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COLLEGE OF HEALTH SCIENCES

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Perception of mothers and providers on the quality of care in maternal and newborn service in selected hospitals of Addis Ababa.

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A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY THE SCHOOL OF PUBLIC HEALTH, COLLEGE OF HEATLH SCIENCES, FOR PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR MASTER DEGREE OF PUBLIC HEALTH.

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Advisor's Approval Sheet

This is to certify that the thesis entitled "Perception of mothers and providers on the quality of care in maternal and newborn service in selected hospitals of Addis Ababa"is submitted in partial fulfillment of the requirements for the degree of MPH with specialization in "Reproductive health" to the Graduate Program of the School of Public Health at Addis Ababa University and has been carried out by **Samrawit Sileshi Awoke**under my supervision. The student has fulfilled the thesis requirements and hence hereby can submit the thesis to the school.

Name of advisors; Dr .Mulgeta Betre Geberemariam

Date: ----------

Signature: ----------

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Examiners' Approval Sheet

We, the undersigned, members of the Board of Examiners of the final open defense by **Samrawit Sileshi Awoke** have read and evaluate his thesis entitled "Perception of mothers and providers on the quality of care in maternal and newborn service in selected hospitals of Addis Ababa". This is to certify that the thesis has been accepted in partial fulfillment of the requirements for the MPH Degree in "Reproductive Health"

Name of internal examiner----------date----------signature----------

Name of external examiner----------date----------signature----------

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Abbreviations and acronyms

AIDS	Acquired Immune Deficiency Syndrome.
AOR	Adjusted Odds Ratio
BEmONC	Basic Emergency Obstetric and Newborn Care.
C/I	Confidence Interval.
CEmONC	Comprehensive Emergency Obstetrics and Newborn Care.
COR	Crude Odds Ratio
DHS	Demographic Health Survey
E.G	Example
ETB	Ethiopian Birr
FGD	Focus Group Discussion
HIV	Human Immune Deficiency Viruses
HSTP	Health Sector Transformation Plan
IRB	Institution of Review Board
NBC	Newborn Corner
NICU	Neonatal Intensive Care Unit
OR	Odds Ratio
QOC	Quality of Care
WHO	World Health Organization

Abstract

Introduction

One of the most important ways to address some of the key factor associated with both maternal and neonatal mortality is assuring emergency obstetric and neonatal care with maximum quality of care at the time of labour, delivery and immediate after birth. However, improved quality outcomes are not delivered by health service providers alone communities and service users are the co-producers of health. Therefore, mothers have critical roles and responsibilities in identifying their own needs and preferences.

Objectives: - To assess mothers‟ and provider‟s perception on the quality of maternal and newborn care and associated factors during the time of labour, delivery and immediately after birth in the selected hospitals of Addis Ababa.

Methodology: - Institution based cross sectional quantitative and qualitative study design was conducted. For quantitative part of the study, multistage stratified sampling technique was used to reach sample size of 633. Pretested structured questioner was used as the main tools for data collection from March to April 2016. Data coding and checking were done by using EpI Info version 7 and imported to STATA 12 for cleaning and analysis. To determine factors associated with perceived quality bivariate and multivariate logistic regression were applied at 95% CI and p value<0.05. For qualitative study focused group discussion was chosen as a tool for data collection the participant were purposely selected from the study hospitals four FGD were conducted (two from private, two from government hospitals). Finally, thematic analysis was used to generate themes.

Result

Five hundred seventy-six delivering mothers were included with 90.9% response rate. One hundred sixty four (28.4%) of the mothers get delivery service in private hospital and four hundred twelve 412(71.52%) in government hospital. 59.38% of the mothers were delivered by caesarian section while the rest (40.63%) were delivered vaginaly and assisted delivery. Only 8.33% of the mothers outcome were with complication and 2.78% of the newborns outcome were death (stillbirth and early neonatal death). About 259(51.22%) of the mothers score the overall quality above the mean score of 83.3 with SD±10.4. Perceived satisfaction score of the mothers were 46.01%. Health provider‟s respect, comfortable labour and delivery room, active labour follow up and confidence and competency of health providers were predictors for mothers‟ perceived high quality in the process of care($p<0.05$). Adequacy of health providers, adequacy of room and bed, availability of drugs and lab investigations in the health facility were a major structural predictors for mother‟s perceived quality($p<0.05$). Mothers and newborn health out came were not significantly associated with mother‟s perceived quality. However, satisfaction of mothers with labour and delivery service was a strong predictor for mothers perceived quality ($p<0.05$).

Conclusion

This study shows that the overall mothers perceived quality of care at labour, delivery and immediately after delivery was satisfactory but still need improvement. All the three components of quality of care have an effect on perceived quality of care at labour delivery and immediately after birth therefore need special attention. The current quality of care is still behind the desired health care practice and outcome.

I:-Introduction

1.1:-Background

Maternal and newborn care is the care given for mothers during pregnancy, labour delivery and post-partum period, and care given immediately after birth for all new born. Globally, each year 289 000 women die due to complications in pregnancy and childbirth and 6.6 million under 5 years children die of complications during child birth and of common childhood illness (1).

Ethiopia is also among the six countries sharing the world huge burden of maternal mortality of 420 per 100,000. Despite the progress in child and maternal health over the past decade nearly 250,000 children, 64/1000 live birth in Ethiopia are dying before reaching their fifth birth day, about 41% all the under-five deaths are newborns(2). The majority of newborn deaths occur due to conditions related to prematurity and neonatal asphyxia, which contribute to nearly 60% of total newborn deaths. Another 12% of newborn deaths are caused by neonatal sepsis, and pneumonia and tetanus account for about 8% and 7%, respectively (3).
The vast majority of maternal and newborn deaths are preventable through provision of high-quality health services at and around childbirth, including skilled birth attendance and postnatal care (4). One of the most important ways to address some of the key factor associated with both maternal and neonatal mortality is ensuring skilled emergency obstetric and neonatal care with standard quality of care at the time of delivery and immediate after delivery (5).

According to Ethiopian Health Sector Transformation Plan, equity and quality are the core goal that aspires to build a high performing health system. Provision of quality of care in the health service entails instituting patient center health care delivery system. Central to implementing HSTP is insuring that engagement with patient and the population at the heart of all strategy and policy for quality improvement. This required transforming the approach to health service facility- community partnership and deeper understanding full array of patient and community needs (6). Good quality maternal health services are those which among others are readily accessible, safe, effective, acceptable to potential users and are staffed by technical competent people provide rapid comprehensive care and linkage to others reproductive health services; where staffs are helpful, respectful and none judgmental (7).

1.2:-Statement of the problem

Every day approximately 830 women‟s die from preventable cause related to pregnancy and childbirth. In addition, 99% of maternal death occurs in developing countries out of which 62% occurs in Sub-Saharan Africa. During the time of birth 2.2 million stillbirths and neonatal death occur. Out of the 2.2 million deaths, 1 million babies die in the first day and1.2 million babes die during labour (8).

According to countdown to 2015 report in 2014, Ethiopia has also maternal mortality rate of 420 per 100,000 pregnant women, neonatal mortality rate of 29 per 1000 new born which is 41 % of the total under 5 child death and 26 per 1000 still birth occur. About one third of perinatal death in developing countries including Ethiopia occurs in related to intra partum complications (9).

Worldwide, extensive efforts have been made over the last decade to improve reproductive health service and to reduce maternal and child mortality, Ethiopian is among the first African country to make a strong commitment to the Millennium Development Goal to reduce maternal mortality (10).

However, in spite of the concerted effort, the level of maternal mortality is still high and far more women and their babies could be secure unnecessary suffering and death especially during the risk period during labour, delivery and after birth. This is because of a major gap between coverage and the quality of care provided in health facilities. Therefore, improving the quality of facility-based health care services and making quality an integral component of interventions can averted 74% of maternal death and 51% reduction in the neonatal mortality rate (NMR) and saving up to additional 590,000 lives and can improve health outcomes of mothers, newborns and children (11).

According to the Ethiopian health care transformation plan, the health system over the last two decade has been focused on improving coverage of essential health service. It is time to pay great attention to the quality and equity of health service at all level of the system and a lot remains needs to be done toward improving quality of care at each level of health system (6). Quality of maternity care service is still a problem in Addis Ababa where access and utilization of facility based maternal health service, infrastructure, facility redness and provider capacity is better than the other regions of the country (12). According to 2014, Mini Demographic and Health Survey

(mDHS) report 86.5% of births are taking place in health facility. From the total delivery take place in health facilities 20.7% of the delivery take place in the private health facilities and medical doctors attend 50.1% of birth. In spite of this, 13% of the mothers give birth at home, 13 stillbirths per 1000 birth and high maternal and neonatal mortality rate in the city (13).

Improved quality outcomes are not however delivered by health-service providers alone, communities and service users are the co-producers of health. They have critical roles and responsibilities in identifying their own needs and preferences. This can encourage their decision to use maternity care service and help them to reduce delay in decision to seek care, which is the major factor responsible for high maternal and newborn mortality and morbidity. Therefore, in the maternity services, women and community perspectives are essential components when defining what a good quality service should be (14).

Client satisfaction has been widely used in the measurement of quality of health service. Despite its benefit, there has been growing criticism of its measurement, satisfaction rate the personal preference of the client expectation and the reality of received care and becomes both a measure of care and a reflection of respondent, therefor does not give objective reality. To overcome this problem different institute and scholars emphasizes the measure of client perception instead (14-16).

The advantages of perceived quality measure have been pointed out in several researches. Different studies on client perception conducted in different countries have shown those patients are able to evaluate structural, process and outcome measure of quality. However, little research has been done on measuring of quality by using client perspectives of care at labour and delivery time and most of the search confined to antenatal and postnatal care and there finding mainly focused on patient satisfaction (11,12.17).

Therefore, this study aims to find gaps and answer potential problems related to lack of sufficient information on the type and quality of maternal and newborn care services from mothers experience and expectation of the service given by both private and governmental hospitals under the city of Addis Ababa administration.

It is the conviction of the investigator that those problems can be tackled by looking for answers to the fundamental questions in the subjects such as; 1. Status of quality of maternal and newborn care in the hospitals of Addis Ababa based on mothers and provider expectation and experience, 2. Factors that affect the quality of care given for mothers and newborn at private

and public health facilities, 3.what kind of action we need to take to improve the quality of care given for mothers and newborn.

1.3: -Significance of the study:-

Information generated by this study may have contribution in –

- Identify gaps between the desired health care outcome and the actual health care outcomes.
- Providing answers to fill the information gaps on approaches that enable health providers to adopt and implement patient centered, evidence-based practices to improve the quality of care during childbirth and the immediate after birth.
- Identifying factors that affect the quality of service given in the maternal and neonatal health care unit as well as it indicate areas that may needs further improvement in both private and public health facilities in order to increase mother‟s satisfaction in the quality of care.
- Recommendations and interventions can be developed based on results to improve overall quality of care given in the maternal and newborn care services.

2:-Literature review

This part provides a review of the literature on maternal and newborn health out came in related to the quality of care they are receiving. Also discusses factors that affect the quality of services that were given in the maternal and newborn health care unit by using client and provider perspective as a measurement.

2.1 Intra partum and newborn care

A. Intra partum care

Greater number of clinical service received during labour and delivery improve women perception of quality rating suggested that the women appreciated the importance of clinical procedures during delivery. The major supply side related constraints that contribute to maternal death are shortages of skilled care provider, weak referral systems at health centers, and inadequate availability of basic and comprehensive emergency obstetric and neonatal care equipment (17).

B. Newborn care

Newborn health is widely recognized as a crucial element of reproductive, maternal, newborn and child health (continuum of care) that need more systemic attention. High-impact, low-cost interventions for newborn health are breastfeeding support and kangaroo mother care, where the preterm baby is hold skin to skin with its mother this can make a great difference in newborn survival (18).

Currently different initiative‟s working on the redaction of neonatal mortality and these are Newborn corner (NBC) initiative, it is a package of interventions to address gaps in preventing newborn morbidity and mortality by ensuring standard newborn care (essential newborn care and basic neonatal life support) immediately after birth in every health facility.

Newborn intensive care unit (NICU) initiative, it is a facility based package of interventions to address newborns that need further/advanced care and to complete referral and linkage. While working towards meeting international standards facilities should start providing the best possible care for newborns with the minimum set of equipment and supplies available (19).

2.2 Quality of care among private and public health facilities

Study done in Northern Ethiopia compares quality of care given between private and public hospitals and find that the total quality and health care delivery given for women attending delivery in private hospital were higher than those using public hospital. In addition, the perception of poor quality of maternal service is higher (42.6%) among women who had visited public institution compared to private (10.2%). About 92.9% of private clinic patient would recommend there facilities to others in contrast 78% of public clinic patient would recommend it to others (20).

According to the Gambian study, regarding to public clinics the following dimensions are determinant for women‟s overall quality perception, facility space neatness (OR 0.40; 95% CI 0.17, 0.93); adequate privacy (OR 0.017; 95%CI 0.06, 0.048); communication with health providers (OR 0.29; 95%CI 0.08, 0.99) (21).

2.3 Patient perception and experience on quality of care

Assessment of patients‟ perception of health care services is one of the ways of measuring quality of health care. Obigeal et.al (2014) indicated that *„Besides using outcome of care as a basis for measuring quality of care, clients" perception of care provides another opportunity of assessing quality of care based on their perspective. Patient perception of quality of care is one of the major determinants of uptake of healthcare services"*(22). Study done in Serilanka showed that patient‟s perception of quality of services is widely recognized as useful tools to improve health service in developing countries. Such perception are considers as one of the best measurement of quality in health care (23).

Studies done in Northern Ethiopia and Malawi shows that patient perception of quality of care given in maternal and newborn service depend on different factors such as socio demographic status, type of the facility, provider attitude, availability of drug and supply past experience (20,24). Other study done in Ghana also shows that overcrowding, long hospital stay, maternal and newborn outcome in terms of service and health of the mother significantly affect maternal perception of quality of care given in the facility (25). Another study done in Southern Malawi and Tanzania indicated that improving process of service delivery rather than focusing primarily on input may increase both objective and perceived quality of care. Attention to quality will be

particularly important as women expectations continue to rise with expanded education and exposure to media (26,27).

2.4 Factors associated with quality of maternal and newborn care service

Some of the factors associated with the quality of care at labour delivery and immediately after birth from mothers, experience and perception are as follow.

A. Socio demographic factors

Study done in Nigeria and Addis Ababa found that maternal age and education have positive association with maternal satisfaction of quality of care, and duration of women‟s schooling increase their perceptions about health and leads them to better knowledge and better utilization (25,27). Another study done in Northern Ethiopia show that women‟s age between 26-35 year were 42% likely to set quality of maternal service as compared to those whose age is between 17-25 year. This study also shows that mothers whose monthly income were less than 500 Ethiopian Birr (ETB) COR=2.79, 95%CI (1.52, 5.11) and 500-1000 ETB COR=2.58, 95%CI, (1.26, 5.27) were more satisfied than those mother whose income were greater than 1000ETB (20).

B. Obstetric history

Study done on perceived quality of obstetric care in Tanzania show that women‟s experience during delivery has a strong impact on her rating of quality. Experiencing complication during labour and delivery as reported by the women‟s have an association with their rating of quality of care (27). In other study, perceived quality of service had association with the mode of delivery. Women who had delivered by caesarian section and assisted rate quality lower than women who delivered vaginaly (24). The same study have been done in rural Tanzania shows a women who receive great number of ANC care rate quality of delivery care higher than those who receive fewer service AOR 0.46 95%CI(0.18-0.71)(27).

C. Structural factors

Organizational capacity

Organization capacity is defined as availability of drug, staff, laboratory and diagnostic material having separate examination room and waiting area. Study done in Malawi show that shortage of health care workers including health professionals and issues related to their retention were important barriers to quality of care (26). In addition, study done in Uganda and rural Malawi show that unavailability of drugs and necessary equipment could compromise quality and health outcomes. Inadequate and irregular supply of logistic, medicine and blood made it difficult to manage regular health activity and to achieve quality of care (31, 20). Similarly, study done in Nepal and Malawi shows that absence of water, sanitation facility, waiting area and absence of privacy has also impact on maternal satisfaction and perceived quality (32, 24).

D. Process factors

Information and communication:

Study done in Addis Ababa maternity referral hospital showed that maternal perception of quality and there rating of satisfaction on the health care was affected by communication between patient and providers and information given to the patient. Such as, explanation of the patients' problem to the patient, information and counseling to the patient on discharge, explanation about examination or procedure to be done, and information to the patient on drugs prescribed to the patient has yielded a general satisfaction rate with decreasing order; 66.9%, 60.4% , 46.3% and 25.3% (28).

Study done in Tanzania shows that women‟s rate quality higher if the health provider explained the procedures with clear language ($p<0.05$) and perceived quality of delivery service was found to be significantly associated with being encouraged to ask question ($p<0.005$)(27).

Another study done in Southern Nigeria show that power difference between women and health care providers is an important hurdle in active engagement of users in decision-making and lack of effective interpersonal communication, teamwork lack of attention to demand generating strategies within the health system could be other barriers (22).

Several Studies done in Sub-Saharan Africa countries on the measurement of quality in facility based delivery show that inadequate provision of information was an important barrier to improving quality of care (QoC) identified by users and providers (33).

Duration of hospital stay

Study done in Addis Ababa maternity referral hospital showed that client who stayed longer in hospital tended to have higher satisfaction within the health care. In addition, the study put the reason behind this is that mother‟s perception getting better care through longer stay and caring the fear of other complication (28). Another study conducted in Bangladesh showed that the major contributing factors for rating higher quality and being satisfied were short waiting times and a long consultation time with healthcare providers (30).

Provider's attitude

Study done in maternity referral hospital in Addis Ababa stated that the attitude of the health worker was found to have a relative higher satisfaction score. Courtesy by the doctor and the nurse has yielded a complete satisfaction rate of 41.6% and 40.7% while half of the client reports to be just satisfied (28). Other study done in Southern Malawi shows that staff attitude and empathy affects mothers quality rating of delivery service and also health worker confidence have effect on mothers rating of quality AOR(95%CI)-0.03(-0.05,-0.01) (26).

E. Outcome factors

Satisfaction

Study done on facility based delivery barriers and facilitators in low and middle income countries show that patient perceived satisfaction depend on different factors and satisfaction in service given by hospitals can be one of the quality of care. Ability to be in control during pregnancy and labour, which is determined by effective communication leading to empowerment and active involvement in decision-making, adequacy of consultation time was reported to be associated with enhanced satisfaction among women comfort and support were identified as important factors that determine satisfaction (27, 33).

Study done in Nairobi on women‟s satisfaction with delivery care stated that type of health facilities were mothers give birth (24% vs. 14%, $p<0.001$) and providers empathy and care given

with respect, (OR =3.68, p<0.001) are strongly associated with service satisfaction (34). Another study done in Assela hospital show obstetric history, parity, maternal and newborn delivery out came had significance association with maternal satisfaction (35). Study from eight countries show that there is a significant association between satisfaction on the cost of service and mothers higher perception of quality of delivery care (33).

2.5 Provider's perception of quality of care

Study done in Malawi reveal that health care workers rate the quality of emergency obstetric care they provide as poor. They were able to identify structure and process factors which contribute to this overall quality emergency obstetric care provided. These were attributed to health care system problems and client problems. Only through addressing the contributing factors will true improvement of management of obstetric emergencies occur (28).

Another study done in Sub-Sahara Africa and Bangladesh stated that health workers identified a shortage of staff as contributing to provision of poor quality of care as it lead to having work over load and long working hour and as a result they cannot provide quality of care to their patient (29,30).

According to the perception of the healthcare providers, qualitative study done in Bangladesh showed that the quality of MNH services is poor because of the lack of healthcare personnel and logistic and laboratory support, as well as the under use of patient-management protocols, and a lack of training and supervision (30). Similar studies conducted in Malawi in 2010 reviled that doctors and nurses acknowledged that the insufficient supply of laboratory support and an absence of blood-transfusion systems have an effect upon the quality of the diagnosis and treatment of the patients (24).

Study done in Northern Ethiopia also stated that lack of in-service training and refreshment to respond to critical care of emergency obstetric care by providers have a direct relation with mother‟s perception about quality of care and satisfaction (20).

Regulations and standards

The study done in Addis Ababa show that lack of regular, supportive, quality supervision and evaluation was an important challenge in improving the effectiveness of standard care practices (14). Audit and feedback is a useful tool in improving adherence to regulations and standard care

and improving their effectiveness across countries worldwide. This finding was supported by study done in Bangladesh and Malawi shows that regular and supportive supervision increase the moral of health providers and makes them more responsible to insure quality of care given in health facility (24, 30).

2.6 Conceptual framework

Generally, patient perception of quality of care can be articulated by using there expectation and experience of the service. Expectation of the client depend on some factors such us socio economic and demographic factor, past experience and parity. Experience of service related with structure, process and outcome components of quality of care, such as waiting time, respect and courtesy, satisfaction, information and communication, availability of drug and supply. In the other way information and communication between providers and patients, training, facility or organizational capacity, use of regulation and standards for different procedure, supervision and follow up given for providers are factors in related with the provision of quality of maternal and newborn care. See annex (page-61)

3:-Objective of the study

General objective:

- To assess mothers‟ and providers‟ perception on the quality of maternal and newborn care given at the time of labour, delivery and immediately after delivery and to identify factors that affect quality of care in the selected hospitals of Addis Ababa.

Specific objectives

- To describe mothers‟ perception on the quality of maternal and newborn care given at private and governmental hospitals of Addis Ababa.
- To explore providers‟ perception on the quality of maternal and newborn care given at private and governmental hospitals of Addis Ababa.
- To identify factors associated with the quality of maternal and newborn care given in both governmental and private hospitals of Addis Ababa.

4. Methodology

4.1:-Study area and period

Addis Ababa is the Federal Capital City of Ethiopia; having an estimated number of populations of 3.4 million in the city proper and have, three layers of government: City government at the top, 10 Sub City Administrations in the middle and 116 woreda were functional at the bottom level. There are 6 governmental and 37 private hospitals under Addis Ababa City Administration. Currently 16 hospitals give maternal and neonatal services of which, 4 of them are governmental, whereas the remaining 12 are non-governmental and the rest are private hospitals (13). The study was conducted from August 2015 - June 2016 in the selected public and private hospitals that provide maternal and neonatal services.

4.2:-Study design

- Institutional based cross sectional quantitative and qualitative study were conducted.

4.3:-Source population

- For the quantitative study, women who visit hospitals for delivery service in maternal and neonatal health care units.
- For qualitative study, health care providers that work on maternal and neonatal health care unit.

4.4:-Study population

- For quantitative study, mothers who give birth in the selected hospitals at the time of data collection, volunteer to participate in the study and give their full consent.
- For qualitative study, health care providers in the selected hospitals who work in maternal and neonatal health care unit at the time of data collection and agree to participate in the study.

4.5:-Exclusion criteria

- Women who give birth in the selected hospitals at the time of data collection and who were unable to communicate for different reasons such as mental or critical illness.
- Health care providers who had work experience of less than one year in maternal and newborn health care units at the time of data collection.

4.6:-Sample size determination

1. For evaluation of mother‟s perception on the quality of service given in maternal and newborn care, sample size were calculated by using single population proportion formula and to obtain larger sample size we took 50% prevalence assumption. Therefore, sample size for the quantitative part were determined by the formula as follows;

$$N = \frac{(Z\alpha/2)^2 \times p\,(1-P)}{d^2}$$

- With assumption of desired precision (d) = 0.05
- Expected proportion (p) = 0.50
- Z α\2 at 95% confidence interval = 1.96
- Based on the assumption, the calculated sample size (n) = 384
- Adding 10% for non-response rate during the actual study then the sample size become 422. And since the sampling method is multistage stratified sampling; design effect was taken as 1.5 then the final sample size become (N)= 633

4.7:-Sampling procedures

1. Quantitative data:-Multistage stratified sampling was used for sampling procedure for quantitative part of the study.

In the 1st stage:-hospitals that give maternal and newborn care were stratified in to private and government hospitals.

In the 2nd stage:-then two hospital from private and government hospital were selected by using simple random sampling method (lottery method).

In the 3rd stage:- The numbers of participant from the selected hospitals were determined based on the proportion allocation to size of average delivery attendances for 3 month preceding the study period.

In the 4th stage:- by using delivery registration book as a sampling frame systematic random sampling technics were used to get each individual respondent at the point of exit from the health facility until the required number allocated to reach the selected facility had been obtained. (See schematic presentation under figure-1)

2. **For the qualitative part of the study**

Focused group discussion were conducted in the study hospitals until saturation level reached and the participants were purposely (convenient sampling technic) selected according to their experience and willingness to participate in the focused group discussion from the selected hospitals. The discussions were consisted 6-10 individual in each group.

Sampling procedure

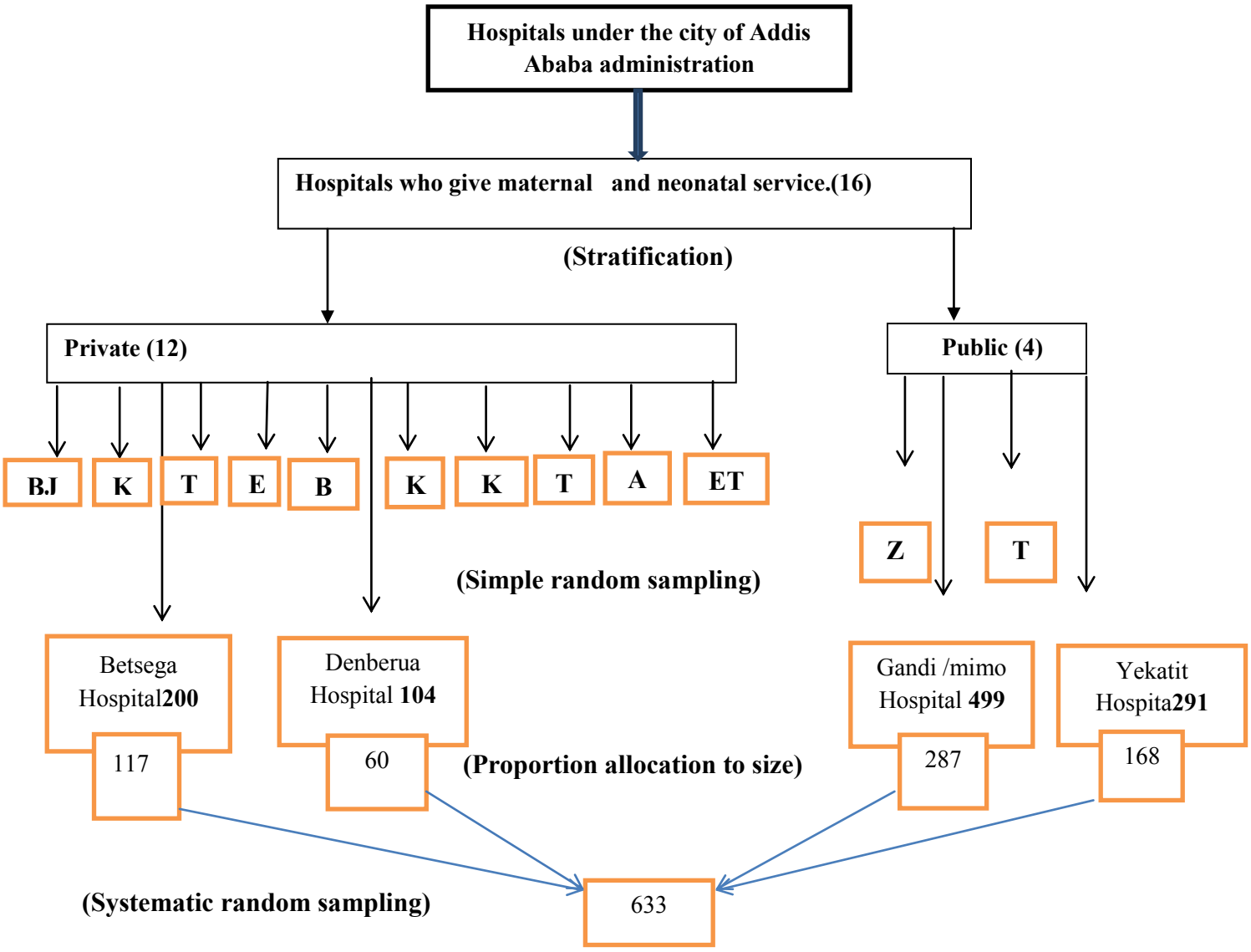

Figure one:-Diagrammatic presentation of sampling procedure

4.8:- Data collection procedure and measurement

Quantitative part of the study

Data was collected by using exit interview in the selected hospitals right at the time of discharge. For data collection, four-diploma level female nurses were used after two day of training. In order to give the mothers confidentiality to their response, the interview was conducted in separated room with protected privacy. A pretested and structured questionnaire adapted from WHO (standards for hospital quality assessment tool) (38) and from other related research (39) were used.

The material was first prepared in English and then translated to the local language Amharic. Pretest was conducted in 5% of the study population among health facilities other than the selected ones. The overall data collection activity was organized by the principal investigator of the study and by supervisors. The questioner contains information on socio demographic and obstetric characteristics of the study participant. In order to measure the perceived quality of maternal and newborn care by using the Donobedian quality model 46 questions were used. Twenty-two of the questions were focused on the process factor. Eleven of the questions were structural related questions and thirteen of the questions were focused on the service outcome (satisfaction) related questions.

For the qualitative part of the study

Guiding questions for FGD was developed in English and then converted to the local language Amharic. The participants for focused group discussion were selected from health providers who work in maternal and newborn care unit and who are willing to participate at the time of data collection. The participants were familiar with the topic, known for their ability to share their opinions and willing to volunteer about 45-60 minuet of their time. As a moderator, the principal investigator conducts the FGD and one clinical nurse help as an assistance moderator and note taker. A tape recorder was used to record every discussion on each topic.

4.9:-Data quality assurance

The quality of data was maintained starting from the time of questionnaires preparation. To insure content validity the questionnaire was developed by using WHO standards (38) and furthermore, reviewing important literatures (39). Then the questionnaire, which is prepared in English, were translated into Amharic and again back to English to insure the consistency.

Training on the purpose of study and procedures of data collection were given to data collectors for two day prior to the study. After completing the training, trainees were further given on-job training during the preliminary study. During the data collection, the supervisor and the principal investigator collect each questionnaire from data collectors and reviewed for completeness, accuracy and consistency on daily bases. Then before analysis, data was coded and checked for completeness. To make sure the reliability cronbach‟s α reliability test were calculate for each sub grouped questions.

4.10 Data analysis

For quantitative part

After data collection was completed, the data were checked and coded by using EPI info version 7 and imported to STATA version 12. Descriptive statistics was computed to determine the extent to which recommended components of labour and delivery services are provided to pregnant women attending birth in the study health facilities. Perception of quality of care at labour and delivery service was considered as dependent variable.

To measure the perceived quality of care 5-point Likert scale were used. The mean score, which were attended to measure perceived quality, were taken to consideration. A client who had scored above the mean was labeled as higher score of perceived quality of care and those who scored below the mean value was labeled as low score perceived quality of care.

To assess the association of different independent variables with the outcome variable, first cross tabulations then bivariate analysis were carried out. In addition, multivariate analysis was performed to identify the most important predictors of client quality perception. To control confounders only variables with p value <0.05 were taken to multivariate analysis.

Qualitative part

In order for all participant comments to be understandable and useful, we were transcribing all focus group tapes and inserting notes into transcribed material where appropriate. Then cleanup of the transcripts by removing off nonessential words were followed by assign each participant comment in quote in a separate line on the page as well as each new thought or idea therein. The analysis was done manually by grouping the themes and sub themes from the collected data in the Excel spreadsheet. Different concepts and data categories were generated based on the objective of the study and on the information that was gained through discussion. These were grouped into three categories over all perceived quality of care, challenges in the provision of quality of care and suggestion.

4.11:-Variables

Dependent variable

- Perception of quality

Independent variables

- Socio-demographic characteristics
- Obstetrics history

Structure	**Process**	**Outcome**
• Cleanness	- Participation in decision making	- Satisfaction
• Human resource	- Clarification of case	- Maternal and newborn
• Medicine and supply	- Emotional support, respect and courtesy	
• Infrastructure	- Privacy and counseling time	

4.12: Operational definition:-

Perception: - refers to the perspective and experience of provider and patient (mothers) about the activity that are performed by providers and services given in the facility at maternal and newborn service regarding quality of care (39).

Perceived quality: - in this study, it is the perspective of users and providers on the quality of care they experience and there expectation.

Quality of care: - According to WHO, quality of care involves providing minimum level of care to all pregnant women and their new born baby, high level of care for those who need it by obtains best medical outcome and while providing safe, effective, patient centered, timely, efficient and equitable care that satisfy women and their family (1).

In this study, the quality of care evaluated from three different perspectives by using system model (Donobedian) and WHO quality component.

- **The structural perspective: -** includes the physical environment, availability of waiting area, cleanness, human resource and availability of medicine, laboratory investigation and supply.
- **The process perspective**: - includes communication between providers and mothers, participation in decision-making, provider‟s attitudes, emotional support, privacy and counseling.
- **The outcome perspective**: - which includes health status of the mother and newborn and satisfaction.

Patient satisfaction: - in this study, it refers to patient expressed state of being satisfied with health care service in the dimension of quality of care (process, outcome and physical environment).

4.13:-Ethical clearance and consideration

Ethical clearance letter was obtained from Research Ethics Committee (RIC) of Addis Ababa University College of Health Science, School of Public Health. Official letter of cooperation was obtained from the Minister of Health and Addis Ababa Regional Bureau. Before conducting the interviews and group discussions, information was given to the participants and participants were assured of voluntary participation, confidentiality, anonymity and freedom to withdraw from the study at any time. The nature of the study and associated risk and benefit were explained and then written consent was obtained from the participants.

4.14:-Dissemination of result

The result of this study will be present to Addis Ababa University, School of Public Health, and copy of the study publication will be distributed to the Ministry of Health, Addis Ababa Regional Health Bureau, for the selected hospital and other concerned bodies through reports and publication on an appropriate journal.

5. Result

A. Quantitative part of the study

5.1 Socio demographic characteristic of the respondents

A total of 576 delivering mothers were included in this study with 90.9% response rate. Out of the 576, one hundred sixty four 164(28.4%) of the mothers get delivery service in private hospital and four hundred twelve 412(71.52%) in government hospital. The mean age of the mothers was 26.9(SD± 4.42) year.

Five hundred forty two (94.16%) of the mothers were formally educated and 34 (5.90%) were illiterate. In addition, 528 (91.06%) of the mothers were currently married at the time of data collection and 47(8.17%) were unmarried.

About 357(61.98%) of the mother were followers of Orthodox Christians while 99(17.19%) and 107(18.58%) of the mothers were Muslim and Protestant respectively. The median monthly average household income of the delivering mothers was 3000 ETB IQR (2500-4600) ETB. (Table-1)

Table 1 Socio demographic characteristics of delivering mothers in selected hospitals of Addis Ababa, Ethiopia, March - April 2016.

Variable	Frequency	Percent
Age of respondent(576)		
17-25	225	39.06
26-34	323	56.08
≥35	28	4.86
Respondent educational status(576)		
Illiterate	34	6
Primary	120	20.8
Secondary	212	35.81
Technical and vocational	85	14.7
Higher	125	21.71
Marital status(576)		
Married	528	91.83
Unmarried/single	42	7.30
Other (divorced and separated)	6	0.87
Partner educational status(528)		
Illiterate	17	3.22
Primary	90	17.05
Secondary	147	27.84
Technical and vocational	133	25.19
Higher	141	26.70
Partner occupational status(528)		
Unemployed	5	0.95
Government employee	109	20.64
Private employee	114	21.59
Self-employee	129	55.30
Others	8	1.52
Respondent occupation(576)		
Unemployed	183	31.77
Government employee	99	17.19
Private employee	131	22.74
Self-employee	162	28.13
Others	1	0.17
Religion(576)		
Orthodox	357	61.98
Muslim	99	17.19
Catholic	9	1.56
Protestant	107	18.58
Others	4	0.69
Monthly average income(557)		
<3000	283	50.81
>=3000	274	49.19
I do not know/refusal	10	

5.2 Obstetric characteristic

Three hundred seventy three (64.7%) of the mothers were their first pregnancy, the rest 203(35.2%) of the mothers have history of previous pregnancy. From the two hundred three, one hundred twelve (55.17%) of delivering mothers have one child before the previous delivery, while 47.84% of the women had 2-5 children. Three hundred twenty two (55.90%) of the delivering mothers were referred for delivery service. In addition, almost all the mothers (99.83%) had ANC visit. From those mothers who had child from previous delivery 58.62% of them give birth in the hospitals and 33.99% and 7.39% delivery took place in the health centers and at home respectively.

Three hundred forty two (59.38%) of the mothers were delivered by caesarian section while the rest (40.63%) were delivered vaginaly and assisted delivery. Only forty-eight (8.33%) of the mothers out came were with complication and 2.78% of the newborns outcome were death (stillbirth and early neonatal death). (Table -2)

Table-2 Obstetric characteristics of delivering mothers in selected hospitals of Addis Ababa, Ethiopia, March - April 2016

Component	frequency	percentage
Type of visit (576)		
Direct(planned)	254	44.10
Referral	322	55.90
Way of transportation(576)		
Ambulance	247	42.88
Public service	179	31.08
Own car	127	22.05
Others	23	3.99
ANC visit for recent pregnancy(576)		
First visit	1	0.17
Second visit	15	2.60
Third visit	62	10.76
Fourth visit	410	71.18
Above four	87	15.10
No visit	1	0.17
Mode of delivery(576)		
Vaginal	223	38.72
Caesarian section	342	59.38
Assisted	11	1.91
Mother health condition(576)		
Healthy	528	91.67
Complicated	48	8.33
Newborn outcome(576)		
Life birth	560	97.22
Stillbirth	11	1.91
Neonatal death	5	0.87
Place of previous delivery(203)		
Hospital	119	58.62
Health center	69	33.99
Home	15	7.39
Number of previous birth(203)		
1	112	55.17
2-4	89	43.84
5+	2	0.99
Place of current delivery took place		
Government/hospital	164	29.01
Private hospital	412	70.99

Table – 3 Mothers perceived quality of care at labour and delivery service in terms of process, structure and satisfaction component in the selected hospitals of Addis Ababa, Ethiopia, March - April 2016

Sr. n	Component	Disagree	Neutral	Agree
		N (%)	**N (%)**	**N (%)**
	A. Process factor			
1.	Respect from health providers	54(9.38)	68(11.8)	454(78.76)
2.	Comfortable room	63(10.94)	45(10.07)	468(81.24)
3.	Active labour follow up	67(11.64)	54(9.38)	455(79)
4.	Permission before examination	212(36.74)	48(8.33)	316(54.68)
5.	Explain the labour progress	177(30.68)	62(10.78)	337(58.51)
6.	Enough examination time	78(13.54)	41(7.12)	457(79.34)
7.	Verbal Encouragement at labour and delivery	5	43(7.46)	442(76.6)
8.	Enough care and support at labour	1	59(10.24)	408(70.84)
9.	Comfortable and equipped delivery room	152(26.59)	5(0.87)	419(72.75)
10.	Competency and confidence	90(15.62)	21(3.64)	465(69.79)
11.	Privacy at delivery room	153(27.07)	21(3.6)	402(80.73)
12	Enough care and support at delivery	149(22.77)	20(3.47)	407(70.66)
13.	Enough information about newborn health	60(13.56)	33(7.5)	347(64.53)
14.	Counseling about breast feed	18(3.21)	54(9.64)	489(87.32)
15.	Enough care and support for the newborn	161(27.95)	40(6.94)	359(64.1)
	B. **Structure factor**			
1.	Adequate no of health provider	168(29.14)	19(3.30)	389(67.56)
2.	Adequate seat and space for waiting area	93(16.15)	48(8.33)	435(75.52)
3.	Adequate room and bed	239(41.49)	52(9.03)	256(44.44)
4.	Adequate medical supply	113(19.62)	32(5.56)	431(74.82)
5.	Available drug and lab request	220(38.19)	69(11.98)	287(49.83)
6.	Functional and clean toilet/shower	236(40.96)	83(14.41)	257(44.62)
7.	Reasonable cost of service	256(48.4)	111(19.50)	202(35.49)
	C. Outcome (satisfaction)	**Dissatisfied**	**Neutral**	**Satisfied**
1.	Waiting time	88(15.21)	27(4.69)	461(80.04)
2.	Respect for culture and need	143(24.82)	77(13.37)	356(61.8)
3.	Providers attitude	208(36.13)	58(10.07)	310(53.82)
4.	Number of health providers	47(8.15)	170(29.5)	380(65.98)
5.	Provider confidence and competency	79(13.7)	81(14.06)	416(72.2)
6.	Communication between staff	162(28.07)	81(14.06)	333(57.8)
7.	Participate in decision making	52(9.03)	73(12.67)	451(78.29)
8.	The overall counseling	112(19.42)	22(3.82)	442(76.73)
9.	Care given in labour and delivery	154(26.7)	27(4.69)	395(68.57)
10.	Care given for the newborn	232(40.2)	58(10.35)	286(49.6)
11.	Sanitation of the facility	228(39.58)	73(12.67)	275(47.7)
12.	Drugs and other medical supply	188(32.6)	57(10.01)	331(57.46)
13.	Total cost	445(77.25)	50(8.78)	74(12.84)

5.3 Mothers perceived quality of care given at labour and delivery service.

In this study, quality was defined in terms of process, structure and outcome of the service provided by those selected hospitals. When we see the overall mothers perceived quality, about 295 (51.2%) of the mothers score quality above the mean score of 83.3 with SD±10.4. Perceived quality score in terms of process (medical practices at labour and delivery) in both private and government hospitals were 278(48.28%) of the mothers score quality above the mean score 56.6 with SD ± 7.56. When we see perceived quality in related to the structural part 288(50%) of the mothers score above the mean score of 26.7 SD ± 4.64. Similarly, 265(46.01%) of the mothers score quality above the mean score 43.5 SD ±5.8 in terms of outcome (satisfaction) on the service given at labour and delivery. (Figure-2)

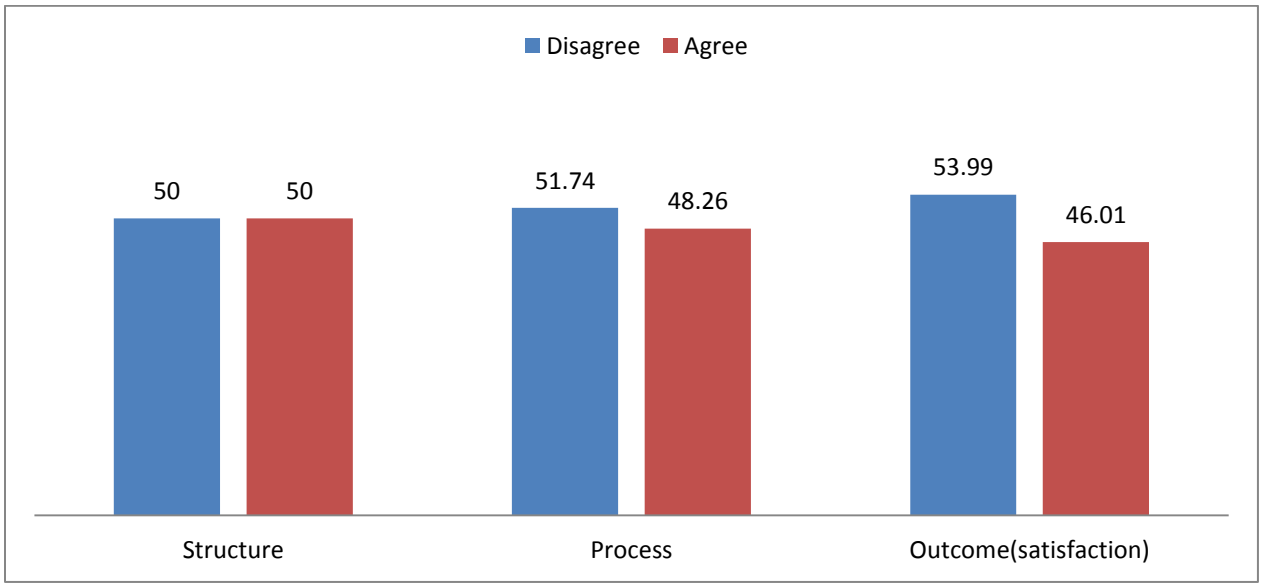

Figure 2: Mothers perceptions of quality of care at labour and delivery in selected Hospital, of Addis Ababa, Ethiopia 2016.

5.1.3. Mothers perceived quality of care at labour and delivery service in terms of process

To measure the overall perceived quality in terms of process (medical practice), the mean score 56.6 with SD ± 7.56 with internal consistency of (cronbach‟s α = 0.8511) were used. Among delivering mothers, 454 (78.82%) of them agreed that they got respect and courtesy from health provider while, the rest 122(21.18%) of the mothers disagree. Four hundred sixty eight (81.25%) of the mothers who give birth in the selected hospital perceived that they had confortable laboring room while, the rest 18.75% of the mother perceived quality negatively.

Three hundred sixteen (54.86%) of the mothers who give birth in the studies hospitals perceived high quality that they had been asked their permission before examination or any other procedure. The rest (45.14%) the mothers who delivered in the selected hospitals perceived low quality. Four hundred eight 408(70.83%) of the mothers who delivered in the selected hospitals perceived that they had been given enough care and support during the time of labour, while the rest 168 (29.17%) of the mothers perceived low quality.

Four hundred two (69.79%) of the mothers who delivered in the selected hospitals perceived that they have been given privacy during delivery. While the rest 174 (30.21%) of the mothers perceived negatively. About Four hundred seven 407 (70.66%) of the mothers perceived that they had enough care and support at delivery while, one hundred sixty nine (29.34%) of the mothers who delivered in both government hospitals perceived negatively. (Table-4)

Table – 4 Mothers perceived quality of care in terms of medical practice (process) performed at labour and delivery in the selected hospitals of Addis Ababa, Ethiopia, March - April 2016

Sr. n	Process component	Perceived quality	
		Disagree N (%)	**Agree N (%)**
1.	Respect from health providers	122(21.18)	454(78.82)
2.	Comfortable labour room	108(18.75)	468 (81.25)
3.	Active labour follow up	121(21.01)	455(78.99)
4.	Ask permission before examination	260(45.14)	316(54.86)
5.	Explain the labour progress in clear language	239 (41.49)	337(58.51)
6.	Enough examination time	119 (20.66)	457 (79.34)
7.	Enough care and support during labour	168 (29.17)	408 (70.83)
8.	Comfortable and equipped delivery room	157 (27.26)	419(72.74)
9.	Competency and confidence of health providers	111(19.27)	465 (80.73)
10.	Privacy at delivery room	174 (30.21)	402 (69.79)
11.	Enough care and support at delivery	169 (29.34)	407 (70.66)
12.	Have enough information about your baby health and treatment.	442 (76.74)	134(23.26)
13.	NICU help the newborn to regain	72 (29.86)	404 (70.14)
14.	Enough counseling about breast feed	87(15.10)	489 (84.90)
15.	Enough care and support for your baby	165 (28.65)	411 (71.35)

5.3.2 Mothers perceived quality of structural components of care given at labour and delivery.

To assess mothers perception of quality in terms of structural aspect of the selected health facilities we use the mean score of 26.7 SD ± 4.6 with internal consistency of (cronbach‟s α = 0.6718).

Mothers who delivered in the selected hospitals 389(67.53%) perceived that the hospitals had adequate number of health care providers, while the rest of the mothers 187 (32.47) perceived negatively. Similarly, 308 (53.47%) of the mother who give birth in the selected hospitals perceived, the labour and delivery room had adequate space and number of bed. (figure-3)

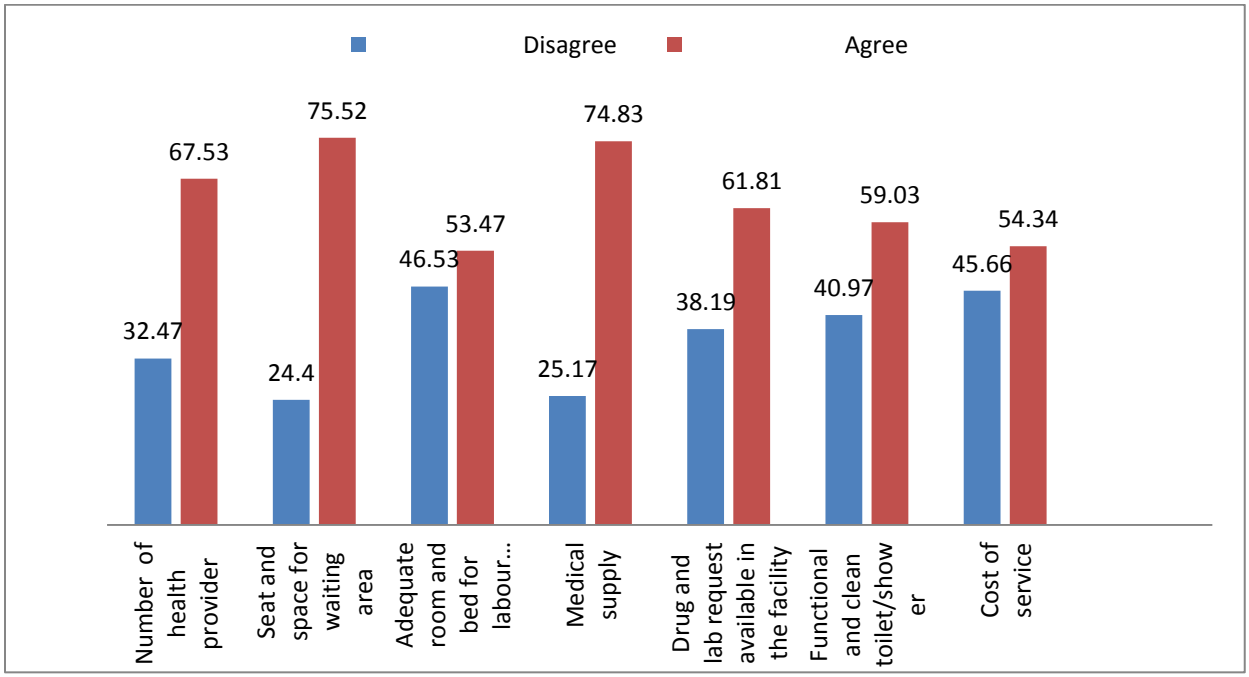

Figure 3: Perception scores by delivering mothers from structural point of view in selected Hospital, of Addis Ababa, Ethiopia 2016.

About three-fourth 435 (75.52%) of the mothers who delivered in study hospitals perceived that the hospital waiting area had enough space and seats. About 356 (61.81%) of delivering mothers perceived that they get the entire drug and lab investigation requested in the facility, while the rest of the mothers 220 (38.19%) disagree with this. About three hundred and thirteen 313

(54.34%) mothers who delivered in the selected hospitals perceived the cost of the service were reasonable. (Table-5)

Table-5 Mothers perceived quality of care at labour and delivery service in terms of structural component in the selected hospitals of Addis Ababa, Ethiopia, March - April 2016

Sr.no	Outcome measure	Perceived quality	
		Disagree N(%)	**Agree N(%)**
1.	Number of health providers	187 (32.47)	389(67.53)
2.	Enough seat and space for waiting area	141 (24.48)	435 (75.52)
3.	Enough room and bed for labour and delivery	268 (46.53)	308 (53.47)
4.	Enough medical supply	145 (25.17)	431 (74.83)
5.	Drug and lab request available in the facility	220 (38.19)	356 (61.81)
6.	Functional and clean toilet/shower	236 (40.97)	340 (59.03)
7.	Cost of service	263 (45.66)	313 (54.34)

5.3.3 Mother's perceived quality in the outcome of the service (satisfaction).

To assess mothers perception of quality in terms of outcome, the mean score 43.5 SD ± 5.8 in and with (cronbach"s α=0.7029) were used. Most of the mothers who give birth in the selected hospitals 461 (80.03%) were satisfied by the waiting time to see health professionals, while the rest 115 (19.97%) of the mothers were not satisfied by the waiting time. Half of the mothers 310 (53.82) who give birth in the study hospitals satisfied by health provider"s attitude toward helping them. (Figure-4)

Around 333 (57.81%) of the mothers who give birth in the selected hospitals were satisfied by the communication between staffs, the rest 243 (42.19%) of the mothers were not satisfied. About four hundred forty two 442 (76.74 %) of the mothers satisfied by the overall counseling given at labor and delivery, while the rest 134 (23.26%) did not.

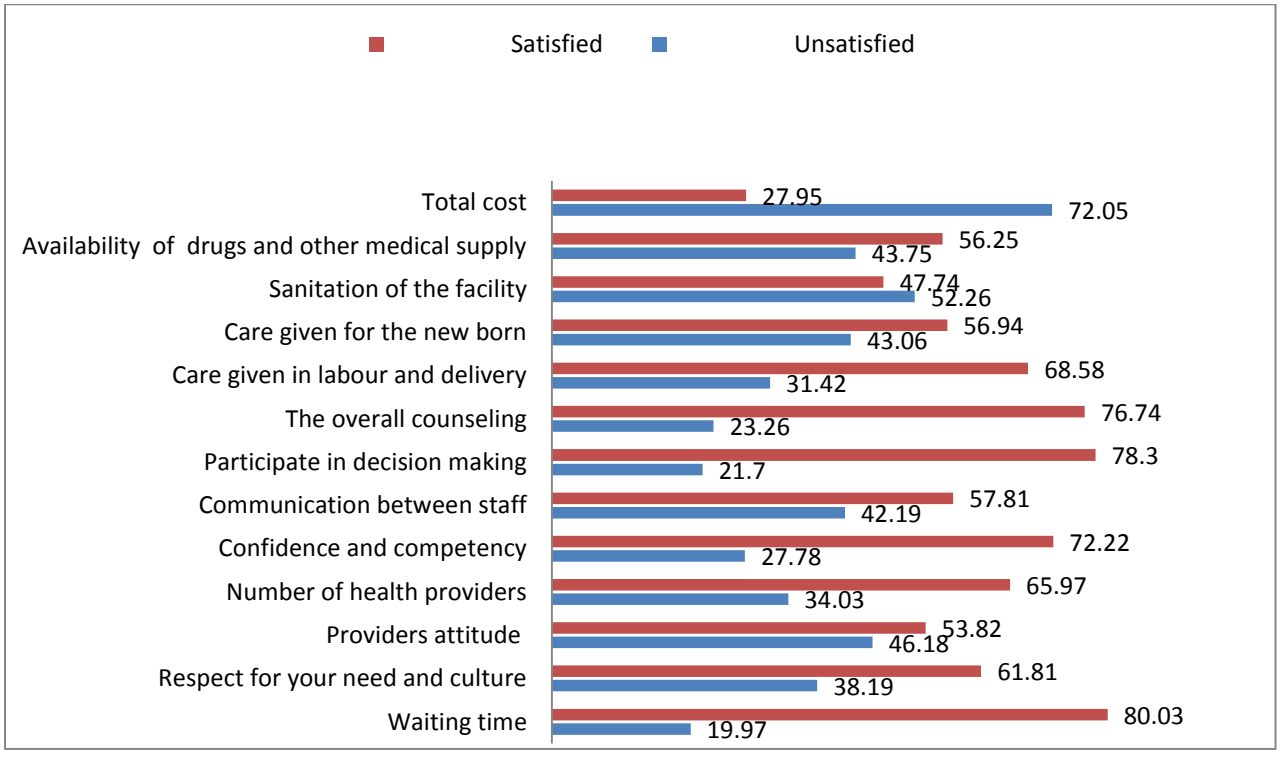

Figure 4: Mothers perceived Satisfaction by delivering mothers in selected hospitals of Addis Ababa, Ethiopia 2016.

About three hundred ninety five (68.58%) of the mother who delivered in the study hospitals were satisfied by the overall care and support given at labour and delivery. While, the rest 181 (31.42%) of the mother were not satisfied by the care and support given. Three hundred twenty eight (56.94%) of the mother who give birth in the selected hospitals satisfied by the overall care and support given for your newborn baby. Bellow half of the mothers who deliver in the selected hospitals 275 (47.74%) were satisfied by the sanitation of the facilities. While the rest of the mothers 301 (52.26%) were not satisfied. (Table-6)

Table – 6 Perception of delivering mothers in in terms of outcome (satisfaction) of maternal and newborn care in the selected hospitals of Addis Ababa, Ethiopia, March - April 2016

Sr.no	Outcome measure	Perceived quality	
		Unsatisfied (N%)	**Satisfied (N%)**
1.	Waiting time	115 (19.97)	461 (80.03)
2.	Respect for your need and culture	220 (38.19)	356 (61.81)
3.	Providers attitude	266 (46.18)	310 (53.82)
4.	Number of health providers	196 (34.03)	380 (65.97)
5.	Confidence and competency	160 (27.78)	416 (72.22)
6.	Communication between staff	243 (42.19)	333 (57.81)
7.	Participate in decision making	125 (21.70)	451 (78.30)
8.	The overall counseling	134 (23.26)	442 (76.74)
9.	Care given in labour and delivery	181 (31.42)	395 (68.58)
10.	Care given for the new born	248 (43.06)	328 (56.94)
11.	Sanitation of the facility	301 (52.26)	275 (47.74)
12.	Availability of drugs and other medical supply	252 (43.75)	324 (56.25)
13.	Total cost	415 (72.05)	161 (27.95)

5.4 - Mothers perceived quality of care at labour, delivery and immediate after birth.

When we see the activities done in the maternal unit separately, mothers perceived quality of care given at labour were 302(52.43%). Similarly, mothers perceived qualities of care given during delivery were 305(52.95%) in the study hospitals. In addition, 329(57.02%) of the mothers perceived high quality of care given immediately after birth in the private and government hospitals perceived high quality of care given for the newborn immediate after birth.

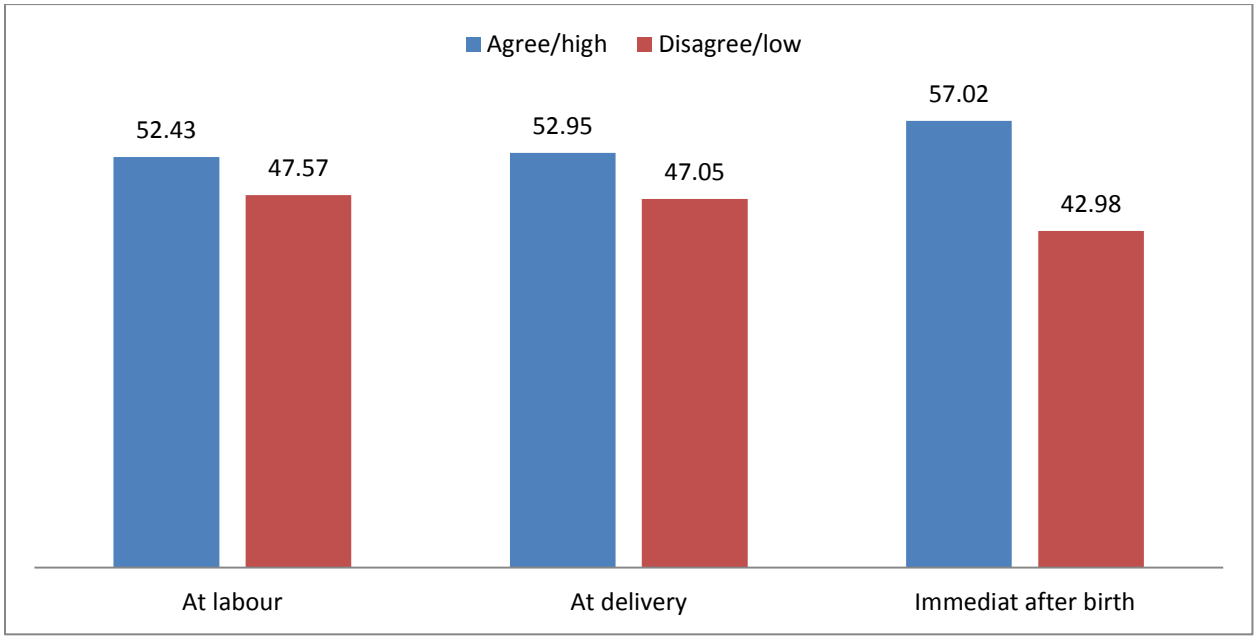

Figure 5: Maternal perception of quality of care at labour, delivery and immediately after birth in selected hospitals of Addis Ababa, Ethiopia 2016.

5.5 Association of mothers perceived quality of care at labour and delivery service with socio demographic and obstetric factors.

When we see the socio demographic and obstetrics characteristic of the mothers, mother‟s religion, marital status, and respondents and partner occupation, number of previous delivery and mode of arrival at the hospitals were not strong predictors for perceived quality of care given at labour and delivery service. Whereas, health problem in the newborn, place of delivery and mode of delivery choice were some of the factors, which are significantly, associated with perceived quality of care.

In the bivariate analyses, mothers‟ education level had significant association with their perceived quality of care. Those mothers who were at higher education rate quality two times higher than those mothers in primary education level did COR(95%CI) 2.3[1.4,3.9]. Mothers who came to the selected hospital without referral rate quality four times higher than those who visit with referral COR (95%CI) 4.08[2.8-5.7]. In addition, waiting time to get service has association with the rating of mothers‟ perceived quality in bivariate analysis. Those mothers who get service within 15-30 minuet were 48% less likely rate higher quality compared to those who waited <15 minuet AOR(95%CI) 0.52[0.3,0.83].

When we move those variables with p value <0.05 to the multivariate analysis, mothers perception on the quality of care were affected by their way of delivery choice, meaning those mothers who delivered by their own mode of choice perceived quality two times higher than those who did not AOR (95% CI) 2.38 [1.38-4.10]. Health problem that occur immediately after birth were significantly associated with mothers perceived quality on the maternal and newborn care. Mothers with babies without health problems rate quality eleven times more higher than those mothers with problem in their newborn baby AOR (95%CI) 11 [6.03-20.16]. Mothers place of delivery have also a significance association with mothers perceived quality of care, those women‟s who deliver in the government hospital were 96% less likely perceived high quality of care than those women who give birth in the private hospital AOR(95%CI) 0.04[0.02,0.09].(table-7)

Table: 7 Association of selected variables with maternal perception of quality of care at labour and delivery service in bivariate and multivariate analysis in selected Hospital of Addis Ababa, 2016.

Characteristics	Perceived quality		COR(95%CI)	AOR(95%CI)
	Agree (n, %)	**Disagree (n,%)**		
Age of respondents				
17-25	97(43.12)	128(56.8)	1.0	
26-34	157(48.61)	166(51.39)	1.2(0.88,1.75)	
>35	16(57.14)	12(42.8)	1.7(0.79,3.89)	
Mother's education				
Primary	44 (36.07)	76(63.3)	1.0	1.0
Secondary	103 (48.58)	109 (53.30)	1.6(1.03,2.58)*	0.8(0.4,1.47)
Technical and Vocational	37 (43.53)	48 (56.67)	1.3(0.7,2.34)	0.7(0.3,1.6)
Higher	72 (57.60)	53 (42.40)	2.3(1.40,3.92) *	0.7(0.3,1.5)
Religion				
Orthodox Christian	167 (46.78)	190(53.22)	1.0	1.0
Muslim	44 (44.4)	55 (55.55)	0.96(0.6,1.5)	0.9(0.5,1.8)
protestant	45 (42.06)	62 (56.07)	0.8(0.5,1.2)	0.4(0.25,0.04)
Others	10 (76.92)	3 (23.06)	3.7(1.1,13.69) *	0.69(0.07,6.36)
Referral				
No	167(65.75)	87(34.45)	1.0	1.0
yes	103(31.99)	2.9(68.01)	0.24(0.17,0.34)*	1.3(0.79,2.27)
Way of transportation				
Ambulance	107 (43.32)	140(56.65)	1.0	1.0
Public transportation	79 (44.13)	100 (55.87)	1(0.70,1.5)	0.64(0.36,1.40)
Own care	75 (59.06)	52(40.94)	1.8(1.2,2.9) *	0.62(0.30,1.25)
By foot	9 (40.91)	13 (59.09)	0.9(0.37,2.19)	1.3(0.36,4.8)
Deliver by way of your choice				
No	85(42.50)	115(57.50)	1.0	1.0
Yes	167 (51.70)	156 (48.30)	1.46(1.02,2.06)*	2.38(1.38,4.10) *
Not sure	18 (33.96)	35(66.04)	0.69(0.36,1.3)	0.93(0.37,2.34)
Newborn problem				
No	258 (60.56)	168 (39.45)	1.0	1.0
Yes	33(24.44)	102 (75.06)	4.70(3.6,7.37) *	11(6.03,20.16) *
Waiting time				
<15 minuet	174 (57.84)	127 (42.49)	1.0	1.0
15-30 minuet	64 (37.43)	107 (62.57)	0.38(0.26,0.56)*	0.52(0.3,0.83)*
30-1 hour	15 (25.42)	44 (74.58)	0.16(0.08,0.33)*	0.41(0.2,0.86)*
>1 hour	13 (28.89)	34 (68.89)	0.29(0.15,0.58)*	0.75(0.37,1.5)
Hospital type				
Private	148(89.70)	17(10.33)	1.0	1.0
Government	122(29.68)	289(70.32)	0.048(0.028,0.08)*	0.04(0.02,0.09)*

Not * is significant at p< 0.05, COR crude odds ratio, AOR adjusted odds ratio

5.6 Factors associated with mothers' perceived quality of care at labour and delivery service in related to process.

When we see the result from the bivariate analysis for factors related to mothers perception of quality at process level, maternal perceived quality had significant association with different clinical practice done in the labour and delivery at p value < 0.05. Such as respect from health providers COR (95% CI) 2.5[1.65-3.9], confortable laboring room COR (95% CI) 2.1 [1.35-3.27], providers ask permission before examination COR (95% CI) 4.6 [3.27, 6.68] and also the general care and support given at labour COR (95% CI) 2.2 [1.51-3.21].

Similarly, maternal perceived quality at delivery have a significance association with conformability and equipped delivery room COR (95% CI) 2.3 [1.6-3.48], privacy at delivery room COR(95% CI) 1.8 [1.25-2.6], confidence and competency of health providers COR (95% CI) 2.3[1.4-3.63] and the general care given at delivery room COR (95%CI) 1.9[1.3-2.8] at p<0.05. In the other way mothers, perceptions of quality did not have significant association with the counseling given about the newborn COR (95% CI) 1.45 [0.91-2.13]. (Table-8)

By using a multivariate logistic regression analysis, we found that perceived health providers respect and courtesy for mothers AOR(95%CI) 2.37[1.25-4.48], comfortableness of labour and delivery room AOR(95%CI) 2.36[1.19-4.6], active labour and delivery follow up AOR (95%CI) 2.45 [1.3-4.6], explanation of labour progress with a clear language AOR (95% CI) 3 [1.7-5.18], health providers confidence and competency at delivery AOR (95% CI) 5.19 [2.6-2.89]and the general care and support given for the newborn AOR(95%CI) 38.56[16.8-88.48] were predictor for mothers to perceive a good quality of care given at labour and delivery in the process level. The table below shows the association of mother"s perceived quality in terms of structural and outcome components with process factors (table-8).

Table: 8 Association of maternal perceived quality of care at labour and delivery service with process factors in bivariate and multivariate analysis in selected Hospital of Addis Ababa, 2016.

Process factors	Perceived quality	Freq (%)	COR(95%CI)	AOR(95%CI)
Respect from health providers	Disagree (n, %)	122(21.18)	1.0	1.0
	Agree (n, %)	454(78.82)	2.5(1.65,3.9)*	2.37(1.25,4.48)*
Comfortable room	Disagree (n, %)	108(18.75)	1.0	1.0
	Agree (n, %)	468(81.25)	2.1(1.35,3.27)*	2.36(1.19,4.6)*
Active labour follow up	Disagree (n, %)	121(21.01)	1.0	1.0
	Agree (n, %)	455(78.99)	2.07(1.355,3.15)*	2.45(1.3,4.6)*
Permission before examination	Disagree (n, %)	260(45.14)	1.0	1.0
	Agree (n, %)	316(54.86)	4.6(3.27,6.68)*	4.8(2.8,8.23)*
Explain the labour progress in clear language	Disagree (n, %)	239(41.49)	1.0	1.0
	Agree (n, %)	337(58.51)	3.3(2.3,4.69)*	3(1.7,5.18)*
Enough examination time	Disagree (n, %)	119(20.66)	1.0	
	Agree (n, %)	457(79.34)	1.3(0.8,2.01)	
Verbal Encouragement at labour and delivery	Disagree (n, %)	134(23.26)	1.0	
	Agree (n, %)	442(76.74)	1(0.7,1.5)	
Enough care and support at labour	Disagree (n, %)	168(29.17)	1.0	
	Agree (n, %)	408(70.83)	2.2(1.51,3.21)*	1.95(0.86,4.4)
Confortable and equipped delivery room	Disagree (n, %)	157(27.26)	1.0	1.0
	Agree (n, %)	419(72.74)	2.3(1.6,3.48)*	2.3(1.02,5.43)*
Competency and confidence of health provider	Disagree (n, %)	111(19.27)	1.0	1.0
	Agree (n, %)	465(80.73)	2.3(1.4,3.63)*	5.19(2.6,2.89)*
Privacy at delivery room	Disagree (n, %)	174(30.21)	1.0	1.0
	Agree (n, %)	402(69.79)	1.8(1.25,2.6)*	1.3(0.58,2.89)
Enough care and support at delivery	Disagree (n, %)	169(29.34)	1.0	1.0
	Agree (n, %)	407(70.66)	1.9(1.3,2.8)*	1.27(0.56,2.87)
Enough information about newborn health	Disagree (n, %)	442(76.74)	1.0	
	Agree (n, %)	134(23.36)	5.19(3.34,8.08)*	
NICU help the newborn to regain	Disagree (n, %)	172(29.86)	1.0	
	Agree (n, %)	404(70.14)	0.32(0.22,0.46)*	
Counseling about breast feed	Disagree (n, %)	87(15.10)	1.0	
	Agree (n, %)	489(84.90)	1.45(0.91,2.13)	
Enough care and support for the newborn	Disagree (n, %)	165(28.65)	1.0	
	Agree (n, %)	411(71.35)	15.06(8.6,26.18)*	38.56(16.8,88.48)*

Not * is significant at p< 0.05, COR crude odds ratio, AOR adjusted odds ratio

5.7 Factors associated with mothers' perceived quality of care at labour and delivery service in related to structural component

All the structural component we use in this study had a significance association with mothers perceived quality of service given at labour and delivery in the bivariate analysis at $p<0.05$ except availability of space and seat for waiting and delivery room AOR (95%CI) 0.9 [0.58-1.40] did not have a significance association with mothers perceived high quality of service given at labour and delivery.

After interning those factor with p-value of <0.05 in to a multivariate analysis, we found a strong predictors for mothers perception of high quality at the structure level. Adequacy of health providers AOR (95%CI) 5.8[3.3-10.2], perceived adequacy of room and bed for mothers AOR (95%CI) 3.8 [2.4-6.16], perceived availability of drugs and lab investigations in the health facility AOR (95%CI) 2.6[1.67-4.32], perceived functional and clean toilet AOR (95%CI) 2.98 [1.86-4.78] were a major structural predictors for mothers perceived quality. The table below shows associations of mother‟s perceived quality in terms of process and outcome component with the structural factors (Table-9).

Table: 9 Association of maternal perceived quality of care at labour and delivery service with stractural factors in bivariate and multivariate analysis in selected Hospital of Addis Ababa, 2016.

Structural factors	Score	Freq(%)	COR 95%(CI)	AOR 95%(CI)
Adequate no of health provider	Disagree N(%)	187(32.47)	1.0	1.0
	Agree N(%)	389(67.53)	11.6(7.26,18.7)*	5.8(3.3,10.2)*
Adequate seat and space for waiting area	Disagree N(%)	141(24.48)	1.0	
	Agree N(%)	435(75.5)	0.9(0.58,1.40)	
Adequate room and bed	Disagree N(%)	268(46.53)	1.0	
	Agree N(%)	308(53.47)	7.7(5.28,11.22)*	3.8(2.4,6.16)*
Adequate medical supply	Disagree N(%)	145(25.17)	1.0	1.0
	Agree N(%)	431(74.83)	1.76(1.19,2.5)*	1.16(0.68,1.97)
Available drug and lab request	Disagree N(%)	220(38.19)	1.0	1.0
	Agree N(%)	356(61.81)	4.4(3.04,6.39)*	2.6(1.67,4.32)*
Functional and clean toilet/shower	Disagree N(%)	236(40.97)	1.0	1.0
	Agree N(%)	340(59.03)	5.2(3.63,7.62)*	2.98(1.86,4.78)*
Reasonable cost of service	Disagree N(%)	263(45.66)	1.0	1.0
	Agree N(%)	313(54.34)	3.6(2.5,5.16)*	2.5(1.5,3.9)*

Not * is significant at p< 0.05, COR crude odds ratio, AOR adjusted odds ratio

5.8 Factor associated with mothers' perceived quality of care in related to outcome (satisfaction)

From the table below (table-10), we can see that some of the satisfaction components are strong predictors for mothers" perceived quality of service at labour and delivery. Satisfaction with the waiting time to get service, AOR (95%CI) 2.4[1.3-4.45], satisfaction with providers attitude AOR (95% CI) 2.49[1.58-3.9], communication between staffs, AOR(95%CI) 1.7[1.12-2.69], satisfaction with the total care given for the newborn, AOR (95%CI) 2.5 [1.6-3.97], satisfaction with sanitation of the facility AOR(95%CI) 1.6[1.02-2.5] and the total cost of service AOR (95%CI) 7.87 [4.22-14.65] were satisfaction components to predict mothers perceived quality. The table below shows that the association of mothers perceived quality of care in terms of structural and process component with the outcome factors (table-10).

Table: 10 Association of maternal perceived quality of care at labour and delivery service with outcome/ satisfaction factors in bivariate and multivariate analysis in selected Hospital of Addis Ababa, 2016.

Satisfaction component	Score	Freq (%)	COR 95%(CI)	AOR 95%(CI)
Waiting time	Dissatisfied N(%)	115(19.97)	1.0	1.0
	Satisfied N(%)	461(80.03)	3.8(2.3,6.18)*	2.4(1.3,4.45)*
Respect for culture and need	Dissatisfied N(%)	220(38.19)	1.0	1.0
	Satisfied N(%)	356(61.81)	1.8(1.3,2.6)*	1(0.62,1.68)
Providers attitude	Dissatisfied N(%)	266(46.18)	1.0	1.0
	Satisfied N(%)	310(53.82)	3.7(2.6,5.38)*	2.49(1.58,3.9)*
Number of health providers	Dissatisfied N(%)	196(34.03)	1.0	1.0
	Satisfied N(%)	380(65.97)	1.59(1.12,2.26)*	1.25(0.805,1.96)
Confidence and competency of health provides	Dissatisfied N(%)	160(27.78)	1.0	
	Satisfied N(%)	418(72.22)	1.41(0.98,2.04)	
Communication between staff	Dissatisfied N(%)	243(42.19)	1.0	1.0
	Satisfied N(%)	333(57.81)	2.8(2.03,4.07)*	1.7(1.12,2.69)*
Participate in decision making	Dissatisfied N(%)	125(21.70)	1.0	1.0
	Satisfied N(%)	451(78.30)	1.6(1.08,2.43)*	1.66(0.95,2.8)
The overall counseling	Dissatisfied N(%)	134(23.06)	1.0	1.0
	Satisfied N(%)	442(76.74)	1.7(1.16,2.5)*	0.95(0.58,1.57)
Care given in labour and delivery	Dissatisfied N(%)	181(31.42)	1.0	1.0
	Satisfied N(%)	395(68.58)	1.6(1.13,2.23)*	1.09(0.68,1.74)
Care given for the newborn	Dissatisfied N(%)	248(43.08)	1.0	1.0
	Satisfied N(%)	328(56.94)	6.67(4.58,9.7)*	2.5(1.6,3.97)*
Sanitation of the facility	Dissatisfied N(%)	301(52.26)	1.0	1.0
	Satisfied N(%)	275(47.74)	3.5(2.5,5.03)*	1.6(1.02,2.5)*
Availability of drugs and other medical supply	Dissatisfied N(%)	252(43.75)	1.0	1.0
	Satisfied N(%)	324(56.25)	2.25(1.6,3.1)*	1.3(0.87,2.06)
Total cost	Dissatisfied N(%)	415(72.05)	1.0	1.0
	Satisfied N(%)	161(27.95)	19.42(11.27,33.4)*	7.87(4.22,14.65)*

Not * is significant at $p< 0.05$, COR crude odds ratio, AOR adjusted odds ratio.

5.9 Qualitative study result

5.9.1 Socio demographic status of the participants

About 35 health providers have participated in the focused group discussion held at four hospitals of Addis Ababa. Each FGD contain 6-10 participants and the discussion took 50-90 minute. About 86% of the participants were midwiferies, 8% of the participants were clinical nurses and the rest are medical doctors. About half of the participants had work experience of less than three year. The rest of the participants had work experience of above 3 year.

5.9.2 Finding from the discussions

Participants in the discussion identified multiple factors that affect the provision of quality of maternal and newborn care. The two major categories under factors affecting provision of quality of care theme were structural factors and process factor. Under the first category, the following codes are emerged. These are inadequacy of staffs, inadequacy of medical supplies, inadequacy of beds and space and the sanitation of the facility. Under the process category, provider‟s skill and confidence are emerged.

Providers perceived quality of maternal and newborn care

All respondents in both private and government hospitals mentioned that many changes have been made in the provision of quality of maternal and newborn care as the result of rapid expansion of programs and police concerning the provision of quality of care.

Majority of the discussant in the government hospitals reported that even if the hospitals are being a referral and have the largest patients flow, they are doing their best to give a better quality of care for the mothers and their new babies. Additional, the discussant in the government hospitals, reported that the quality of care at labour, delivery and immediate afterbirth is improving through time. In support of this a 38-year-old participant with 8-year work experience from FGD4 said

"*In spite of the challenges that we have had we are trying to do our best. We may not make all the mothers happy by offering good quality of care but we can make sure that they get the standards of care during labour delivery and immediate afterbirth."*

Most of the participants in the private hospitals mentioned that since the hospitals are private and maternity hospital and to be the first choice of the mothers and competitive to others private hospitals they have to give the best standard and quality of care for the mothers and their newborn. Because of the above-mentioned reasons and having a longer medical experience in the field of maternal and child health, the participants reported that the quality of care at labour, delivery and immediate after birth is of high quality. In support of this 42-years-old health provider with 15-year work experienced from FGD1 said that

"*This facility was established to fulfill our clients" demands by offering the best quality of care for the mothers and for their newborn babies, and that is what we are doing".*

In spite of giving good quality of care, the participants in both private and government hospital mentioned that they are facing some challenges in the provision of quality of care and support for the mothers and their new babies.

Challenges in the provision of quality of care

A. Human resource

Majority of the participants in the government hospitals mentioned that there is a shortage of health providers in the maternity and newborn care unit. The discussant also reported that because of inadequacy of health staff in the unit they are forced to work extra hours (day and night) without having gaps. In addition, most of the participants mentioned that the number of health providers and the number of delivering mothers are not compatible and this situation becomes even worse during the night shifts. According to the participants, this situation leads the health providers to become tired and boredom, which make them unable to maintain the expected quality of care. In support of this 24-years-old health provider with 3 year of work experience from FGD4 said

"Most of the time we attained more deliveries during the night than the day time and the number of health providers assigned in the night shift is lower than the day shift. So that we cannot reach

all the mothers who needed help at the same time and we are not able to give a proper care for all mothers."

On the contrary, about two third of the participants from the two-focused group discussions held at the private hospitals mentioned that the facilities have adequate number of health professionals and they are available whenever they are need. Additionally, the participants mentioned that equal numbers of health providers were assigned during the night and the day hour. However, the rest of the participants in the focused group discussion reported that in rare occasions they face shortage of specific health providers. In support of this 28 years old participant with 5-year work experience from FGD2 said

"During the holiday and when more than one health providers are out of work for several reason we will be forced to cover all the works with limited number of providers. Therefore, we may not be able to cover all the work efficiently and the clients may rise complain."

B. Availability of drugs and medical supply

Most of the discussant in both private and government hospitals noted that unavailability of medical supplies and equipment"s creates a great challenge in the provision of quality of care. Specially, medical equipment"s that are used for newborn resuscitation like ambo bags and oxygen are usually out of stock. In addition, most of the participants in the government hospitals also mentioned that emergency drugs like Oxytocin, Lidocane, Magnesium Sulphate and some important antibiotics are usually out of stock and they are not replaced within a short period. Moreover, some of the participants in the focus group discussion mentioned that some of the laboratory investigations and drugs are not available in the facilities and the laboratories are not functional during the night hour. Therefore, mothers are forced to spend extra many and develop complications as the result of delay at labour and delivery. Providers with 3 and 10-year work experience from FGD3 and FGD4 said

"*Since our hospital is a referral hospital, we accept newborn babies referred for variety of reasons from other health facility. However, the number of resuscitation material like ambo bag and suckers are not proportional with the number of newborn who need those materials. We are forced to use adult ambo bags in some situation to prevent neonatal death."*

"Because our laboratory did not work 24 hour we will be forced to send the mothers to do some laboratory test outside the hospital. This will led the mothers to spend extra money for these services and also may led them to extra complication of pregnancy and labour."

C. Availability of seats in the waiting area and bed numbers

Most of the providers in the government hospitals mentioned that inadequate space and seat in the waiting area and beds for all delivering mothers are also the major challenges in the provision of quality of care. Half of the providers point out the number of beds and couches are not proportional with delivering mothers. In addition, sometimes mothers will be forced to sleep on the bench and those mothers who delivered through the natural way of delivery and without complications are forced to have their postnatal follow up in the health center near to those hospitals. In support of this 28 years old health provider with 51/2 year work experience from FGD3 said that

"To serve all the mothers who came to this hospital for delivery service we need to have adequate number of bed and couch's. The situation differs here; because of we have limited number of couches in the hospital some mothers have a chance of delivering in the bed than in the couch."

From the two-focused group discussion held in the private hospitals, most of the discussant mentioned that inadequate seat and waiting areas are the challenge in the provision of quality. The participants also mentioned that these problems are associated with the setup of the facility, the buildings were not built for the hospital purpose and this makes the work difficult. In support of this 23 years old health provider with 2-year work experience from FGD2 said

"*Specially, at the reception area the seats are not enough to serve all the mothers. In addition, some of the rooms are too narrow to give care properly."*

D. Provider's skills

About three fourth of participants in the FGD mentioned that majority of them have been working in the same facility for several years and yet they did not get any training related to obstetrics and neonatal care. All the participants agreed with that having these courses for someone who works in labour and delivery unit is very important. The participants noted that

since the knowledge of medical science changes through time the issue of medical practices are also change as the result participants noted that it is mandatory to update their knowledge on maternal and newborn care. Participant with 25years old 3-year work experience from FGD3 said

> " *It is being 4 year since I start working in this hospital I took training on the newborn resuscitation and management three years ago, after that until now I didn,,tget any chance to participate in other on jobs training or refreshment training. Even I did not see any chance coming for my colleagues.it seems that we are completely forgotten"*

On the contrary, same of the participants disagree with the other group of participants. They mentioned that since the hospitals are referral and teaching they have a chance of working with different senior health professionals and they are able to get different skill as the result of this participants point out having these trainings are not this much mandatory.

E. Sanitation of the facility

Majority of the participants in the government hospitals mentioned that there is a shortage of water supply in the facilities. They also pointed out this lead the toilet and the showers become functionless. In addition, some of the participants mentioned that there is also a shortage of cleaning workers (janitors) in the facilities and they are unable to keep the facility clean and safe. In support the idea 28 years old participant with 4-year work experience from FGD4 said

"Usually, we do the cleaning in the delivery room and due to the limited number of couches and work overloud we are not able to follow the proper cleaning procedure in order to clean the couches."

6. Discussion

By using the Donobedian quality model (36) Sofacer and Frimingam model (38) of patient perception of quality conceptual framework with two area of focus were developed. The first one includes, describing mothers experience of quality of care by using the three components of quality structure, process and outcome. The second area describes factors that affect mothers‟ expectation of quality of service in terms of socio demographic characteristic and obstetric experience.

6.1 Mothers perceptions of quality

6.1.1 Socio demographic and obstetric experience

In this study, most of the socio demographic factors such as mothers‟ age (p= 0.24), marital status (p= 0.14), and religion (p=0.137) did not have significance association with mothers‟ perceived quality of labour and delivery care. A similar result had been found in the study conducted in Malawi, socio demographic factors were not found associated with mothers perceived quality of delivery care (mothers age (P=0.81), marital status (p=0.3), religion(p=0.44) (24).

In this study mothers perceived quality of care were not significantly associated with their mode of delivery (p=0.318) COR 0.89(0.64-1.2). On the contrary, study done in Malawi shows that perceived quality of delivery service were found strongly associated with maternal mode of delivery ($p<0.05$) specially those women who deliver by caesarian section perceived quality lower than those mother who delivered in the natural way (24). This may be due to the hospitals included in our study were referral and private hospitals so the facilities were staffed with different professional with experience so there will be relatively low complication in related to mothers outcome.

In this study number of ANC visit during the previous pregnancy did not affect mothers‟ perception of quality of care at labour and delivery. Similarly, study done in Malawi shows that number of ANC visit did not have a significance association with perceived quality of delivery care (p=0.087)(24). However, study conducted in rural Tanzania shows there is a significance association between women who receive larger number of ANC rate the quality of delivery care higher than those who receive less service 0.46, 95% CI (0.18-0.74) (27). This discrepancy

occurs may be due to about 86% of the mothers in our study were on their 4th and above antenatal care visits and since the hospitals are referral these mothers may not have ANC follow up in this facility so the mothers perceptions may not be interfered.

Additionally, in this study mothers‟ place of delivery has a strong association with the perception of good quality of care. Those women‟s who deliver in the government hospital were 96% less likely perceived high quality of care than those women who give birth in the private hospital AOR(95%CI) 0.04[0.02,0.09]. Study done in Northern Ethiopia illustrate that the overall quality of care given for women attending delivery in private hospital were higher than those using public hospital. In addition, perception of poor quality of maternal service is higher (42.6%) among women who had visited public institution compared to private (10.2%) (20).

6.1.2 Structural factor

A. Number of health providers

In this study, the result shows that 65.56% of the mothers agree with the facilities have adequate number of health providers. In addition, having adequate number of health staffs in the facility were found to be a strong predictor for mothers perceived good quality of labour and delivery care AOR (95%CI) 5.8[3.3-10.2]. The result was in line with studies done in Northern Ethiopia and Malawi shortage of health care workers and issue related to their retention were important barriers for quality of care (20, 34). Additionally, from the qualitative findings of this study most of the provider pointed out shortage of staffs as a barrier in the provision of quality of care.

"Most of the time we attained more deliveries during the night than the day time and the number of health providers assigned in the night shifts is lower than the day shifts. So that we will not be able to reach all the mothers who needed help at the same time and we are not able to give a proper care for all mothers."

Another qualitative study done in Sub-Saharan Africa indicated that, health workers recognized shortage of staff as a contributor to a provision of poor quality of care (29). Shortage of staff creates work over loud and working extra hours (day and night). This kind of situation leads the health providers to become tiered and bored and make them unable to maintain the expected quality of care.

B. Number of beds and adequate space.

In this study, we found that only 53.47% of the mothers agreed with that the hospitals have adequate space and number of beds. Additionally, our study shows that availability of space and beds are significant predictor for mothers to perceive higher quality of care AOR 3.8 [2.4-6.16]. These findings were supported by the result from focused group discussion health providers response they identified inadequacy of space and beds were challenges in the provision of good quality of maternal and newborn care.

"To serve all the mothers who came to this hospital for delivery service we need to have adequate number of bed and couch's. The situation differs here; because of we have limited number of couches in the hospital some of the mothers have a chance of delivering in the bed than in the couch."

"*Specially, at the reception area the seats are not enough to serve all the mothers. In addition, some of the rooms are too narrow to give care properly."*

C. Availability of drugs and laboratory investigation

When we see the availability of drugs and laboratory investigations in the facility, shortage of drugs and medical supplies compromise quality and health outcome. In this study, 38.1% of the mothers disagree with the availability of drugs and laboratory investigations in the facilities during their visits. This study also shows that availability of laboratory investigations and drugs in the facility is strong structural predictors for the quality of labour and delivery care AOR (95%CI) 2.6[1.67-4.32]. Similar to our finding, study done in Rural Malawi and Uganda shows that a shortage of drugs and necessary equipment affect the quality of service and health outcome of the mothers and the newborn(24,34). On the contrary, study done in Tanzania shows most of the structural component like availability of drugs and supply did not affect quality rating of the mother AOR(95%CI)-0.10[-0.50,0.30] (27).

D. Availability and cleanness of Sanitation facility

About two hundred thirty six (40%) of the mothers disagree with the availability and cleanness of sanitation facility. Additionally we found that functional and availability of shower and toilet room were a strong predictors for mothers‟ perceived high quality of maternal and newborn care AOR(95%CI) 2.98[1.86,4.78]. Study done in Nepal and Malawi showed similar result that, absence of sanitation facility and water supply had impact on maternal perceived quality and satisfaction (32, 24)**.**

E. Reasonable cost of service.

Only half of the mothers (54.34%) agreed that they pay reasonable cost for service and the rest did not. Study done in eight countries of Africa shows that there is significance association between cost of service and mothers perceived good quality of maternal and newborn care (33). Similarly the result in our study shows that mothers who agreed that they pay reasonable cost for their service perceived high quality of maternal and newborn care AOR (95%CI) 2.5[1.5, 3.9].

6.1.3 Process factors

Study done in Southern Malawi and Tanzania indicate that improved process of service delivery rather than focusing predominantly on the input increase both objective and perceived quality (24,27). Therefore, when we see the process of service from mothers experience and expectation, different factors has been observed in quality of service**.**

A. Information and communication

In this study only 58.51% of the mothers agree that health providers explained the procedure with clear language and also mothers perceived higher quality if the providers explain the procedure with clear language ($p<0.001$) AOR (95%) 3[1.7,5.18]. Similarly, study done in Tanzania shows that perceived quality of delivery care had a significance association with health providers‟ explain the procedure during labour and delivery with clear language (27).

Several studies done in Sub Saharan Africa countries on the measurement of quality in facility based delivery shows inadequate provision of information about the mothers and their newborn

health condition were an important barrier to improve quality (29). This finding appears to be consistence with our finding in this study mothers who have enough information about themselves and their newborn babies‟ perceived higher quality of maternal and newborn care COR (95%CI) 5.19[3.34, 8.08] than the others.

B. Providers attitude

The result in this study shows that mothers perceived high quality of care if the providers shows good attitude, respect and empathy AOR (95%CI) 2.37[1.25, 4.48]. Another study done in Southern Malawi shows similar finding that, staff attitude and empathy affected mothers rating of perceived quality ($p<0.05$) AOR (95%CI) -0.03[-0.05,-0.01] (24).

C. **Health providers' confidence and competency**

Health providers‟ confidence and competency have an effect on mothers‟ perception of quality of care at labour and delivery. In our study, we found that those mothers who agree with the confidence and competency of health providers (80.73%) perceived high quality of care AOR (95%CI) 3.1[1.7, 5.18]. Similarly study done in Tanzania shows that staff confidence and competency have a small effect on mothers perceived quality of maternal and newborn care ($p<0.001$) (27).

D. Equipped and comfortable labour and delivery room

About 72% of the mothers agree that the labour and delivery rooms are comfortable and well equipped and we also found that those mothers who found labour and delivery rooms were comfortable perceived good quality of care AOR(95%CI) 2.3 [1.02, 5.43]. Similar to our finding study done in Northern Malawi shows that the condition of labour and delivery room (comfortable bed and couch) have a significant association with mothers perceived quality of delivery service ($p<0.001$) (24).

6.1.4 Outcomes factor/Satisfaction

In this study delivery outcome (mothers and newborn health outcomes) are not significant predictor for mothers to perceive a good quality of care ($p>0.05$). Similar findings were observed in the Tanzania and Malawi studies, experiencing a complication during labour and delivery and newborn outcomes as reported by women has no association with the rating of quality of care

p=0.312) (27,24). Majority of the participants are from the government hospital and were referred from other health facilities so in the arrival mother may know the outcome of their pregnancy and also majority of the mothers had ANC follow up more than 4 time this may led the mothers to be aware of their health and their babies health.

The average satisfaction score was 43.5 with ± 5.8 and 265 (46.01%) of the mother were satisfied with the overall care given at labour and delivery, which is much higher than the finding from 2013 in maternity referral hospitals of Addis Ababa (2.4-21%) and much lower than the finding in Debere Markose Amahara region, which is 85% (28,39). This may be due to the quality of service provided, expectation of the mothers or type of health facility makes mothers satisfaction differs within the studies.

A. Waiting time

In our study, 80% of the mothers were satisfied with the waiting time to receive care. In addition, we found that having a shorter waiting time to receive care is a strong predictors for mothers perceived good quality of care AOR (95%) 2.4[1.3, 4.45]. The finding in Assela hospital in Ethiopia and study done in Bangladeshi support our findings that the major contributing factor for rating higher quality and being satisfied was shorter waiting time to see health providers AOR(95%CI) 26.7[5.56,128] (35,30). On the contrary, study done in Southern Malawi shows that there is no association found between long waiting time to receive care and mothers perceived poor quality of care (p=0.143) (24).

B. provider's attitude and respect

Different study done on mothers‟ satisfaction of delivery care illustrates that mothers satisfaction were strongly affected by providers respect and courtesy toward them (27, 30, and 39). Similar finding are observed in our study that 46% of the mothers were dissatisfied with providers respect and courtesy and also mothers rating of perceived quality were affected by mothers satisfaction on providers courtesy and respect for delivering mothers AOR(95%) 2.49 [1.58,3.9]. Additionally, study done in Nairobi shows that strong association between satisfaction on providers giving courtesy and respect and mothers perceived quality (OR=3.68.p<0.001) (34).

C. Communication between staffs

In this study, we found that 57.81% of the mothers were satisfied with the communication between staffs about the health condition mothers and their newborn babies. In addition, mothers‟ satisfaction with communications between staffs has a strong association between mothers perceived quality of maternal and newborn care AOR (95%CI) 1.7[1.12, 2.69]. Additionally, study done in Debre Markose shows the clients seem to have higher satisfaction concerning the doctor and the nurse communication with overall satisfaction rate of 88.6% and 91% (39).

D. Sanitation of the facility

Only 47.74 % of the mothers satisfied with the sanitation of the facility. Which is much better than the study done in Addis Ababa that mothers satisfied with the sanitation of the facility were 3.8% and also study done in Assela shows that 76.1% of the mothers were satisfied with the sanitation of the facility (28,35). Additionally, we found that mothers satisfaction on the sanitation of the facility have a strong effect on mothers perceived quality of care AOR (95%CI) 1.6[1.02, 2.5].

E. Cost of the service

Only one hundred sixty one, (27.95%) of the mothers were satisfied with the total cost of the service in the hospital. Additionally, we found that satisfaction on the total cost of service was a significant predictor for mothers‟ perceived good quality of care AOR (95%CI) 7.87[4.22, 14. 65]. On the contrary, cost of delivery service did not affect mothers‟ quality rating AOR (95%CI) -0.24 [-1.02, 0.53] (15).

6.2 Providers' perception of quality of care

Participants in the focused group discussion were able to identified structural and outcomes factors, which contributes to the overall poor quality of maternal and newborn care.

According to the focused group discussion participants, the major challenge they face in the provision of quality of care is inadequacy of health staff in the labour and delivery unit. Since majority of the hospitals included in this study are referral the patient flows are higher than the

other health facility so with limited number of health providers it is difficult to give a standards and quality of care for all the mothers equally. Similar finding from Bangladesh revealed that the quality of maternal and newborn care was poor because of lack of health care personnel (30).

Additional the participants in the FGD were reported that insufficient supply of laboratory investigation and supply of drugs have an effect on the provision of quality of care in the maternal and newborn service. In addition, mothers will be forced to spend extra cost for drugs and laboratory test and this may create a delay in the management of mothers and the newborns. This finding were supported by findings from Malawi study in 2010 shows that insufficient laboratory investigations and drug supply have effect on the quality of diagnostic and treatment of the mothers (24).

Study done in Northern Ethiopia stated that lack of in-service and refreshment training in related to emergency obstetric care by providers have a significant relation to the provisions good quality of care and mothers perceived quality of care (20). Focused group discussion participant in our study similar pointed out trainings related to obstetrics and newborn managements are mandatory.

Health providers in both government and private hospital pointed out that there is a lack of regular, supportive quality supervision in there facility. They say they had evaluation on quarterly base on the achievement of their plans. However, this evaluation would not be enough to solve all the problems that occur during their clinical practice, Study done in Addis Ababa, Bangladeshi and Malawi shows that lack of supportive supervision and follow up was a challenge in the provisions of standard quality of care (12, 30, and 24).

6.3 Strength of the study

- Using mixed study design.
- This study tries to assess perceived quality and perceived patient satisfaction separately.
- Try to assess perceived quality in terms of structural, process and outcome components of quality (Donobedian models of quality).

6.4 Limitation of the study

- The cross sectional nature of the study does not allow the study to establish causal relationship between the different independent and the outcome variables.
- In the future, studies including observational assessment of care by trained clinical observers may provide more accurate measure of association between perceived quality of care and the objective quality of service receive.
- Mothers were interviewed in the hospital setting because of this they may give response favoring the care providers resulting in social desirability bias.

7. Conclusion

In general, mothers in this study perceived quality of care at labour, delivery and immediately after birth was satisfactory. In addition, health providers in the government hospitals perceived the quality of care given at labour, delivery is good, and providers from private hospitals perceived quality of care at labour and delivery as very good.

Multiple factors were found associated with the quality of care from the three dimension (structural, process and outcome). Most of the socio demographic and obstetrics factors were not significant predictors for mothers‟ perceived quality of care at labour delivery and the care given immediate afterbirth.

Structural factors, like adequacy of health providers, adequacy of seats and beds, availability of drugs and laboratory request, availability and functionality of shower and toilets and reasonable cost of service were strong predictors for mothers‟ perceived high quality of care.

Most of the variables under process factors, like providers‟ attitude, confortable and equipped labour and delivery room, communication between mothers and health providers and confidence and competency of providers were strong predictors for high quality of maternal and newborn care.

In addition, from the outcomes factors only mothers‟ satisfaction was become a predictor for mothers‟ perceived high quality of care. Both mothers and providers address that need for improvement specially, the structural component for both the mothers and newborn care.

There is still huge gap between the desired health care quality outcomes and the experienced quality of health care.

8. Recommendation

Facility managers and health providers:-

- Should improve the scope and appropriateness of service provided in the structural process and outcome component.
- Implementing a regular quality assessment section in there facility.

Addis Ababa City Administration Health Beuro:-

- Should have a direct communication with the hospitals and with the staffs for better understanding of challenges that occurs during the provision of care and try to solve the problems urgently.
- Should have also a regular quality assessment program for both private and government hospitals.
- Further study needs to be done by using observational assessment and client perspective as a measuring tool to asses‟ the qualities of care given in the maternal and newborn service in all level of health facilities.

Reference

1. Consultation on improving measurement of the quality of maternal, newborn , childcare in health facilities, World Health Organization and Partnership for Maternal, Newborn and Child Health. Ferney Voltaire, France December 2013.
2. UNICEF, Ethiopian public Health Institute and federal democratic republic of Ethiopia, minister of health. Countdown to a healthier Ethiopia: Building on Successes to Accelerate Newborn Survival, December 2013.
3. Brycer J, Dalmance B, Fauver V., Lawn JE. Masone , N. Shanker A. Wardlawn T. count down to 2015 maternal newborn and child survival. Fulfilling health agenda forwomen‟s and children. The2014 report Lancet 871:1247-58.p 94-95.
4. Anne Austin, Ana Langer, Rehana Salom, Zohar Shaill, Jalk Das and Zulfaferbah Abhuffa. Approaches to improve the quality of maternal and newborn health care: an overview of the evidence Reproductive Health 2014, 11(l2):S1.
5. WHO, UNICEF every newborn an action plan to end preventable death Executive summery 2014 Geneva World Health Organization.
6. The Federal Democratic Republic of Ethiopia Minister of health. Health sector transformation plan, August 2015.
7. Gray L. Dram Staff, Marry V. Kinner, Micky Chopra, Simon Cousin, Vinda K. Poul, and Lily Kak et.al every newborn-1 who has been caring for the babies published on line in May 20/2014.
8. Dorothy Faltman, Best practice in newborn health care VASO research report January 2015. available at http//www.VSO international.org
9. Jennifer Requejo, Cesar Victor, Jennifer Brycer. A decade of tracing progress for maternal, newborn and child survival. Count down to 2015 maternal and child survival report 2015.
10. Federal Democratic Republic of Ethiopia Minster of Health, Basic emergency obstetric and newborn care training manual 2013.
11. Alemenesh Haile Merkuze, Miteke Molla Sisay, Alemenesh Tekele Berehan and Mulu Bedena. Current evidence on emergency obstetric and newborn care service in Addis Ababa crosses sectional study. BMC Pregnancy and Child Birth 2014.14:354

12. Anne Austin1, Hanna Gulema, Maria Belizan, Daniela S Colaci, Tamil Kendall, Mahlet Tebeka et.al. Barriers to providing quality emergency obstetric care in Addis Ababa, Ethiopia: Healthcare providers‟ perspectives on training, referrals and supervision, a mixed methods study BMC Pregnancy and Childbirth (2015) 15:74 DOI 10.1186/s12884-015-0493-4
13. Central Statistical Agency (Ethiopia).2014 Ethiopia Mini Demographic and Health Survey 2014 Addis Ababa Ethiopia.
14. Ernisto Court, Liz Comrie Thomason, Sue England, Asha-George, Steve Hadgine, Mike Mbizova et.al WHO recommendation on health promotion, intervention for maternal and newborn health 2015.
15. Wilunda.C, Putoto.G, Riva.DD, Maninet.F, Alzore A and Callila.F et.al. Assessing coverage equity and quality gaps in the maternal and neonatal care in sub Saharan Africa. An integrate approach 2015. PLOS ONE 10(5) i.eo127827.dol:10.1371/Journal PRON. O.127827.
16. Kim E Dickson, Mary V Kinney, Sarah G Moxon, Joanne Ashton, Nabila Zaka, Aline Simen-Kapeu, Et al Scaling up quality care for mothers and newborns around the time of birth: an overview of methods and analyses of intervention-specific bottlenecks and solutions. BMC Pregnancy Childbirth.2015; 15(Suppl 2): S1 doi: 10.1186/1471-2393-15-S2-S1.
17. Abebaw Gebeyehu Worku, Alemayehu Worku Yalew and Misganaw Fantahun Afework. Availability and components of maternity services according to providers and users perspectives in Gondar, Northwest Ethiopia. Journal of Reproductive Health 2013, 10:43
18. Jelowan K. Kerber C. Enverno-layers O. Masses Betman. Newborn survival in low resource setting; are we delivering? BJOG 2009:116(1):49-59.
19. Bogale Worku newborn corner status in Ethiopia pediatric society 15 annual conferences January 17/2014 Hilton Addis Ababa.
20. Girmatsion Fiseha, Mussie Alemayehu, Balachew Etena, Giday Hailesilase and Ayenesh Zemen. Perceived quality of antenatal care service by pregnant women in public and privet health facility in Northern Ethiopia. America Journal of Health Research 2014, 2(4): 146-151.

21. Jallow LK, Chou YJ, Liu TL, Huang N. Women‟s perception of antenatal care service in public and private clinics in Gambia, international journal of quality of care 2012 24(6): 595-600.
22. Obigeal F. Emailumadu, Ugochuguwa Uchenna Onaynora, Andrew Ouguwana Ukegbu, Nikru N. Ezeama Chicozie, Ozemena Ifeadik, and Obasi Kuno Okezie. Perception of quality of maternal healthcare services among women utilizing antenatal services in selected primary health facilities in Anambra State, Southeast Nigeria. Niger Med J. 2014 Mar-Apr; 55(2): 148–155.
23. Supan D. Wilesingh, and Dulitha N. Fernanado. Maternal perception of quality of antenatal care service in Sirilanka development and validation of a multiple dimensional instrument. International Journal of Inter-displinery and Multi-displinery 2014; 1(9):171-179.
24. Chadzaza E.and Baltimuerei S. Service providers‟ perception of the quality of emergency obstetric care provided and factors identified which affect the provision of quality care Malawi Medical Journal December 2010; 22(4): 104-111.
25. Dozmeku M.V. Maternal satisfaction with labour study of Mamgona Ashanti district hospital maternity unit in Ghana. International Journal of Nursing and Midwifery March 2011; 3(/):30-34.
26. Christab Kambala, Julia Lahman, Jacobe Mataw, Stepheny Banner, Manuela de Allegire and Admasona S.Muula et.al. BMC pregnancy and child birth 2015; 15:169 Doc 10.1186/512884-015-0560-x
27. Eliyasiya, Sabrina Hemossila, Angela Kimweri, Godtray Mbaruku and Margaret E. Kruk. Determinant of perceived quality of obstetric care in rural Tanzania across sectional study. BMC Health Service Research 2014, 14:483.
28. Tadelle Melese, Yirgu Gebrehywet, Daniel Bisetegne and Deregje Habte. Assessment of client satisfaction in lobour and delivery service at maternity referral hospital in Ethiopia. The pan Africa medical journal 2014; 17:76.
29. Vandana Tripaty, Cynthia Stantan, Donana Strobino, Linda Baretlef. Development and validation of an index to measure the quality of facility based labour and delivery care process in Sub-Sahara Africa. Jun 24 2015, DOI:10.1371/Journal. Pone.012949.

30. Ferzan Islam, Aminur Rahman, Abdul Halim, Charli Ekricson, Fazular Rahman and Kostove Dalal. Perception of health care provider and patient in quality of care given in maternal and neonatal health in fourteen Bangladesh government health care facilities.BMC Health Service Research (2015) Dol 10.1186/512913-015-1918-9. available online at: http://www.biomedcentral.com/1472-6963/15/237
31. Gertrud Namizz, Peter Waiswa, Margaret Nakakeeto, Victoria K. Nakakibuto, Sara Namatumba, Maria Najjemba et.al. Strength health facilities for maternal and newborn care. Experience from rural Eastern Uganda 2015 Vol (8) 1654-9880. Available at: <http://www.globalhealthaction.net/index.php/gha/article/view/24271
32. Rajendra Karker, Andy H.lee and Paras K.Pokham. Women‟s perception of quality of maternity service: longitudinal survey in Nepal. BMC pregnancy and child birth 2014.14:45. <http://wwwbiomedcentral.com/1471-2393/14145.
33. Meghan A. Bohren, Erin C. Hanter, heather M. Munthe-Kass, Jaou Poulo Suza, Joushu Pvagel. Facilitators and barriers to facility-based delivery in low- and middle-income countries: a qualitative evidence synthesis. Health Journal 2014, 11:71.doi:10.1186/1742-4755-11-71.
34. Evas Bazma and Michael A. Koenig. Women satisfaction with delivery care in Nairobi informal settlement. International journal of quality of health care 2009; 21(2):79-86.
35. 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. Doi: 10.4172/2161-0932.1000257.
36. `Donobedian A. the definition of quality and approach to its measurement Volume 1 exploration in quality assessment and monitoring 1980.
37. Monica Piccoli, Giorgio Tamburlini and Irccs Burlo Garofolo. Making pregnancy safer, assessment tool for the quality of hospital care for mother and newborn babies WHO 2014.
38. Shoshanna Sofacer and Kirsten Firminger, patient perception of the quality of health service, Annual Review of Public Health 2005, 26:513-559.
39. Kurabaw Bitew, Mekonene Ayichluhum and Kedir Yemam. Maternal satisfaction on delivery service and association factor among mothers who give birth in public health facilities of Debere Markos town northern Ethiopia. Bio med research international volume 2015, article ID 460767.

Annex- I

Conceptual frame work for factors that affect perceived quality

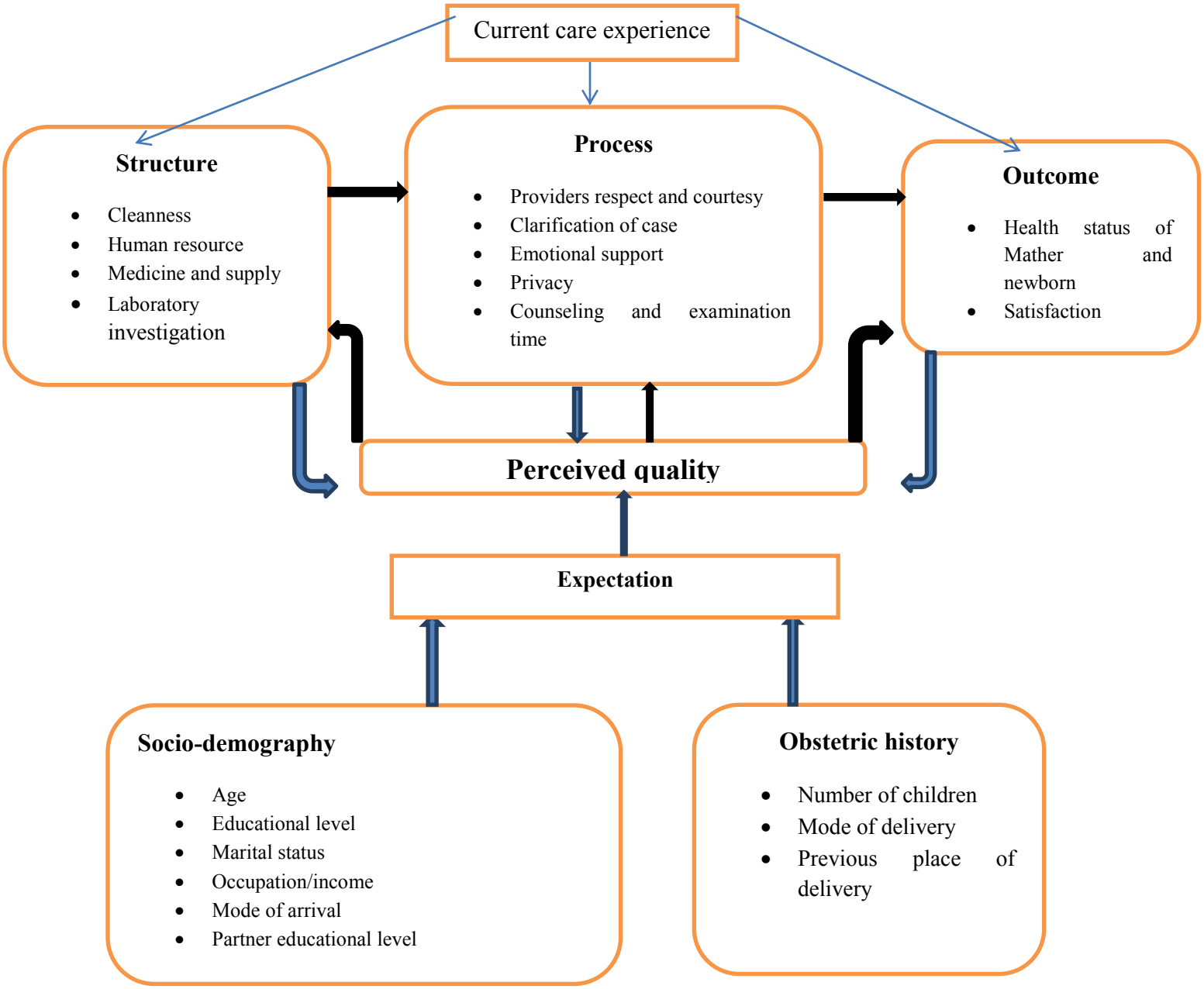

Figure-6 Conceptual framework of perceived quality

N/B. adapted from in combination of the Donobedian system configuration, Sofaer _ Firminger model of patient perception of quality, WHO standards of quality for maternal and neonatal service (36-38).

Annex II - English version information sheet and consent form.

1. Information sheet

Principal investigator :-Samrawit Sileshi

Title:- Assessment of maternal and provider perception on the quality of care at labour and delivery service in selected hospitals of Addis Ababa, Ethiopia.

Sponsor:- Addis Ababa university.

Hello, my name is---------- I am a data collector on behalf of Samrawit Sileshi, a masters student in Addis Ababa University College of Health Science School of Public Health. I would like to ask a few questions about service given in this hospital. So this interview might take 25-30 minutes The objective of this study is to assess mothers and providers perception on the quality of care given for mothers and new born during labour, delivery and immediate after birth. So this interview might take 25-30 minutes

Your name will not be written anywhere in the form and all the information you give us is confidential except for the purposes of this study and it will never be disclosed for the third parity. In addition, I would like to inform you that by participating in this study, you will get no short term or long term risk or benefit. I also would like to inform you that you have a full right to withdraw from the study or to stop the interview any time or to skip any question that you do not want to answer. Your cooperation and willingness for the interview is very helpful in identifying the problem related to the issue.

2. Participant's statement/written consent

I the undersign have been informed that the purpose of this study is assessing providers" and mothers" perception of care given at the time of delivery and immediately after delivery by hospitals in Addis Ababa.

- I have been informed that I am going to response to those questions by answering that I know about the issue.
- I have also informed that the information I give will be used only for the purpose of this study.
- I have been informed that there is no long term or short-term risk or benefit that I will get by participating in this study.
- My identity and the information I give will be confidential. I can refuse to participate in the study or not to respond question that am not willing to answer stop whenever I feel to stop.

So do you agree to participate in this study?

- Respondent agrees to be interviewed ☐ go to the next part.
- Respondent does not agree to be interviewed ☐ stop interview.

Thank you very much.

Based on the above information I agree to participate in the study voluntarily. **Signature----------.**

If you have any question or doubt, you can contact as with the address below.

Contact address: - Name of the investigator: - Samrawit Sileshi

Tell:- +251-913-42-38-67 E-mail samrawitsileshi@gmail.Com

Annex-III English version questionnaire

- Questions on the assessment of mother‟s perception in the quality of care given in maternal and newborn care unit in the selected hospitals of Addis Ababa, Ethiopia.

- Circle the response in the response column that best matches with the answer of the respondent.

01. Questioner identification number----------

02. Interviewer code ---------- and name ----------

03. Date of interview ----------

04. Hospital code ----------

Part I : -Socio-demographic characteristic of the respondent and spouse/partner

s.no	Question	Response	Code	Skip
	Time of interview start	----------		
101.	In what day, month and year were you born?	--------/--------/--------- I don‟t know		
102.	How old are you in your last birthday?	----------		
103.	Have you ever attended a formal education?	1. Yes 2. No →		105
104.	What is the highest level of school you attend? • Primary school- 1-8 • Secondary 9-12 • Higher- degree and above	1. Primary school 2. Secondary school 3. Technical/vocational 4. Higher education		
105.	What is your current Marital status?	1. Married/in union 2. Single/unmarred 3. Divorced 4. Widowed 5. Separated →		108
106.	Male partner‟s educational status.	1. Illiterate 2. Primary school 3. Secondary school 4. Technical/vocational 5. Higher education		
107.	Male partner‟s occupation.	1. Unemployed 2. Government employee 3. Private employee 88. Other(specify)----------		
108.	Respondent occupational status.	1. Unemployed 2. Government employee 3. Private employee 88 .Other(specify) ----------		
109.	Average monthly household income in Ethiopian Birr.	----------		

110.	Which religion do you fallow?	1. Orthodox 2. Muslim 3. Catholic 4. Protestant 88 Other(specify) ----------		
111.	Was this your first pregnancy?	1. Yes 2. No →		114
112.	How many children do you have?	----------		
113.	Where did you give birth at your previous pregnancy?	----------		
114.	Were you referred in to this hospital from other health facility for delivering your latest pregnancy?	1. Yes 2. No		
115.	What kind of transportation did you use to come to this hospital for delivering your latest pregnancy?	1. Ambulance 2. Public service 3. Own car 4. On foot 88. Other(specify) ----------		
116.	How money time did, you take antenatal care service for the latest pregnancy before delivery.	1. One 2. Two 3. Three 4. Four 5. None		
117.	How did you give birth?	1. Vaginal 2. Caesarian section 88. Other(specify) ----------		
118.	How long did you wait in this hospital before receiving care from health providers for this last delivery?	1. <15 minute 2. 15-30 minute 3. 30-1 hour 4. > 1 hour		

Part II: - Questions of perception on the care given during labour, delivery and immediately after birth.

sr.no	Item	response	code	skip
A	**During the time of labour (for this last delivery)**			
201.	Received proper respect and courtesy by the health providers during examination.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
202.	The environment where you were laboring was comfortable.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
203.	Health workers examined thoroughly and made active follow up on the progress of labour.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		

204.	Health providers asked permission before applying any procedures and examination	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
205.	Health worker explained the labour progress to you by using your local and clear language.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
206	Have you felt confused because different member of staff have given you conflicting advice or information.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
207.	Health workers spent enough time for examination.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
208	Health workers verbally encouraged, praised and reassured during the time of labour.	1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree		
209	You got enough care and support during the time of labour.	1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree		
B	**During the time of delivery(in your latest pregnancy)**			
210.	It felt that the delivery room has every material needed to provide good maternal and newborn care.	1. Strongly disagree 2. Disagree 3. Agree 4. Strongly agree		
211.	Felt that delivered in way of your choice.	1. Yes 2. No 99. Not sure		
212.	It appeared that the health providers were looks like competent and were confident on their work.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
213.	Felt that your privacy was kept in delivery room.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
214.	You get enough care and support during the time of delivery.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		

215.	How was your health condition after giving birth?	1. Normal 2. With complication		
C.	**For the care given immediately after birth.(for the latest baby)**			
216.	Birth outcome after delivery	1. Live birth 2. Neonatal death 3. Stillbirth 88. Other (specify)----------		→ 301
217.	Was there any health problem on your newborn baby?	1. Yes 2. No		→ 222
218.	Was your baby taken away just after birth to special area for sick babies?	1. Yes 2. No		
219.	You were able to ask any question about your baby at any time.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
220.	Neonatal corner and intensive care units are helping newborns to do well (special area for sick babies).	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
221.	Received enough support from the staff in breast-feeding your baby immediately after birth and how to take care of your baby.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
222.	Your baby received enough care and support.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		

Part III :- Structure /capacity of hospitals

301.	Felt that there was enough number of health providers in labour and delivery ward.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
302.	The health workers in the labor and delivery ward were available whenever you needed help.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
303.	Felt that the waiting room of the hospital had enough seats and acceptable sanitation.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
304.	Felt that there were sufficient rooms, beds and space for laboring and delivering mothers.	1. Strongly disagree 2. Disagree 3. Neutral		

		4. Agree 5. Strongly agree		
305.	Felt that there were available and adequate medical supply and drugs.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
306.	Was there any laboratory investigation ordered for you?	1. Yes 2. No →		308
307.	You got all the laboratory investigation requested for you in this hospital.	1. Strongly disagree 2.Disagree 3. Neutral 4.Agree 5.Strongly agree		
308.	Did the labour and delivery ward have toilet and shower room?	1. Yes 2. No →		310
309.	The toilets and showers were functional and clean enough.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		
310.	Have you had to pay for any services or products during your stay?	1. Yes 2. No →		401
311.	The cost of the service was reasonable and based on your capacity.	1. Strongly disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly agree		

Part IV :- Satisfaction

401.	About the total time, you waited to receive service (see doctor).	1. Strongly dissatisfied 2. Dissatisfied 3. neutral 4. satisfied 5. Strongly satisfied		
402.	The way staffs have treated you with respect and respected your personal wishes, your culture, and your religion.	1 Strongly dissatisfied 1. Dissatisfied 2. Neutral 3. satisfied 4. Strongly satisfied		
403.	The general support and care you received from the health professional and respect for your privacy during your stay.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. satisfied 5. Strongly satisfied		
404.	By the number of health worker in the labour and delivery, ward.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. satisfied 5. Strongly satisfied		
405.	By health workers competency and their confidence on their job.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied		

		5. Strongly satisfied		
406.	The communication between doctor, nurse and other health staff about your treatment and condition.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied		
407.	The way staff involved you in decision about you and your baby condition.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied		
408.	By the overall Counseling that were given in your hospital stay.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 3. satisfied 4. Strongly satisfied		
409.	By the overall care and support, given during labour and delivery time.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. satisfied 5. Strongly satisfied		
410.	By the care and support given for your newborn baby.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. satisfied 5. Strongly satisfied		
411.	The overall cleanness and sanitation of the facility.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. satisfied 5. Strongly satisfied		
412.	The supply of basic drugs and equipment.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. satisfied 5. Strongly satisfied		
413.	The total cost, you spend in the hospital.	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. satisfied 5. Strongly satisfied		
414.	Would you seek delivery service in the same facility next time if you get pregnant?	1. Yes 2. No		
415.	Would you recommend this facility to your family and other relatives?	1. Yes 2. No		

416. Would you please mention if you have any comment or suggestions to improve the quality of service given at labour, delivery and newborn care?

Time interview end ----------..

Thank you very much.

Annex IV – Guide for focus group discussion (FGD)

Good morning well came to this group discussion. I am ----------. I came from Addis Ababa University College of Health Science School of Public Health. I am here today to discuss with you about your perception on the quality of care given for mothers and new born during the time of labour, delivery and immediately after birth in your hospital. The discussion will not take more than one and half an hour. There is no right and wrong answer. All comments both positive and negative have an input for the discussion. Therefore, you need not wait for me to call on you. Please note that this session will be recorded or will be taking notes to ensure we adequately capture your ideas during the conversation. However, the comments from the focus group will remain confidential and your name will not be attached to any comments you make. If you have any questions contact as with this address.

Contact address: Name of the investigator:- Samrawit Sileshi

Tell :-251-1913-42-38-67 e mail:-samrawitsileshi@gmail.com

Date, ------/-----/--------.

Type of participant ----------.

Time FGD start ----------.

Number of participant ----------.

Time FGD ended ---------- venue at the FGD ----------.

Consent to Participate in Focus Group discussion

You have been asked to participate in a focus group discussion prepared by master student from Addis Ababa University School of Public Health. The purpose of this group discussion is to assess provider‟s perception of the quality of care given in maternal and newborn care unit and identify factors associated with the quality of care. The information learned in the focus groups will be used to solve problems in related to the quality of care and intended to improve service provision.

You can choose whether to participate in the focus group and stop at any time. Although the focus group will be tape recorded, your responses will remain anonymous and no names will be mentioned in the report. There are no rights or wrong answers to the focus group questions. We want to hear many different ideas and we would like to hear from every one of you. We hope you can be honest even when your responses may not be in agreement with the rest of the group. In respect for each other, we ask that only one individual speak at a time in the group and that responses made by all participants be kept confidential. If you have any doubt or question you can contact as by the address stated bellow.

Contact address: - Investigator name: - Samrawit Sileshi

Tell; - 251-1913-42-38-68 e mail:-samrawitsilshi@gmail.com

I understand this information and agree to participate fully under the conditions stated above:

Signed: _____ Date: _____

I. Discussion point

1. Let us start our discussion by explaining why mothers chose your facility for delivery service?

2. How do you describe the quality of care provided to mother and newborn in this facility?

3. Would you describe too us any challenge you face in the provision of quality of care?

- Number of staff.
- Medical supply and equipment‟s.
- Skill mix is appropriate to cope with patient flow and case mix.
- Sanitation of the facility.
- Availability of space and seat in the waiting area and bed numbers.
- External accreditation/supervision visits.
- Training updates organized by the hospital.

4. Is there anything else we have not discussed yet that you think is important for our discussion and finding?

Annex V Amharic version of the questionnaire

የመረጃመሰጫእናስምምነትቅጽ(ውል)

በአዲስ አባባ ከተማ አስተዳደር ስር በሚገኙ ሆስፒታሎች ለእናቶች እና አዲስ ለተወለዱ ህጻናት በሚሰጡ አገልግሎቶች ጥራት በተገልጋዮች አይታ ምን እንደሚመስል ለመመዘን እና በአገልግሎት አሰጣጥ ላይ የሚታዩ ችግሮችን ለመለየት የተዘጋጀ መጠይቅ፡፡

1-የመረጃ ቅጽ

የጥናቱ ባለቤት፤ ሳምራዊት ስለሺ

የ ጥናቱ እርእስ፡ በአዲስ አባባ ከተማ አስተዳደር ስር በሚገኙ ሆስፒታሎች ለእናቶች እና አዲስ ለተወለዱ ህጻናት በሚሰጡ አገልግሎቶች ጥራት በተገልጋዮች አይታ

ጥናቱን የሚያሰራው፡- አዲስ አበባ ዩኒቨርስቲ

ጤናይስጥልኝስሜ----------ይባላል፡፡እኔ የመረጃ ሰብሳቢ ስሆን፤ ይህንን መረጃ የምንሰበስበው ለሳመራዊት ስለሺ በአዲስ አበባ ዩኒቨርስቲ የህክምና ሳይንስ በህብረተሰብ ጤና ትምህርት ክፍል በሚደረግ ጥናት የማስተርስ ትምህርታቸውን ለማጠናቀቅ እንዲረዳቸው ነው፡፡የጥናቱ አላማ በሆስፒታሉ ለእናቶችና ለጨቅላለ ህጻናት በምጥ በወሊድ እና ከወሊድ በኋላ በሚሰጡ አገልግሎቶች ጥራት በተገልጋዮች አይታ ምን እንደሚመስል እና በአገልግሎቱ ላይ የሚታዩ ችግሮችን ለመለየት የሚረዳ ይሆናል፡፡ ስለዚህ ይህንን አሰመልከቶ የተወሰኑ ጥያቄዎችን ለመጠየቅ 25-30 ደቂቃ ሊፈጅ ይችላል፡፡ በጥናቱ ላይ የእርሶ ስምና አድራሻ አይጠቀስም፡፡ የሚሰጡትም መረጃ ከዚህ ጥናት አላማ ውጭ ለሌላ አካል ተላልፎ አይሰጥም ሚስጥራዊነቱም የተጠበቀ ነው፡፡በዚህ ጥናት ላይ በመሳተፎ የሚደርስቦት ጉዳት ወይም ጥቅም እንደሌለ ለመግለጽ እንወዳለን፡፡

በዚህ ጥናት መሳተፍ ካልፈለጉ እመቢ ወይም በቃለመጠይቁ መሀል ማቋረጥ አለበለዚያም መመለስ የማይፈልጉትን ጥያቄ ካለ መዝለል ይችላሉ፡፡ የእርሶ ትብብር በጥናቱ ላይ ለሚነሱጥ ያቄዎች ለመመለስ አስፈላጊ ሆኖ ስላገኘነው በጥናቱ ላይ በፍቃደኝነት እንዲሳተፉ እንጠይቃለን፡፡

2. የስምምነት ቅጽ

እኔ ፌርማዬ ከዚህ በታች የተመለከተው ግለሰብ የዚህጥናት አላማው በዚህ ሆስፒታል ውስጥ ለእናቶችና ለጨቅላ ህጻናት በምጥ፤ በወሊድ እና ከወሊድ በኋላ ስለሚሰጡ አገልግሎቶች ጥራት የተገልጋዮች እይታ ምንእንደሚመስል ለመመዘን እና ያሉትን ችግሮች ለመለየት እንደሆነ ተገልጻልኛል፡፡ በዚህም መሰረት

- ✓ ስለሁኔታው የማውቀውን መመለስ እንዳለብኝ ተብራርቶልኛል፡፡
- ✓ የምሰጠው መረጃ ለዚህ ጥናት አላማ ብቻ እነደሚውል ተነግሮኛል፡፡
- ✓ በዚህ ጥናት ላይ በመሳተፌ የሚደርስብኝ የረጅም ወይም የአጭር ጊዜ ጉዳት ወይም የማገኘው ጥቅም ያለመኖሩን ተገልጻልኛል፡፡
- ✓ በተጨማሪም በጥናቱ ላይ ያለመሳተፍ ወይም መመለስ የማልፈልገው ጥያቄ ካለ መተው እንደምችልም ተረድቻለሁ፡፡

ከላይ በተሰጠኝ መረጃ መሰረት በዚህ ጥናት ለይ መሳተፍ ፍቃደኛነኝ፡፡

ፊርማ ----------

በጥናቱ ላይ ለመሳተፍ ፍቃደኛ ኖት?

በዚህ ጥናት ላይ ለመሳተፍፍ ቃደኛ ነኝ፡፡ወደቀጣዩ ይለፉ፡፡ ☐

በዚህ ጥናት ላይ ለመሳተፍ ፍቃደኛ አይደለሁም፡፡ጥያቄውን ያቁሙ፡፡ ☐

መጠየቅ የምትፍልጉት ወይም ግልጽ ያልሆነ ነገር ካለ ከታች በተጠቀሰው አድራሻ ማግኘት ይችላሉ፡፡

አድራሻ፡- የጥናት አድራጊው ስም፡- ሳምራዊት ስለሺ

ስልክ ቁጥር፡- +251-913-42-38-67 ወይም 251-910-55-02-95/ E-mail- samrawitsileshi@gmail.com

ቃለመጠይቅ

- ለእናቶች እና አዲስ ለተወለዱ ህጻናት ስለሚሰጡ አገልግሎቶች ጥራት በተገልጋዮች እይታ ምን እንደሚመስል ለመመዘን እና ያሉትን ችግሮች ለማወቅ የተዘጋጀ መረጃ መሰብሰቢያ መጠይቅ፡፡
- ከተጠያቂው መልስ ጋር የሚመሳሰለውን መልስ መርጣችሁ አክብቡ፡፡.
- 01.የመጠይቅ መለያ ቁጥር----------
- 02.የመረጃ ሰብሳቢው ኮድ---------- ስም ----------
- 03.መጠይቅ የተደረገበት ቀን----------
- 04.የሆስፒታሉ ኮድ----------

ክፍል I ፡-የተጠያቂዋ እና የትዳር ጓደኛዋ ማህበራዊ እና ዲሞግራፊያዊ ነባራዊ ሁኔታ

ተቁ	ጥያቄ	መልስ	ኮድ	ማለፊያ
	ቃለመጠይቁየተጀመረበትሰዓት	----------		
101.	በየትኛውቀን፤ወርእናአመተምህረትነውየተወለድሽው?	----------/----------/----------		
102.	በመጨረሻልደትሽንስታከብሪስንተኛአመትሽንነበር?	----------		
103.	የመደበኛትምህርትተከታትለሽታውቂያለሽ?.	1. አዎ 2. አላውቅም →		105
104.	ከፍተኛውየደረሽበትየትምህርትደረጃ? -የመጀመሪያደረጃ-(1-8) -ሁለተኛደረጃ-(9-12) -ከፍተኛ-(ድግሪእናከዚያበላይ)	ι. የመጀመሪያደረጃ2. ሁለተኛደረጃ 3. ቴክኒካልእናቫኬሽናል 4.ከፍተኛየትምህርትተቋም		
105.	የጋብቻሁኔታ	1. ያገባች/በአንድላይየሚኖሩ 2. ያላገባች 3. የፈታች 4. የሞተባት 5. የተለያየች →		108
106.	የትዳርጓደኛየትምህርትደረጃ?	ι. የመጀመሪያደረጃ2. ሁለተኛደረጃ 3. ቴክኒካልእናቫኬሽናል 4.ከፍተኛየትምህርትተቋም		
107.	የትዳርጓደኛየስራሁኔታ?	1. ስራየሌለው2. የመንግስትተቀጣሪ 3. የግለሰብተቀጣሪ4. በግልየሚሰራ 88. ሌላ (ይጥቀሱ) ----------		
108.	የተጠያቂውየስራሁኔታ?	ι. ስራየሌለው2. የመንግስትተቀጣሪ 3. የግለሰብተቀጣሪ 4.በግልየሚሰራ 88. ሌላ (ይጥቀሱ) ----------		
109.	አማካኝወርሃዊአጠቃላይየቤትገቢብር?	----------		
110.	የየትኛውእምነትተከታይኖት?	1. ኦርቶዶክስ2. ሙስሊም 3. ካቶሊክ 4.ፕሮቴስታንት 88. ሌላ (ይጥቀሱ) ----------		
111.	የአሁኑእርግዝናዎየመጀመሪያእርግዝናዎትነበር?	1. አዎ 2. አይደለም →		114
112.	ስንትልጅችአሎት?	----------		
113.	ከዚህቀደምበነበረውእርግዝናዎወቅትየትነበርየወለዱት?	----------		
114.	በአሁኑእርግዝናዎለወሊድአገልግሎትወደእዚህሆስፒታልየመጡትከሌላጤናተቋምተላለፍው/ተዘዋወረውነው?	1. አዎ 2. አይደለም		

115.	በአሁኑእርግዝናዎለወሊድአገልግሎትወደሆስፒታሉ ሲመጡምንአይነትየመጓጓዣመንገድተጠቀሙ?	1. አንቡላንስ2. በህዝብትራንስፖርት 3. በግልምኪና 4.በእግር 88. በሌላማንገድ (ይጠቀስ)----------		
116	ለአሁኑእርግዝናዎለምንያህልጊዜየቅድመወሊድክትትል አደረጉ?	1. አንድጊዜ 2.ሁለትጊዜ 3. ሶስትጊዜ 4.አራትጊዜ 5.አላደረኩም		
117.	በአሁኑ እርግዝናዎ ልጆትንበምንአይነትመንገድወለዱ?	1. በተፈጥሮመንገድ 2. በኦፕሬሽን 88. በሌላመንገድ ----------		
118.	በጤና ባለሙያዎቹ ህክምናከማግኘቶበፊትበሆስፒታልውስጥለምንያህል ጊዜቆዩ?	1. 15 ደቂቃ2. ከ15-30 ደቂቃ 3. ከ30-1 ሰዓት4. ከ1 ሰዓትበላይ		

ክፍል II -በምጥበወሊድእናከወሊድበኋላ ወዲያውኑያሳዩትን አገልግሎቶች የእርሶ አእይታን በተመለከተ የተዘጋጁ ጥያቄዎች

ተ.ቁ	ጥያቄ	መልስ	ኮድ	ማለፊያ
ሀ	**በምጥጊዜየነበሩሁኔታዎች**			
201.	ከጤና ባለሙያዎቹመልካምየሆነእናአክብሮትየተሞላበትአቀባበልአግኝተው ነበር።	1. በጣምአልስማማም2. አልስማማም3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
202.	የሆስፒታሉየምጥሰአትማቆያክፍልአመቺነበር።	2. በጣምአልስማማም2. አልስማማም3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
203.	ጤናባለሙያዎቹምርመራዎችን በደንብ(በአግባቡ)በማድረግየምጡንሁኔታ በንቃትይከታተሉነበር።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
204.	የጤናባለሙያዎቹምርመራወይምክክርናከማድረጋቸውበፊትያንቺንፍቃደኝነትጠይቀዋል።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
205.	ባለሙያዎቹየምጡንሁኔታበተመለከተበሚገባሽቋንቋ **እና** ግልጽበሆነመንገድገለጻአድርገዋል።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
206.	ከተልያዩባለሙያዎችየተለያዩመረጃዎችእናምክሮችን በማግኘትሽየመደናገርሁኔታተሰምቶሽነበር።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
207.	የጤና ባለሙያዎቹ ለምርመራ የወሰዱት ሰአትበቂነበር።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
208.	በምጥላይበነበርሽበትወቅትየጤናባለሙያዎቹአንቺን የሚያበረታቱናየሚያረጋጉቃላቶችንይጠቀሙነበር።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		212
209.	በምጥጊዜማቆያክፍልውስጥበቂየሆነድጋፍናእናአንክብካቤተደርጓልሽ ነበር።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
ለ	**በወሊድሰአት(ልጅሽን በተገላገልሽበት ጊዜ)**			
210.	የማዋለጃክፍሉለእናቶችእናአዲስለተወለዱትህጻናት እንክብካቤበሚውሉመሳሪያዎችእንደተማላመስል ነበር።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
211.	የወለድሽበትሁኔታአንቺበፈለግሽውመንገድእንደሆነ ተሰምቶሻል።	1. አዎ 2. አይደለም 99. እርግጠኛአየደለሁም		
212.	ድጋፍናእንክብካቤያደርጉልሽየነበሩየጤናባለሙያዎቹበሚሰሩትስራብቃት የነበራቸውእናበራስመተማመንይታይባቸውነበር።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
213.	በማዋለጃክፍልውስጥነጻነትሽእንደተጠበቀ ተሰምቶሽ ነበር።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
214.	በማዋለጃክፍልውስጥበቂየሆነድጋፍናእናእንክብካቤ ተደርጓልሻል።	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
215.	ከወሊድበኋላየነበረሽየጤናሁኔታ እንዴት ነበር?	1. ጤናማ 2. የተወሳሰበሁኔታ		
ሐ	**አዲስለተወለዱህጻናትየሚደረግእንክብካቤ**			

216.	የተወለደውህጻንየጤናሁኔታ	1. በህይወትየተወለደ 2. ሞቶየተወለደ 3. ከተወለደበኃላየሞተ 88. ሌላይገለጽ----------		301
217.	አዲስየተወለደውህጻንልጅሽበጤናውላይያጋጠመው ችግርነበር?	1. አዎ 2. የለም		221
218.	ህጻንልጅሽወዲያውኑእንደተወለደወደየተለየእንክብካቤለሚስፈልጋቸውህጻናቶችማቆያተወሰዶነበር?	ነ. አዎ 2. አይደለም		
229.	ልጅሽስለሚደረግለትህክምናእናከህክምናከወጣበኋላ ስለሚደረገውነገርበቂመረጃነበረሽ፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
220.	የህጻናትማቆያኮርነርእናየተለየእንክብካቤናጥንቃቄለ ሚሹጨቅላህጻናትህክምናመስጫመኖሩለህጻኑህይወ ትመትረፍእገዛአድጓል፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
221.	ልጅሽእንደተወለደስለጡትማጥባት እና ስለ ልጅ አያያዝበቂየሆነድጋፍእናምክርከባለሙያዎችአገኙተሽ ል፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
222.	አዲስለተወለደውህጻንልጅሽየተሰጠውድጋፍ እናእንክብካቤበቂነበር፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		

ክፍል III - አጠቃላይየሆስፒታሉንአቋም/መዎቅርንበተመለከተ

301.	በቁጥርበቂየሆኑየጤናባለሙዎችበምጥአናበማዋለጃ ክፍልውስጥያሉየመስል ነበር፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
302.	በምጥእናበማዋልጃክፍልየሚሰሩባለሙያዎችእርዳታ ባስፍለገሽሰአትሁሉበቦታውይገኙነበር፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
303.	ህክምናከማግኘትሽበፊትየነበርሽበትማቆያክፍልበቂየ ሆኑወንበሮች እናንጽህናውን የጠበቀ የመስልነበር፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
304.	ለሚያምጡ እና ለሚወልዱ እናቶች በቂ የሆኑ ክፍሎች፣ አልጋዎች እና ቦታዎችነበሩ፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
305.	በቂየሆነየመድሃኒትእናየህክምናመገልገያእቃዎችአቅር ቦትነበር፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
306.	የታዘዘልሽየላብራቶሪምርመራነበር?	1. አለ 2. የለም		308
307.	የታዘዙልሽየላብራቶሪምርመራዎችበሙሉእዚህሆስ ፒታልውስጥይኖነበር፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
308.	የእናቶች እናየህጻናትክፍሉመታጠቢያእናመጸዳጃቤትነበረው?	1. አለ 2. የለም		310
309.	መታጠቢያ እናመጸዳጃክፍሎቹአገልግሎትየሚሰጡእናንጽህናች ውየተጠበቁነበሩ፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		
310.	በሆስፒታሉቆይታሽወቅትለተሰጠሽህክምናአገልግሎ ትየተጠየቅሽው ክፍያ ነበር?	1. አዎ 2. አላወጣሁም		401
311.	የተጠየቅሽውክፍያምክንያታዊእናአቅምንያገናዘበነበር ፡፡	ነ. በጣምአልስማማም2. አልስማማም 3. ገለልተኛ 4. እስማማለሁ 5.በጣምእስማማለሁ		

ክፍል IV- እርካታንበተመለከተ

401.	የህክምና አገልግሎቱንእስካገኘሽበት ጊዜ ድረስ በቆየሽበትሰአት፡፡	ነ. በጣምአልረካሁም2. አልረካሁም3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
402.	የሆስፒታሉየጤናባለሙያዎችወይምሌሎችሰራተኞች ለምርጫሽ፣ለባህልሽእናለሀይማኖትሽበሰጡትአከብ ሮትናአጠቃላይመስተንግዶ፡፡	ነ. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
403.	በአጠቃላይከባለሙያዎችበተደረገልሽድጋፍእናእንክ ብካቤ ለነጻነትሽ ባላቸው አክብሮት፡፡	ነ. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
404.	በምጥእናበማዋለጃክፍልባሉትየህክምናባለሙያዎች ቁጥር፡፡	ነ. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		

405.	በጤናባለሙያዎቹበሚሰሩትስራበራስመተማመንእና ስራው ላይ ባላቸውቢቃት፡፡	ι. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
406.	በህኪሞቹ፣በነርሶቹእናበሌሎችየሆስፒታሉባልደረባ ዎችመህከልባንቺሁኔታእናህክምናላይበነበረውየመረ ጃልውውጥ፡፡	ι. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
407.	ባንቺእናበህጻንልጅሽየጤናሁኔታላይበውሳኔመሳተፍ ሽ	ι. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
408.	በአጠቃላይ በሆስፒታሉቆይታሽበተሰጠሽየምክርአገልግሎት፡፡	ι. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
409.	በአጠቃላይበምጥእናበወሊድሰአትበተደረገልሽድጋፍ ናእንክብካቤ፡፡	ι. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
410.	አዲስለተወለደውህጻንልጅሽበተሰጠውድጋፍእናእን ክብካቤ፡፡	ι. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
411.	በአጠቃላይየሆስፒታሉየአካባቢውጽዳትእናንጽህና፡፡	ι. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
412.	ባሉትየመድሃኒት፣እናየህክምናመገልገያእቃዎችአቅር ቦት፡፡	ι. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
413.	በሆስፒታሉ ለህክምናውአጠቃላይባወጣሽውወጪ፡፡	ι. በጣምአልረካሁም2. አልረካሁም 3. ምንም አይልም 4 .እረክቻለሁ 4.በጣምእረክቻለሁ		
414.	ከዚህበኋላለሚፈጠርእርግዝናየወሊድአገልግሎትለ ማግኘትእዚህሆስፒታልትመጫለሽ?	1. አዎ 2. አይደለም		
415.	ይህንንሆስፒታልለዘመዶችሽወይምለጓደኞችሽአገልግ ሎትእነዲያገኙበትትመክሪያለሽ?	1. አዎ 2. አይደለም		

416.እባኮትንበሆስፒታሉሊወልዱለመጡእናቶችናለተወለዱጨቅላህጻናትስለሚሰጠውየአገልግሎትጥራትእናአገልግሎቱእንዲሻሻልተጨማሪአስተያየትወይምሀሳብካሎ ትይግለጹ፡፡

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እጅግ በጣም አመሰግናለሁ፡፡

ቃለመጠይቁየተጠናቀቀበትሰዓት----------

1. የቡድን ውይይት መመሪያ

ጤና ይስጥልኝ እንኳን ወደ ቡድን ውይይቱ በሰላም መጣችሁ። እኛ መጣነው ከአዲስ አበባ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ ከህብረተሰብ ጤና ትምህርት ክፍል ሲሆን ዛሬ እዚህ የተገኘንበት የጥናት አላማ

- በዚህ ሆስፒታል ውስጥ ለእናቶች እና አዲስ ለተወለዱ ጨቅላ ህጻናት በምጥ በወሊድና ከወሊድ በኋላ እየተሰጠ ባለው ህክምና እና አገልግሎት ጥራት ዙርያ ከእናነተ ጤና ባለሙዎች እይታ አኳያ ምን እንደሚመስል ለማወቅ
- እዚህ የምትሰጡት መረጃ በሙሉ ሚስጥራዊነቱ የተጠበቀ ሲሆን በውይይቱ የሚነሱ ነጥቦች ከናንተ ከተሳታፊዎች ስም ጋር አይያያዝም። ውይይቱም ከ 60 አስከ 90 ደቂቃ የሚሆን ጊዜ ሊወስድ ይችላል።
- ትክክለኛ ወይም የተሳሳተ መልስ የሚባል ነገር አይኖርም። ሁሉም አውንታዊ እና አሉታዊ አስተያየቶች ለውይይታችን ግብአቶች ናቸው።
- በውይይቱ ላይ የሚነሱ ጠቃሚ ነጥቦችን እንዳይረሱ ድምጸ መቅረጽ እንጠቀማለን።የተሳታፊዎች ስም በውይይቱ ከሚነሱ ነጥቦች ጋር አይያያዝም እናም በቴፕ ውስጥ ያሉት መረጃዎች ወደጽሁፍ ከተገለበቱ በኃላ ሙሉ በሙሉ እንዲጠፉ ይደረጋሉ።
- መመለስ የማትፈልጉትን ጥያቄ ያለመመለስና ከውይይቱ በማንኛውም ሰአት አቋርጦ መውጣት ይቻላል።
- በዚህ ውይይት ላይ የምትሰጡት መረጃ ግላዊነት እና ሚስጥራዊነቱን መጠበቅ እንዳለብት ይገባናል ስለሆነም ሁላችንም የውይይቱ ተሳታፊዎች የሚሰጡትን አስተያየቶች ማክበርና ሚስጥራዊነቱን መጠበቅ ይኖርብናል።
- በዚህ ውይት ላይ በመሳተፍ የሚደርስቦት ምንም አይነት ጉዳት/ችግር እንደማይኖር ልናረጋግጥሎት እንወዳለን።
- አሁን ወይም ከውይቱ በኃላ መጠየቅ ምትፈልጉት ጥያቄ ካለ በማንኛውም ሰአት የጥናቱ አባል የሆኑትን ወይም ዋና የትናቱን አድራጊ በሚከተለው አድራሻ ማግኘት ይችላሉ።
- እባኮትን ስምምነት መስጫው ቅጽ በቀታዩ ገጽ ላይ ስለመኖሩ ያረጋግጡ። በውይይቱ ለመሳተፍ መስማማቶትን በፊርማዎት ያረጋግጡ።

አድራሻ፡-የጥናት አድራጊው ስም፡-ሳምራዊት ስለሺ ሰልክ ቁጥር፡- 251-913-42-38-67

ቀን---------/---------/----------

የተሳታፊ አይነት----------

ውይይቱ የተጀመረበት ሰአት----------

የውይይቱ ተሳታፊ ብዛት----------

ውይይቱ የተቋጨበት ሰአት----------

ውይይቱ የተካሄደነት ቦታ----------

የውይይቱ ተሳታፊዎች የስምምነት ቅጽ

ለእናቶችና አዲስ ለተወለዱ ህጻናት እየተሰጠ ያለው እንክብካቤ እና አገልግሎት ጥራት ላይ የእናንተ የጤና ባለሙያዎችን እይታ ለማወቅ እና የአገልግሎት አሰጣጡ ጥራት ላይ ያሉትን ችግሮች ለመለየት አላማውን ያደረገ በአዲስ አበባ ዩኒቨርስቲ የማሰተርስ ተማሪ ሳመራዊት ስለሺ የተዘጋጀ የቡድን ውይይት ላይ እንዲሳተፉ በተጠየቁት መሰረት፡-

እኔ ፊርማዮ ከዚህ በታች የተመለከተው ግለሰብት የዚህ ጥናት አላማ በዚህ ሆስፒታል ውስጥ ለእናቶች እና አዲስ ለተወለዱ ጨቅላ ህጻናት በምጥ በወሊድና ከወሊድ በኋላ እየተሰጠ ባለው ህክምና እና አገልግሎት ጥራት ከጤና ባለሙዎች እይታ አኳያ ምን እንደሚመስል ለማወቅ እንደሆነ ተገልጻልኛል፡፡

- በዚህ ውይይት ላይ ያለመሳተፍም ሆነ በውይይቱ በማንኛውም ሰአት ውይይቱን ማቆረጥ ይቻላል፡፡
- ውይይቱ በቴፕ ርከርደር የሚቀረጽ ሲሆን የተሳታፊዎቹን ማንነት ሚስጥራዊነት ለመጠበቅ በሪፖርቱ ላይ የጠሳታፊዎች ስም አይገባም፡፡
- በዚህ ውይይት ላይ በመሳተፊ የሚድርስብኝ ምንም አይነት ችግር የሌለ መሆኑን
- በውይይቱ ላይ ትክክለኛ ወይም የተሳሳተ መልስ የሚባል ነገር ያለመኖሩን
- የምትሰጡት ሀሳብና መረጃ በሌሎች ተሳታፊዎች ቢደገፍም ባይደገፍም እውነተኛና ግልጽ መሆን አለበት፡፡

ከላይ የተሰጡትን መረጃ በሙሉ ተረድቼ በውይይቱ ላይ ለመሳተፍ ተስማምቻለሁ፡፡

ስም----------ፊርማ----------ቀን----------

መጠየቅ የሚፈልጉት ጥያቄ ወይም ግልጽ ያልሆኖሎት ነገር ካለ ከታች በተጠቀሰው አድራሻ መልስ ማግኘት ይችላሉ፡፡

አድራሻ፡-

የጥናቱ አድራጊ ስም፡-ሳምራዊት ስለሺ

ስልክ ቁጥር፡-251-913-42-38-67

E. mail samrawitsileshi@gmail.com

ያ. መወያያ ነጥቦች

1. **ውይይታችንን እናቶች ይህንን ሂስፒታል ልጅ ለመውለድ ለምን እንደሚመርጡት እና ሆሲፒታሉ በእናቶች እንዲመረጥ አውንታዊ የሆኑ ጎኖቹን በማንሳት ውይይታችንን እንጀምር፡፡፡**
2. **ሆስፒታሉ እየሰጠ ያለውን የእናቶች እና አዲስ ለተወለዱ ጨቅላ ህጻናት የህክምና አገልግሎት ጥራትን በተመለከተ እንዴት አያችሁት?**
3. **አገልግሎት አሰጣጡ ላይ የሚያጋጥሙ ችግሮች ካሉ ይገለጹ? ችግሮችን ለመቅረፍ ምን ቢደረግ ይሻላላ ትላላችሁ?**

    - **የጤናባለሙያቁጥር**
    - **ግብአትን በተመለከተ(የላብራቶሪ ምርመራ አቅርቦት አካያ ሲታይ)፡፡**
    - **ያለውየባለሙያቁጥርእናአይነትከታካሚውብዛትእናካለውየወሊድሁኔታአንጻርተመ ጣጣኝነትአለው?**
    - **የሆስፒታለ ጽዳትን በተመለከተ**
    - **በቂ የሆኑ ወንበሮችና አልጋዎች**
    - **ከውጭ አካላት ክትትል/ጉብኝት**
    - **የስራ ላይ የሙያ ማሻሻያ ስልጠና**

4. **እስካሁን ከተነጋገርናቸው ነጥቦች ውጪ ያልተነሱ ለጥናቱ/ለውይይታችን ይጠቅማል ብላችሁ የምታስቧቸው ነጥቦች ወይም አስተያየቶች ካሉ ብታነሱ፡**

Focus Group Participant Demographic status

Date -------/---------/--------- Time: ---------- Place ----------

1. Your age ----------

2. What is your specialty/profession?

□ General practitioner □ Nurse
□ Midwifery □ Health officer
□ Gynecologist / obstetrician
□ Other

3. How long have you been in practice at this facility?

□ Less than 3
□ 3 to 6
□ More than 6

4. How many deliveries do you attend averagely per month?

□ Less than 5
□ 5 to 10
□ More than 10

5. Type of practice

□ Public

 Private

6. Your gender

 Male
 Female