

**ADDIS ABABA UNIVERSITY  
COLLEGE OF HEALTH SCIENCES  
SCHOOL OF NURSING AND MIDWIFERY**

**MATERNAL SATISFACTION AND ASSOCIATED FACTORS  
WITH NEONATAL CARE ADMITTED IN INTENSIVE CARE  
UNIT AMONG MOTHERS IN SELECTED GOVERNMENTAL  
HOSPITALS OF ADDIS ABABA, ETHIOPIA, 2019/20.**

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## List of Abbreviation and acronyms

AAU	Addis Ababa University
CSA	Central Statistical Agency of Ethiopia
EHAQ	Ethiopian Health Service Alliance for Quality
FMOH	Federal Ministry of Health
GA	Gestational age
NBU	New born unit
NICU	Neonatal Intensive Care Unit
PFCC	Patient and Family Centered Care
PICU	Pediatric Intensive Care Unit
SPSS	Statistical Package for Social Science

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## Abstract

**Background:** - The newborn period (neonate) is defined as beginning at birth and lasting through the 28th day. Following birth Neonatal intensive care units (NICUs) are those units that are specifically designed for premature and very ill newborns with different diagnoses. Maternal satisfaction is a vital indicator of the quality of care. For neonates, this depends on the viewpoint of the mother. Mothers' dissatisfaction with care provided to their neonates in Neonatal intensive care unit has resulted in failure of treatment plans, increased neonatal readmissions, increased anxiety among mothers and lack of confidence in health systems

**Objective:** - The objective of this study was to assess maternal satisfaction and associated factors with care neonatal care admitted in NICU among mothers in selected governmental hospitals, Addis Ababa, Ethiopia, 2019/20GC.

**Methodology:** - An institutional-based cross-sectional study was conducted from April to 2020GC to June 2020 GC among mothers of the hospitalized neonate in a selected government hospital. A systematic sampling method was used. Data were collected using an interviewer-administered structured questionnaire, and 299 mothers participated. The collected data were entered and cleaned using Epi data versions 3.1 and then it was exported & analyzed using Statistical Package for Social Science (SPSS) version 25. To determine the association between nominal variables such as socio-demographic variables and level of satisfaction bivariate and multiple logistic regressions were computed.

**Result:** The overall proportion of maternal satisfaction was found to be 42.8%. Mothers who're live in Addis Ababa were more likely to be satisfied than outside Addis Ababa [AOR=1.962(1.092-3.526)]. Those who had an monthly income between 1001-5000 birr per month were 4.937 times satisfied than those having above 10,000 birr [4.937(1.439-16.936)]. Among mothers attended primary school (1-8) were more likely to be satisfied than those who had a degree and above [AOR=2.904(1.008-8.362)].

**Conclusion and recommendations:** Among 286 mothers 42.8% were satisfied. The regression analysis shows that residence, educational status, and monthly income were determinant factors of maternal satisfaction. As a recommendation, health Care providers should identify

the physical, psychological, and social aspects of problems and provide care based on their needs.

**Keyword:** - Satisfaction, neonatal care, maternal

## INTRODUCTION

### 1.1. Background

Satisfaction with care is an important part of the psychological health of patients and families. Health care providers should pay attention to patient satisfaction because satisfied patients tend to be more compliant with care and to have better health outcomes(1).

Maternal satisfaction reflects the balance and harmony between their expectations of ideal nursing care and their perception of real and available care. Maternal satisfaction is one of the objectives and missions of every health care center in neonatal care(2).

The neonatal period is defined as beginning at birth and lasting through the 28th day. Neonatal intensive care units (NICUs) are specifically designed units for premature and very ill newborns with different diagnoses. Neonatal Intensive care may be broadly defined as a service for neonates who have potentially recoverable conditions, who can benefit from more detailed observation and invasive treatment(3).

Neonatal care can be analyzed from two ends of the spectrum: primarily, the sophisticated western world perspective, which comprises technological advancements supported by funding and resources in key areas of care (e.g. Thermal care and ventilation) and education. Secondly, the resource-limited model from developing countries where often basic care provision is limited or unavailable and where healthcare education, particularly in specialties such as neonatal care, is either under-resourced at best or not in existence(4).

This care is provided in a specialized unit called NICU ( Neonatal Intensive Care Unit) Which is a unit in the hospitals where seriously ill neonates are cared by specially trained staff including doctors, nurses, respiratory therapists, clinical nurse specialists, pharmacists, physical therapists, nurse practitioners, physician assistants, and social workers(5).

The hospitalization of neonates would create significant changes in the lives of all families. These changes could be caused by such situations as family members concern for the neonate's care; they feel insecure and low-spirited because of being in a foreign environment and they worry about the possibility of poor outcomes(6).The responsibility of their health and wellbeing does not rest solely on the health care providers. There is an increasing awareness of the important role of mothers in promoting the health and well-being of their neonates.

Patient- and family-centered care (PFCC) acknowledges the important and constant role of the family in providing medical care and encourages mutually beneficial collaborations between the patient, family, and health care professionals(7).

Ethiopia has been making an effort to improve health care delivery systems through strong emphasis on quality of care. The Federal Ministry of Health (FMOH) is participating in Alliances, which are self-motivated and transparent partnerships that encourage innovation in health care quality management and learning across hospitals, with the patient at the center of all decision making and has decided that the first focus area of the Ethiopian Health Service Alliance for Quality (EHAQ) will be maternal satisfaction. Every public hospital in Ethiopia has expressed interest in joining the EHAQ (7).

EHAQ is a way of assessing the processes of care, describing the mother's viewpoint, and evaluating care by reflecting patient views back into the system and through comparing facilities. Measuring maternal satisfaction has become an integral part of hospital management strategies for quality assurance and accreditation process in most countries(8).

## 1.2. Statement of the problem

Mothers' dissatisfaction with care provided to their neonates in Neonatal intensive care unit has resulted in failure of treatment plans, increased neonatal readmissions, increased anxiety among mothers and lack of confidence in health systems(9).

Neonatal readmissions exact a significant burden on health, education, social services, families and caregivers. Increased anxiety among mothers negatively affects the mother-baby bonding which in turn affects the cognitive development of a child the mother's ability to take care of the child. Moreover, at the practice level, patients and families participate in quality improvement activities. Family involvement is the critical ingredient of the medical home model as families are the real consumers of their neonate's healthcare(10).

Neonates in NICU cannot make their own decisions about the health service. Communication is mainly between the provider and the mother; mothers are responsible for evaluating many aspects of the quality of care(11). Various factors influence maternal satisfaction in hospital settings so that those factors have been identified to contribute to mothers' satisfaction(12).

Moreover, maternal satisfaction with health care is associated with an improvement in their neonate's health or with a reduction of symptoms, including adherence to the therapeutic regimen and understanding medical information. Thus, the level of maternal satisfaction with health care can be used as a good proxy variable for important aspects of quality of care(7).

In 2013, of the 6.3 million children who died before their fifth birthday, 16% took their first and final breath on the day they were born. Altogether, 44% died during the first 28 days of life – the neonatal period. The report stresses the critical importance of accelerating progress in saving the lives of newborns with simple, cost-effective interventions as well as quality care before, during and immediately after birth(13).

In Ethiopia, health services are limited and of poor quality and the country has relatively sub-optimal health status relative to other low-income countries. To solve this problem, the government has focused on improving the organization and quality of health services delivered to the population. This intention of the government is reflecting in the 1993 Health Policy and Health Sector Development Program of the Country. In such efforts towards

improving quality of health care, maternal satisfaction is an integral component of health services provided to the population(14).

Studies indicated that satisfied mothers have comply with the medical treatment prescribed, provider recommendation delivered, and continually us medical services at a specific health provider, which might result in enhanced disease healing processes and heal their and happier clients, there by contributing to the development of the country.

Many studies have shown that the maternal satisfaction survey is effective in the improving the quality of care. Because, with the important information that mothers can provide in their comments, hospitals can identify opportunities to improve staff performance and communication as well as hospital management and organization. Further, suggestions from maternal satisfaction surveys can be used for future organizational planning and design. Mothers expect timely and technically expert care, up-to-date medical information, care that meets all the needs of their neonates, and a communication approach that respects their culture, language, and religious beliefs(13).

Different Studies reported that: patient-provider relationship (courtesy, listening, consultations, etc.), medical care and information, physical environment, lack of adequate transportation, in-patient services, hospital facilities and access to care, waiting time and cost of treatment, visiting of Doctors after registration, inadequate physical examination by providers, laboratory procedures, re-visiting of the doctor for evaluation with laboratory results, prescription paper for drugs and supplies, availability of prescribed drugs/medications from the hospitals' pharmacies, difficulty to locate different sections, cleanliness of toilets/bathrooms, availability of drinking water etc. Were the frequently faced problems affecting satisfaction(13).

The maternal satisfaction in the part NICU due to special circumstances such specific cases, the complexity of the system and create critical situation, can greatly show perform properly of services. Because the quality and quantity of services provided in hospitals in different regions, and maternal satisfaction is influenced by various factors. Therefore, quality management of neonates in New-born unit is important in-order to improve maternal satisfaction.

### 1.3. Significance of the study

As satisfaction is one of quality indicator, it could help to identify areas which need improvement. The finding of this result on the level of satisfaction could help to identify the unmet need of mothers in NICU in relation with the level of satisfaction and factors associated with it by discussing in different health facility and units. Following the implementation of hospital reform guidelines, there is a gap of recent evidence to assess mother's satisfaction of the service in general and at the study hospital.

The findings of this study primarily provide information for selected governmental hospital and Policy makers. In this study might help health professionals to identify which service meets the neonatal care and areas which mothers are not satisfied. This will enable them to work in solving identified problems.

For hospital managers it might give them information about the maternal satisfaction given by the unit and for consideration of implementing family centered care, employing qualified staff and improvement of NICU environment infrastructure. The result of this study may perhaps give base line information for program developer in considering the improvement of NICU quality service

Therefore, the results of this study will help as a reference for other researchers who want to study about maternal satisfaction in advance. And used as an input to influence the national policy makers, institution processes, program formulators, and program implementers and to review the guidelines regarding maternal satisfactions and related factor with neonatal care.

## 2. LITERATURE REVIEW

### 2.1. The magnitude of maternal satisfaction with NICU care

A cross-sectional study conducted in Turkey military hospital showed that the mean score of maternal satisfaction with NICU services was 65.6%. And mothers were mostly satisfied with the approach of nurses (85.7%) and in the same period, when they were asked to assess the attitudes of physicians, 85.7% of the mothers were satisfied(15).

A study done in Germany showed that seventy mothers (70.0%) were “very satisfied” with the achieved results and 66.1% were “very satisfied” with the suggested therapy. Eighty-four point two (84.2%) would recommend the practice to others and regarding their overall care of the pediatric unit, two thirds (68.3%) were very satisfied. The mean of overall satisfaction was 3.86 which was a very high score (max. 4) (16).

According to studies conducted in Greece and Athens showed that mothers were very satisfied with staff attitudes ranging 89.32% to 94.66% Nurses and Doctors respectively and medical treatment as well, whereas they were less satisfied with the information concerning routines (48.3%) and the staff work environment (62.5%). Another study in Athens and Greece in 2016 indicated that the parental mean satisfaction score was 48.7(17).

A study conducted in Kenya showed that majority (53.7%, n = 58) of the participants were satisfied with the doctors’ work and on the other hand, the remain participants (46.3%, n = 50) were satisfied with the nurses’ work, satisfaction under Institutional physical structures it can be showed that more than half of the indicators of satisfaction were rates as satisfied. For the information component, the information given by the doctors and nurses were (95.4%, n = 103) of the participants was satisfied and the information provided by the doctors and nurses was understandable (89.8%, n = 97) of the participants were satisfied(18).

A study conducts in Ethiopia in 2017 showed that the maternal mean satisfaction score in the NICU was 77%, in their majority (89%) of the respondents were satisfied with compassionate care and 85.5% with the cleanliness of the compound. Half of the respondents, 53.5%, were dissatisfied with waiting time for card and test results(19).

## 2.2. Maternal factors

Maternal satisfaction with neonatal care in neonatal intensive care is affected by maternal age. Younger mothers were more satisfied than older mothers because they have fewer expectations and they demand less from the health care system due to unfamiliarity with the care given(20).

According to studies conducted in the United States, 2011 showed that black mothers were dissatisfied with neonatal care in the neonatal intensive care unit compared to white mothers(21). The reason for dissatisfaction in black mothers is lack of compassionate and respectful communication while for the white mothers it is due to consistency in nursing care and informs appropriate information about their neonate (22).

A prospective cohort study conducted in the USA showed that maternal satisfaction with pediatric healthcare was high, in the majority (two thirds) of mothers rated their infant's healthcare as excellent, while 27% as good and 4% reported as fair/poor(23).

Another cross-sectional survey is done in the United States shows that the employment status of the mother has also been shown to influence the satisfaction level of the mother. Employed mothers achieved less satisfaction in comparison to unemployed mothers. Mothers with lower family incomes were less satisfied compared to mothers with higher income(24).

According to Athens and Greece study conducted in 2011 showed that the place of residence of the mother has also been shown to influence the satisfaction level of the mother. Mothers who live in rural areas expressed higher levels of satisfaction(25). Another study conducted in Israeli showed that maternal country of origin (residence) has a statistically significant association with maternal satisfaction (26).

A study done in Athens and Greece conducted in 2012 showed that there was a significant association between age and maternal satisfaction the results of age was supported in the literature, with younger mothers were more satisfied with health care delivery than older respondents(27).

A cross-sectional study conducted in Athens and Greece in 2012 showed that the level of education was statistically correlated with general satisfaction, continuity of care,

preparedness, and was correlated with higher satisfaction among those with higher education. Basic education, no formal education or lower educational levels among mothers has been positively associated with higher satisfaction levels(28).

A cross-sectional study conducted in Lebanon showed that maternal satisfaction was found to be influenced by age, educational level, and medical insurance coverage class(29). In their most respondents were pleased with overall nursing care (96.6%), and physician consultations(95.4%), and concluded that maternal satisfaction with hospital care is significantly influenced by mother's provider interactions during giving care. Furthermore, the surrounding physical environment also influences maternal satisfaction(29).

According to Survey in 2015; showed that a significant relationship was observed between variables of hospitals, age, income, history of hospitalization, and length of hospitalization between total satisfaction(30).

The study conducted in Nigeria (2013); showed that mothers who stay nearby the health facility were less satisfied compared to their colleagues who stay far away. Mother satisfaction with emotional support offered and information given in the neonatal care unit was greatly affected levels of satisfaction (15). A study in South Africa showed mother's language/culture was influenced by the quality of care as well as satisfaction level in neonate care (31).

A study conducted in Kenya showed that 86.6% of those with tertiary education indicated that they were happy with the care provider of their baby, and also studies found that mothers with tertiary educational levels had higher satisfaction levels (18).

According to a study done in Northern Ethiopia, show that mothers whose monthly income were less than 500 Ethiopian Birr (ETB) and 500-1000 ETB were more satisfied than those mothers whose income were greater than 1000 ETB(32).

Based on the study conducted in Ethiopia in 2017 showed the majority of the respondents were satisfied with the compassionate care and cleanliness of the compound. Half of the respondents were dissatisfied with waiting time for card and test results, but there was no significant association between demographic characteristics and mothers' satisfaction (19).

### 2.3. Neonatal factors

Neonate's length of stay in neonatal intensive care can negatively or positively influence mothers' satisfaction with neonatal care. The longer the length of stay, the lower the level of satisfaction. According to study in United States; showed that neonates' length of stay appears to be another significant factor that affects maternal satisfaction so shorter length of stay reveal more satisfied (33, 34).

Another study in USA showed that mothers of neonate with premature neonate were unhappy for the health condition of their babies compared to mothers of term babies. Neonates on supplemental oxygen leads to low maternal satisfaction because mothers feared of the negative effects of oxygen and viewed this mode of therapy as limits to bonding with their babies (24).

A study in California showed that mothers who perceived better health status of their neonates were more satisfied than those who thought their babies severely ill. As the same time mothers who were present at the bedside during invasive procedures as it helped their neonate and eased their fears. Mothers were satisfied that everything possible was done and would prefer to be present in the future. Even in the event of death, mothers believed their presence helped the grieving process to them babies were more satisfied with care than those who was absent because they were able to keep contact with their babies and were aware of what was happened (35).

Study in England in 2019 showed that neonate's gestation age of the mother has also been shown to influence the satisfaction level of the mother. Based on this finding gestation age was the second factor when compared for all other sociodemographic characteristics (36). And maternal satisfaction was found to be influenced by some independent variable such as; (gender, education level, duration of stay, support, infants' health, GA, and single/ multiple birth (23).

According to Survey at Iran in 2015; showed that history of hospitalization and length of hospitalization to be another significant factor that affect maternal satisfaction (37).

Based on study conduct in Kenya showed that Neonatal characteristics which demonstrated statistical significance to maternal satisfaction are; gestation in weeks at birth and mode of delivery (18).

#### 2.4. Institutional structures

According to study in Europe in 2017 stated that design of neonatal intensive care unit has been showed to affect maternal satisfaction ( Neonatal unit close to the postnatal ward and single family room were prefer over open bay neonatal intensive care units design), mothers were more satisfied with neonatal care because single room increase their presence in neonatal intensive care unit, resulted in better clinical outcome of the neonates and promoted privacy for caregiving (38).

Another study in Europe showed that lack of appropriate facilities in the newborn units also affect in mother's satisfaction levels. Like limited space, uncomfortable chairs in breast feeding, poor room ventilation, lack of entertainment in some room, low food quality and mother's washroom being far away has led to dissatisfaction in mother with neonates in neonatal intensive care unit (39).

Cross-sectional study in Victoria Cabell Huntington Hospital showed that a strong correlation was found between hospital environment and maternal satisfaction, indicated that the environment was important to maternal satisfaction. In addition, good newborn care was necessary for maternal satisfaction (40).

Based on the study conducted in Ethiopia in 2017 showed that rules and regulation in neonatal intensive care unit also affect the mother's satisfaction level. Most mothers were dissatisfied with the inability of her relatives to visit the neonatal unit (19).

#### 2.5. Institutional processes

Information and communication are among the key needs of mothers with neonates in neonatal care unit. mother's satisfaction with neonatal care has been associated with empathy received from nurses and doctors in neonatal intensive care unit, frequent interaction and familiarity (41).

Staff being available when mothers want to talk, showing empathy during communication and health care providers giving timely and in an appropriate manner has led to high level of satisfaction (42). On the other hand, resaving indicates information about progress of the diseases, and doctor provide scanty and information that was not understood by the mothers lead to high level of dissatisfied (42).

Cross-sectional study done in Denmark revealed that mothers were least satisfied with the waiting time related to admission as well as to fulfillment of the mother's needs, and information given about care and treatment. On the other hand mothers were satisfied with the behavior of nurses and physicians' performance (43).

A study conducted in Netherlands in 2008 showed that mothers were less reassured at admission and the interaction with the medical team became a barrier for the maternal and could turn them in to stress and anxiety. In this study respect, information, education, coordination of care, physical and emotional support and involvement of mother as a core factors for maternal satisfaction(44).

A questionnaire survey was done in Japan showed that, mothers were greater satisfied with staff attitudes and medical treatment, whereas they were less satisfied with the information concerning routines and the staff work environment. They were pleased by the nursing care (N=180, 87.37%), nurses' concern (N=179, 86.89%) and from the respect to their needs (N=181, 87.86%)(45).

According to Survey at Iran in 2015; showed that, the mean maternal satisfaction about the nursing care  $63.6 \pm 14.5$ , medical care  $54.05 \pm 11.9$ , welfare services  $42.03 \pm 9.02$  and the overall satisfaction  $63.04 \pm 31.5$ (46).

Another study in Iran ,2014 showed that Health education provided by nurses to the mothers while in neonatal intensive care unit related in increased mothers' satisfaction. This information helped first time mothers with their lactation, reduced their anxiety and improved their confidence in participation of care(47). In the same period delay in initiating medical care and waiting at the reception without getting information causes mothers' dissatisfaction with care while allowing mothers to participate in medical decision-making increase satisfaction (48).

A study conducted in Turkey revealed that mothers were mostly satisfied with the approach of nurses (85.7%) and in the same period, when they were asked to assess the attitudes of physicians, 85.7% of the mothers have found physicians very concerned while some 14.3% (n=8) found them indifferent. Although 71.4% (n=40) of mothers expressed that taking the history of illness was important, records taken during patient discharge showed that only 71.4% (n=40) of mothers' histories were taken by nurses. When the importance of doctors'

taking illness, history was asked 85.7% of mothers answered as definitely important. Keeping communication channels open, answering their questions, and giving the best care available are respective ways to catch better standards in health care(49).

Based on a study conducted in Kenya indicated that there was a significant association between information and maternal satisfaction with care; being informed right away when the child's condition worsens, questions being answered. Mode of delivery and gestation in weeks at birth greatly influences maternal satisfaction with care provided their neonates. Mothers receiving daily, timely and honest information concerning their infants' diagnosis, treatment, investigations, and expected health outcome increases maternal satisfaction with care provided(18).

Moreover, in the study conducted in Jimma University Specialized Hospital, out of 40 admitted patients included in the study, 55% were satisfied with the food services of the hospital, 60% were dissatisfied with the visiting hours of the hospital, and about 39% of respondents said that they were not satisfied with the information provision about the hospital and service processes(19).

According to the literature, different factors can be associated with maternal satisfaction. Staff attitudes more specifically, interprofessional collaboration, mother involvement in care, the trusting relationship, and information for mother and neonate, emerge as the most important determinants of maternal satisfaction with care. Personal contact and communication with mothers and their families, institutional structure, and care processes are an area where both nurses and doctors need to improve.

## 2.6. Conceptual Frame Work

The Donabedian model 1966 was used for this study. The model examines health services and evaluates quality of health care. Information about quality of care can be drawn from 3 categories: structure, processes and outcomes. Structure includes all the factors that affect the context in which care is delivered. This includes the physical facility, equipment as well as organizational characteristics. In this study; structure was constituted of the environment in newborn unit, nurses working in the unit, equipment and supplies in the unit, neonatal factors and maternal socio demographic factors. Processes is the sum of all actions that make up health care as well as the transactions between patients and providers throughout the delivery of health care. It involves technical processes, how care is delivered or interpersonal processes. In this study being information, mothers' participation in care, and appropriate answering of questions. Outcome contains all the effects of health care on patients. As shown below, maternal characteristics, neonatal characteristics, institutional processes, and institutional structure influence maternal satisfaction.

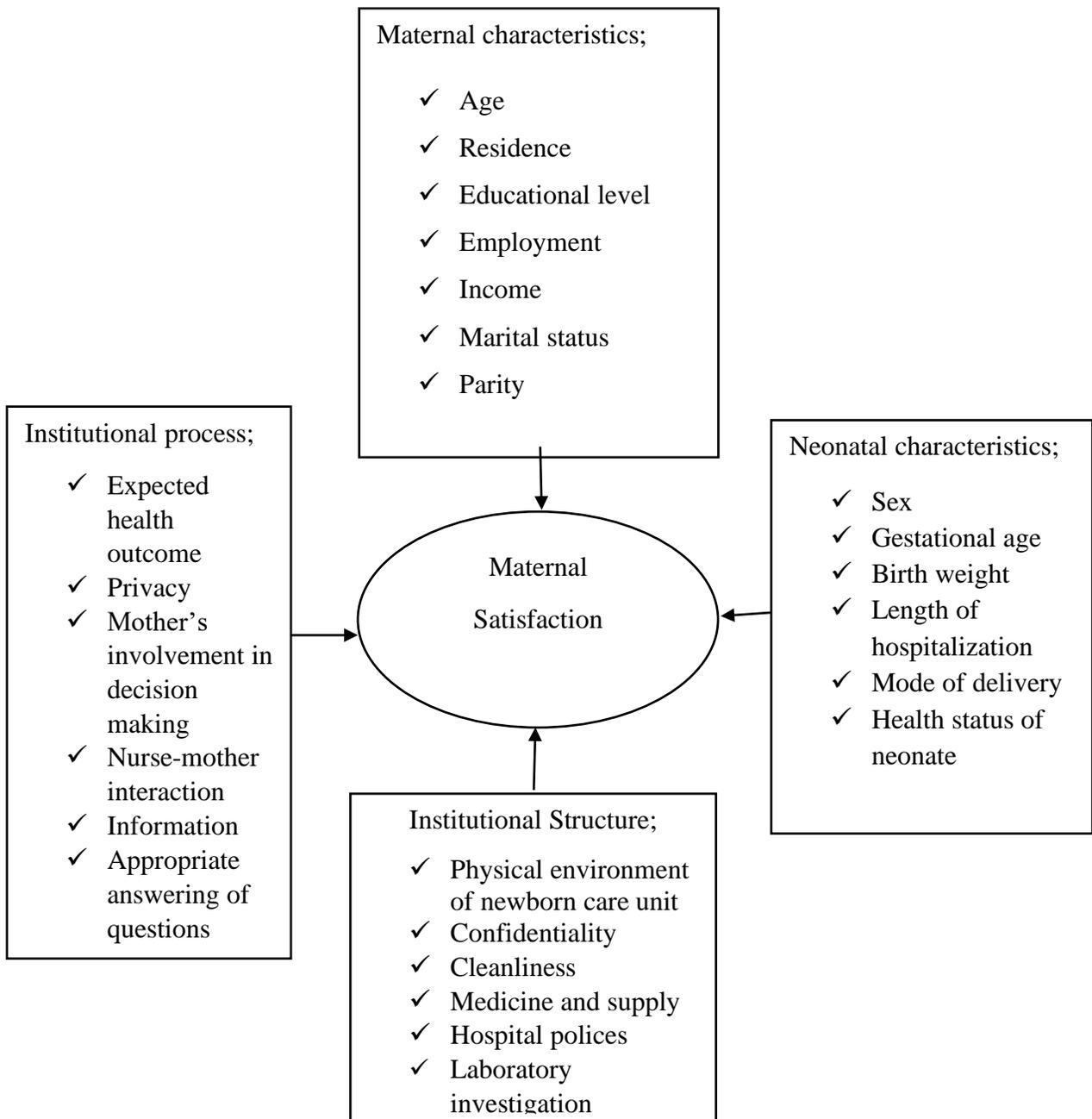


Figure 1- Conceptual framework using Donabedian health services and quality health care model(18).

### 3. *OBJECTIVE*

#### 3.1. General Objective

To assess maternal satisfaction and associated factors with neonatal care admitted in NICU among mothers in selected governmental hospitals, Addis Ababa, Ethiopia 2019/20GC.

#### 3.2. Specific Objectives

To assess the magnitude of maternal satisfaction with neonatal care admitted in NICU among mothers in selected governmental hospitals, Addis Ababa, Ethiopia 2019/20GC.

To identify the factors that affect maternal satisfaction with neonatal care admitted in NICU among mothers in selected governmental hospitals, Addis Ababa, Ethiopia 2019/20GC.

## 4. Methodology

### 4.1. Study Area and period

The study was conducted in Addis Ababa the capital city of Ethiopia and the major urban center in the country. It covers large area which is 527 square kilometers and has 10 sub-cities. The total population of the city based on 2007 census is 3,384,569(35). However, it believed that this number is an estimation number when recorded and consider the city's population above this number. The population count as of 2017 is growing closer to 4 million this indicates the city has recent year seen having vigor annual growth rate. The city has 12 government hospitals among these only 6 hospitals have NICU. These are Tikur Anbesa, Zweditu Memorial, Yekatit 12, Gondi Memorial, Minilik, and St. Paulo's hospital.

The study was conducted in Tikur Anbesa, Yekatit 12, and Gondi Memorial hospital selected by simple random sampling.

Six hundred ninety (690) neonates' are admitting to NICU for the three hospitals in one month which is obtained from the logbook record to know the flow of the neonate to these hospitals; among which 243 are found in Tikur Anbesa, 216 in Gondi Memorial and 160 in Yekatit 12 hospital.

Tikur Anbesa hospital was established in 1966 and located in Lideta Sub City. It is the largest referral hospital in the nation at a tertiary level and its placement covers an area of 4500-meter square. According to human resource statics of hospital, it is currently it is under Addis Ababa University (AAU) as part of the center of the teaching hospital.

Tikur Abessa specialized hospital offers diagnostic and treatment for approximately 370,000 to 400,000 patients per year of which the pediatric department serves approximately 8885 inpatient cases per year with six units (pediatric surgical ward, pediatric medical ward, oncology ward, emergency ward, pediatric intensive care unit and neonatal intensive care unit) and an average of 471 pediatric cases per month with a total of 183 beds.

Yekatit 12 hospital was established in 1945 E.C. According to the report of statics of human resources of Yekatit 12, this hospital currently gives services like Maternal Health service, Child Health services, Adolescent reproduction Health and the human resource of this

hospitals have doctors 19 with specialty, GP 30, BSC nurse 162, diploma nurse 192 and certificate 13, academicians 12 and also other supportive staffs.

Gandi Memorial hospital was a government hospital in Addis Ababa. It is established by Mahatma Gandhi in 1948 and delivers primary care services for 58,000 women and newborn babies annually. Gandi memorial hospital has 384 staff members in total. Duration of the research projects were October 2020 to June 2020 GC.

#### 4.2. Study Design

An institutional-based cross-sectional study was conducted.

#### 4.3. Source of Population

All mothers whose neonates were admitted to the NICU of the selected governmental hospital.

#### 4.4. Study Population

All selected mothers who were visiting the NICU of selected governmental hospitals at the time of data collection.

#### 4.5. Inclusion and Exclusion criteria

##### 4.5.1. Inclusion Criteria

Mothers of neonates who had been admitted in newborn unit and a length of stay as an inpatient greater than 72hrs in NICU of the selected governmental hospitals were included in the study.

##### 4.5.2. Exclusion Criteria

Mothers of admitted neonates in newborn unit for less than 72hrs were excluded from the study.

#### 4.5.3. Sample Size Determination and Sampling Technique

The sample size was determined by using single population proportion formula using the prevalence of maternal satisfaction (77%) from the previous study conducted quality of service in the Neonatal Intensive Care Unit in Debre Berhan, Ethiopia(19).

$$\text{when } n = \frac{(Z_{\alpha/2})^2 P(1-P)}{d^2}$$

$$n = \frac{(1.96)^2 0.77(1-0.77)}{0.0025}$$

$$n = \underline{272}$$

it should be considered 10% non-respondent error

$$\frac{272 * 10}{100} = \underline{299}$$

Where n= Sample size

d=degree of precision 5% i.e 0.05 is commonly used

Z= z value corresponding to 95% levels of significant

Z  $\alpha/2$ =1.96 for 95% confidence interval

p=Magnitude of maternal satisfaction (77%) from the study conducted in quality of service in Neonatal Intensive Care Unit in Debre Berhan, Ethiopia(19).

#### 4.5.4. Sampling procedure

Three hospitals were selected randomly out of 6 governmental hospitals having NICU found in the Addis Ababa region using the lottery method. Then Proportional allocation was done for three hospitals to collect the desired sample size. The study subject from each hospital was selected using a systematic random sampling technique every K value using their bed numbers as a sampling frame among mothers of the hospitalized neonate during the study period in three hospitals.  $K=N/nf=619/299$   $K \sim 2$ , so the data collection procedure was every 2 beds from each hospital.

where every 2 mothers were including in the study. The first study participant was selected, where by mothers picked a folded piece of paper from a basket with numbers on them, as a starting point to select study subjects from the sampling frame.

Then the number of study units to be sampled from each hospital was determined using proportional to site allocation formula;  $n_f \times \frac{n_i}{N}$

$N$

where:  $n_f$  = final sample of the study

$n_i$  = number of neonates in each selected hospital

$N$  = total number of neonates in selected hospital

1. TikurAnbesa Hospital  $299 \times \frac{243}{619} = 117$

2. Yekatit Hospital  $299 \times \frac{160}{619} = 77$

3. Gandhi memorial Hospital  $299 \times \frac{216}{619} = 104$

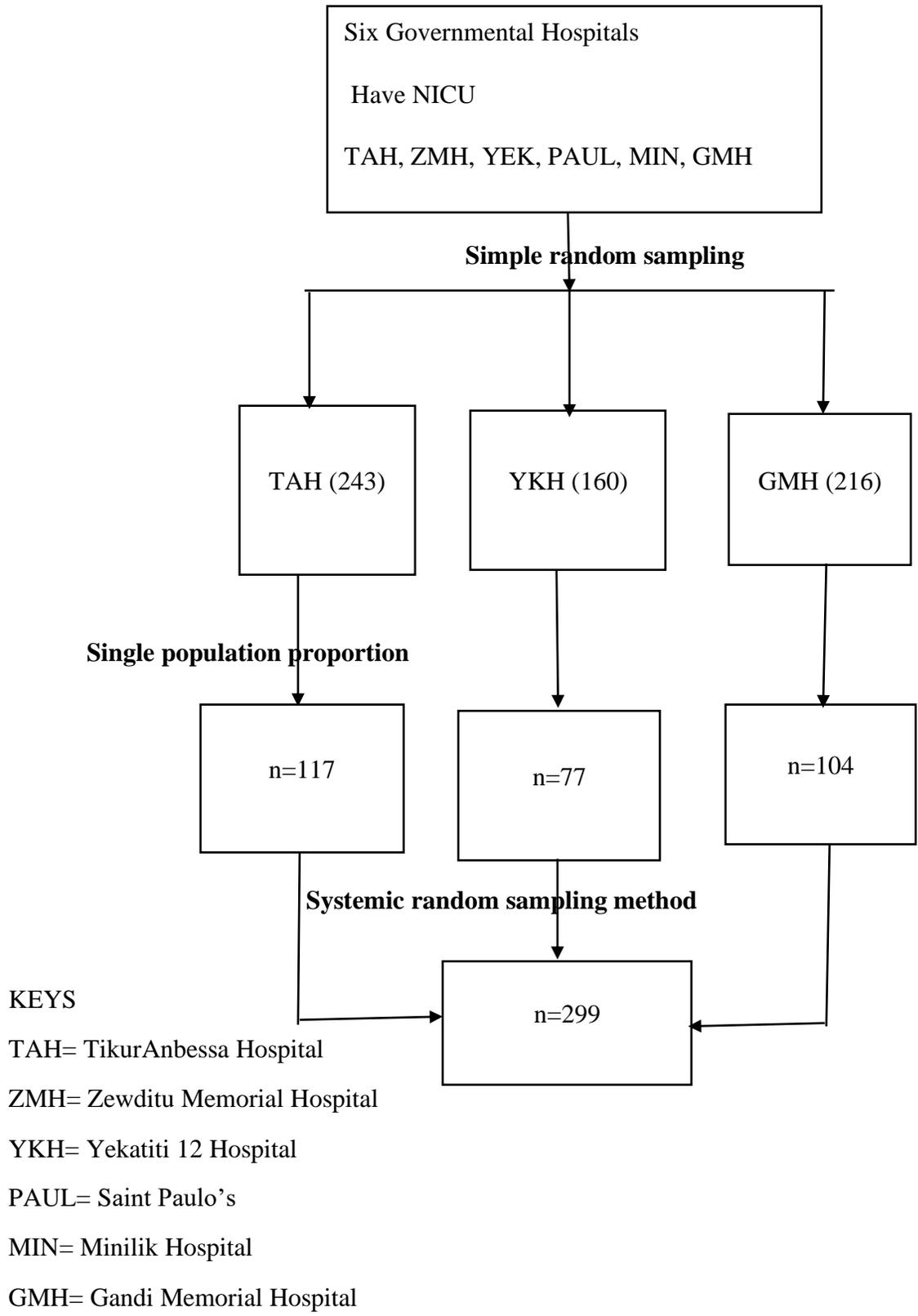


Figure 2 Schematic presentation of sampling procedures

## 4.6. Study Variables

### 4.6.1. Dependent Variable

- ✓ Maternal satisfaction

### 4.6.2. Independent Variables

- ✓ Maternal socio-demographic characteristics; - Age, residence, educational level, employment, income, marital status, parity.
- ✓ Neonatal characteristics; - Gestational age, length of hospitalization, birth Weight, mode of delivery, and Health status.
- ✓ Institutional process; -Expected health outcome, mother's involvement in decision making, nurse-mother interaction, appropriate answering of questions, information, privacy.
- ✓ Institutional Structure; - Physical environment of newborn care unit, laboratory investigation, Confidentiality, Cleanliness, hospital police, medicine, and supply.

## 4.7. Operational Definitions

**MATERNAL SATISFACTION:** Mothers who scored above and equal to mean of each Likert items for each question.

**NEONATAL INTENSIVE CARE UNIT:** is unit specializing in the care of neonate with variety of condition that requires intensive care support.

**QUALITY OF CARE:** the extent to which health care services provided to individuals and patient populations improves desired health outcomes.

**NEONATE:** a newborn aged 0-28 days.

**DISSATISFIED:** Mothers who scored below the mean.

## 4.8. Data Collection Instrument and procedure

### 4.8.1. Data Collection Instrument

The questionnaire was adapted from other studies with careful modification with reviewed by researchers(50, 51). The questionnaire was translated into Amharic version and it was re-translated back to English to check for its consistency.

Data was collected using a semi-structured questionnaire. It contains two parts; the first part of the questioner assesses the socio-demographic character of the mothers and neonates. The second part cover questions which assess the level of maternal satisfaction. This includes; institutional processes and structure of health service. The mean was found from the sum of likert scale which was 59. During analysis 1 was given for satisfied ( $\geq 59$ ) and 0 was given for dissatisfied ( $< 59$ ). In general, the questionnaire was comprised of four dimensions (socio-demographic, measuring satisfaction, institutional processes, and structure of health service) with 34 items.

### 4.8.2. Data Collection Procedure

Simple random sampling method was used to select the study sample for the mothers. A list of mothers meeting the inclusion criteria was obtained from the admission book at admission nursery. Two-degree nurses were recruited as data collectors and a one-degree nurse was recruited as a supervisor. Data collectors were responsible to interview the mothers of a neonate and they collected from other hospitals that are different from their working area. They have also consistently recorded the result and finally submitted the result to the investigator as scheduled.

## 4.9. Data Quality Assurance

All data collectors and supervisors were oriented and train on how to interview and record the data and is assigned to each hospital. To assess the appropriateness of working, clarity of the questions, and respondent reaction to the questions and interviewer, it was pretest on 5% of the calculated sample size of mothers in Zewditu Memorial Hospital (ZMH).

Those who were not the actual study participants and adjustment was marked based on the results of the pre-test. During the data collection time, close supervision and monitoring

were carried out by supervisors and the investigator to ensure the quality of the data. Finally, the collected data was checked by the supervisor and investigator for its completeness.

#### 4.10. Data Processing and Analysis

The collected data were checked manually for completeness and consistencies. Incomplete questionnaires were left out during the data entry process. Each questionnaire was coded and entered into Epi data version 3.1 using its identifier number for cleaning, then data exported to statistical package for social sciences (SPSS) version 25 for analysis. Descriptive statistics like frequency, proportions, the mean and standard deviation were computed to describe the study variable to the population. To measure maternal satisfaction 5-point Likert scale was used. During analysis, the responses of 'very satisfied' and 'satisfied' were classified as satisfied and responses of 'very dissatisfied', 'dissatisfied', and 'neutral' were classified under unsatisfied. Neutral responses were classified as dissatisfied considering that they may represent a fearful way of expressing dissatisfaction.

To identify associated factors with, binary logistic regression analysis was carried out at two levels, first bivariate logistic regression was performed to each independent variable with the outcome variable, and those variables with a p-value  $< 0.25$  were included in the final model (multivariate analysis). Association between variables was tested using odds ratio, and Association between the variables calculated at 95% confidence interval (P-value of  $\leq 0.05$ ), to minimize the statistical error and hence have credible findings.

#### 4.11. Dissemination and Utilization of Results

The final report of the study will be submitted to the department of Nursing and midwifery, School of Health Sciences. The result will be presented during this defence. The effort will be made to present the result in locally or workshops, conferences, and meetings. For publication purposes, the copy of the study will be distributed to the ministry of health, Addis Ababa regional health bureau. Moreover, disseminated through publication in local and international journals.

#### 4.12. Ethical Consideration

Ethical clearance was obtained from Addis Ababa's public health research and emergency management directorate. Each study participant was adequately informed about the objective of the study and anticipates the benefit and risk of the study by their data collector. Verbal consent was obtained from study participants for protecting autonomy and ensuring confidentiality. Respondents have had the right not to respond to the questions if they do not need to respond or to terminate the interview at any time.

## 5. Result

### 5.1. Socio-demographic characteristics

In this study 299 mothers, were approached and a total of 286 agreed to participate in this study, which made a response rate of 95.7%. Most of the respondents 204(68.2%) were residents of Addis Ababa. The age of the mothers interviewed ranged between 14-45 years, with a mean age of 27.75(SD,4.827) years.

And from a total of 286 respondents 270(90.3%) participants were married, while 11(3.7%) were single. And regarding parity, 171(57.2%) were multipara mothers. Most of 90(30.1%) were having secondary education and only 17(5.7%) were illiterate.

Among 286 mothers 112(37.5%) were housewives, 70(23.4%) were a governmental employee and only 47(15.7%) were private sector. The least amount specified as average income was 500 birr and the highest was 16,000 birrs on the other hand the median income of respondents was 4500 Ethiopian birr per month.

*Table 1* Socio-demographic characteristics of mothers

Variable	Category	Frequency(N=286)	Percentage (%)
Residence	In Addis Ababa	204	68.2
	Outside Addis Ababa	95	31.8
Age group of mothers	24 years and below	69	23.1
	25-29	132	44.1
	30-34	67	22.4
	35 years and above	31	10.4
Parity	One	128	42.8
	Two and above	171	57.1
Occupation	Governmental	70	23.4
	Private sector	47	15.7
	Self-employment	34	11.4
	Merchant	32	10.7
	Housewife	112	37.5
Marital status	Farmer	4	1.3
	Married	270	90.3
	Single	11	3.7
	Divorced	13	4.3
	Widowed	2	7
Level of education	Separated	3	1.0
	Illiterate	17	5.7
	Primary school (1-8)	66	22.1
	Grade 9-12	90	30.1

Income	Certificate/Diploma	58	19.4
	Degree and above	68	22.7
	<=1000	32	10.7
	1001-5000	146	48.8
	5001-10,000	89	29.8
	>=10001	32	10.7

## 5.2. Neonatal socio-demographic characteristics

Socio-demographic factors of the neonates are represented in table 2. It is shown that the majority of the neonates in study 168(56.2%) were male. Concerning the duration of hospital stay, the majority of 188(62.9%) were admitted for less than one week. The minimum and maximum birth weight of the neonates were 1000 grams and 4000 grams respectively with an average of 2572.55(SD,699.2) grams.

The gestation in a week at birth was ranging between 27-43 weeks with a mean of 36.60(SD,3.4) weeks. Most of the neonates 158(52.8%) were less than 37 weeks.

The neonates were admitted in the newborn unit due to various conditions which included the early onset of neonatal sepsis 54(18.1%), prematurity 56(18.7%), and respiratory distress 40(13.4%). The majority of the mothers 176(58.9%) gave birth through spontaneous vaginal delivery with 106(35.5%) giving birth through the caesarean section.

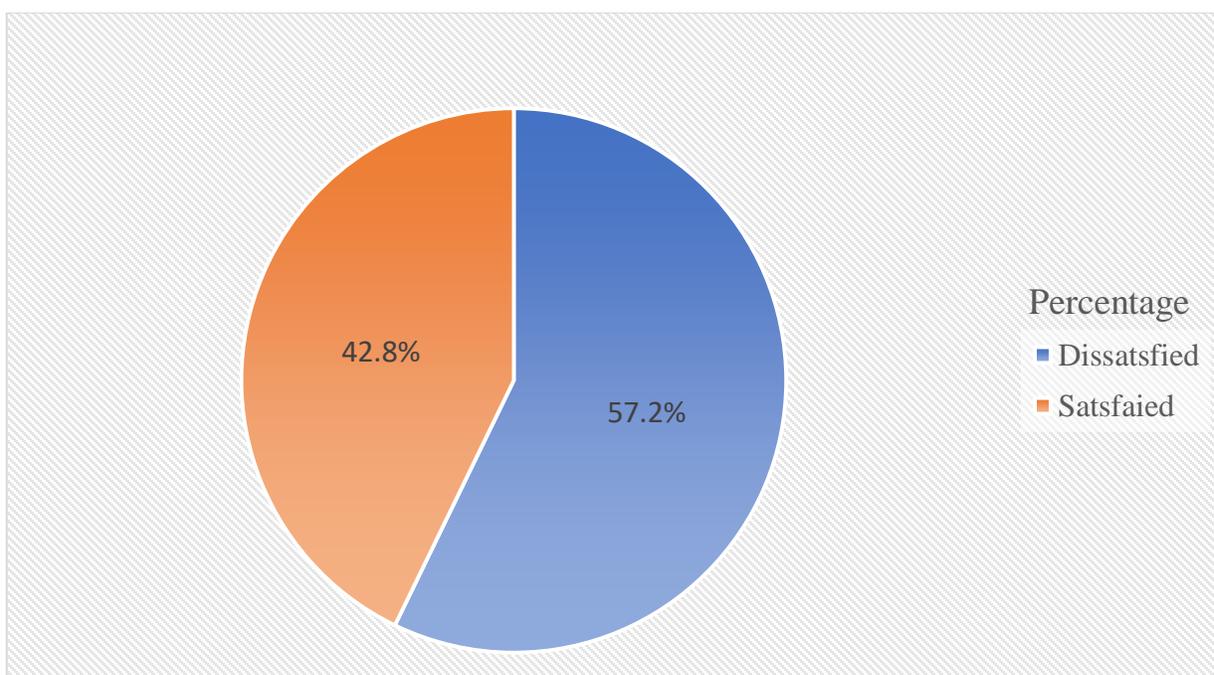
*Table 2 Socio-demographic characteristics neonates*

Variable (N=286)	Category	Frequency(N)	Percent (%)
Gender	Male	168	56.2
	Female	131	43.8
Birth weight in gram	1000-1499	32	10.7
	1500-2499	65	21.7
	2500-3999	199	66.6
	>=4000	3	1.0
Gestational age is weak	<37	158	52.8
	37-42	139	46.5
	>42	2	0.7
Health status	EONS	54	18.1
	Preterm	56	18.7
	RDS	40	13.4
	Jaundice	32	10.7
	PNA	33	11
	MAS	23	7.7
	Hypothermia	13	4.3

	Other (TEF, NEC,,)	48	16.1
Duration of admission	<=7	188	62.7
	8-14	91	30.4
	>=15	20	6.7
Mode of delivery	SVD	176	58.9
	Cesarean section	106	35.5
	Instrumental delivery	17	5.7

### 5.3. Maternal satisfaction with socio-demographic characteristics

Among the total respondents (n=286) neonatal hospital care showed that 171 (57.2%) dissatisfied and the remaining 128(42.8%) were satisfied.



*Figure 3: Satisfaction level of mothers concerning their neonatal care in selected governmentalthospital, Addis Ababa, Ethiopia, 2020GC*

From the 171 dissatisfied mothers, 63.7% (n=109/171) were residents of Addis Ababa and 62 (36.2%) outside Addis Ababa were dissatisfied. From 25 to 29 age group, 78 (45.6%) were the

most dissatisfied age group and above 35 were the least dissatisfied age group 17 (9.9%). Regarding parity, multipara mothers were dissatisfied all over the care 106 (61.9%).

According to occupation governmental, private employers and merchants were dissatisfied with all over the care 42 (24.5%),34 (19.8%), and 29 (16.9%) respectively. Regarding the marital status majority of married 153 (89.4%) were dissatisfied and regarding educational status from having a degree and above 47 (27%) were dissatisfied.

Among the selected respondents whose income 1001-5000 and 5001-10000 dissatisfied which were 67 (39%) and 61 (36.6%) respectively. The least dissatisfied mothers 15 (8.7%) were whose income below 1000.

*Table 3 Maternal socio demographic characteristics and satisfaction with care provided to neonates.*

Variable	Response	Level of satisfaction				P-value
		Dissatisfied	%	Satisfied	%	
Residence	In Addis Ababa	109	63.7	95	74.2	0.005
	Outside AddisAbaba	62	36.2	33	25.7	
Age	<=24	36	21	33	25.7	0.767
	25-29	78	45.6	54	42.1	
	30-34	40	23.3	27	21	
	>=35	17	9.9	14	10.9	
Parity	One	65	38	63	49	0.53
	Two and above	106	61.9	65	50.7	
Occupation status	Governmental	42	24.5	28	21.8	0.001
	Private sector	34	19.8	13	10.1	
	Self-employment	15	8.7	19	14.8	
	Merchant	29	16.9	3	2.3	
	Housewife	49	28.6	63	49	
Marital status	Farmer	2	1.1	2	1.5	0.320
	Married	153	89.4	117	91.4	
	Single	5	2.9	6	4.6	
	Divorced	11	6.4	2	1.5	
	Widowed	1	0.6	1	0.78	
Educational Status	Separated	1	0.6	2	1.5	0.001
	Illiterate	8	4.6	9	7	
	Primary school (1-8)	26	15.2	40	31	
	Grade 9-12	45	26	45	35	
	Certificate/Diploma	45	26	13	10.1	
	Degree and above	47	27	21	16.4	

Income	<=1000	15	8.7	17	9.9	0.001
	1001-5000	67	39	79	46	
	5001-10,000	61	36.6	28	21	
	>=10001	28	16.3	4	3.1	

#### 5.4. Neonatal socio-demographic characteristics and satisfaction with care provided to neonates.

Most of the mothers who had male neonate 99 (57.8%) were dissatisfied. Regarding with duration of hospital stay the majority 102 (59.6%) mothers whose stay below one week were dissatisfied. Concerning gestational age from having 32-42, 87 (50.8%) were dissatisfied. Similarly concerning birth weight from having 2500-2499 were the most dissatisfied which was 112 (65%). And the majority of the mothers gave birth through spontaneous vaginal delivery 91 (53%) were dissatisfied.

According to health status having the early onset of neonatal sepsis, preterm and respiratory distress syndrome were the most dissatisfied which was 27 (15.7%), 33(19%) and 23(13%) respectively

*Table 4 Neonatal socio-demographic characteristics and satisfaction with care provided to neonates.*

Variable	Response	Level of satisfaction		Satisfied	%	P-value
		Dissatisfied	%			
Sex	Male	99	57.8	69	53.9	0.492
	Female	72	42	59	46	
Hospital stay	<=7	102	59.6	86	67	0.097
	8-14	60	35	31	24	
	>=15	9	5.2	11	85	
Gestational age	<37	83	48.5	75	58.5	0.214
	37-42	87	50.8	52	40.6	
	>42	1	0.6	1	0.78	
Birth weight	1000-1499	19	11	13	10.1	0.964
	1500-2499	38	22	27	21	
	2500-3999	112	65	87	67.9	
	>4000	2	1.16	1	0.78	
Mode of delivery	SVD	91	53	85	66.4	0.29
	CS	66	38.5	40	31	
	Instrumental	14	8.18	3	2.3	

Health status	EONS	27	15.7	27	16	0.529
	Preterm	33	19	23	17	
	RDS	23	13	17	13	
	Jaundice	15	8.7	17	13	
	PNA	17	9.94	16	12.5	
	MAS	15	8.7	8	6.25	
	Hypothermia	9	5.2	4	3.12	
	Other (TEF, NEC,)	32	18.7	16	12.5	

### 5.5. Maternal satisfaction related to institutional processes

During analysis, the responses of ‘very satisfied’ and ‘satisfied’ were classified as satisfied and responses of ‘very dissatisfied’, ‘dissatisfied’, and ‘neutral’ are classified under unsatisfied. The mean percentage of the maternal satisfaction for each care index and the overall quality scale was calculated.

Among the participated mothers’ majority of the participates rated most of the indicators as dissatisfied with the information and processes component. Overall, the mothers were most dissatisfied with their opportunity to participate in decision making on care and treatments and informed regarding expected health outcomes 271 (90.6%) and 252 (84.3%) respectively.

They were least dissatisfied with the nurses and doctors to informed about NICU rule and immediate action was taken during hospital stay 122 (40.8) and 49 (16.4) respectively.

*Table 5 Maternal satisfaction related to institutional processes*

Question	Frequency (%)	
	Dissatisfied	Satisfied
Doctors give honest information	140 (46.8)	159 (53.2)
Nurses give honest information	156 (52.2)	143 (47.8)
Your questions are answered	100 (33.4)	199 (66.6)
Doctors give you advice about ways to stay healthy to your neonate	172 (57.55)	127 (42.5)
Doctors inform you about the expected health outcome of your neonate	252 (84.3)	47 (15.7)
Your neonate’s condition worsens, the action is immediately taken by the doctors and nurses	49 (16.4)	250 (83.6)
Correct medication is always given on time	150 (50.2)	149 (49.8)
Information about NICU rules	122 (40.8)	177 (59.2)
During the intensive procedure, you always stay close to your neonate	257 (86.0)	42 (14.0)

Nurse helps you in the bonding with your neonate	37 (12.4)	262 (87.6)
You actively involved in decision making on care and treatment of your neonate	271 (90.6)	28 (9.4)
Your neonate's confidentiality is respected during his/her this hospital stay	229 (76.6)	70 (23.4)
All the necessary investigations you need available in the laboratory	166 (55.5)	133 (44.5)
You receive clear information about your neonate's disease	110 (36.8)	189 (63.2)
Are you satisfied with the care that your neonate has received in the NICU	168 (56.2)	131 (43.8)

5.6. Maternal satisfaction related to the institutional physical structure  
From the table, it can be shown that more than half of the indicators of satisfaction were rate as dissatisfying. The indicators highly rated as dissatisfying were: on a special room to express breast milk (91.6%, n=274). Among all respondents (77.6%, n=232) were dissatisfied with the availability of adequate and comfortable chairs in the unit. And about half of the respondents (55.2%,n=165) were dissatisfied with the access of enough space around the incubator.

*Table 6 Maternal satisfaction related to the institutional physical structure*

Question	Frequency (%)	
	Dissatisfied	Satisfied
Newborn unit is clean and comfortable	31 (10.4)	268 (89.6%)
Enough space around your neonate's incubator	165 (55.2%)	134 (44.8%)
NICU has a special room for mothers to express milk	274 (91.6%)	25 (8.4%)
Mothers have rooms near the NICU	194 (64.9%)	105 (35.1%)
An adequate and comfortable chair in the unit to enable your breastfeeding and bond	232 (77.6%)	67 (22.4%)

### 5.7. Bivariate and multivariate analysis

Bivariate and multivariate logistic regression analysis was used to identify the characteristics that might affect maternal satisfaction for overall quality health care. On the bivariate logistic regression analysis, educational status, residence, income, occupation, and parity were associated with maternal satisfaction at  $p < 0.25$ . And those independent variables found significant ( $P < 0.05$ ) were used for the multiple regression analysis as independent variables.

### 5.8. Factors associated with maternal satisfaction

After adjusting for potential confounders in multivariate logistic regression analysis: residence, income, and educational status remained significant in the final model. But occupational status and parity were losing their significances.

And as table 7 above indicated mothers who's life in Addis Ababa were more likely to be satisfied compared to mothers live in outside Addis Ababa, and significantly associated with the overall satisfaction level [AOR=1.962(1.092-3.526)].

And regarding educational status, mothers having primary school (1-8) were more likely to be satisfied than those who had a degree and above [AOR=2.904(1.008-8.362)]. And income was another variable which was significantly associated with maternal satisfaction level, mothers who had an annual income between 1001-5000 birr per month were 4.937 times more likely to be satisfied to mothers who had above 10,000-birr per month and significantly associated with maternal satisfaction level [AOR=4.937(1.439-16.936)].

*Table 7 Results from Bivariate and multiple logistic regression analysis about maternal satisfaction in selected governmental hospitals.*

Factors	Category	Maternal Satisfaction		95% Confidence Interval		P-value
		Satisfied N (%)	Dissatisfied N (%)	COR	AOR	
Residence	In Addis Ababa	95(74.2)	109(63.7)	1.637(0.991-2.711)	1.962(1.092-3.526)	0.020
	Outside Addis Ababa	33.7(25)	62(36.2)		1	
Income	$\leq 1000$	17(9.9)	15(8.7)	7.933(2.257-27.880)	3.003(0.705-12.785)	0.006
	1001-5000	79(46)	67(39)	8.254(2.756-24.723)	4.937(1.439-16.936)	

	5001-10000	28(21)	61(36.6)	3.213(1.028-10.038)	2.081(0.586-7.397)	
Educational status	>=10000	4(3.1)	28(16.3)	1	1	
	Illiterate	(9 7)	8(4.6)	2.518(0.853-7.432)	2.900(0.734-11.450)	
	Primary school (1-8)	40 (31)	26(15.2)	3.443(1.688-7.025)	2.904(1.008-8.362)	0.030
	Grade 9 -12	45(35)	45(26)	2.238(1.157-4.330)	2.353 (0.945-5.859)	
	Certificate/Diploma	13(10.1)	45(26)	0.647(0.290-1.444)	0.748 (0.302-1.854)	
	Degree and above	21(16.4)	45(27)	1	1	
Occupational status	Governmental	28(21.8)	42(24.5)	0.667(0.089-5.013)	1.365(0.140-13.293)	0.699
	Private sector	13(10.2)	34(19.8)	0.382(0.049-3.005)	0.461(0.046-4.576)	
	Self-employment	19(14.8)	15(8.7)	1.267(0.159-10.074)	1.957(0.190-20.121)	
	Merchant	3(2.3)	29(16.9)	0.103(0.010-1.024)	0.169(0.014-2.103)	
	Housewife	63(49)	49(28.6)	1.286(0.175-9.455)	1.079(0.114-10.256)	
	Farmer	2(1.5)	2(1.1)	1	1	
Parity	One	63(49)	65(38)	1.581(0.994-2.514)	1.610(0.368-7.036)	0.570
	Two and above	65(50.7)	106(61.9)	1	1.240(0.281-5.483)	

COR=Crude odds ratio, AOR=Adjusted odds ratio. \*=P-value<0.05.\*\*P-value<0.25.

## 6. Discussion

The results of this study have shown that mothers whose neonates were admitted to the NICU satisfied with the health care service (42.8%). The study has found lower the mean score of satisfaction this may be due to the different mothers's expectations and the level of the care that is received as well as difference in socio-economic, socio-cultural and socio-demographic characteristics of mothers. And the increase in expectation of mothers to the service they are going to receive with rapid advancement in technology, availability of information, the degree of quality of care, peoples thinking, lifestyle, and also the setting of the study.

This is somewhat similar to the findings of a study conducted in Athens and Greece (48.7%) but lower than other studies conducted in Turkey (65.6%), Germany (84.2%) and Ethiopia (77%). Even if a greater percentage of overall satisfaction was reported in different kinds of literature. There is a difference in satisfaction levels in different aspects of focused health care services.

The results of this study showed that the mother's residence, income (1001-5000 birr pre month), and educational status (primary school) were found to be significantly associated with maternal satisfaction with a p-value <0.05. Similarly, the study in Athens and Greece found to be significantly associated with maternal satisfaction level.

In this study, the average age of mothers who participate was 27.75 years with a majority of 54% satisfied with the health care services, and also, they being 25 to 29 years. This may be due to younger mothers were more satisfied than older mothers because they have less expectation and they demand less from the health care system due to unfamiliarity with the care given. This is similar to the finding of a study conducted in the USA, Athens, and Greece.

More than half of (68.2%) of the respondents resided in Addis Ababa. They registered higher satisfaction levels (74.2%) and significantly associated with maternal satisfaction levels. This is may be due to mothers who live in urban areas already will have information what services provided in health institutions. so they evaluate things based on knowledge, even they have internet access and opportunity to 'google' medical terms, or join websites for mothers of sick babies and acquire more information about the care given to their babies. This is similar to the finding of a study conducted in Israeli.

However, some studies in Athens and Greece found that mothers who live in rural areas expressed higher levels of satisfaction. The difference could be because they have fewer demands, or just because they did not have previous admission experience in another pediatric hospital in the area where they live. Reasonably, they are not in the position to compare the quality of care that is offered to their neonate with the ideal one, and therefore they appear to be less critical than others.

This study also shows that monthly income 1001 birr-5000 birr (46%) were more satisfied than those mothers whose income were greater than 10000 birrs, and significantly associated with maternal satisfaction level. This is similar to the finding of a study conducted in northern Ethiopia, showed that mothers with lower family income were more satisfied than mothers with higher income. However, other studies the United States shows that mothers with lower family income were less satisfied compared to mothers with higher income.

On the level of education, it was shown that 35% of those with grade (9-12) education indicated that they were satisfied with the health care service. This could be attributed to the fact that they understand better the care provided and may give an accurate rating on the baby's progress. This is similar to findings in studies Kenya showed that 86.6% of those with tertiary education indicated that they were happy with the care provided to their baby, and also mothers with tertiary educational levels had higher satisfaction levels. However, some studies in Lebanon, Athens, and Greece found that mothers who illiterate or lower educational levels had a higher satisfaction level.

The finding also showed that most of the respondents were unemployed were satisfied with 49% than employed, similar studies conducted in the USA show that employed mothers achieved less satisfaction in comparison to unemployed mothers.

## 7. Strength and Limitation

### 7.1. Strength of the study

- The study shows areas in which mothers are more and less satisfied.
- Try to assess satisfaction level in terms of structural, process and outcome components of quality (Donabedian models of quality).
- It was conducted in the country's largest referral hospital offering NICU service.

### 7.2. Limitation of the study

- The study was done only in the government hospital which can possibly limit the generalizability of the results.
- Due to the nature of the quantitative study there is chance of not being able to fully explain maternal experiences as qualitative aspects are missing.
- Mothers were interviewed in the hospital setting because of this they may give response favoring the care providers resulting in social desirability bias.

## 8. Conclusion and Recommendation

### 8.1. Conclusion

Maternal sociodemographic characteristic such as residence, educational status and income of the mother influences maternal satisfaction with care provided to neonate.

On the other hand all of neonatal sociodemographic characteristic not associated with maternal satisfaction. In institutional physical structure more than half of the indicators of satisfaction were rate as dissatisfied. Institutional care processes like informed regarding expected health outcomes, opportunity to participate in decision making on care and intensive procedure register higher of dissatisfied rate

In general among different socio-demographic, institutional processes and structure were related factors studied. residence, income, and educational status were determinant factors of maternal satisfaction.

### 8.2. Recommendation

- The national guideline which specifically focuses on quality of care in the NICU needs to be prepared.
- There is a need for staff training on how to manage institutional physical structure and process related problems and client relations to improve information share and familiarity between the staff and client.
- Health Care providers should identify the physical, psychological, and social aspects of problems and provide care based on their needs.
- Further research is needed on qualitative aspects to identify related factors of maternal satisfaction.

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## ANNEXES

### Annexes I: Participant Information Sheet

Good morning/ afternoon?

My name is \_\_\_\_\_. I am a data collector for the study being conducted in three hospitals and this hospital are one of this hospitals on by maternal satisfaction and associated factors in NICU of selected governmental hospital hospitals of Addis Ababa, Ethiopia 2020, by YeshiBerhan who is studying for her Master's degree at Addis Ababa University, Collage of Health Science Department of Nursing and Midwifery. I kindly request you to give me your attention to explain you about the study and be selected as the study participant.

**Title of the research:** maternal satisfaction concerning their neonatal care and associated factors in NICU selected governmental hospital Addis Ababa, Ethiopia 2020 GC.

**Purpose of the study:** the main aim of this study is to prepare thesisfor partial fulfillment of the requirement for masters of science in neonatal nursing by investigator. In addition, the study finding will be used as baseline data, evidence and input to develop future quality improvement projects so this hospital will have benefited for this study, and also governmental and nongovernmental organizations will be used this study finding for designing proper implementation and evaluation on reduction of neonatal morbidity and mortality.

**Procedure and duration:** I will be interviewing you using a questionnaire to provide me with applicable data that is helpful for this study. This questionnaire contains 34 questions, all questions of which are to be answered by you while I am interviewing you. The interview will take around 30 minutes for each participant, so I kindly request you to give me this precious time for the interview.

**Risks and benefits:** there are no any risk to participate in this study, but only taking few minutes from your time. There is no payment in the participation but, the findings from this

research will give important information for the hospital, ministry of health, for health planners and improve the care and setting of NICU.

**Confidentiality:** The questionnaire will be coded to keep privacy of the participants. The information which you will give us will be kept confidentially. There will be no information that will identify you in particular. The findings of the study will be generalized for the study population and it will not reflect anything specific of individual participants. No reference will be made in oral or written reports which link participants to the research.

**Rights:** You have the right to participate or not in this study, participation for this study is fully voluntary. If you agree to participate, you have the right to withdraw from the study at any time and this will not label you for any loss of benefits which you otherwise are entitled. You do have the right to not respond any question that you don't want to answer.

**Contact address:** If there are any questions or enquires any time about the study or procedures, please contact by the following address.

YeshiBerhan

Mobile phone: +251-993-93-34-11

E-mail: [yeshiworkberhan@gmail.com](mailto:yeshiworkberhan@gmail.com)

Annexes II: Informed Consent

I herewith declare that:

The objectives of this study will be explained to me and are clear.

The contents of the consent will be verified to me to participate in the study.

I understand that participation in this study will be completely voluntary and that should be withdraw at any time without supplying reasons. I agree to participate in this study to be interviewed, provided my privacy is guaranteed. When signing this consent form to participate in the study, I promise to answer honestly to all reasonable questions and not provide any false information or in any other way purposely mislead the researcher. Signature of the participant \_\_\_\_\_ date \_\_\_\_\_ Signature of the investigator \_\_\_\_\_ date \_\_\_\_\_

Thank you for your collaboration!!

Annex III: Questionnaire, English Version

Part I:- Socio demographic Characteristics mothers and neonates

S.NO.	Questions	Responses
101	Where do you reside?	1. In Addis Ababa 2. outside Addis Ababa
102	How old are you?	_____
103	How many times have you given birth?	1. One 2. Two and above
104	What is your occupation?	1. Governmental 2. Private sector 3. Self-employment 4. Merchant 5. Housewife 6. Others (specify)
105	What is your marital status?	1. Married 2. Single 3. Divorced 4. Widowed 5. Separated
106	What is your educational status?	1. illiterate 2. Primary school (1-8) 3. Grade 9 -12 4. Certificate/Diploma 5. Degree and above
107	What is your Average monthly household income in Ethiopian Birr?	_____

Neonatal demographic characteristics

108	What is the sex of your neonate?	1.Male      2. Female
109	Duration of current hospital stay	_____
110	At what gestational age of your baby born?	_____
111	What is the weight at birth of your new born in gram?	_____
112	How did you give birth?	1. Spontaneous vaginal delivery (SVD) 2. Caesarean section 3. Any others (specify)
113	Health status of your neonate?	_____
114	For how long has your neonate been admitted in newborn unit?	_____

Part II: -Question of institutional processes -related satisfaction.

	Questions	Response
201	The doctors give honest information to you?	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied
202	The nurses give honest information to you?	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied
203	Your questions are clearly answered?	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied
204	Doctors give you advice about ways to stay	1. Strongly dissatisfied

	health to your neonate?	<ul style="list-style-type: none"> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
205	The doctors inform you about the expected health outcome of your neonate?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
206	When your neonate's condition worsens, action is immediately taken by the doctors and nurses?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
207	The correct medication is always given on time?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
208	You informed about NICU rules?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
209	During intensive procedure you always stay close to your neonate?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
210	The nurse helps you in the bonding with your neonate?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> </ul>

		3. Neutral 4. Satisfied 5. Strongly satisfied
211	You actively involved in decision making on care and treatment of your neonate?	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied
212	Your neonate's confidentiality is respected during his/her this hospital stay?	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied
213	All the necessary investigations you need available in the laboratory?	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied
214	You receive clear information about your neonate's disease?	1. Strongly dissatisfied 2. Dissatisfied 3. Neutral 4. Satisfied 5. Strongly satisfied

Part III: - Question on institutional structures -related satisfaction.

	Questions	Response
301	The newborn unit is clean and comfortable?	1. Strongly dissatisfied

		<ul style="list-style-type: none"> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
302	There is enough space around your neonate's incubator?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
303	The NICU has a special room for mothers to express milk?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
304	Mothers have rooms near the NICU?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
305	There is adequate and comfortable chair in the unit to enable you breast feeding and bond with your neonate?	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>
306	Are you satisfied with the care that your neonate has received in the NICU	<ul style="list-style-type: none"> <li>1. Strongly dissatisfied</li> <li>2. Dissatisfied</li> <li>3. Neutral</li> <li>4. Satisfied</li> <li>5. Strongly satisfied</li> </ul>

Annex IV: Amharic version of Participant Information Sheet

የተሳታፊዎች መረጃ መስጨቅጽ-በአማርኛ

እንደምን አደሩ/ዋሉ

ስሜ \_\_\_\_\_ . እኔ በሦስት ሆስፒታሎች ውስጥ ለሚካሄደው ጥናት መረጃ ሰብሳቢ ነኝ ጥናቱ የሚከናወነው በየሺብርሃን ሲሆን በአዲስ አበባ ዩኒቨርሲቲ፣ ጤና ሳይንስ ኮሌጅ፣ ነርሲንግና ሚዲሻል ፊት ምህንድስና ስልጠና ስልጠና የ2ኛ ዓመት የማስትሬት ድግሪ ተመራ ተማሪ ነኝ ። በአሁኑ ሰዓት በአዲስ አበባ በመንግስት በተመረጡ ሆስፒታሎች በጨቅላ ህጻናት የወላጆች እርካታ እና ተዛማጅ ግጥም ጥናት ላይ ተግኛለሁ። ስለ ጥናቱ እንዲያብራሩልዎት እና ጥናቱ ተሳታፊ ሆነው እንዲመረጡ በትኩረት እንዲሰጡኝ በትኩረት እጠይቃለሁ።

**የጥናቱ ርዕስ:**

በተመረጡ የመንግስት ሆስፒታሎች በጨቅላ ህጻናት ህክምና ክፍል በልጆቻቸው እንክብካቤ ዙሪያ የእናቶች እርካታ እና ተዛማጅ ግጥም፣ አዲስ አበባ፣ ኢትዮጵያ፣ 2019/20 ዓ.ም።

**የጥናቱ ዓላማ:-**

የዚህ ጥናት ዋና ዓላማ ተማሪው በነርሲንግና ሚዲሻል ፊት ምህንድስና ስልጠና ስልጠና የ2ኛ ዓመት የማስትሬት ድግሪ ከሚያስፈልጉት ነገሮች በከፊል ለመፈጸም እና በተጨማሪም የጥናቱ ግኝት ለወደፊቱ የጥራት ማሻሻያ ፕሮጀክት ቶችን ለማዳበር እንደ መነሻ መረጃ፣ ማስረጃ እና ግብዓት ጥቅም ላይ ይውላል። ስለ ሆስፒታሎች ላይ ሆስፒታል ሲሆን ጥናት ተጠቃሚ ሆኖ ልጅ እንዲሁም መንግስት ታዊ እና መንግስት ታዊ ልሆኑ ድርጅቶች ይህንን የጥናት ግኝት ክክለኛ ትግበራ እና ግምገማ ለመንደፍ ያገለግላሉ። የጨቅላ ህጻናት በሽታ እና ሚቸንት መቀነስ ላይ።

**ሂደት እና ቆይታ:**

እኔ በዚህ ጥናት ላይ ጠቃሚ፣ የሚጠቅሙ መረጃዎችን ለመስጠት የሚያስችል መጠይቅ በመጠቀም የተወሰኑ ጥያቄዎችን ለመጠይቅ ያስችላሉ። ይህ መጠይቅ 34 ጥያቄዎችን ይይዛል፣ የእርስዎ በእውነት ላይ የተመሰረተ መልስ ለዚህ ጥናት መሳካት አስተዋፅኦ ደርጋል። ለእያንዳንዱ ተሳታፊ ቃል-መጠይቅ 30 ደቂቃዎችን ይወስዳል፣ ስለዚህ ለቃል-መጠይቁ ይህን ድጋፊ ዎን እንደ ሰጠኝ በትኩረት እጠይቃለሁ።

**ስጋቶች እናጥቅሞች:**

በዚህጥናትመሰረትጥናታዊጥናቶችንምአይነትጉዳትየለውም።ምንምአይነትገንዘብአያስገኝም፣ነገርግንይህጥናትበህክ  
ምናውእናበሆስፒታሉአደረጃጀትዘረደየለውንየጤናችግሮችንለማግኘት እና በጨቅላህጻናትህክምናክፍል  
ያለውንእንክብካቤእናቅንብርለማሻሻልይረዳል።

**ምስጢራዊነት:**

መጠይቁየተሳታፊዎችንግላዊነትንለመጠበቅበከድይይረጋል። የሚሰጡንመረጃበምስጢርይጠበቃል፣በ  
ተለይእርስዎንየሚለይዎትመረጃአይኖርም። የጥናቱግኝትለጥናቱህዝብአጠቃላይይሆናልእናምየግለሰቦች  
ችንተሳታፊዎችዝርዝርየሚያንፀባርቅአይደለም። በቃለምልልሱተሳታፊዎችንከጥናቱጋርበሚያገናኝበአፍ  
ወይምበጽሑፍዘገባአይቀርብም።

**መብቶች: -**

በዚህጥናትውስጥያለመሰረተፍወይምበማንኛውምጊዜራስዎንከጥናቱየማግለልሙሉመብትአለዎት።ይህ  
እርስዎያገኙዎቸውንየትኛውምዓይነትጥቅሞችኪሳራአያደርግዎትም። መልስመስጠትየማይፈልጉትንማንኛውም  
ጥያቄያለመመለስመብትአልዎት።

**የመገኛአድራሻ:**

ማንኛውምጥያቄካለወይምስለጥናቱወይምሂደቶቹበማንኛውምጊዜከፈለጉእባክዎንበሚከተለውአድራሻ  
ሻያነጋግሩ።

የሺብርሃን

ስ.ቁ.09 93 93 34 11

ኢ. ሜይል:yeshiworkberhan@gmail.com

Annex V: Amharic version of Informed consent

የስምምነት-መግለጫ፡፡፡ - በአማርኛ

አዲስአበባዩኒቨርሲቲ

ጤናሳይንስኮሌጅ

ነርሲንግዲፓርትመንት

ድህረምረቃፕሮግራም

እኔስሜከዚህበታችየተገለጸው፤የዚህጥናትዓላማበደንብየተብራራልኝሲሆንየጥናቱንምዓላማተረድቻለሁ  
፡፡በዚህጥናትላይመሳተፍበሙሉፈቃደኝትላይየተመሰረተመሆኑንበሚገባየተረዳሁሲሆንበማንኛውምጊ  
ዜከጥናቱራሴንየማግለልመብትእንዳለኝአውቄአለሁ፡፡ስለሆነምየምሰጠውመረጃእስከተጠበቀድረስበዚህ  
ጥናትለመሳተፍተስማምቻለሁ፡፡በዚህጥናትለመሳተፍስምምነቴንስገልፀለምጠየቀውጥያቄበእውነትላይ  
የመሰረተመልስለመስጠትየተስማማሁመሆኔንአረጋግጣለሁ፡፡

የመረጃሰጪው፡፡፡ \_\_\_\_\_ ቀን \_\_\_\_\_

የአጥኝው፡፡፡ \_\_\_\_\_ ቀን \_\_\_\_\_

ስለትብብርዎትአሁንምበድጋሜእናመሰግናለን

Annex VI: Questionnaire, Amharic version

መጠይቅ - አማርኛ ቅጽ

ክፍል አንድ፡- ሥነ- ህዝብ፤ ማህበራዊ እና ኢኮኖሚያዊ ጉዳዮችን በተመለከተ የተዘጋጁ ጥያቄዎች

ተ.ቁ.	ጥያቄዎች	አማራጮች
101	የትነው የሚኖሩት?	1. በአዲስ አበባ 2. ከአዲስ አበባ ውጭ
102	እድሜዎ ስንት ነው?	_____
103	ከዚህ በፊት ስንት ጊዜ ወልደሻል?	1. አንድ ጊዜ 2. ሁለት እና ከዚያ በላይ
104	ሥራዎ ምን ድንገት ነው?	1. የመንግሥት ሰራተኛ 2. የግል ተቀጣሪ 3. የራስ ሥራ 4. ነጋዴ 5. የቤት እመቤት 6. ሌላ (ይግለጹ)
105	የጋብቻ ሁኔታዎ ምን ድንገት ነው?	1. ያገባችሁ ያላገባች 3. አግብታ የፈታችሁ 4. የሞተባችሁ 5. ተለያተው የሚኖሩ
106	የእርስዎ የትምህርት ደረጃ?	1. ያልተማረችሁ 2. የመጀመሪያ ደረጃ ትምህርት ቤት (1-8) 3. ከ 9 ኛ -12 ኛ ክፍል 4. የምስክር ወረቀት / ዲፕሎማ 5. ድግሪ እና ከዚያ በላይ
107	በኢትዮጵያ ወርሃዊ አማካይ የቤተሰብ ገቢ ምን ያህል ነው?	_____

የሕፃናት ስነ-ህዝብ ህረዎችን በተመለከተ የተዘጋጁ ጥያቄዎች

108	የልጅዎ ጾታ ምን ድንገት ነው?	1. ወንድ      2. ሴት
109	ልጅዎ ከዚህ ስፔሻላይዥን ትምህርት ስር ለምን ያክል ጊዜ ሆኖ ነው?	_____
110	ልጅዎ የተወለደው በየትኛው የወሊድ ዕድሜ ላይ ነው?	_____

111	ሲወለድልጅዎክብደትምንያህልነው?	_____
112	በአሁኑእርግዝናዎልጅዎትንበምንአይነትመንገድየወለድሽ?	1.በማህጸን 2.በኦፕሬሽን 3. ሌላ s (ይግለጹ)
113	የልጅዎየጤናሁኔታ?	_____
114	ልጅዎከዚህሆስፒታልአሁንተኝቶመታከምከጀመረምንያክልጊዜሆነው?	_____

ክፍልሁለት: - እርካታንየሚመለከትየተቋማትሂደቶችመጠይቆች

201	ጥያቄዎች	አማራጮች
	ሐኪሞችለእርስዎ እውነተኛመረጃይሰጡዎታል?	1. በደንብአልረካሁም 2. አልረካሁም 3.ምንምሀሳብየለኝም/ገለልተኛ 4. ረክቻለሁ 5. በደንብረክቻለሁ
202	ነርሶች ለእርስዎ እውነተኛመረጃይሰጡዎታል?	1. በደንብአልረካሁም 2. አልረካሁም 3.ምንምሀሳብየለኝም/ገለልተኛ 4. ረክቻለሁ 5. በደንብረክቻለሁ
203	የእርስዎጥያቄዎችግልጽመልስአግኝተዋል?	1. በደንብአልረካሁም 2. አልረካሁም 3.ምንምሀሳብየለኝም /ገለልተኛ 4. ረክቻለሁ 5. በደንብረክቻለሁ
204	ሀኪሞቹልጅዎጤናኛሁኖለመቆየትየሚረዱመንገዶችንነግረዎታል?	1. በደንብአልረካሁም 2. አልረካሁም 3.ምንምሀሳብየለኝም/ገለልተኛ 4.

		<p>ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
205	ስለልጅዎስለሚጠበቀውየጤናውጤትሀኪሞቹያሳውቁዎታል?	<p>1. በደንብአልረከሁም2. አልረከሁም</p> <p>3.ምንምሀሳብየለኝም /7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
206	የሕፃንዎየጤናሁኔታከተባባሰውዲያውኑበዶክተሮችእናነርሶችእርምጃይወሰዳል?	<p>1. በደንብአልረከሁም2. አልረከሁም</p> <p>3.ምንምሀሳብየለኝም /7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
207	ትክክለኛውመድሃኒትሁልጊዜበሰዓቱይሰጣል?	<p>1. በደንብአልረከሁም2. አልረከሁም</p> <p>3.ምንምሀሳብየለኝም /7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
208	የጨቅላህፃናትሀክምናክፍልህግጋትተነግሮዎታል?	<p>1. በደንብአልረከሁም2. አልረከሁም</p> <p>3.ምንምሀሳብየለኝም /7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
209	በከባድየአሰራርሂደትውስጥሁልጊዜከልጅዎጋርቅርብይሆናሉ?	<p>1. በደንብአልረከሁም2. አልረከሁም</p> <p>3.ምንምሀሳብየለኝም /7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
210	ነርሷከልጅዎጋርየጠበቀትስስርእንዲኖርዎይረዳዎታል?	<p>1. በደንብአልረከሁም2.</p>

		<p>አልረካሁም</p> <p>3.ምንምሀሳብየለኝም</p> <p>/7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
211	በልጅዎ እንክብካቤ እና አደያዝረገድ በውሳኔ አሰጣጥ ውስጥ ተሳትፏል?	<p>1. በደንብ አልረካሁም 2.</p> <p>አልረካሁም</p> <p>3.ምንምሀሳብየለኝም</p> <p>/7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
212	በልጅዎ የሆኑ ስፔሻል ቅደም ተከተል የሌላው ስፔሻል ግለሰብ ስር ተጠብቆ ለታለ?	<p>1. በደንብ አልረካሁም 2.</p> <p>አልረካሁም</p> <p>3.ምንምሀሳብየለኝም</p> <p>/7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
213	በሆስፒታሉ ውስጥ የምፈልጋቸው የላብራቶሪ ምርመራዎች በሙሉ ይገኛሉ?	<p>1. በደንብ አልረካሁም 2.</p> <p>አልረካሁም</p> <p>3. ምንምሀሳብየለኝም</p> <p>/7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>
214	ስለ ልጅዎ በሽታ ግልፅ መረጃ ይገኛሉ?	<p>1. በደንብ አልረካሁም 2.</p> <p>አልረካሁም</p> <p>3.ምንምሀሳብየለኝም</p> <p>/7ለልተኛ4. ረክቻለሁ</p> <p>5. በደንብረክቻለሁ</p>

ክፍል ሶስት: - እርካታን የሚመለከት ተቋማዊ መዋቅር መጠይቆች

	ጥያቄዎች	አማራጮች
301	የሕፃኑ ክፍልን ጭነት ስንት ነው?	1. በደንብ አልረካሁም 2. አልረካሁም 3. ምንም ሀሳብ የለኝም / ገለልተኛ 4. ረክቻለሁ 5. በደንብ ረክቻለሁ
302	በልጅዎ ክፍል ለረዕይታዎቹ ጭነት ስንት ነው?	1. በደንብ አልረካሁም 2. አልረካሁም 3. ምንም ሀሳብ የለኝም / ገለልተኛ 4. ረክቻለሁ 5. በደንብ ረክቻለሁ
303	የጨቅላ ህጻናት ክፍል እና ቶች ጭነት ስንት ነው? ተለዩ ክፍል አለው?	1. በደንብ አልረካሁም 2. አልረካሁም 3. ምንም ሀሳብ የለኝም / ገለልተኛ 4. ረክቻለሁ 5. በደንብ ረክቻለሁ
304	በጨቅላ ህጻናት ህክምና አቅራቢ ደረጃ እና ቶች ክፍል አለ?	1. በደንብ አልረካሁም 2. አልረካሁም 3. ምንም ሀሳብ የለኝም / ገለልተኛ 4. ረክቻለሁ 5. በደንብ ረክቻለሁ
305	ጡት በማጥባት እና ከልጅዎ ጋር የጠበቀ ትስስር እንዲኖር የሚያስችል ዎክፍ ለውስጥ በቂ እና ምቹ ወንበር አለ?	1. በደንብ አልረካሁም 2. አልረካሁም 3. ምንም ሀሳብ የለኝም / ገለልተኛ 4. ረክቻለሁ 5. በደንብ ረክቻለሁ

## Approval sheet

I, the undersigned, declare that I have submitted my original work maternal satisfaction and associated factors with neonatal care in NICU of selected governmental hospital in Addis Ababa town.

Submitted by:

Name: YeshiBerhan

Signature \_\_\_\_\_

Date \_\_\_\_\_

This thesis work has been submitted for the examination with my approvals as an advisor.

Examiner

Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

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Name: Mr. GirumSesbie(Assistant Professor, PHD Fellow) PI Advisor

Signature \_\_\_\_\_ Date \_\_\_\_\_

Name: Mr. YohannesAyalew(Health assistant, PHD Fellow) Co-Advisor

Signature \_\_\_\_\_ Date \_\_\_\_\_

Approval By The Board Of Examination

This Thesis By Yeshi Berhan Nega (Bsc) Is Accepted In Its Present Form By The Board Of Examiners As Satisfying Thesis Requirement For The Degree Of Master Of Science In Neonatal Nursing.

Internal Examiner:

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Full Name                      Rank                      Signature                      Date

Co-Advisor

Mr. Yohannes Ayalew (Health assistant, PHD Fellow)  
Full Name                      Rank                      Signature                      Date