CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Question

3.1.1 Primary Research Question

What is the proportion of satisfied mothers with delivery services at Tribhuvan University Teaching Hospital?

3.1.2 Secondary Research Question

1. What are the strategic issues to improve delivery services and increase satisfaction of mother's at TUTH?
2. What is the relationship between satisfaction with different dimensions of delivery services and background characteristics of the mothers?

3.2. Research Objective

3.2.1 General objective

To study the mother's satisfaction with delivery services in different locations of care in relation to doctor care, nursing care and service facilities and formulate strategic issues to improve the delivery services in the hospital.

3.2.2 Specific objectives

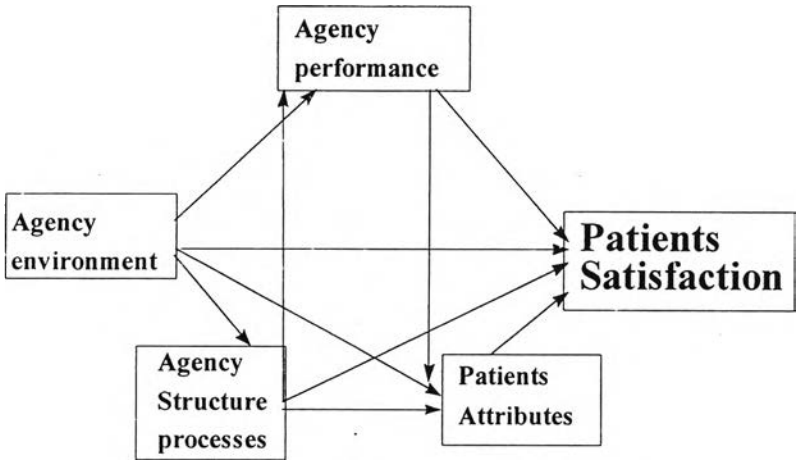
1. To findout Proportion of satisfied mothers in delivery services at TUTH.
2. To analyze mothers satisfaction in different aspects of delivery services at TUTH.

3. To identify strategic issues to improve quality of delivery services and increase satisfaction of the mother.
4. To describe the relationship between background characteristics of mothers with satisfaction of delivery services.

3.3 Conceptual framework

A general model of patient client satisfaction by James R. Greeley and Richard A. Schooner's was adopted. Five variables agency performance, agency environment, agency structure and process, patient attributes, were found ultimately leading to patient satisfaction. All five groups of variables were included in the study.[56]

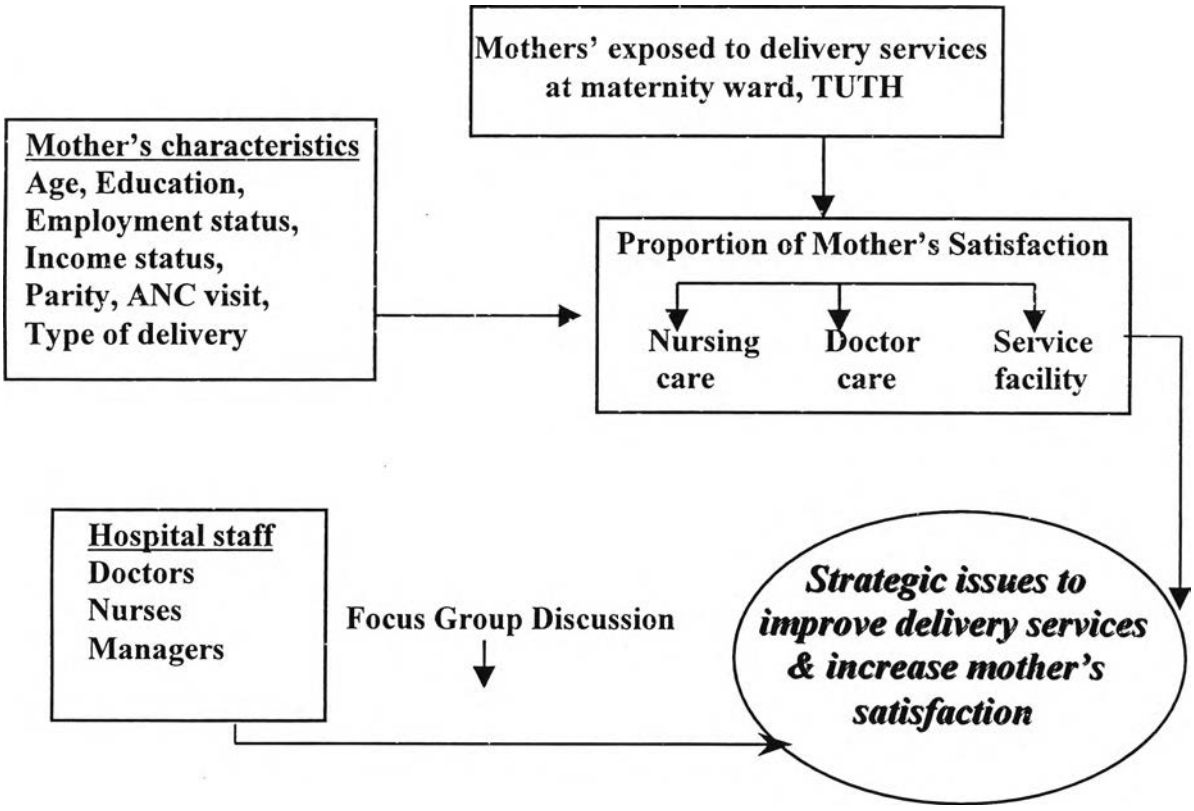
Figure: 1 **Patient client satisfaction model from Greenley JR. & Schooner RA**



In this study the framework is modified based on the empirical evidence and from the literature on study on mothers' satisfaction with delivery services from basic one in order to emphasize the most relevant variable in relation to delivery services. It has been recognized mostly in association of socio-demographic variables with areas of doctor care, nursing care, service facilities (physical facilities) in aspects of technical quality, humanness and

communication and waiting time etc. So to formulate baseline data about patient satisfaction, which allows managers to focus on specific service issues based on problem in the hospital, this study is conceptualized with the variables as follow:

Figure2. **Conceptual framework**



3.4 Independent and Dependent Variables

In the above mentioned framework it is indicated that regarding the quantitative approach the mothers characteristics such as age, education level, economic status, employment status, parity, ANC care attendance and type of delivery were identified as independent variable. The satisfaction of mothers in dimension of doctor care, nursing care and service facilities were identified as dependent variables. Further in qualitative portion hospital staff as doctors, nurses, and hospital administrators were independent variable and the outcome of focus group discussion as strategic issues for improvement of delivery service were dependent variables.

3.5 Operational definition of the terms used in the study

- Satisfaction - refers to the positive response opinion or feelings of mothers towards the services they received during the period of their stay in the hospital.
- Parity- refers as the order of birth the mother has up to present delivery.
- Labor waiting room- refers to the place where the expectant mothers kept in close observation for monitoring the progress of labor until they are ready to deliver.
- Delivery room- is the place where the expectant mother is taken to give birth of baby all necessary care is provided by doctor and nurses.
- Postnatal unit is the place where mothers are kept after delivery and taken care for further observation and management.
- Focus group discussions defined as a technique of qualitative data collection. Group of subjects related to study would be contacted and scheduled for focus group discussion. Facilitator assigned to ask the questions while another person will be taking the note on the issues discussed with the use of a question guideline. At the same time tape recorder could also used to record the conversation so that while analyzing the data it will be verified and information will be put in meaningful and confirmative way.
- Delivery service refers to the service provided to mother during admission in the hospital throughout the child birth process. It is divided in three dimension as doctor care, nursing care and service facility.
- Strategic issues refers to formulation of ideas and measures to be taken to implement in the organization for the functioning. In this study it defines steps to be taken in the process of improvement of delivery services and increase patient satisfaction.

3.6 Study Design

In this study a cross sectional descriptive study design has been applied to describe the findings. It is designed to look at a point about the satisfaction of mothers with different dimensions of delivery services in relation to different units of care. The descriptive design provided information on current status of care. It further enhanced to observe, describe or assemble new knowledge that existed in the current situation in a particular period of time and place.[57] The study has employed both qualitative and quantitative approach in two steps. For this purpose primary data was collected as designed in the structured interview questionnaire for satisfaction of mothers' with available facility (nursing care, doctor care and service facility. Similarly data were collected from focus group discussion relevant to the concepts of hospital management including service providers who were directly and indirectly involved in delivering the care in the hospital.

3.6.1 Qualitative Approach

Some data are easy to quantify, can be collected more appropriately and analyzed by employing quantitative technique. Some are not easy to quantify. Thus a non-quantitative technique or qualitative technique would be more appropriate. Qualitative data gives insight into the magnitude and extent of the health problems as well as lends insight into the underlying process and reasons for its existence.[58] So as proposed in the plan focus group discussion with the hospital staffs as doctors, nurses and management team regarding strategic issues for improvement of delivery services in the unit were also conducted. Altogether 3 no of FGD were held.

3.6.2 Quantitative Approach

This requires the use of standardized measure so that the varying perceptions of people can be fit into limited number of predetermined response categories to which numbers are assigned. The advantage of quantitative approach is that it is possible to measure the reactions of a great many people to a limited set of questions, thus facilitating comparison and statistical aggregation of the data. This gives a broad generalized set of findings presented succinctly and parsimoniously. Validity in quantitative research should depend on careful instrument construction to be sure that the instrument measure what it is supposed to measure. The instrument must then administer in an appropriate, standardized manner according to prescribed procedures. The focus is on measuring instrument, the test items, survey question or other measurement tools.[59]

3.7 Population and Sample

3.7.1 Target Population

The target population is the total group of those persons that meet the designated set of criteria determined by the investigator whom the results of the study will be generalized. In this study the target population is those key informants selected from the stakeholders who play a particular role in hospital development. Two group of population are identified as: (1) Mothers who come to attend delivery services in the hospital, for the satisfaction ratings and (2) Hospital staff including doctors, nurses and management at TUTH for qualitative data relevant to formulation of strategic issues to improve delivery service.

3.7.2 Population to be Sampled

This is a sub set of population drawn from the population to be sampled. In this study, sample subjects are derived from two sources. One from survey of those mothers who deliver the baby during the study period within the eligibility criteria maintained

below. There are average of 3000 cases of delivery in TUTH in a year. Only the sample of those mothers were interviewed using structured questionnaire.

3.7.3 Eligibility Criteria:

Inclusion criteria:

- Post natal mothers of all age group.
- Deliveries within the hospital.
- Admitted for at least 24 hours in the hospital.

Exclusion criteria:

- Mothers who do not want to participate because it is unethical to include participants in the study without voluntary consent.
- Post partum psychosis or blurred: as this group of subjects may have bias response due to complication and may not be at the condition to face the interview for a substantial length of time.
- All cesarean delivery: not feasible as this category of subjects do not go through all areas of delivery service as mentioned in outcome measurement.
- All still birth cases: confounding bias may be present in their response as they lost their new born and in mourning period when it is not favorable to face interview.

3.7.4 Sampling Technique

Sample was collected by random sampling technique. The random sampling technique reduces the selection bias while recruiting the case in the study. Every other day from the beginning of week in May (Sunday, Tuesday, and Thursday) were assigned as data collection day. The data were collected until the desired numbers of sample was met. There are in average 8-10 mothers per day who come to deliver in a day in the TUTH

maternity ward. Out of which 6 -8 mothers were included in the study after selection by eligibility criteria. By this way the samples were collected every alternate days in 24/ week X 15 = 360 out of which until 339 were selected for study.

3.7.5 Estimation of Sample Size

The sample size was calculated on the basis of assumption that the proportion of satisfied mothers would be more than 70% according to the study report of Seguine–L on "The components of women's satisfaction with maternity care". The estimated average number of mothers delivering at TUTH is determined as 3000 per year and 250 per month. Following equation was adopted to calculate sample size, which is appropriate for descriptive cross sectional study design.[60]

$$n = \frac{Z^2 p q}{d^2} = \frac{(1.96)^2 (0.7)(0.3)}{(0.05)^2} = 323.$$

n = desired sample size,

Z = the standard normal deviation (1.96 at the 95% confidence interval)

P = assuming that true proportion of satisfied patients should be 0.7, q = 1-p = 1-0.7 = 0.3

d = absolute precision of the study is assumed 0.05. (Acceptable error)

5% sample was added for dropout or missing rate, so the ultimate sample size was 339.

3.8 Observation and Measurement

Satisfaction of mothers in delivery services in dimensions of doctor care and nursing care were studied including technical quality, informativeness and humanness of care in different service areas. The satisfaction with service facility was also studied including physical settings, diagnostic facility, and cost of care. The measurement instrument is

structured interview questionnaire with the rating scale, ordinal and nominal scales and open-ended questions as well.

3.8.1 Method of Data Collection

(i) Questionnaire Design

The questionnaire were constructed in English language and divided in four parts. The design was based on GHAA'S consumer satisfaction,[61] Kojo-H and et al "Women's satisfaction with maternity care services in Finland, Seguine-L and et al the components of woman's satisfaction with maternity care, and Deborah-A S and et al "'Satisfaction with maternity care: A matter of communication and choice". The questionnaire was translated into Nepali by a bi-lingual expert upon arrival in Nepal to administer in the study population.

Part one consist of background characteristics of mothers with demographic variables; e.g. age, educational level, family income, employment status, parity, ANC visit and type of delivery through question no 1-9.

Part two dimension of doctor care focusing on technical quality, informativeness, and humanness throughout admission room, waiting room, labor room and postnatal room from question nos. 10-30.

Part three dimension of nursing care focused on technical quality, humanness and informativeness at different locations of care as admission room, waiting room, labor room and post natal room from question nos. 31-51.

Part four includes service facility like physical settings of service area, diagnostic facilities, and cost of care from question nos. 52-58.

Part five is recommendations and other general information, which was in nominal, ordinal and rating scale as well through question nos. 59-70.

(ii) Criteria for Questionnaire Design

The questionnaires were designed in such a way that, it was free from leading questions. So that in rating scale it did not contain factual questions. Items of question were clear, understandable, and related to the issues being studied. In this study literature related patients attitudes toward hospital service in the maternity care and delivery services were reviewed to select items which should be included in the questionnaire for the measurement of mother's satisfaction. The set of questionnaire was kept in (Annex 2).

(iii) Scale of Measurement

Measurement of perception is usually reflected in the attitude response. Rating scale could do the best measurement of attitudes. [62] So the dimensions of questionnaires in part two "doctor care", part three "nursing care" and part four "service facility" was scaled in four point Likert scale to measure satisfaction level which wereas follows.

1) Very satisfied ----------4

2) Satisfied ----------3

3) Dissatisfied----------2

4) Very dissatisfied -------- 1

(iv) Validity and Reliability

Measurement of content validity refers to the validation of study instrument. A draft questionnaire was constructed and sent to expert for review content and construct validity. This was maintained by getting the content experts opinion and obtaining score from at least five experts. The given score was analyzed by item correlation. The item which have > 0. 5 score was accepted to include in the questionnaire.

$IC = \sum R / N$

R = total score of that item, N = number of experts, IC> 0.5 → acceptable.

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$IC = \sum R / \mathbf{N}$
R = total score of that item, N = number of experts, IC> 0.5 → acceptable.

Score +1= relatively valid item, 0 = not sure and -1= relatively irrelevant.

The panel of experts consulted for content and construct validity of questionnaire are:

1. Chanvit Kotheeraurak MD. Assoc. Prof. Physiology Medicine (Chulalongkorn University) thesis advisor.
2. Mrs.Tuanchai Inthusoma Social Science (Chulalongkorn University).
3. Suwanna Aroonpongpaisal MD Assoc.Prof. Psychiatry (Khon Kan University).
4. Chusri Kusaichit Msc. Nurse specialist OB/GYN (Khon Kan University).
5. Somchai Niruthisard MD Assoc. Prof. OB/GYN specialist (Chulalongkorn University).

The IC scoring was attached in (Appendix 3).

(v) Pretesting of questionnaire

After the expert's suggestion, correction and reconstruction of the instrument was done for appropriateness of lingual meaning to the patient's understanding. The instrument was translated into Thai language and then administered to the pilot group of the postnatal mothers in the Chulalongkorn hospital. A minimum ten percent of the study sample was taken for response in pilot study (n=26). Time frame was set up for not more than 20 minutes for each respondent. Mothers were contacted by interviewer (Thai friend) and greeted with self-introduction. Privacy maintained, purpose and importance of the study was explained, assurance for anonymity is maintained for the criticizing answers. Mothers were asked to give complete answer to every question on their own. The initiation of the questions follows through background characteristics and socio-demographic data of mothers to rest of the parts with rating scale. The data was collected at the time of discharge.

(vi) Reliability of the instrument

After the pretest of questionnaire in the pilot group of sample the reliability test was done. The internal consistency of rating scale was obtained by Cronbach alpha statistic which is appropriate for attitude test. The scoring above 0.8 was considered as reliable item in the scale.[63] Scoring of Cronbach alpha statistic of the rating questionnaire is shown in (Appendix 4).

(a) Face to Face Interview

The data collection was done by face to face interview with the help of structured questionnaires. The postnatal mothers were interviewed on the date of discharge after complition of discharge process so that the respondents did not feel fear of being prejudiced for needed care during the hospital stay. The interviewer's identity was maintained with anonymity to the mothers. This provided better atmosphere to the interviewee to express their true feelings without fear of being judged by hospital staff for criticism with the answers.

The data collection started from first week of May and ended on the last week of August. To overcome problem of bias it was considered to collect data during rush hours of patient's flow in the hospital of the year. Time frame was set up for not more than 20 minutes for each respondent. Mothers were contacted by interviewer and greeted with "namaste". Self-introduction of the interviewer was given. The interviewer was in ordinary dress in order not to be identified as health personnel so that free flow of conversation could be made in the environment of trust without threat of being prejudiced in care. Privacy was maintained, purpose and importance of the study was explained and assurance for anonymity was made for the critical remarks. Mothers were requested to feel free and give complete answer to every question on their own. The initiation of the

questions was followed through background characteristics and socio-demographic data followed to specific questions on their level of satisfaction with rating scale.

(b) Focus group discussions

The focus group guidelines were consulted with management expert in the country before administration to maintain the validity and reliability in the study. Focus group discussions were conducted as planned to obtain in-depth information on the existing problems to formulate strategic issues for improvement of delivery service. Three FGD were conducted with different professional groups.

1.Doctor group: Eight doctors of 35-40 years age group, all were female gynecologists working in the same unit since one year were the participant in FGD.

2. Nurses group: The representative sample of nurses in the unit consisted of 8 nursing staff including one sister incharge and other staff nurses. All were female and age ranged from 30- 36 with the minimum qualification of staff nurse level graduates, working in the same unit for about two years. Second group consisted of doctor's group of 8 doctors of 35-40 age group having similar experiences.

3. Hospital management team: This group consisted of 6 hospital administrative personnel. They included director, matron, chief hospital administrator, finance administrator, and personnel administrator and procurement administrator. This group of personnel contributes to the supportive management of delivery services in the hospital.

SWOT Analysis model was used to analyze the FGD outcome in which internal environment as strength and weakness and external environment as threat and opportunity in relation to input (resources) process (present strategy) and output (performance) was explored.[64]

1. Components of focus group discussion

(I) FGD Guidelines in (Appendix 5).

(II) Personnel: One moderator and one note taker was assigned.

(III) Tape recorder was used to record the details of discussion.

(IV) Pictures were taken for the purpose of documentation.

(V) Snacks/refreshment, and gifts were provided to the participants as a token.

2. Conducting Focus Group Discussion

Step 1: The venue of the FGD was fixed in Nursing Conference Room TUTH. The time was scheduled at 1o' clock. (At lunch break, on Wednesday, Thursday and Friday-during may 16, 17 &18 1998). Length of discussion was not more than 60 minutes. The discussion was focused on subject. Permission was taken with advance meeting to use camera and tape recorder during discussion.

Step 2: Speak clearly and freely one at a time. No right /wrong answers. Participation conversation by all participants. Recording of discussion by using a checklist to insure that all issues are discussed. Assurance of anonymity and confidentiality were done. Deviation from central theme, lengthy discussion, disturbance and interruption was avoided.

Step3. Wrap up summary with details were written down as soon as possible after the completion of the discussion. All information and point of views expressed by summarizing and recapping the identified themes of the participants. Acknowledgement was given to participants for their ideas have been valuable and being utilized. Refreshment with tea and cookies at the time of closing was provided.

Step4: Final report was prepared with the help of moderator, field notes and tape records.

4.8.2 Data Analysis and Interpretation

Data analysis was done by entering the data into SPSS/Windows data file/program in the computer for the quantitative data. The code was given to ease the data entry and analysis. Under each questions two or more alternatives were given for options and the same was fixed as codes throughout the categorical data.

(i) Background Characteristic data

The part one questionnaire was consisted with variables on background characteristics of mother. These include sociodemographic variables and obstetric history variables. They were categorized and code was given. The age is continuos data and categorized into 15-19 years =1, 20-24 years years =2, 25-29 years =3, 30 years and $\geq$ = 4. The level of education was classified in five groups. So there were illiterate=1, primary school =2, secondary school=3, college level=4 and university=5. In the employment status the private service and private business were merged together as they represent similarity. So there were farmer=1, private job=2, government service=3 and house wives/others=4. The monthly family income was categorized as Rs upto 2500=1, Rs 2501-5000=2, Rs5001-7500=3, Rs7501-10000=4 and Rs10001=5 and above. Similarly obstetric data were also calculated according to set categories. The parity was categorized in primi para=1, second para=2, third para=3 and forth or more=4. The antenatal care received was categorized as no=1 and yes=2. The type of delivery was categorized as normal delivery=1 induction of labor with medication=2 and instrumental delivery=3. Place of previous delivery was categorized as same hospital=1 home =2 and other places=3. The complications during this delivery was categorized as no=1 and yes=2.

(ii) Satisfaction Data

All the responses in part two(doctor care dimension), three (nursing care dimension) and four (service facility dimension) were 4 point Likert scale as very dissatisfied-1, dissatisfied-2, satisfied-3 and very satisfied-4. The primary outcome as proportion of mothers satisfied with delivery services was obtained by summating up all the response scores of items in doctor care dimension=21, nursing care dimension=21 and service facility dimension=7 alltogether 49 items as delivery service scale, and divided by total response items in the scale. The analysis was done by using count command in the spss program and interring all item variables and leveling 1through 4. Then compute command given and total score of scale was obtained adding the items. The average of the score was obtained by dividing total score by number of item. Recoding was given to classify satisfied as 2.6=2 average score and dissatisfied as 2.59=1 average score. In this way response in any number of items in the scale is considered as case and non response in non of items in the scale was treated as missing case. There were no missing case in delivery service as a whole and doctor care dimension scale, nursing care dimension scale and service facility scale of satisfaction variables with various number of items. The same was followed through the analysis of subscales in doctor care dimension and nursing care dimension. There were some missing case in sub scale analysis as some of the items were not applicable to these cases and no single item was responded in particular subscale. For the purpose of classification criteria, arithmetic mean was calculated from the possible response score. The score up to 2.59 was considered as dissatisfied and from 2.6 onwards as satisfied category. The scoring method established by Davis for CESS (B Davis personal communication, November 4; 1992) and the method used in the thesis report of Ramkrishna Dulal (1997) was adopted to categorize satisfied and dissatisfied.

$$\text{Mean(average) score} = \frac{\text{Summation of item scores in three scales}}{\text{Number of total response item}}$$

If it is ≥ 2.6 classified as satisfied and < 2.6 as dissatisfied.

1. Doctor Care Dimension Subscale analysis

(1) Doctor care in admission room-6 items, statements including comfort maintained during examination, explanation given before and after examination, courtesy and respect shown in dealing, and willingness of doctor to listen your problems etc. (2) Doctor care in labor waiting room-5 items such as frequency of examination, emotional support, explanation of progress of labor, time spent with mother, conducting diagnostic procedures etc. (3) Doctor care in delivery room-6 items consisting maintaining cleanliness of delivery area, communication during delivery, encouragement for bearing down, conduct of delivery with confidence, notification of outcome of delivery and warmth and comfort maintained after delivery etc. (4) Doctor care in postnatal room-4 items consisting statements of procedures performed during postnatal examination, information given about your condition, and discharge advice given to you.

2. Nursing Care Dimension Subscale Analysis

(1) Nursing care dimension also consist same number of sub scales as nursing care in admission room-6 items. The statements were comfort maintained during examination, explanation given before and after examination, courtesy and respect shown in dealing, and willingness of doctor to listen your problems etc. (2) Nursing care in labor waiting room-5 items. The statements were as frequency of examination, emotional support, explanation of progress of labor, time spent with mother, conducting diagnostic procedures etc. (3) Nursing care in delivery room-6 items. The items consisted of maintaining cleanliness of

delivery part, communication during delivery, encouragement for bearing down, conduct of delivery with confidence, notification of outcome of delivery and warmth and comfort maintained after delivery etc. (4) Nursing care in post natal room 4 items. The statements were procedures performed during postnatal examination, information given about your condition, information and advise given about breast feeding and discharge advice given. The statements are more or less similar to doctor care. The total scale analysis was done by collapsing all 4 subscale together with 21 items.

3. Service Facility Dimension Subscale Analysis

Likewise service facility dimension consist 7 items. The statements were satisfaction with location of the unit, understanding of directions and guidelines to reach in the unit, sanitation facility, neatness and cleanliness of the unit, diagnostic facilities available, supply of medicine and waiting time to see doctor.

4. Individual item analysis

Individual analysis of satisfaction variables were also done in all items of delivery service. The descriptive statistics as mean and SD and the frequency and percentage distribution in each items were obtained as very satisfied-4, satisfied-3, dissatisfied-2 and very dissatisfied-1.

5. The association of background characteristic variables and satisfaction in delivery service variables.

Certain variables were considered to be associated with satisfaction of mothers with dimensions of delivery service as doctor care nursing care and service facility. To see the significant association of these variables, x^2 test (Pearson's) was performed with those

categorical variables e.g. age, educational status, employment status, monthly family income, parity, ANC visit, place of previous delivery, type of delivery and complications of this delivery etc. These background characteristic variables were re-coded into two groups to ease the analysis of significant association, because former category had less expected frequency in the cross tab for x^2 test than the needful expected frequency.

They were recategorized as age up to 24 years = 1 and age 25 and more =2, education level as illiterate =1 and literate =2, employment status as house wife and farmers =1 and others as job holders =2, monthly family income less and up to Rs5000 =1 and Rs5001 and more =2, Parity- primi para =1 and other than primi para =2, and place of previous delivery same hospital=1 and other places =2. Other variables as ANC visit, type of delivery and complications of this delivery were kept same. The results are explained in chapter 4 as association between background characteristic variables and satisfaction with dimension of doctor care, dimension of nursing care and dimension of service facility and displayed in tables.

(iii) General Information and Recommendation data

Data in the variables of general information and recommendations were analyzed in frequency and percentage distribution and shown in tables.

3. 8.3 Data presentation

Data presentation was done in contingency tables and graphs with frequency distribution, percentile, mean, and SD according to the significance of the outcome. Interpretation was done explaining the meaning of outcome and its relationship and significance in P value.

3.9 Ethical consideration

The study protocol does not involve any intervention, so only verbal consent was taken from the subjects to include in the study. The study purpose was explained to respondents to obtain voluntary consent. Anonymity of the information received was assured for mothers so they would not feel fear from being prejudiced in the care due to their judgmental response in the data collection. Formal request was made to hospital director to conduct study with written application explaining the purpose of the study; its significance, duration and identifying sample subjects. The permission for data collection in the hospital was obtained in written form from hospital director (Appendix-7). Approval for research proposal for implementation was obtained from Ethical Committee of Health Research Council in the country (Appendix-8).

3.10 Limitations of the study

The study was carried out in the maternity unit only so the other areas of hospital could not be generalized as the maternity care is different from other areas of care. The service satisfaction was measured with patient's perspective so it may be different from the version of the staff members. The patient's responses may have some subject bias according to the length of stay and severity of the condition as well as gender of the infant born. All these should be considered.

3.11 Benefit of the study

1. The study result is expected to be beneficial for the hospital and the administrators to develop effective strategies and specific programs for improving delivery services at TUTH.

2. Establishment of the good reputation of service in the hospital if high proportion of mothers are found satisfied.
3. It answers the queries and doubts about deterioration of service in the hospital.
4. This kind of study helps to draw the picture of quality of health care in maternity unit whether it is effective or not with the facts about the patient's perspectives.
5. Recognition of the patient as an individual deserving respect and dignity will be valued more high while providing delivery service.
6. Areas of dissatisfaction in delivery services could be identified.
7. Information of the study is useful for the recommendation to the authority to increase efficient use of resources and bring change and improvement in the delivery services.
8. New knowledge and record about patient's satisfaction in delivery service is being documented.
9. Further sensitization will be done to develop effective strategy for improving client service in other units of the hospital as a whole.
10. Recognition and staff satisfaction will be enhanced with patient's appraisal as satisfaction an outcome of care.

3.12 Obstacles during implementation

There was difficulty pertaining information from the hospital leaders group in focus group discussion. These people tended to be reluctant to open discussion about weaknesses of the organization in the beginning. Some items in the face to face interview questionnaires could not be effectively implied to respondents as doctor care in delivery room sub scale and some other items.