ASSESSMENT OF INPATIENTS’ SATISFACTION ON QUALITY OF CARE AND ASSOCIATED FACTORS AT ZEWDITU MEMORIAL HOSPITAL, ADDIS ABABA

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

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Abstract

Background: Patient satisfaction is commonly used method to examine quality of care and health system responsiveness. Patient satisfaction and inpatient service are among the areas identified to monitor Key Performance Indicators (KPIs) in hospitals of Ethiopia.

Objective: To assess inpatients’ satisfaction of the quality of care and associated factors at Zewditu memorial hospital, Addis Ababa

Method: Hospital based cross sectional study design was employed to collect data from 382 respondents. Likert scale of 1-5 was used to measure state of satisfaction of the respondents to the inpatient health services. Bivariate and multivariate logistic regression analysis used to identify associated variables using SPSS version 21.

Result: Overall proportion of satisfaction among the respondents was 52.7% while 20.7% were dissatisfied and 26.6% were neutral. The dissatisfaction to hospital structure variables was 68.6% while it was 44.8% to the timeliness of service. Similarly, 39.3% of the respondents were dissatisfied to the appropriateness of the service variables. The overall dissatisfaction among those who attended secondary school was 6.3 times more likely (AOR 6.3, 95% CI: 1.7-22.5) compared to those who were illiterate. Similarly, the dissatisfaction among those who stayed shorter (5-15 days) were 50% (AOR 0.5, 95% CI: 0.2-0.9) less likely compared to those who stayed more (over 16 days).

Conclusion and Recommendations: Hospital structure, appropriateness and timeliness of the service as well as duration of stay in the wards are important factors influencing the satisfaction condition. It is recommended to improve services including bed and food, access to water and sanitation facility, pharmacy and diagnostic services. Also need for improving admission procedure and duration of admission.
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Abbreviations and Acronyms

ALOS: Average length of Stay
BPR: Business Process Reengineering
FMOH: Federal Ministry of Health
HSDP: Health Sector Development Program
KPI: Key Performance Indicator
TQM: Total Quality Management
WHO: World Health Organization
ZMH: Zewditu Memorial Hospital
Assurance of Principal Investigator/s and mentor (s)

I the undersigned agree to accept all responsibilities for the scientific and ethical conduct of the research project and for the provision of required progress reports as per terms and conditions of the research publications office in effect at the time of grant is forwarded as the result of this application. I will provide timely progress report to my Supervisors and seek the necessary advice and approval from my primary Supervisor in the course of the research.

- Name of the MPH student: ______________________
- Signature: __________________________________
- Date:_______________________________________

Approval of Advisor (s)

- Name of the Supervisor: _______________________
- Signature:______________________________
- Date: ______________________________________

Approval of External Examiner (s)

- Name of the Supervisor: ____________________
- Signature:________________________
- Date: ______________________________
Acknowledgments

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I. Background

Patients have explicit desire or needs for care when they visit hospitals. However, inadequate response to their needs or expectations could result in patient dissatisfaction. There is growing consensus that assessment of the quality of hospital services should be based in part, on patients’ perceptions of overall care and satisfaction (1).

Patient satisfaction survey is the commonly used method and important indicator to assess quality of care. Measurement of patients’ satisfaction has become an integral part of hospital management strategies worldwide (2). According to some reports, provision of health care is expected to respond directly to patients’ preferences and demands and the efficacy of medical treatment is enhanced by greater patient satisfaction. Also it is recognized that satisfaction influences patient’s compliance with treatment, seeking of medical advice and maintains a continuing relationship with practitioners (2).

According to WHO, the health and well-being of people depend on the performance of the health system and assessment of patients’ satisfaction level, as part of health system responsiveness, is one of the five indicators for measuring performance of health system. The world health report emphasizes responsiveness of health systems as a crucial component of their overall performance defining as they way the system responds to non-health aspects and whether meeting or not patient expectations (3).

In Ethiopia, health sector reform has been implemented since 2010 as part of the national effort of socio-economic civil service reform to the public sector through application of Business Process Reengineering (BPR), a tool for a comprehensive analysis and redesign processes in the service delivery. Its purpose for health sector is to establish customer focused institutions, rapid scaling up of health services and enhancing the quality of care (4).

While HSDP III (2005-2010) of the FMOH had focused to strengthening the management capacity of health facilities in addition to the construction and expansion of health facilities, one of the strategic objectives of the currently operational HSDP IV (2010-2015) is to improve
quality of health services in order to satisfy the community’s health care needs through the
delivery of relevant, safe and optimum quality health services. It includes provision of health
services at all levels as per the standard which include: speed of delivery, harmonization at
service delivery point, effectiveness of the services, patient safety, ethics and professionalism in
service delivery, and availability of the required inputs (4).

1.1 Statement of the problem

Different studies have pointed out that the level of patient satisfaction in different types of health
facilities and hospitals in the Ethiopia varies. A study on the quality of hospital services in
eastern Ethiopia based on patient's perspective indicated that 46% of patients were not satisfied
while the study conducted at Jimma Specialized hospital indicated overall client satisfaction of
77%. Studies conducted on outpatient services satisfaction in Gondar and Jimma hospitals
indicated 22% and 57% satisfaction level respectively (2).

Study conducted at public hospitals in Addis Ababa including Tikur Anbassa, Saint Paul and
Zewditu memorial hospitals during 2005 identified an overall rating of 67% satisfaction among
inpatients admitted to medical, surgical and gynecological wards (5). Intervention study on in-
patient satisfaction with nursing care and communication at Debre Markos hospital indicated an
overall inpatient satisfaction of 56% (6).

Various factors influence patients’ satisfaction in hospital settings including medical and nursing
care, communication, ward management, environment and patient socio-demographic variables
(7). In line with this, there is a gap of study on investigation of diverse set of variables to identify
important factors influencing patient satisfaction in hospital, in particular to inpatient service.
1.2 Justification of the study

Asking patients their perception of the care and treatment received could be an important step towards improving the quality of care, and ensure health services meet patients’ need. Knowledge of patients’ experience contributes to an effort of making the health service more responsive (2).

Following the implementation of hospital reform guidelines (10) and HSDP IV, there is a gap of recent evidence to assess patient’s satisfaction of the service in general and at the study hospital. Thus, this study aims to create up-to-date evidence on inpatient’s service delivery through assessment of patient’s satisfaction, exploring diverse set of indicators and factors which play a role to influence patient’s satisfaction.

1.3 Significance of the study

The finding of this study could serve as baseline for further monitoring of the changes in quality of service and also provides evidence for stakeholders engaging in improving quality of hospital services by indicating targeted areas of intervention.

Understanding of the factors influencing client satisfaction could help policy and decision makers to devise effective health care strategy and operational plan for the overall betterment of inpatient hospital service. Moreover, this study also initiates further research in the area.
II. Literature review

Total quality management (TQM), a philosophy aimed for continual improvement and responding to customer needs and expectations, is a favored approach in the improvement of healthcare services. It covers not only professional knowledge, competence, and application of appropriate technology, but also the patients' perception about the type and level of the care they receive. Also, it depends on the quality of the communication, behavior, and information rendered to a patient during the period that extends from admittance to and discharge from the hospital until the results of diagnosis and treatment are achieved (2).

Client satisfaction is considered as one of the desired outcomes of health care and it is directly related with utilization of health services. Assessing client or patient satisfaction has become an integral part of hospital management strategies across the globe. Moreover, the quality assurance and accreditation process in most countries requires that the satisfaction of clients be measured on a regular basis (2). According to Donabedian, the effectiveness of care, in achieving or producing health and satisfaction, is the ultimate indicator of the quality of care (9).

Satisfaction data play a significant role in the strategy and tactics health care providers use in delivering services for clients. In addition, measurement of patient satisfaction is increasingly playing important role in the growing push towards accountability among health care providers. It is also viewed as an established indicator of quality of care (10).

There is growing evidence that patient satisfaction correlates with better quality of care. Studies in developed countries have noted that hospitals with more satisfied patients generally provided higher quality of care as measured by validated quality metrics using standard methodology. Studies around the world have also noted that patient satisfaction is associated with increased compliance with the prescribed treatment and discharge instructions, reduction of complaints against the institution and improvement of morale and job satisfaction among health-care providers, which in turn can be of benefit to both patients’ health outcomes and relationships with health-care professionals. Patient’s experience of care is becoming a more and more important indicator of quality of care (11).
Studies indicated that patient satisfaction condition associated with patient characteristics, such as age, sex, educational level, work status and health status. A study indicated that varying importance of some socio-demographic variables, length of stay and previous admission. Older respondents generally record higher satisfaction and satisfaction linked to prior satisfaction with health care and granting patient desires (12).

Though the most frequent explanation for the variation and low-quality of care in the developing countries is lack of resources, a study noted that despite high expenditure and adequate facilities, patients did often not satisfy with the health care they received (1).

A study in Hong Kong indicated communication, respect and patient engagement in provider–patient relationship are important in determining patient’s satisfaction. There is evidence that patient socio-demographic characteristics affect patient satisfaction level. It can be associated with patient characteristics, including age, gender, race, education level and health status. In addition, it is logical that previous admissions and the length of the current admission also affect the patient response (13, 14).

The study in Jimma specialized hospital indicated highest (82.7%) satisfaction with the way the doctors examined them and on the other hand dissatisfaction was reported to be highest (46.9%) by respondents with the time spent to see a doctor. Furthermore, satisfaction with the health care was found to have a significant association with the age of the respondents (p=0.034) and educational level of the respondents (p=0.003) (4). The study on the patient's perspective in Eastern Ethiopia indicated that the satisfaction with health care found to have a significant association with waiting time, the availability of drugs, the payment status of the respondent and the address of the patient (15).

A study in Tikur Anbassa indicated overall participants’ satisfaction 90% with nursing care in contrary to other studies in the country. Female and age (18-30) had higher satisfaction than males and older participants’. Number of nights spent in the ward had also an association with satisfaction. Those who stayed 11-21 nights had lesser satisfaction than those who stayed less
than 10 days. It was indicated that, the cause of dissatisfaction is not due to nursing care but other hospital services such as pharmacy, laboratory, catering and other services (16).

A study done in Bangladesh indicated that perceived technical quality of care for the client plays a lesser role in affecting satisfaction than the interpersonal nature of care, access to care, or continuity of care. Most powerful predictor for client satisfaction with the government services was provider behavior, especially respect and politeness. For patients this aspect was more important than the technical competence of the provider. The second most powerful predictor for being satisfied was the respect for privacy, followed by short waiting times (17).

A study done in India tertiary care hospital, highest level of health care, on inpatient satisfaction indicated that patients were more satisfied with the behavior of doctors and dissatisfaction regarding cleanliness in the toilets (62%) and wards (40%). However, 26% of the clients were dissatisfied with the number of visits of the doctors (18).

Communication linkage between provider and patients contribute to patient’s satisfaction and effective communication increased clinical competence, and helps patients’ to develop confidence and successful self-care. The quality of the interpersonal skill of physicians influenced patient satisfaction and recall more than the quantity of information provided. Study done in Tikur Anbassa, St. Paulose, Zewditu memorial hospitals and a pilot survey in four hospitals (Felegehiwot, Amanuel, Finoteselam and Debre Markos) revealed that nurse communication and nurse’s care were given lowest satisfaction rate (5).

Treatment outcomes are more favorable when patients feel they are active participants in care and that their problem has been discussed fully, when they feel encouraged to ask questions, when they feel emotionally supported and when they share their ideas or feelings in the treatment planning process (6, 17).

A study in Pakistan on patient level of satisfaction with various aspects of care provided by doctors in surgical ward indicated that care givers’ politeness, consultation and respect for privacy being key determinants of users’ perception of satisfaction. Aspects of care such as
seeking patients’ participation in discussion of their illness, explaining them prescription drugs and lab investigations are areas required attention, especially with regard socio demographic factors like age and education (20). Patient satisfaction finding regarding inpatient care play a significant role in hospitals strategies and tactics in delivering better services (19).

2.1 Conceptual Framework

According to Donabedian, patient satisfaction is explained by the degree to which patient’s expectations are fulfilled (20, 21). It is an attitude – a person’s general orientation towards a total experience of health care. Satisfaction comprises both cognitive and emotional facets and relates to previous experiences, expectations and social networks (21).

Donabedian described client satisfaction as one of the outcome in the three dimensions of quality: Structures, Processes and Outcomes. Assessing outcomes has merit both as an indicator of the effectiveness of interventions and as part of a monitoring system directed to improving quality of care as well as detecting its deterioration. Quality assessment studies usually measure one of three types of outcomes: medical outcome, cost, and client satisfaction (9, 21).

The health care system and the individuals in society and their interaction constitute structure. Mere existence of health care does not ensure appropriateness of processes and their outcome. The non medical determinant of health care system which is measured under structure is physical infrastructure that constitutes the environment and availability of space (21). The appropriateness,
**Process** indicators of quality refer to the things done to and for the patient by practitioners in the course of treatment. Process relates to interaction between the patient and health care provider. It includes: *Appropriateness, Patient Centeredness, Timeliness, Staff Competence* and *Acceptability* of the service (9, 21). This research applies this model of quality assessment to measure outcome in terms of patient satisfaction. The condition of the structure and process variables could vary by the type and level of health facility, thus, influence the satisfaction level of patients.

The FMOH set 36 national Key Performance Indicators (KPIs) reflecting processes and outcomes. The indicators are organized into 10 categories including inpatient services and patient satisfaction: The inpatient service KPI include: admissions, mortality, surgical admission timeliness, bed occupancy, average length of stay, pressure ulcer incidence, surgical site infection and completeness of inpatient medical records (22).

### III. Objective

#### 2.1 General objective

- To assess overall inpatients’ satisfaction of quality of care and associated factors at Zewditu memorial hospital, Addis Ababa

#### 2.1 Specific objectives

- To assess patients’ satisfaction in relation to the study variables
- To identify factors influencing patients’ satisfaction of the quality of care
IV. Methods

4.1 Study Area

This study was conducted in Zewditu memorial hospital in Addis Ababa, Ethiopia. The hospital is providing comprehensive medical services under the management of Addis Ababa health bureau.

The hospital has catchment population of more than 1.5 million people and according to the data from the hospital provided services for a total of 7,620 inpatients, 41,000 emergency cases and 81,000 outpatients including emergencies during 2013/14 calendar year. The hospital has 168 beds in five inpatient wards (37 in gynecological and obstetric, 39 in surgical, 33 in medical and 19 beds in pediatric, adult and neonatal ICU wards). There were 460 technical workers including 48 medical doctors including 4 surgeons, 3 internists, 2 pediatricians, 2 gynecologists and 2 dermatologists and 213 supportive staff. In addition, there were 18 medical doctors who were attending post graduate specialization training and providing service in the hospital. Each of the wards are staffed by 15 nurses and there are 34 laboratory workers, 28 radiology and 27 pharmacy staff.

4.2 Study design

Institutional based cross sectional study design was employed.

4.3 Source population

All inpatients admitted to the hospital inpatient wards.
4.4 Study population

Patients admitted to medical, pediatrics, surgical and gynecology and obstetrics wards of the hospital during the study period (January 2015)

4.5 Inclusion and exclusion criteria

Patients admitted to the wards at least five days earlier to the data collection date, assumed to have adequate experience of the hospital service were included. Patients who were seriously ill and unable to communicate or did not have care givers were excluded from the data collection.

4.6 Sample size

Using a single population proportion formula $n = \frac{Z^2 \cdot \pi \cdot (1-\pi)}{d^2}$ and the following assumptions: level of confidence 95%; $Z_{\alpha/2}=1.96$, a 5% margin of error (d=0.05), and a proportion of patient satisfaction of 67% (4.). The sample size was 347 and, adding for 10% possible non response rate, the total sample size was 382 patients.

4.7 Sampling procedure

All admitted patients or care givers in the wards during the study period were contacted and proportional sample size was allocated to the four ward (medical, peadeatric, surgical and gynecology/obstetrics) based on the number patients admitted to the wards during the data collection period. According the sample for the wards was: gynecology/Obstetrics (137), surgical (89), medical (71) and pediatrics (85%).

4.8 Data collection procedures

Quantitative data collection method was used to collect data using structured questionnaire. Data was collected on socio-demographic, patient characteristics, ward structures, appropriateness and timeline of service and overall satisfaction (acceptability) of the patients and care givers.
Likert scale of 1-5 was used to collect response of the respondents of their satisfaction status; value 1 for highly dissatisfied response and value 5 for highly satisfied response. The satisfaction was assessed in two steps: First, the respondents were asked whether they were satisfied with the care received; then they were asked their level of satisfaction or dissatisfaction.

4.9 Study Variables

Dependant

- Overall inpatients satisfaction of the service indicated by acceptability of the service in this study

Independent variable

Socio-demographic variables: sex, age, residence, occupation, educational level, income
Patient characteristics: history of admission, acute or chronic problem, duration of stay
Hospital structure: ward environment including equipment, infrastructures and cleanliness
 Appropriateness: of diagnostic services, treatment efficacy, access and cost of the services
 Patient centeredness: communication and care visits by nurses and physician
Timeliness: efficient services, coordination (harmonization and alignment)
Staff competency: perceived capacity of health care staff

4.10 Operational definitions

Acceptability: overall conformity to the realistic wishes, desires and expectations of the patients
Appropriateness: refers to patient’s perspective of healthcare service provided including diagnosis, treatment, access to services and cost
Length of stay: The number of days of stay to the hospital wards since admission
Dissatisfied: patient’s experience of the care is not up to their expectation
Highly satisfied: patient’s experience of the care is above their expectation
Outcome: patient’s or care giver level of satisfaction
Patient Centeredness: partnership and relationship established among workers and the patient
**Patient satisfaction**: patient’s attitude of the service delivery based on their experience and expectations

**Process**: things done to and for the patient by practitioners in the course of treatment.

**Staff competency**: perceived capacity competency of health care staff by the patients in terms of technical and communication competency

**Structure**: constitute hospital physical environment, equipments and infrastructures

**Timeliness**: is the speed at which patients can receive care as quickly as possible

**Very dissatisfied**: Fail to meet patient’s expectation leading to disappointment

### 4.11 Data Analysis Procedures

Questions were coded, on Epi data and exported entered to SPSS version 21 and analyzed. The data was summarized using descriptive statistics of median, standard deviation and percentage and presented in tables and charts.

Cross tabulation was used to assess the proportion of dependant variable in specific variable, bivariate and multivariate logistic regression analysis was used to identify associated factors of patient satisfaction using odd ratio and level of significance at 5%.

The data for the likert scale response was recorded where required as dissatisfied for the response of 1 (very dissatisfied) and 2 (dissatisfied) and as satisfied as 3 (Neutral), 4 (satisfied) and 5 (very satisfied).

### 4.12 Data quality management

The questionnaire was developed in English and translated into Amharic (the local language) and back translated into English to ensure its consistency. Data collectors were oriented on the data collection process and pre-testing of the questionnaire was made before the actual data collection. Each collected data was checked on spot.
4.13 Ethical considerations

Ethical clearance was obtained from the ethical review committee of School of Public Health, Addis Ababa University and Permission for the study was obtained from the Zewuditu Memorial Hospital before the actual data collection. The respondents were informed on the objectives of the study, benefits and requested for consent.

The data was collected in a way to ensure confidentiality of the respondent. Information which explains the study purposes, benefit, methods were indicated on the questionnaire to ensure informed consent of the respondents.

To ensure efficiency of the study, the data was collected with the least burden to the respondents and justifiable budget. As the data collection was undertaken by health worker, appropriate feedback was given to the clients as required.

4.14 Dissemination of the results

The finding of the study will be disseminated to relevant stakeholders and effort will be made to make presentations on appropriate forums and get published.

3.15 Strength and Weakness of the Study

The strength of this study was diverse set of variables which might influence satisfaction of patients were assessed. The weakness of the study relates to the limited period of the study and focused to patients admitted during this period. Also, assessing satisfaction while the patients were on admission might not reflect the actual condition on discharge.
V. Result

Socio Demography Characteristics of Respondents

The data collected for a total of 382 respondents (70.7% female respondent) were females with a response rate of 100 percent. The median age of the respondents was 32.0 years and 60% of them were under 35 years. Most of the respondents (65.7%) were residents of Addis Ababa and more than half (56.3%) had secondary and above educational level (Table 1).

Table 1: Socio-demographic Characteristics of the respondent, Zewditu Hospital, Addis Ababa, April 2015

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>&lt;25</td>
<td>76</td>
<td>20.0</td>
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<td></td>
<td>25-35</td>
<td>154</td>
<td>40.2</td>
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<tr>
<td></td>
<td>36-45</td>
<td>75</td>
<td>19.6</td>
</tr>
<tr>
<td></td>
<td>&gt;45</td>
<td>77</td>
<td>20.2</td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
<td>112</td>
<td>29.9</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>270</td>
<td>70.1</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Single</td>
<td>76</td>
<td>19.9</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>282</td>
<td>73.8</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
<td>18</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>6</td>
<td>1.6</td>
</tr>
<tr>
<td>Religion</td>
<td>Orthodox</td>
<td>278</td>
<td>72.8</td>
</tr>
<tr>
<td></td>
<td>Muslim</td>
<td>54</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>Protestant</td>
<td>43</td>
<td>11.3</td>
</tr>
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<td></td>
<td>Catholic</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>Occupation</td>
<td>Housewife</td>
<td>146</td>
<td>38.2</td>
</tr>
<tr>
<td></td>
<td>Business (self)</td>
<td>61</td>
<td>16.0</td>
</tr>
<tr>
<td></td>
<td>Private employee</td>
<td>59</td>
<td>15.4</td>
</tr>
<tr>
<td></td>
<td>Gov’t employee</td>
<td>63</td>
<td>16.5</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>53</td>
<td>13.9</td>
</tr>
<tr>
<td>Education</td>
<td>Illiterate</td>
<td>62</td>
<td>17.5</td>
</tr>
<tr>
<td></td>
<td>Basic (Informal)</td>
<td>11</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Primary school</td>
<td>89</td>
<td>23.3</td>
</tr>
<tr>
<td></td>
<td>Secondary school</td>
<td>152</td>
<td>39.8</td>
</tr>
</tbody>
</table>
Preparatory/college | 63 | 16.5
150 - 600 | 62 | 16.2
601 - 1200 | 111 | 29.1
1201-2500 | 100 | 26.2
>2501 | 105 | 27.5

**Patient’s characteristics**

Majority of the patients (64.7%) were admitted to the hospital for the first time while rest admitted for second (24.6%) and third (10.7%) time. Most of the patients stayed in the ward for the period of 5-15 days (83.5%) with median length stay of 7.5 days. For all respondents, nearly half were admitted because of acute conditions and about 40.6% were admitted due to known diseases. About one third of the patients were admitted in gynecology and obstetrics ward, 23% to surgical ward while 18% and 22% patients respectively were from medical and pediatrics ward. (Table 2).

**Table 2: Patients characteristics, Zewditu Hospital, Addis Ababa, April 2015**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission history</td>
<td>First</td>
<td>247</td>
<td>64.7</td>
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<tr>
<td></td>
<td>Second</td>
<td>94</td>
<td>24.6</td>
</tr>
<tr>
<td></td>
<td>Third</td>
<td>41</td>
<td>10.7</td>
</tr>
<tr>
<td></td>
<td>5-15</td>
<td>319</td>
<td>83.5</td>
</tr>
<tr>
<td></td>
<td>16-29</td>
<td>55</td>
<td>14.4</td>
</tr>
<tr>
<td></td>
<td>&gt;30</td>
<td>8</td>
<td>2.1</td>
</tr>
<tr>
<td>Duration of stay (day)</td>
<td>Acute</td>
<td>164</td>
<td>42.9</td>
</tr>
<tr>
<td>Cause of admission</td>
<td>Chronic</td>
<td>155</td>
<td>40.6</td>
</tr>
<tr>
<td></td>
<td>Delivery</td>
<td>63</td>
<td>16.5</td>
</tr>
<tr>
<td></td>
<td>Gyn/Ob</td>
<td>137</td>
<td>35.9</td>
</tr>
<tr>
<td></td>
<td>Surgical</td>
<td>89</td>
<td>23.3</td>
</tr>
<tr>
<td></td>
<td>Medical</td>
<td>71</td>
<td>18.6</td>
</tr>
<tr>
<td>Name of ward</td>
<td>Pediatrics</td>
<td>85</td>
<td>22.3</td>
</tr>
</tbody>
</table>
Overall Satisfaction

Overall proportion of satisfaction among the respondents was 52.7% and 20.7% were dissatisfied and the rest of them were neutral. Relatively lower dissatisfaction level was recorded in surgical ward (14.6%), however there was no significant difference among the wards (P-value: 0.43).

Low satisfaction due to the timeliness of the service was significantly associated with surgical ward respondents (64%) (P-value: 0.001) while the dissatisfaction due to appropriateness service also associated with surgical and medical wards respondents (52.8%) (P-value: 0.01) (Table 3).

Table 3: Bivariate and Multiple variate Logistic Regression analysis of major areas of satisfaction assessment variables, Zewditu Hospital, Addis Ababa, April 2015

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>O. Sat</th>
<th>COR (95% CI)</th>
<th>P-value</th>
<th>AOR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Structure</td>
<td>D</td>
<td>62</td>
<td>1.9 (1.1-3.3) *</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>17</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service appropriateness</td>
<td>D</td>
<td>36</td>
<td>0.7 (0.4-1.2)</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>43</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient centeredness</td>
<td>D</td>
<td>29</td>
<td>0.3 (0.2-0.6) *</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>50</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service timeliness</td>
<td>D</td>
<td>46</td>
<td>0.5 (0.3-0.8) *</td>
<td>0.01</td>
<td>0.5 (0.3-0.9)**</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hospital Structure

For all respondents, 85% were dissatisfied with the condition of the bed in the wards. Specifically, 94.0% and 73.3% dissatisfied with the condition of access to water and sanitation (latrine and hand washing facility) respectively. More than half (57.3%) were dissatisfied with the condition of the food served in the wards. However, majority (79.1%) were satisfied with the condition of light and ventilation in the wards (Table 4).

Table 4: Acceptability and Hospital structure Variables, Zewditu Hospital, Addis Ababa, April 2015

<table>
<thead>
<tr>
<th>Variable</th>
<th>Very Unsatisfied</th>
<th>Unsatisfied</th>
<th>Neutral</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No (%)</td>
<td>No (%)</td>
<td>No (%)</td>
<td>No (%)</td>
<td>No (%)</td>
</tr>
<tr>
<td>Overall Satisfaction</td>
<td>29(7.6)</td>
<td>50(13.1)</td>
<td>102(26.7)</td>
<td>150(39.3)</td>
<td>51(13.4)</td>
</tr>
<tr>
<td>Ward Equipment</td>
<td>32 (8.4)</td>
<td>25(6.5)</td>
<td>59(15.4)</td>
<td>133(34.8)</td>
<td>133 (34.8)</td>
</tr>
<tr>
<td>Ward Cleanliness</td>
<td>49 (12.8)</td>
<td>72(18.8)</td>
<td>123(32.2)</td>
<td>120(31.4)</td>
<td>18 (4.7)</td>
</tr>
<tr>
<td>Ward Space</td>
<td>16 (4.2)</td>
<td>32(8.4)</td>
<td>68(17.8)</td>
<td>181 (47.4)</td>
<td>85 (22.3)</td>
</tr>
<tr>
<td>Ward light &amp; ventilation</td>
<td>14 (3.7)</td>
<td>13(3.4)</td>
<td>53(13.9)</td>
<td>129(33.8)</td>
<td>173 (45.3)</td>
</tr>
<tr>
<td>Condition of bed</td>
<td>286 (74.9)</td>
<td>44(11.5)</td>
<td>30(7.9)</td>
<td>20(7.9)</td>
<td>2 (0.5)</td>
</tr>
<tr>
<td>Condition of food</td>
<td>104 (27.2)</td>
<td>116(30.4)</td>
<td>103(27.0)</td>
<td>50(13.1)</td>
<td>9 (2.4)</td>
</tr>
<tr>
<td>Access to water</td>
<td>102 (26.7)</td>
<td>257(67.3)</td>
<td>14(3.7)</td>
<td>8(2.1)</td>
<td>1 (0.3)</td>
</tr>
<tr>
<td>Latrine and hand washing</td>
<td>180 (47.1)</td>
<td>100(26.2)</td>
<td>16(4.2)</td>
<td>65(17.0)</td>
<td>21 (5.5)</td>
</tr>
</tbody>
</table>
Appropriateness

Most of the respondents were satisfied with the diagnostic service (75.4%) and progress of the treatment (64.9%). Also many of the respondents were satisfied with the payment condition (75.6%) and timelines of the service (54.3%) in the hospital. However, access to the pharmacy (39.0%), laboratory (41.9%) and x-ray (37.7%) services were area of dissatisfaction to some of the patients (Table 5).

Table 5: Appropriateness and timelines of the services, Zewditu Hospital, Addis Ababa, April 2015

<table>
<thead>
<tr>
<th>Variable</th>
<th>Very Unsatisfied No (%)</th>
<th>Unsatisfied No (%)</th>
<th>Neutral No (%)</th>
<th>Satisfied No (%)</th>
<th>Very Satisfied No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic service</td>
<td>17(4.5)</td>
<td>24(6.3)</td>
<td>53(13.9)</td>
<td>115(30.1)</td>
<td>173(45.3)</td>
</tr>
<tr>
<td>Progress of treatment</td>
<td>22(5.8)</td>
<td>51(13.4)</td>
<td>61(16.0)</td>
<td>113(29.6)</td>
<td>135(35.3)</td>
</tr>
<tr>
<td>Access to pharmacy</td>
<td>71(18.6)</td>
<td>78(20.4)</td>
<td>81(21.2)</td>
<td>119(31.2)</td>
<td>33(8.6)</td>
</tr>
<tr>
<td>Access to lab</td>
<td>82(21.5)</td>
<td>78(20.4)</td>
<td>71(18.6)</td>
<td>109(28.5)</td>
<td>42(11.0)</td>
</tr>
<tr>
<td>Access to x-ray dx</td>
<td>79(20.7)</td>
<td>65(17.0)</td>
<td>64(16.8)</td>
<td>127(33.2)</td>
<td>47(12.3)</td>
</tr>
<tr>
<td>Payment condition</td>
<td>13(3.4)</td>
<td>29(7.6)</td>
<td>51(13.4)</td>
<td>175(45.8)</td>
<td>114(29.8)</td>
</tr>
<tr>
<td>Admission procedure</td>
<td>46(12.0)</td>
<td>59(15.4)</td>
<td>69(18.1)</td>
<td>138(36.0)</td>
<td>70(18.3)</td>
</tr>
<tr>
<td>Efficient service</td>
<td>62(16.2)</td>
<td>65(17.0)</td>
<td>61(16.0)</td>
<td>125(32.7)</td>
<td>69(18.1)</td>
</tr>
<tr>
<td>Ward layout</td>
<td>54(14.1)</td>
<td>37(9.7)</td>
<td>64(16.8)</td>
<td>158(41.4)</td>
<td>69(18.1)</td>
</tr>
</tbody>
</table>

Patient centeredness

With regard to patient centeredness variables, there was good satisfaction response among many of the respondents. Majority of the respondents were satisfied with the physician communication (82.5%), physicians capacity (82.7%), nurse behavior and communication (68.0%) (Table 6).
Table 6: Patient centeredness and staff capacity Variables, Zewditu Hospital, Addis Ababa, April 2015

<table>
<thead>
<tr>
<th>Variable</th>
<th>Very Unsatisfied</th>
<th>Unsatisfied</th>
<th>Neutral</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No (%)</td>
<td>No (%)</td>
<td>No (%)</td>
<td>No (%)</td>
<td>No (%)</td>
</tr>
<tr>
<td>Physician communication</td>
<td>4(1.0)</td>
<td>18(4.7)</td>
<td>45(11.8)</td>
<td>116(30.4)</td>
<td>199(52.1)</td>
</tr>
<tr>
<td>Nurse visit, support</td>
<td>18(4.7)</td>
<td>49(12.8)</td>
<td>90(23.6)</td>
<td>121(31.7)</td>
<td>104(27.2)</td>
</tr>
<tr>
<td>Round freq by doctor</td>
<td>4(1.0)</td>
<td>15(3.9)</td>
<td>80(20.9)</td>
<td>169(44.2)</td>
<td>114(29.8)</td>
</tr>
<tr>
<td>Nurse behavior</td>
<td>15(3.9)</td>
<td>45(11.8)</td>
<td>61(16.0)</td>
<td>173(45.3)</td>
<td>88(23.0)</td>
</tr>
<tr>
<td>Nurse communication</td>
<td>15(3.9)</td>
<td>47(12.3)</td>
<td>57(14.9)</td>
<td>176(46.1)</td>
<td>87(22.8)</td>
</tr>
<tr>
<td>Doctors capacity</td>
<td>6(1.6)</td>
<td>21(5.5)</td>
<td>39(10.2)</td>
<td>133(34.8)</td>
<td>183(47.9)</td>
</tr>
<tr>
<td>Nurses capacity</td>
<td>14(3.7)</td>
<td>38(9.9)</td>
<td>77(20.2)</td>
<td>138(36.1)</td>
<td>115(30.1)</td>
</tr>
<tr>
<td>Overall staff capacity</td>
<td>6(1.6)</td>
<td>17(4.5)</td>
<td>73(19.1)</td>
<td>147(38.5)</td>
<td>139(36.4)</td>
</tr>
</tbody>
</table>

Factors associated with satisfaction level

On multiple logistic analyses, the overall dissatisfaction was significantly associated with education level, occupation, and duration of stay of the admission in the wards. The overall dissatisfaction among business and government employee workers was 3.6 times (AOR 3.6, 95%CI: 1.1-11.7) more likely compared to housewife.

The dissatisfaction among patients attended secondary school was 6.3 times more likely (AOR 6.3, 95% CI: 1.7-22.5) compared to those who were illiterate. Similarly, the dissatisfaction among respondents who stayed shorter (5-15 days) were 50% (AOR 0.5, 95% CI: 0.2-0.9) less likely compared to those who stayed more (over 16 days).

The overall dissatisfaction also associated with specific variables: latrine and hand washing availability and perceived doctors and nurses’ capacity. The dissatisfaction among respondents who did satisfy with the latrine and had washing facility was 50% (AOR 0.5, 95% CI: 0.3-0.9) times more likely compared to those who did not satisfy to it.
The overall dissatisfaction is significantly associated with the perceived capacity of the health worker. Respondents who satisfied with the capacity of physicians were 150 time (AOR 150, 95% CI: 20.0-209.0) less likely dissatisfied on overall satisfaction analysis and those who satisfied with the capacity of nurses were 80% times (AOR 0.2, 95% CI: 0.03-0.9) less likely overall dissatisfied compared to those who did dissatisfied with the perceived capacity of the physician and nurses respectively. (Table 7).

**Table 7: Bivariate and Multivariate Logistic Regression analysis of specify areas satisfaction assessment variables, Addis Ababa, April 2014**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Category</th>
<th>Response</th>
<th>COR (95% CI)</th>
<th>P-value</th>
<th>AOR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation</td>
<td>Housewife</td>
<td>D 35</td>
<td>1.00</td>
<td>0.05</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>D 7</td>
<td>2.43</td>
<td>(1.0-5.83) *</td>
<td>3.6(1.1-11.7) *</td>
</tr>
<tr>
<td></td>
<td>Private employee</td>
<td>D 10</td>
<td>1.55</td>
<td>(0.71-3.37)</td>
<td>1.3(0.5-3.4)</td>
</tr>
<tr>
<td></td>
<td>Gov’t employee</td>
<td>D 10</td>
<td>1.67</td>
<td>(0.77-0.63)</td>
<td>2.1(0.8-5.9)</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>D 17</td>
<td>0.67</td>
<td>(0.34-1.33)</td>
<td>0.7(0.3-1.6)</td>
</tr>
<tr>
<td>Educational level</td>
<td>Illiterate</td>
<td>D 11</td>
<td>1.00</td>
<td>0.01</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>Informal edu</td>
<td>D 2</td>
<td>0.9</td>
<td>(0.2-4.67)</td>
<td>2.3(0.8-7.2)</td>
</tr>
<tr>
<td></td>
<td>Primary school</td>
<td>D 9</td>
<td>1.75</td>
<td>(0.68-4.5)</td>
<td>1.5(0.2-9.0)</td>
</tr>
<tr>
<td></td>
<td>Secondary school</td>
<td>D 45</td>
<td>0.5</td>
<td>(0.22-0.97) *</td>
<td>6.3(1.7-22.5) *</td>
</tr>
<tr>
<td></td>
<td>Prep &amp; above</td>
<td>D 12</td>
<td>0.84</td>
<td>(0.34-2.1)</td>
<td>1.2(0.5-2.8)</td>
</tr>
<tr>
<td>Duration of stay (day)</td>
<td>5-15</td>
<td>D 60</td>
<td>1.00</td>
<td>0.04</td>
<td>0.5(0.2-0.9) *</td>
</tr>
<tr>
<td></td>
<td>16-30</td>
<td>D 19</td>
<td>0.5</td>
<td>(0.29-0.98) *</td>
<td>1.0</td>
</tr>
<tr>
<td>Latrine and hand washing facility</td>
<td>D</td>
<td>48</td>
<td>2.1</td>
<td>(1.3-0.8) *</td>
<td>0.5(0.3-0.9) *</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>31</td>
<td>1.0</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Perceived doctors capacity</td>
<td>D</td>
<td>24</td>
<td>0.02</td>
<td>(0.01-0.1) *</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>55</td>
<td>1.0</td>
<td>150(20-209) *</td>
<td></td>
</tr>
<tr>
<td>Perceived nurses capacity</td>
<td>D</td>
<td>21</td>
<td>0.3</td>
<td>(0.2-0.6) *</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>S</td>
<td>58</td>
<td>1.0</td>
<td>0.2(0.03-0.9) *</td>
<td></td>
</tr>
</tbody>
</table>

* Statistically significant  
D=Dissatisfied  
S=Satisfied
Overall dissatisfaction was associated with major categories of variables: timelines of the service and patients’ perception of the staff competency. The dissatisfaction among respondents who did not satisfy with the timeliness of the service was 50% (AOR 0.5, 95% CI: 0.3-0.9) more likely compared to those who satisfied and it was 90% (AOR 0.1, 95% CI: 0.1-0.3) more likely among those who did not satisfy with their perceived competency of the staff compared to those who were satisfied for the same variable (Table 8).

VI. Discussion

The overall state of satisfaction (52.7%) of the respondent in this study was low compared to other studies. The study at Jimma specialized (2010) and Tikur Anbassa (2012) hospital indicated higher satisfaction rate of 77.0% and 90.1% respectively. However, comparable finding reported on the study conducted on inpatient service at Debre Markos hospital (6), which was an overall satisfaction 56.0%.

According to this study there was no significant difference of the satisfaction condition among the wards. The study at Tikur Anbassa, however, identified better satisfaction in gynecology and obstetrics ward compared to medical and surgical wards (16).

Multivariate logistic regression analysis made to identify factors associated with the overall satisfaction condition in this study indicated that socio-demographic variables: education level, occupation; and duration of stay in the wards were significantly associated variables. The study conducted at Jimma hospital also indicated significant association of the satisfaction with the educational level of the respondents (4). Similarly, the study conducted at Debra Marko (6), indicated that those who were unable to read and write were about 2 times more likely satisfied than those who were literate. Also inpatient study in Ghana indicated patients with high formal education were less satisfied with nursing care than their counterparts (23).

In corresponding to this study, the study at Tikur Anbassa hospital indicated that duration of stay at hospital wards was associated with the satisfaction state (16). The median (night) of stay at
Tikur Anbassa hospital was 7 days, which is also similar to this study finding (7.5 days), though this does not reflect the duration until the discharge period.

According to this study, age was not found be associated with satisfaction level. However, the study conducted in Ghana (23) indicated age as an important predictor of patient satisfaction; 37% of patients below forty years were less satisfied compared to 46% of those above forty. Similarly, the study in Debra Markos (6) indicated Admitted patients who were older in age reported more satisfaction with the service they were provided than younger patients. Patients who were older than 60 years of age were seven times more likely to be satisfied than patients who were between 18 and 30.

Analysis of the satisfaction condition by major areas of variables of this study indicated considerably higher dissatisfaction with the hospital structure variables (68.6%). Major areas of dissatisfaction were the condition of bed and food service in the wards; water and sanitation condition, which was consistently indicated in all wards. However, this did not found to associate with the overall dissatisfaction. The gap in the water and sanitation condition has also implication with infection prevention measure in the hospital.

Study conducted on patients admitted in a tertiary care hospital in Nagpur, India (24) during 2008 indicated that dissatisfaction was found to be more with poor cleanliness of toilets (56.01%) (P<0.0001). About half of the patients were dissatisfied with quality of food in the hospital and 17.0% patients reported availability of insufficient quantity of drinking water.

This study also indicated high proportion of dissatisfaction with the timeliness of the service (44.8%) and with appropriateness of service (39.3%) variables. Low satisfaction due to the timeliness and appropriateness of the service was significantly associated with surgical ward respondents. Related variables were admission procedure, efficiency of the service and ward layout, gaps in access to the pharmacy and diagnostic services.
Patient satisfaction study of nursing care in medical and surgical wards of public hospitals in Cyprus indicated surgical patients were more satisfied with information given. This was explained by the relationship between patient and doctor. Patients who are admitted for a scheduled operation had more time to learn more about their problem or they have possibly been informed by their doctors beforehand and they have prepared themselves (25).

The dissatisfaction due to access to pharmacy was explained by long waiting at the hospital pharmacy, lack of required medicine and travel to outside of the hospital to private pharmacies were mentioned by the patients. Lack of required laboratory investigations in the hospital is also the feedback given by some of the patients. The study in Jimma specialized hospital also indicated dissatisfaction because of lack of drugs in the Hospital’s pharmacy. Lack of drugs and supplies in the hospital pharmacies was the major problem, where about 70% of the clients with prescription paper for drugs did not get some or all of the ordered drugs from the Hospital’s Pharmacy (4).

The proportion of satisfaction in relation to variables including physician communication, perceived physicians capacity, nurse behavior and communication was good. However, lack of good perception of the health worker’s technical capacity found to associate with the overall dissatisfaction. In addition, timelines of the service significantly associated with the overall dissatisfaction.

VII. Conclusion and Recommendations

The overall status of satisfaction of the respondent was low. Hospital structure, appropriateness and timeliness of the service as well as duration of stay are areas which influences the satisfaction condition. Thus, it is recommended for stakeholders to improve the bed and food condition in the wards (though not associated with the overall satisfaction), access to water and sanitation facility, access to pharmacy and diagnostic services as well as improved admission procedures and duration of admission. Further study to assess the quality of service by type and level of health facilities is essential.
References

22. Hospital Performance Monitoring and Improvement Manual, FMOH, Medical Services Directorate Ethiopian Hospital Management Initiative July 2011
23. Dzomeku, V. In-Patient Satisfaction with Nursing Care: A case Study at Kwame Nkrume University of Sciuence and technology May 2013. Vol. 2, No.1
Annexes

Questionnaire

Information Sheet
Greetings
My name is ______________
This is to give you information regarding a study designed to assess inpatients’ satisfaction of the quality of care and associated factors at Zewditu Memorial hospital, Addis Ababa in collaboration with Addis Ababa University School of Public health. The aim of the study is to generate evidence on quality of service and factors influencing service deliver based on patient’s perspective. The study will have a benefit in the effort to improve the quality service by the stakeholders and can influence decision makers.

Cross sectional data was collected using interview from patient’s admitted to the hospital wards. The patients have the right for partial or non participation for the data collection. There is no risk for participating in the data collection and confidentially of the respondent was maintained as the name is not required on the questionnaire.

Informed Consent
This is to respectful requesting you to participate on this study. You can have full control to take time to understand and decide whether or not to take part on the study. You are also not obliged to answer a question you don’t want to and you may end the interview at any time you want to. However, your cooperation and genuine response for the study is highly appreciated. The interview may take up to 30 minute to complete the questionnaire.

Contact detail of the Investigator
If you want to know more about the study you can contact the principal investigator of the study Mahlet Girma through her mobile phone numbers +251-911-994627, e-mail: mahletkaba@gmail.com
Do you have any question that you want to ask us about the study?
Consent Form
Interviewer: Please provide a paper copy of the Consent Form to the respondent and explain it.

With due understanding of the aforementioned information, I am willing to participate in the study?

(Yes) Check box: ☐ => Proceed
(No) Check box: ☐ => Stop

Name of the interviewer: ______________________ Signature __________ Date __/__/______
Name of the supervisors: ______________________ Signature __________ Date __/__/______

Identifiers

| Q1. Ward name ______________________ | Q2. Total number of bed in the ward room/s [___|____] | Total area of the ward room/s _____(Sq.m) |
| Q3. Interviewer code ______________________ | Q4: Today’s date (day/month/year) | Time audit started: HH/Min [___|____] |
| Q5. Respondent Code [___|___|___] | Q6. Progress of questioner | Time audit completed: HH/Min [___|____] |

1. General

<table>
<thead>
<tr>
<th>Questions</th>
<th>Response</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Socio Demographic variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Sex</td>
<td>1. In Addis  2. Out of Addis</td>
<td></td>
</tr>
<tr>
<td>1.2 Age</td>
<td>_______ years</td>
<td></td>
</tr>
<tr>
<td>1.3 Residence</td>
<td>1. Urban  2. Rural</td>
<td></td>
</tr>
<tr>
<td>1.4 Occupation</td>
<td>1. Housemate employee  2. Gov’t employee  1. Business  4. Other (sp______)</td>
<td></td>
</tr>
<tr>
<td>1.5 Educational level</td>
<td>1. No education  2. Informal education  3. Primary school (1-6)</td>
<td></td>
</tr>
</tbody>
</table>
1.6 Household Income
   (per month, in birr)
   1. <1000
   2. 1001-2000
   3. 2001-3000
   4. 3501-4000
   5. Over 5000

2. Patient characteristics

2.1 History of admission/Frequency
   1. First times
   2. Second
   3. >2

2.2 Duration of stay in the ward
   ________ days

2.3 Cause of illness
   1. Acute
   2. Chronic

II. Satisfaction survey

Glossary: 0 = highly dissatisfied, 1 = dissatisfied, 2 = Neutral, 3 = Satisfied, 4 = highly satisfied

<table>
<thead>
<tr>
<th>Questions</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Hospital structure:</td>
<td></td>
</tr>
<tr>
<td>3.1 Adequacy and maintenance of ward equipment and infrastructures</td>
<td></td>
</tr>
<tr>
<td>including availability of wheelchair</td>
<td></td>
</tr>
<tr>
<td>3.2 Cleanliness of the ward is</td>
<td></td>
</tr>
<tr>
<td>3.3 Adequacy of ward space</td>
<td></td>
</tr>
<tr>
<td>3.4 Ward room light and ventilation</td>
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</tr>
<tr>
<td>3.5 Condition of bed</td>
<td></td>
</tr>
<tr>
<td>3.6 Condition of food (nutritious and safe)</td>
<td></td>
</tr>
<tr>
<td>3.7 Access to water, latrine and hand washing facility</td>
<td></td>
</tr>
<tr>
<td>3.8 Comment/Explain your conditions of satisfaction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Appropriateness</td>
<td></td>
</tr>
<tr>
<td>4.1 Diagnostic services are good</td>
<td></td>
</tr>
<tr>
<td>4.2 Have got good progress of treatment (effective)</td>
<td></td>
</tr>
<tr>
<td>4.3 Access to service - pharmacy, get medicine in the hospital</td>
<td></td>
</tr>
<tr>
<td>4.4 Access to service - laboratory and x-ray diagnosis</td>
<td></td>
</tr>
<tr>
<td>4.5 Payments for the exam, drug and other services is fair</td>
<td></td>
</tr>
<tr>
<td>4.6 Comment/Explain your conditions of satisfaction</td>
<td></td>
</tr>
</tbody>
</table>
5. **Patient centeredness**

5.1 Physician communication—well explanation /consultation
5.2 Nurses make adequate visits and get their support when needed
5.3 Number of rounds made by the doctor is reasonable
5.4 Nurses treat with respect and good behavior
5.5 Nurse explaining well and listening careful to patient
5.6 Comment/Explain your condition of satisfaction_____________________________________

6. **Timeliness**

6.1 The admission procedure was good, no delay
6.2 Efficient services (length of stay …)
6.3 There is good layout from wards to other services like lab. X-ray, pharmacy (and coordination)
6.4 Comment/Explain your conditions of satisfaction_____________________________________

7. **Staff competency**

7.1 Perceived capacity of doctors
7.2 Perceived capacity of nurses
7.3 Comment/Explain your conditions of satisfaction_____________________________________

8. **Acceptability**

8.1 Overall satisfaction to the service
8.2 Comment/Explain your conditions of satisfaction_____________________________________
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ለመውሰድ
ይችላል::
መስፋ 30 ዓ.ም. ሊመስፋ ይችላል::
ስልክ
1911 99 46 27 ከመላE
mahletkaba@gmail.com
የፍርማ ቀን

1. ከአካባቢ ወይም

<table>
<thead>
<tr>
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<th>ከስተያየት</th>
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<td></td>
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<td>1.1 ም.ት</td>
<td>1 አ.ት 2 ወ.ት</td>
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<tr>
<td>1.2 ም.ት</td>
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<td>1.3 የግምት</td>
<td>1. ለተው የፋ. 2. በማር</td>
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</tr>
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<td>1.4 የጎደ Bruins</td>
<td>1. ይገር 2. ይጎር 3. የፋ. 4. የምምነት 5. ለፋ.</td>
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<td>1.5 የሸጠጠጠ ፈል</td>
<td>1. ይጎር እወርተት 2. የማያ ለፋ. 3. የፋ. እንክ ፈል 4. የህ/ፋት ያለት 5. ለፋ</td>
<td></td>
</tr>
<tr>
<td>1.6 የግር/ግር</td>
<td>1. ይጎር ይገር 2. የማያ ለፋ 3. የማያ ለፋ 4. የጎኖ ያስክ ለፋ</td>
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<td>1. እርፋ ይጠ ለፋ ያለት 2. የማያ ያለት 3. የጎኖ ያስክ ለፋ</td>
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</tr>
<tr>
<td>1.7 የሸጠጠ ያር መ.</td>
<td>1. ────────────────</td>
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</table>

2. የጎጠጠ ያር ያር

| 2.1 የጎጠጠ ያር ያር ያሸፋ 2. እስፋ ያስፋ 3. እስፋ ያስፋ | 1. የጎጠጠ ያር 2. ያሸፋ ያሸፋ 3. እስፋ ያስፋ |  |
| 2.2 ለፋ (PCS) ያሸፋ ያስፋ | ──────────────── ለፋ |  |
| 2.3 የግስት ያስፋ | 1. ያሸፋ ያሸፋ 2. ያሸፋ ያሸፋ |  |

3. የሸጠጠ ያርአት

መስጥ 0 ከም ለፋ ያሸፋ 1 እስፋ 2 ያሸፋ 3 ያሸፋ 4 ከም ያሸፋ

| ያሸፋ | ያስፋ |  |
|-------|-------|-------|-------|-------|
| 1     | 2     | 3     | 4     | 5     |

| 3.1 የጎጠጠ ያር ያሸፋ ያስፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ |  |
| 3.2 ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ |  |
| 3.3 ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ ያሸፋ |  |
### 3.4 መጣራት ከፍተኛ መለጆች እና የሚታሰቡ ሳምን ያስፈልጉ መኖር

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### 3.5 መጣራት ከፍተኛ መለጆች እና የሚታሰቡ ሳምን ያስፈልጉ መኖር

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### 3.6 የሚኖሩ ውስጥ

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### 3.7 የሚኖሩ ውስጥ

<table>
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### 3.8 የሚኖሩ ውስጥ እና የሚታሰቡ ሳምን ያስፈልጉ መኖር

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### 4. የክፍል እንዳህን

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4.1 የተደረገልዎት የምርመራ ውስጥ እና የሚታለቀ ውስጥ

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### 5. የታማሚው የላይፈል ውልፋ

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5.1 የትልቅ እና የሚታለቀ ውስጥ እና የሚታለቀ ውስጥ እና የሚታለቀ ውስጥ

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5.4 የትልቅ እና የሚታለቀ ውስጥ እና የሚታለቀ ውስጥ
5.5 ከማወገድ ያሆኑ ያስጠበቅ ባለ ሁኔታ ያሆኑ። ከማካሄድ ከምታወቅ ላይ ያሆኑ።

6. የስጠቃቀም

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7. ያለሙያ ከሚት

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8. ከሚታወቃሌ ከሚት

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