Bonku, E., ... Sampson, W.

(2005). IMPROVING THE GHANAIAN SAFE MOTHERHOOD PROGRAMME :

Evaluating the effectiveness of alternative training models and other performance

improvement factors on the quality of maternal care and client outcomes, (Health Research

Unit, Ghana Health Services-Accra, Ghana.).

Overgaard, C., Fenger-Grøn, M., & Sandall, J. (2012). The impact of birthplace on women's

birth experiences and perceptions of care. *Social Science and Medicine*, 74(7), 973–981.

<https://doi.org/10.1016/j.socscimed.2011.12.023>

Pal, R., Das, P., Basu, M., Tikadar, T., Biswas, G. C., Mridha, P., & Pal, R. (2010). Client

satisfaction on maternal and child health services in rural Bengal. *Indian Journal of*

*Community Medicine*, 35(4), 478. <https://doi.org/10.4103/0970-0218.74344>

Pancieria, R., Khan, A., Rizvi, S. J. R., Ahmed, S., Ahmed, T., Islam, R., & Adam, A. M. (2016).

The influence of travel time on emergency obstetric care seeking behavior in the urban poor of Bangladesh: A GIS study. *BMC Pregnancy and Childbirth*, 16(1), 1–13.

<https://doi.org/10.1186/s12884-016-1032-7>

Pascoe, G. C. (1983). Patient satisfaction in primary health care: a literature review and analysis.

*Evaluation and Program Planning*, 6(3–4), 185–210.

Pavlos I. Sachsanidis. (2018). Evaluating Women's Satisfaction With Health Services Received

During Childbirth: A Study of Hospitals in Athens, Greece. *Journal of Clinical Gynecology and Obstetrics*, 7(1), 1–12.

<https://doi.org/http://www.jcgo.org/index.php/jcgo/article/view/475/317>

Peprah, A. A. (2014). Determinants of patients' satisfaction at Sunyani regional hospital, Ghana.

*International Journal of Business and Social Research*, 4(1), 96–108.

Perdue, R. R., Immermans, H. J. P., & Uysal, M. (2004). *Consumer psychology of tourism, hospitality and leisure* (Vol. 3). CABI.

Pollit, D. F., & Beck, C. T. (2005). *Nursing research: Principles and methods*, Philadelphia. Lippincott.

Quintana, J. M., González, N., Bilbao, A., Aizpuru, F., Escobar, A., Esteban, C., ... Thompson, A. (2006). Predictors of patient satisfaction with hospital health care. *BMC Health Services Research*, 6(1), 102.

Qureshi, M. O., Shafqat, F., Ahmed, S., Niazi, T. K., & Khokhar, N. (2013). Factors affecting patient satisfaction during endoscopic procedures. *Gastrointestinal Endoscopy*, 6, 7.

Region, O., Amdemichael, R., Tafa, M., & Fekadu, H. (2014). Gynecology & Obstetrics Maternal Satisfaction with the Delivery Services in Assela Hospital , Arsi, 4(12). <https://doi.org/10.4172/2161-0932.100025>

Riiskjær, E., Ammentorp, J., Nielsen, J. F., & Kofoed, P. E. (2010). Patient surveys-A key to organizational change? *Patient Education and Counseling*, 78(3), 394–401. <https://doi.org/10.1016/j.pec.2009.08.017>

Rijnders, M., Baston, H., Schönbeck, Y., Van Der Pal, K., Prins, M., Green, J., & Buitendijk, S. (2008). Perinatal factors related to negative or positive recall of birth experience in women 3 years postpartum in the Netherlands. *Birth*, 35(2), 107–116.

Saila, T., Mattila, E., Kaila, M., Aalto, P., & Kaunonen, M. (2008). Measuring patient assessments of the quality of outpatient care: a systematic review. *J.Eval.Clin.Pract.*, 14(1), 148–154. <https://doi.org/JEP824> [pii];10.1111/j.1365-2753.2007.00824.x [doi]

Sajid, M. S., & Baig, M. K. (2007). Quality of health care: an absolute necessity for public

- satisfaction. *International Journal of Health Care Quality Assurance*, 20(6), 545–548.
- Sakkak, M.A., Nowaiser, N.A, Khashan, H.I, Abdrabulnabi, A. A., & Jaber, R. . (2008). Patient satisfaction with primary health care services in Riyadh. *Saudi Medical Journal*, (29(3)), 29(3), 432-6.
- Sawyer, A., Ayers, S., Abbott, J., Gyte, G., Rabe, H., & Duley, L. (2013). Measures of satisfaction with care during labour and birth: a comparative review. *BMC Pregnancy and Childbirth*, 13(1), 108. <https://doi.org/10.1186/1471-2393-13-108>
- Senić, V., & Marinković, V. (2013). Patient care, satisfaction and service quality in health care. *International Journal of Consumer Studies*, 37(3), 312–319.
- Shiferaw, S., Spigt, M., Godefrooij, M., Melkamu, Y., & Tekie, M. (2013). Why do women prefer home births in Ethiopia? *BMC Pregnancy and Childbirth*, 13(1), 5.
- Siassakos, D., Clark, J., Sibanda, T., Attilakos, G., Jefferys, A., Cullen, L., ... Draycott, T. (2009). A simple tool to measure patient perceptions of operative birth. *BJOG: An International Journal of Obstetrics & Gynaecology*, 116(13), 1755–1761.
- Sika Avortri, G., Beke, A., & Abekah- Nkrumah, G. (2011). Predictors of satisfaction with child birth services in public hospitals in Ghana. *International Journal of Health Care Quality Assurance*, 24(3), 223–237. <https://doi.org/10.1108/09526861111116660>
- Singh, N., Pandey, K., Gupta, R., Agarwal, S., Chaudhary, A., & Ani, A. (2014). Obstetric hysterectomy, still a life saving tool in modern day obstetrics: a five year study. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 3(3), 540. <https://doi.org/10.5455/2320-1770.ijrcog20140915>
- Sixma, H. J., Spreeuwenberg, P. M. M., & van der Pasch, M. A. A. (1998). Patient satisfaction with the general practitioner: a two-level analysis. *Medical Care*, 36(2), 212–229.

- Soma-Pillay, P., Macdonald, A. P., Mathivha, T. M., Bakker, J. L., & Mackintosh, M. O. (2008). Cardiac disease in pregnancy: A 4-year audit at Pretoria Academic Hospital. *South African Medical Journal*, *98*(7), 553–556.
- South Australian government. (2007). *Maternity Services in South Australian Public Hospitals: Patient Satisfaction Survey Report*. Retrieved from [https://health.adelaide.edu.au/pros/docs/reports/general/maternal\\_child\\_health\\_pehs\\_maternity\\_report.pdf](https://health.adelaide.edu.au/pros/docs/reports/general/maternal_child_health_pehs_maternity_report.pdf)
- Srivastava, A., Avan, B. I., Rajbangshi, P., & Bhattacharyya, S. (2015). Determinants of women's satisfaction with maternal health care: a review of literature from developing countries. *BMC Pregnancy and Childbirth*, *15*(1), 97. <https://doi.org/10.1186/s12884-015-0525-0>
- Stevens, N. R., Wallston, K. A., & Hamilton, N. A. (2012). Perceived control and maternal satisfaction with childbirth: a measure development study. *Journal of Psychosomatic Obstetrics & Gynecology*, *33*(1), 15–24.
- Tayelgn, A., Zegeye, D. T., & Kebede, Y. (2011). Mothers' satisfaction with referral hospital delivery service in Amhara Region, Ethiopia. *BMC Pregnancy and Childbirth*, *11*(1), 78. <https://doi.org/10.1186/1471-2393-11-78>
- Tetui, M., Ekirapa, E., Bua, J., Mutebi, A., Tweheyo, R., & Waiswa, P. (2012). Quality of Antenatal care services in eastern Uganda: implications for interventions. *The Pan African Medical Journal*, *13*, 1–15. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3527020/> <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3527020/pdf/PAMJ-13-27.pdf> <http://www.panafrican-med->

[journal.com/content/article/13/27/full/](http://journal.com/content/article/13/27/full/)

- Titaley CR, Hunter CL, Dibley MJ, H. P. (2010). Why do some women still prefer traditional birth attendants and home delivery?: a qualitative study on delivery care services in west java province, Indonesia. *BMC Pregnancy Childbirth.*, 11(1), 43.  
<https://doi.org/http://doi.org/10.1186/1471-2393-10-43>.
- Tse, D. K., & Wilton, P. C. (1988). Models of consumer satisfaction formation: An extension. *Journal of Marketing Research*, 204–212.
- Turkson, P. K. (2009). Perceived quality of healthcare delivery in a rural district of Ghana. *Ghana Medical Journal*, 43(2), 65–70. <https://doi.org/10.4314/gmj.v43i2.55315>
- Vahdat, S., Hamzehgardeshi, L., Hessam, S., & Hamzehgardeshi, Z. (2014). Patient Involvement in Health Care Decision Making: A Review. *Iranian Red Crescent Medical Journal*, 16(1), 1–7. <https://doi.org/10.5812/ircmj.12454>
- Waldenström, U., Rudman, A., & Hildingsson, I. (2006). Intrapartum and postpartum care in Sweden: women's opinions and risk factors for not being satisfied. *Acta Obstetrica et Gynecologica Scandinavica*, 85(5), 551–560.
- Westbrook, R. A. (1987). Product/consumption-based affective responses and postpurchase processes. *Journal of Marketing Research*, 258–270.
- WHO. (2008). *A framework for measuring responsiveness. GPE Discussion Paper series: No. 32*. Geneva.
- WHO, UNFPA, & UNICEF. (2009). AMDD: Monitoring emergency obstetric care: a handbook. *Geneva: WHO*, 152(4), 430. <https://doi.org/10.3109/01443611003791730>
- WHO, & UNICEF. (2012). Trends in maternal mortality: 1990 to 2010: WHO, UNICEF, UNFPA and The World Bank estimates.

- WHO, UNICEF, UNFPA, World Bank Group, & United Nations Population Division. (2015). *Maternal mortality in 1990-2015: Maternal Mortality Estimation Inter-Agency Group*. Accra, Ghana.
- Williams, B. (1994). Patient satisfaction: A valid concept? *Social Science and Medicine*, 38(4), 509–516. [https://doi.org/10.1016/0277-9536\(94\)90247-X](https://doi.org/10.1016/0277-9536(94)90247-X)
- Witter, S., & Adjei, S. (2007). Start- stop funding, its causes and consequences: a case study of the delivery exemptions policy in Ghana. *The International Journal of Health Planning and Management*, 22(2), 133–143.
- World Health Organisation(WHO). (1996). *Care in Normal Birth: a practical guide. J Chem Inf Model*.53:1689–1699.
- World Health Organisation(WHO), WHO, & UNICEF. (2012). Trends in maternal mortality: 1990 to 2010: WHO, UNICEF, UNFPA and The World Bank estimates.
- World Health Organization. (2000). *The world health report 2000, health systems: improving performance*. (Vol. 78). Geneva. <https://doi.org/10.1146/annurev.ecolsys.35.021103.105711>
- World Health Organization. (2004). Making pregnancy safer: the critical role of the skilled attendant. A joint statement by WHO, ICM and FIGO. *Geneva, Switzerland: WHO*, 1–18. <https://doi.org/http://whqlibdoc.who.int/publications/2004/9241591692.pdf>
- Yi, Y. (1990). Cognitive and affective priming effects of the context for print advertisements. *Journal of Advertising*, 19(2), 40–48.
- Yidana, A., & Issahaku, M. (2014). Contextualising Women Decision Making during Delivery : Socio-Cultural Determinant of Choice of Delivery Sites in. *Public Health Research*, 4(3), 92–97. <https://doi.org/10.5923/j.phr.20140403.03>
- Zasloff, E., Schytt, E., & Waldenström, U. (2007). First time mothers' pregnancy and birth

experiences varying by age. *Acta Obstetricia et Gynecologica Scandinavica*, 86(11), 1328–1336.

## APPENDICES

### Appendix 1: Questionnaire women's satisfaction with child birth services

#### UNIVERSITY OF GHANA

#### DEPARTMENT OF PUBLIC ADMINISTRATION AND HEALTH SERVICES MANAGEMENT

#### SURVEY QUESTIONNAIRE FOR DELIVERED MOTHERS

My name is Ndeogo A. Abdallah, a postgraduate student (Pursuing MPhil in Health Services Management) from the University of Ghana Business School (UGBS) who is researching on the topic *“Factors influencing women's satisfaction with childbirth services in the Tamale metropolis of the northern region of Ghana”*. I wish to assure you that this is an academic study and all information obtained will strictly be used for academic purposes.

You are also assured of absolute anonymity and confidentiality. There is no right or wrong answer.

*Tick to indicate response*

#### SECTION: A. DEMOGRAPHIC CHARACTERISTICS

1. Age in years.....
2. Marital status: 1. Single [ ] 2. Married [ ] 3. Widowed [ ] 4. Divorced [ ]
3. Education level: 1. No education [ ] 2. Primary [ ] 3. Secondary [ ] 4. Vocational [ ] 5. Technical [ ] 6. Tertiary [ ] 7. Professional [ ]
4. Occupation: 1. Trader [ ] 2. Farmer [ ] 3. House wife 4. Student [ ] 5. Others, specify.....
5. Average monthly income: 1.100- 300 [ ] 2. 400-600 [ ] 3. 700-900 [ ] 4. 1,000- Above [ ]
6. Residence: 1. Urban [ ] 2. Rural [ ]
7. Parity: 1. Primi-para [ ] 2. Multi-para [ ]
8. Wanted status of Pregnancy: 1. Wanted [ ] 2. Unwanted [ ]
9. Mode of delivery: 1. Spontaneous virginal delivery [ ] 2. Caesarean section [ ]
10. Delivery outcome 1. Normal [ ] 2. With Complications [ ]

#### SECTION: B. QUESTIONS ON DELIVERED MOTHERS SATISFACTION

##### I. HEALTH FACILITY RELATED

11. Satisfaction with distance travelled to health facility: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

12. Satisfaction with information of service at the hospital: 1 Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

13. Referred from a health institution: 1. Yes [ ] 2. No [ ].....If NO skip

14. Satisfaction with referral link 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

15. Cost of child birth services: 1. High [ ] 2. Low [ ]

16. Satisfaction with cost of child birth services: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

17. Availability of prescribed drugs 1. Yes [ ] 2. No [ ]

18. Satisfaction with availability of prescribed drugs: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

19. Presence of waiting area for clients and their relatives: 1. Yes [ ] 2. No [ ]

20. Satisfaction of cleanliness of waiting area: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

## **II CARE PROVIDER RELATED:**

21. Waiting time to see a doctor or midwife/nurse: 1. Long [ ] 2. Short [ ]

22. Satisfaction with waiting time to see a doctor or midwife/nurse: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

23. Satisfaction with courtesy and respect during service encounter: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

24 Satisfaction with the way of examination: 1. Very dissatisfied [ ] 2. Satisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

25. Delivery attendant professional: 1. Doctor [ ] 2. Midwife [ ]

26. Delivery attendant professional gender: 1. Male [ ] 2. Female [ ]

27. Satisfaction with the professional gender: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

28. Measures taken to assure privacy thus attending to women in separate rooms or under screened areas: 1 Yes [ ] 2. No [ ]

29. Satisfaction with measures taken to assure privacy: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]
30. Satisfaction with completeness of information: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]
31. Satisfaction with assurance of confidentiality: 1. Very Dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]
32. Satisfaction with pain control: Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]
33. Satisfaction with general hospital cleanliness: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]
34. Satisfaction with overall child birth services received: 1. Very dissatisfied [ ] 2. Dissatisfied [ ] 3. Somewhat satisfied [ ] 4. Satisfied [ ] 5. Very satisfied [ ]

Thank you for your time.

## Appendix 2: Ethical clearance from ECH-ISSER



# UNIVERSITY OF GHANA

## ETHICS COMMITTEE FOR THE HUMANITIES (ECH)

P. O. Box LG 74, Legon, Accra, Ghana

21<sup>st</sup> February, 2018

My Ref. No.....

Mr. Ndeogo A. Abdallah  
Department of Public Administration and Health Services Management  
University of Ghana  
Legon

Dear Mr. Abdallah,

### **ECH 088/17-18: FACTORS INFLUENCING WOMEN'S SATISFACTION WITH CHILDBIRTH SERVICES IN THE NORTHERN REGION OF GHANA**

This is to advise you that the above reference study has been presented to the Ethics Committee for the Humanities for a full board review and the following actions taken subject to the conditions and explanation provided below:

Expiry Date: 20/08/18  
On Agenda for: Initial Submission  
Date of Submission: 15/01/18  
ECH Action: Approved  
Reporting: Quarterly



Please accept my congratulations.

Yours Sincerely,

Rev. Prof. J. O. Y. Mante  
ECH Chair

CC: Prof. Justice N. Bawole, Department of Public Administration and Health Services Management, University of Ghana.

### Appendix 3: Permission from northern region health directorate

## GHANA HEALTH SERVICE

**OUR CORE VALUES:**

1. People-Centered
2. Professionalism
3. Team work
4. Innovation
5. Discipline
6. Integrity

My Ref No: GHS/NR/

Your Ref No: .....



Regional Health Directorate  
Ghana Health Service  
P.O. BOX 99  
Tamale

Friday, 16 February 2018

Tel: (233) (03720) 22912, 22710, 22146

Fax: (233) (03720) 22941

Email: rdhs.nr@ghsmai.org

### PERMISSION TO COLLECT DATA FOR RESEARCH PURPOSE

I would be very grateful if Mr.Ndeogo A.Abdallah, an MPhil student of the University of Ghana reading Health Services Management is granted permission to collect data from your facility to address his research topic "*Factors influencing women's satisfaction with childbirth services in the Northern Region of Ghana*"

The data so collected will be treated as confidential and it is only for research purpose.

Thank you.

Dr.Braimah Baba Abubakari  
Dep.Director – Clinical Care  
For: Reg.Director of Health Services  
Northern Region

### Distribution

The Medical Director

- ✓ Tamale Central Hospital
- ✓ Tamale West Hospital

## Appendix 4: Permission from Tamale Teaching hospital



### Department of Research & Development Tamale Teaching Hospital

TTH/R&D/SR/22  
15/02/2018

TO WHOM IT MAY CONCERN

#### CERTIFICATE OF AUTHORIZATION TO CONDUCT RESEARCH IN TAMALE TEACHING HOSPITAL

I hereby introduce to you **Mr. Ndeogo A. Abdallah**, an MPhil in Health Service Management student from the University Of Ghana Business School, Legon. He has been duly authorized to conduct a study on **"Factors influencing women's satisfaction with childbirth services in the Northern Region of Ghana"**.

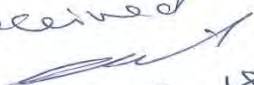
Please accord him the necessary assistance to enable him complete his study. If in doubt, kindly contact the Research Unit on the second floor of the administration block or on Telephone 0209281020. In addition, kindly report any misconduct of the Researcher to the Research Unit for necessary action.

Please note that this approval is given for a period of six months, beginning from 15<sup>th</sup> of February, 2018 to 15<sup>th</sup> of July, 2018.

Thank You.

  
**ALHASSAN MOHAMMED SHAMUDEEN**  
(HEAD, RESEARCH & DEVELOPMENT)

*Pls kindly assist him.*

*Received*  
  
*20-02-18*

**Appendix 5: Rotated component matrix for PCA with Varimax rotation of three-factor solution of the 13 SCBS items**

Satisfaction Variables	Factors		
	Access to Care	Privacy and Confidentiality	Responsive care
Satisfaction with referral link	0.848		
Satisfaction with distance to health facility	0.725		
Satisfaction with waiting time to see doctor or midwife/nurse	0.502		
M (SD)	<b>0.692(0.175)</b>		
Satisfaction with the gender of the attendant		0.617	
Satisfaction with measures taken to assure privacy		0.697	
Satisfaction with the completeness of information		0.482	
Satisfaction with the assurance of confidentiality		0.735	
Satisfaction with pain control		0.477	
M (SD)		<b>0.602 (0.119)</b>	
Satisfaction with information of service			0.625
Satisfaction with hospital cleanliness			0.681
Satisfaction with the availability of prescribed drugs			0.664
Satisfaction with the cleanliness of waiting area for clients/relatives			0.760
Satisfaction with way of examination			0.692
M (SD)			<b>0.684(0.05)</b>

**Source: Field survey, 2018. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Variance Explained for the Three Factors: 49.53%**

## Appendix 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.811
Bartlett's Test of Sphericity	Approx. Chi-Square	398.402
	df	105
	Sig.	0.001

**Appendix 7: Comparing Eigen Values from Monte Carlo PCA and Actual Eigen Values**

<b>Factor Number</b>	<b>Actual Eigen values from PCA</b>	<b>Criterion value from parallel analysis</b>	<b>Decision</b>
1	4.171	1.354	Accept
2	1.546	1.270	Accept
3	1.297	1.211	Accept
4	1.058	1.158	Reject