ST.MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

ASSESSMENT OF RELATIONSHIP BETWEEN SERVICE QUALITY AND CUSTOMER SATISFACTION: THE CASE IN YEKA HEALTH CENTER, ADDIS ABABA, ETHIOPIA.

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ACRONYMS AND ABBREVATIONS

AMO- American Marketing Organization

AACAHB- Addis Ababa City Adminstration Health Bureau

CSA - Central Statistics Agency

GDP - Gross Domestic Product

MCH- Maternal and Child Health

NGO- Non Governmental Organizations,

OPD -Out Patient Department

SERVQUAL-Service Quality

ABSTRACT

Patients' satisfaction is an essential ingredient in measuring quality health care as it gives insight on the workers' progress toward patients' desire.The purpose of this study was to assess the relationship between service quality and customer satisfaction in Yeka health center in Addis Ababa, Ethiopia. A health facility based cross-sectional study involving both qualitative and quantitative methods of data collection were used. A total of 288 respondents who visited the health center during data collection period were selected using systematic random sampling.Structured questionnaire has been used for data collection. EPI Data version 3.1 and SPSS version 20 were used for data entry and analysis. Multiple logistic regression has been employed to describe associated factors and control potential con founders.The findings of the study showed that the overall client satisfaction level with the health services rendered at the health center was 59%. Results of the analysis revealed that the perceived quality ability of the health center was significantly affected by the longer waiting times,inadequate attention in identifying and addressing unique patient needs and lack of sufficient staff empathy in attending to patient needs. Lack of drugs and supplies, poor information provision, long waiting time,

poor cleanliness, lack of privacy and inadequate visiting hours, were found to be the major causes of dissatisfaction.Overall, there was a negative gap score for the five service quality dimensions which implied that patients' expectation for the perceived quality of services was not met. Therefore, the health center management should understand these weak service areas and plan for a better service delivery.

Key word: *quality,satisfaction,SERVQUAL*

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The principle of patient satisfaction is straightforward with the whole health system, and it is also the measurement of health system responsiveness .Better service quality is a critical factor which can be useful for distinguishing and improving organization's performance in the era of intense competition (Farooq et al., 2018; Jamaluddin & Ruswanti, 2017).

Service quality and customer satisfaction are very important concepts that organizations should understand in order to be competitive and productive. In today's competitive business environment delivering high quality service is the key for a sustainable competitive advantage (Poturak, 2014). Service business organizations should assess the service quality provided to their customers in order to improve their services, to quickly identify problems and to better assess customers satisfactions. Improving service quality increases economic competitiveness. This may be achieved by understanding and improving operational process and establish service performance measures (ibid).

According to Makens(2014), every business organizations' success depends on the satisfaction of the customers. Those organizations that are succeeding to satisfy their customers fully will have high position in the market. Nowadays all service organizations are realizing the importance of delivering and managing service quality which leads to customer satisfaction (Ibid). Service quality that is delivered can meet or exceed customers' expectations are mainly influenced by customers' prior expectations (Ananth et al, 2010).

According to Albinson(2004), customer satisfaction is an overall customer attitude towards a service provider or an emotional reaction to the difference between what customers anticipate and what they receive. So, customers' expectation plays an

important role to judge service quality. According to American Marketing Association [2012], service quality is a process of comparing customer expectations with the actual performance. A business with high service quality will meet customer needs and remain economically competitive (ibid).

These clearly indicate that customers' judge service quality relative to what they want by comparing their perceptions of service experiences with their expectations of what the service performance should be. Providing high quality service is a prerequisite for customer satisfaction. Customer satisfaction is the outcome felt by those that have experienced the organization's performance that have fulfilled their expectations (Kotler, 2014).

Universal access to good quality care and optimal patient satisfaction is the goal of health systems and governments all over the world (Ampofo & Opoku Danso, 2017) (Meesala & Paul, 2018), many developing countries are lagging far behind compared to the developed ones due to financial, material and human resource constraints (Tenkorang, 2016; Wu, 2011).

1.1.1. Customer Satisfaction

The concept of this study is customer satisfaction in a public health center in Addis Ababa. Customer satisfaction, according to Olsen and Dover (2009), is a feeling of pleasure on the offer's perceived performance in relation to buyers' expectations, that is, what the customer wants or requires from the product/service. Satisfaction with a product or service indicates a favor ability of customer's subjective evaluation of the outcome and experience associated with consuming a product or service (Hutt and Speh 2009). According to Louis and Kurt (2000), customer satisfaction is the result of a good or a service in meeting or exceeding the client's needs and expectations. Kotler and Keller (2009) offer that in general, satisfaction is a person's feelings of pleasure or disappointment that result from comparing a product's or service's perceived performance to their expectations. From the foregoing, customer satisfaction is operationally construed as an attitude that relates to the patient's fulfillment response

and that several factors such as responsiveness, employee ability, civility, politeness, access, communication, sociability and affordability (Oakland, 2000), come into play before satisfaction is achieved.

Specific to the health care industry, Flood and Romm (2006) advocate for regular improvement of the "redesigning" and "customer needs" in order to maintain the good relationship of the service quality and patients overall satisfaction. They further identify patients' satisfaction as their psychological or cognitive perceptions from the services that are provided from the health center. Olson and Jiang (2002) acknowledge that, still in the health care environment, customer satisfaction is about fostering and meeting customer expectations to improve customer delivered value. Empirically, Lam (2007) found in his study that many patients could differentiate the performance in caring and curing that are served by the medical center service providers. Kiran (2010) also found that co-operative and helpful staffs are able to instill confidence among the customer of the health care industry. Finally, Nwankwo et al. (2010) found different perceptions of patients in both public and private hospital. They investigated that public hospitals are providing most unsatisfactory service to the customer and identified reasons are mentioned as the doctor's responsiveness, length of appointment getting time, and access to core treatment and opening hours.

1.1.2 Public Health Service Delivery

In a service industry, like health care, experience of the patient plays a crucial role in rating and assessment of quality of services and subsequent satisfaction. Quality in Health care may comprise of newer technology, newer and effective medication, and higher staff to patient ratios, affordability, efficiency and effectiveness of service delivery (Tam, 2005). The health sector comprises the public system with major players including the Ministry of Health and the private sector, which includes private for-profit, Non Governmental Organizations, and Faith Based Organizations facilities. In health care industry service quality has become an imperative in providing patient satisfaction because delivering quality service directly affects the customer satisfaction, loyalty and financial profitability of service businesses (Ennis and Harrington, 2001).

In Kenya, Health services were provided through a network of over 5000 health facilities country wide, with the public sector system accounting for about 51 percent of these facilities (RoK, 2011). The public health sector consisted of the following levels of health facilities: National referral hospitals, Provincial general hospitals, District hospitals, Health centers, and dispensaries. Health services were integrated as one went down the hierarchy of health structure from the national level to the provincial and district levels. Provincial hospitals acted as referral hospitals to their district hospitals. The provincial level acted as an intermediary between the national central level and the districts. They oversaw the implementation of health policy at the 5 district level, maintained quality standards, and coordinated and controlled all district health activities (RoK, 2011).

The network of health center provided many of the ambulatory health services. Health center generally offered preventive and curative services, mostly adapted to local needs. Dispensaries were meant to be the system's first line of contact with patients, but in some areas, health centers or even hospitals were effectively the first points of contact. Dispensaries provided wider coverage for preventive health measures, which was a primary goal of the health policy.For the sake of this study, public health center located in Yeka sub city will be identified for participation.

YHC is located in Yeka sub-city, on the way from Megenagna to Arat kilo in front of Shola market. It is established in 1971 G.C. and since then the health center offers preventive, promotive and basic curative services and has an inpatient capacity of 12 beds. YHC currently has 12 major departments namely; Administration; Outpatient; In-patient; maternal and child health; HIV/AIDS follow up center, Pharmacy; IMNCI, GMP, Laboratory, Mental health, family planning and Nutrition.

1.2 Statement of the Problem

Quality of health services has an influence on patient satisfaction. This is in accordance with the opinion expressed by Batbaatar et al. (2016) that the indicator of the quality of health services has a strong and positive influence on patient satisfaction. The same

opinion is expressed by Lankarani et al. (2016) which states that patient satisfaction is an indicator of service quality and efficiency of health services. In addition, if patient satisfaction is very poor, those who are sick may be reluctant to go to health services. This, in turn, affects a country's ability to report outbreaks of new diseases (e.g. COVID-19) or outbreaks of other diseases that may be monitored for potential spread to epidemic and pandemic levels (e.g. measles, polio, etc.). If a country's citizens are not reliably reporting such outbreaks,this, in turn, can affect global security .

A recent study from Bangladesh reported that the most powerful predictor for client satisfaction with health services was provider behavior, especially respect and politeness. It is indicated that health care systems in most developing countries suffer from serious deficiencies in financing, efficiency, equity and quality and are poorly prepared to meet these challenges.

In Ethiopia, health services are inadequate and of poor quality and the country has extremely poor health status relative to other low income countries (Habtamu and Abebe, 2016). According to WHO (2010) limited availability of health resources, over reliance on direct payments at the time of people need care and inefficient and inequitable use of resources identified as the main interrelated problems that limit universal health coverage. Client satisfaction rate is generally believed to be low due to different reasons such as limited skilled manpower, infrastructure and other basic health resources. The factors that affect the service satisfaction level among customers of health service utilizers are not well assessed taking into account all five integral components of service quality models including tangibles, reliability, responsiveness, assurance and empathy. They tend to take parts of these service quality measurements to measure customer level of satisfaction. In most cases studies focused on health service providers circumstances. In addition, when these previous researches are well reviewed they focused on hospitals. But, there are high disparities between accessibilities, quality of health service delivery between the health centers and hospitals.

Anteneh et al (2014) conducted a research on patient satisfaction with outpatient health services in Hawassa university teaching hospital, southern Ethiopia using a cross-sectional study. The study deployed interview administered questionnaires to assess the level of outpatient satisfaction with health care and health services at outpatient department. Perceived long length of stay in the hospital negatively affected patients' satisfaction in this study.

Habtamu and Abebe (2016) conducted a research of predictors of patient satisfaction with the health care services provided in Oromia regional state on public hospitals. The study was a cross-sectional study on six selected hospitals in Oromia using semi-structured questionnaires to determine level of outpatient satisfaction with outpatients' health services. The study has revealed that 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 of the ordered drugs from the Hospital's Pharmacy.

Therefore, in response to the above research problems and so far studied and indicated research gaps, this study was conducted to assess the relationship between service delivery system and customer satisfaction in Yeka health center in Yeka sub city as a case study.

1.3 Research Questions

- What is the gap between customers' expectations and perceived performance of the stated health center?
- What is the relationship between service quality dimensions and the overall customer satisfaction?
- What is the impact of service quality dimensions on customer satisfaction?

1.4 Research Objectives

1.4.1 General Objective

The major objective of this study was to assess the relationship between service quality and customer satisfaction in Yeka health center.

1.4.2 Specific Objectives

This study has the following specific objectives:

- To identify the gap between customers' expectations and perceived performance of the health center.
- To assess the relationship between service quality dimensions and the overall customer satisfaction.

- To analyze the impact of service quality dimensions on customer satisfaction.

1.5 Definition of key Terms

Service: A service is any activity or benefit that one party can offer to another which is essentially intangible and does not result in the ownership of anything (Kotler, 2009).

Service quality: Customer's judgment of overall excellence of the service provided in relation to

the quality that is expected (Sturman, 2012).

Customer Satisfaction: is a personal feeling of pleasure resulting from the evaluation of service provided by an organization to an individual in relation to expectation (Armstrong, 2012).

SERVQUAL: Is a multi-dimensional instrument (i.e. questionnaire or measurement scale) designed to measure service quality by capturing respondents' expectations and

perceptions along with the five dimensions of service quality. The questionnaires consists of matched pairs of items; organized into five dimensions which are believed to align with the customer's mental map of service quality dimensions(Parasuraman etal 1985,1988).

1.6 Significance of the Study

This study is significant because it adds to both theoretical and practical knowledge to the available literature on service quality in health centers in Ethiopia. Theoretically this study may contribute to fill the research gap in the area of quality of health care. That is the findings of the study may serve as an inspiration and reference for further research in the area of health centers.

The study may have also practical contribution that it may give relevant information concerning patients satisfaction with the quality of health service. The result may provide information to the Ministry of Health so that appropriate measures may be taken to improve the health services and allocate resources to meet patients' demands. This health center may develop a system which includes evaluation of various stakeholders and this may help when giving advises to the health center. The management of the health center may use the findings of this study to maintain quality aspects that patients are satisfied with and improve the quality of services that patients are not satisfied with. The study findings may also inform patients on the importance of being actively involved in the health center activities in order to ensure their children receive quality health care. Finally, this study may inform policy makers on the views, opinions and thoughts of patients. Such information may be used as basis for future planning and policy formulation.

1.7 Limitation of the Study

The major limitation in this study were that, it is based on self-report data from the patients; it could be possible for some patients to give response that please the researcher or authority as opposed to their real perception regarding service quality and satisfaction. However, the researcher minimized this problem by eliminating the undecided response in a likert scale. There is a shortage of relevant literature on

primary health cares in Ethiopia. Therefore, the study was limited by lack of sufficient local literature; and this forced the researcher to use literature from outside Ethiopia. Due to the difference in socio-cultural context, the interpretation drawn in this study might lack sufficient local comparison on the various issues discussed.

1.8 The Scope of the Study

The study was conducted in Yeka health center.The health center has an excessive large percentage of patients from different backgrounds. This study was also restricted to one health center in sub -city. Consequently, the findings of this study may only be generalized to health centers with similar set ups. In addition, the study was limited to perspectives of patients with regard to satisfaction with the quality of health center and factors influencing it.

1.9 Organization of the Paper

The study was be organized into five chapters: -

Chapter one Comprises the introduction which deals with background of the study, statement of the problem, objective of the study, research questions, significance of the study, scope and limitation of the study and organization of the paper. Chapter two explains the theoretical and conceptual literature review about the topic. It discusses on literature review of all variables. The chapter highlights previous researches and findings conducted by various researchers. This chapter is important to indicate that every variable is supported by previous study. Chapter three looks at the methodology which is basically the research purpose, design, data collection methods, population, sampling size, and sampling techniques . Chapter four states on the results   Finally, chapter five states about discussion conclusion and recommendation.

CHAPTER TWO :   LITERATURE REVIEW

2.1 Concepts of Service Quality

2.1.1. Service

Service is an activity that is intangible (as opposed to physical products) and cannot be stored. It is an action or performed task that takes place by direct contact between the customer and representatives of the service providing organization which can be provided by a person or technology (Sturman, 2012). According to Palmer (1994), a service is any particular that does not necessarily produce a physical product which is non-good part of a transaction between the customer and the service provider. Services are actually typical performances or acts. Goods are directly consumed, while services are experiences through senses.

A contemporary definition is provided by Kotler and Armstrong (1996), a "service is an activity or benefit that one party can offer to another that is essentially tangible and does not in result in the ownership of anything. Its production may or may not be tied to a physical producer"(ibid).

2.1.2 Characteristics of Services

According to Wilson (2008), services have four distinctive characteristics. These four unique characteristics are the following.

- **Intangibility**:- Services that cannot be seen, touched, smelled or tasted.

- **Inseparability**:- Services are generally produced and consumed simultaneously. The service providers and customers are present when there is being provided, so both are part of the service process. They cannot be separated from the service.

- **Heterogeneity**:- The quality of services cannot be consistent as they are performed by different employees and at varying time intervals. It is difficult to reproduce service of the same standards, as can be done with products, because they are produced by people.

- **Perishability**:- Service cannot be stored like products, at the same time; service cannot bereturned or resold.

In addition, Teboul(1991), argues that, service cannot be stored (no inventory of

services can be accumulated) and it has to be consumed immediately. A customer is present at the service production site as well as can participate in service delivery (ibid). This clearly depicts that the production and consumption of service takes place simultaneously.

2.1.3 Quality

According to Edvardsson(1992), quality is a driving force for improved competitiveness, customer satisfaction and profitability. Berry (1985), also defined quality as a comparison between customers' expectations and service performance. Quality is further explained as "the totality of features and characteristics of a product or service which has ability to satisfy the customers' needs"(Kotler,1998). The quality is related to the value of goods or services, which could result in satisfaction or dissatisfaction on the part of the customer (Ibid).

2.1.4 Service Quality

Qualified service is a service that economically is profitable and it will create satisfaction. Satisfaction means a content feeling that arise after comparing the perceptions of results or performance of services to the expectation (Kotler, 2014). According to Chen (2009), the total satisfaction concept is a comprehensive evaluation of customers after they receive service or experience. The quality contains matters that determine whether or not the service felt by customers conforms to their expectation (Galia, 2009).

American Marketing Organization (2012), defines service quality in two ways: first it is an area of study that defines and describes how services are delivered so that the service recipient is satisfied; second high quality service is a delivery of services that meets and exceeds the expectations of the customers. Parasuraman et al (1985), also stated that service quality is defined by the customer evaluation of service outcome and service process as well as a comparison of customer expectations with service performance.

Customer judges the quality of service based on their perceptions of outcomes. According to Holdford (2001), service quality is defined as a post consumption assessment of services by the consumers or customers. It refers to the difference between service expectation and service perception of customers. Sturman(2o12), also defined service quality is the differences between the service the customer expects and the service the customer actually gets. Service quality can be also defined as the difference between customer expectation for service performance prior to the service encounter and their perception of the service received (Asubonteng, 1996).

2.2 Theoretical Literature Review

2.2.1 Health Service Quality

According to Rahaman (2011), quality is a catch word for all service providing organizations nowadays, as it decides competitiveness during the age of globalization. Service quality has been labeled as an important differentiator and the most powerful competitive weapon that service organizations wish to process (Reddy, 2016). The current tendency among service providers is to discover their customers' needs and desires, in order to adapt and respond timely to their expectations, as well as to construct and maintain a relationship with their customers, offering added value under the shape of commodity, amusement, promptitude, comfort, health etc.(Quinn, 1987). Service quality is the result of the subtraction between the customers' expectations and their perceptions. If expectations are met, service quality is perceived as being satisfactory; on the contrary, if the expectations are not fulfilled, the consumer will be disappointed; if the expectations are exceeded, the consumer will be delighted (Parasuraman,et al, 1985).

According to Christian Gronroos(1984) stated that service quality has two dimensions which are perceived and evaluated by the customers: technical quality of the service refers to what is offered by the organization as a technical result of their performance.[10] In the context of educational services, this represents the technical

and material resources of the education unit, the aesthetics of the environment, physical facilities, capacity, personnel numbers, utilized materials, etc. Functional quality resides in the way the service is performed. In the case of an education providing institution, this refers to accessibility, staff courtesy, comfort, competence, professionalism, credibility, staff availability, precision, efficient communication, hygiene, security, reliability and safety.

There is a strong link between the two dimensions of quality, which demonstrates the institutions concern with being as well equipped as possible, with hiring and keeping efficient teachers, with offering appropriate resources and assistance, and with creating opportunities for teachers to improve their teaching practices(Horng, 2010).

2.2.2 SERVQUAL Model

It is a multi-dimensional instrument (i.e. questionnaire or measurement scale) designed to measure service quality by capturing respondents' expectations and perceptions along with the five dimensions of service quality.

2.2.3 Service Quality Dimensions

According to Parasuraman[1990], there are five dimensions of service quality. These are empathy, reliability, responsiveness, assurance and tangibles which connect particular service character with the hopes of customers.

- **Tangibles**: The equipment, physical facilities and appearance of personnel.
- **Empathy**: The provision of caring and individualized attention to customers.
- **Reliability:** The ability to perform the desired service dependably, accurately and consistently.
- **Responsiveness**: The willingness to provide prompt service and help customers.
- **Assurance:** Employees courtesy, knowledge and ability to convey trust and confidence.
-

3.1 Emperical Litrature Review

3.1.1 Concepts of Customer Satisfaction

3.1.1.1 Customer

Customers can be defined as the users or consumers of products or services. They may be internal to the organization such as employees and directors or external to the organization like parents and experts (Dei-Tumi, 2005).

3.1.1.2 Customers Expectation and Perception

Expectations are forecasts about what is going to happen or the likelihood that something is going to happen and how it might happen. Looking at expectation from the business perspective and most especially customers' perspective, expectations could have a different way of looking at it. Looking at expectation from the service quality literature varies from the customers' satisfaction literature (Parasuraman, Zeithaml, Berry, and 1988).

Expectations act as a base for assessment, customers' expectations enable judgment on the level of satisfaction when these expectations are compared with customers perceptions. What a customer expects to have or consumed can only be rated if it actually meets desires when it is compared with what the customer actually perceived (Forsythe, 2012).

Customers perception of the service acquired plays a significant role in the level of satisfaction as well as the employees in charge of service delivery also have an important role to play in the process of delivering service quality and customer satisfaction (Swar,2012). Customers' perception of service quality is based on the assessment of their expectations that is, what customers think service providers should deliver considering their perceptions of the performance of the service provider (Parasuraman et al., 1985). According to Tam (2005), it is important for firms to have an influencing power in order to attain customers' satisfaction and also understands how customer expectations changes in order to make constant update even in a situation

where expectation is unclear and hard to understand.

Understanding the expectations of customers could be referred to as getting a true inside of how customers assess expected service and what actually is delivered. In cases where customers receive services that did not meet their expectations they will term the quality of that service as poor and where service providers render services beyond customers' expectations they will term

the quality of service as good and satisfactory.

Customer perceived service quality is the customers own perception of service based on different factors contributing to the service from the process to the final outcome. According to Gronroos (2001),"quality is what customers perceive". Customers who get service consider everything that contributes to the process and the final outcome in making their assessment of the service.

However, the subjective assessment of the actual service experiences is the customer perceived quality as stated by (Zeithaml, 2006). According to George (2004), perception is "the process, by which an individual selects, organizes and interprets information inputs to create a meaningful picture of the world". Perceptions of a service are a complex series of judgments forming during or at the end of the experience (Buswell, 2004).

The key aspects of customer satisfaction are to know customer expectations. According to Parasuraman et al (1991), Customer satisfaction reflects the expectations and experiences that the customer has with a product or service. Understanding customer expectations is a prerequisite for delivering superior service; customers compare perceptions with expectations when judging an organization's service (Chang, 2002).

3.1.1.3 Customer Satisfaction

Customer satisfaction may be defined as the customer's fulfillment response to a

consumption experience. According to Buttle (2004), customer satisfaction is a pleasurable fulfillment response while dissatisfaction is not pleasurable one. Customers would be satisfied if the outcome of the service meets their expectations. When the service quality exceeds the expectations, the service provider has won a delighted customer. Dissatisfaction will occur when the perceived overall service quality does not meet expectations (Gemmel, 2003). According to Minazzi (2008), customer satisfaction is the result of comparison between customer's expectation and customer perceptions. In other words, customer satisfaction is seen as the difference between expected quality of service and customer's perceptions after receiving the service.

Customer satisfaction information helps organizations to evaluate their ability in meeting customer's needs and expectations effectively (Zeithmal, 2009). It also helps organizations to analyze the performance of an offering to customers in order to identify areas for improvements as well as what areas customers consider to be very important (Ibid).

4.1 Conceptual Literature Review

4.1.1 Patients' Satisfaction with the Quality of health care

The satisfaction of patients as consumers in health care is the most efficient and least expensive source of market communication because consumers who are satisfied with the product or service are likely to disseminate positive experiences to others while dissatisfied will spread negative information about the product or service Dubroski(2009).

According to Ojo(2010), dissatisfied customer may tell seven to 20 people about their negative experience, while satisfied customer may only tell three to five people about their positive experience. Pateints' satisfactions levels depend on different experiences about health centers. According to Friedman (2007), patients evaluate the health center

on a number of variables including Doctors, nurses, laboratory,and pharmacy involvement, ease of transportation,and budget.These variables may influence the patients' satisfaction with the health center.

4.1.2 The Relationship between Service Quality and Satisfaction

According to Sureshchandar (2006), customer satisfaction should be seen as a multi-dimensional construct just as service quality meaning it can occur at multi levels in an organization and that it should be operationalized along the same factors on which service quality is operationalized. When perceived service quality is high, then it will lead to increase in customer satisfaction (Rao, 2007). He support the fact that service quality leads to customer satisfaction. Lee (2000), also acknowledges that customer satisfaction is based upon the level of service quality provided by the service provider.

4.1.3 Conceptual Framework

The conceptual framework of this study was based on the concept of quality in the health center. The relationship between patients satisfaction with the health service quality dimensions are illustrated in Figure 1.

Independent variables   Dependent variable

| Reliability |
| Responsivene |
| Tangibility |
| Assurance |
| Empathy |

Patient satisfaction
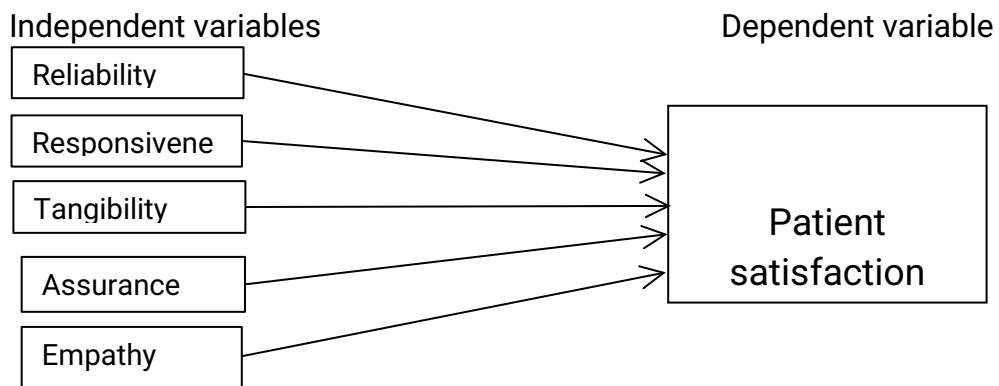
Source Parasuraman et al (1985, 1988)

Figure1 illustrates the relationship between independent and dependent variables of the study. Patients' perception of quality of health center will be expected to have an influence on their level of satisfaction with the quality of care. It will be expected that patients as consumers evaluate health centers (be satisfied or dissatisfied) only after they perceive it. The quality of health service will be measured by Patients Satisfaction quality dimensions. Each service quality dimensions consists of different elements which reflect the physical environments, examination room characteristics, health professionals' qualifications, patients' involvement etc.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter outlines the methodology which has been used as follows:The research design is mentioned followed by sample and sampling techniques. Source of data and procedure of data collection were also explained.

3.1 Research Design

According to Cooper, Schindler & Sharma (2012) research design is the plan and structure of investigation so conceived as to obtain answers to research questions (p.159). "A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure."(Khotari, 2004:31). He also groups research designs in to the following categories: (1) research design in case of exploratory research studies (2) research design in case of descriptive(concerned with describing the characteristics of a particular individual and diagnostic research studies, and (3) research design in case of hypothesis-testing research studies.

Thus this study has used both descriptive and explanatory research design to analyze the level of service quality and customer satisfaction in Yeka health center.Descriptive research design involves measuring of variables through collection of data from a population which is often the unit of analysis in order to generate tabulation of percentage, mean and frequencies which indicate how much, what and when(Shuttleworth,2006). Thus it was helpful in describing the determinant factors of patient satisfaction. The study also employed explanatory in that the relationships between variables are correlated with an aim of estimating the integrated influence of independent variables on the dependent variable.

213.2 Sample size and sampling techniques

A sample design is a definite plan for obtaining a sample from a given population. It refers to the technique or the procedure the researcher would adopt in selecting items for the sample (Kothari, 2004:55).There are two types of sampling namely probability and non probability sampling (Yalew, 2011, p.120, Kothari, 2004, p.58). Because of in ability to provide equal chances for the target population non probability sampling is not used in this research. Instead, in probability the target population has equal chance to be included in the sample.Therefore,systematic random sampling technique was used to select the study samples.In systematic random sampling individuals are choosen at regular intervals (i.e every K^{th} individual) from the sampling frame. (K= N/n). The sample

interval is calculated from the average number of patient per day, divided by the sample expected per day i.e. 350/20=17. First patient at each day is selected using simple random sampling method. A randomly selected number between one, two or three were used, with a number representing each patient presenting on that particular day. Thus, if two was picked, the second patient to present in the OPD becomes the first sample and then every seventieth patient (i.e. 19th 36th, 53th, etc).

Single population proportion formula for sample size calculation was used to recruit the eligible participants. By assuming 5% margin of error and 95% confidence interval (Z alpha=0.05)the findings suggest that the level of satisfaction on the OPD services were 78% with 95% CI 74.7-81.8 among clients who visited different health centers from similar study conducted in Addis Ababa (12).

Finally, by considering a non-response rate of 10% the calculated sample size was taken as the final sample size.

Sample size calculation by using the prevalence of satisfaction in Addis Ababa health center OPDs
Where
Z = level of confidence (1.96)2
P = single population proportion (78%)
d = margin of error (5%)
n = sample size
n = Z2 p (1-p)/d2 = (1.96)2(0.215(1.0.78)/ (0.05)2 =263
n=263 by adding 10 % non-response rate, the sample size will be 288

3.3 Source of Data and Procedure of Data Collection
3.3.1 Sources of Data

According to Kothari (2004, p.95) there are two types of data viz., primary and secondary. The primary data are those which are collected afresh and for the first time,

and thus happen to be original in character. The secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process.

Therefore in this research both primary and secondary types of data were used.

Primary Data Sources:- To obtain primary data the researcher mainly used patients. The decision to use those persons as a source of data is based on the expectation and perception that they have a better exposure and information about the stated issues.

The primary data was collected through questionnaires. The content of the questionnaire were divided into different parts. The first part contained questions related to some demographic aspects of the respondents, such as gender, age and educational level. These enable the researcher to get a better understanding of the type of respondents and relate it to how they expect and perceive service quality in health centers. The second part was designed to measure participants' expectations of the service quality. The third part will measure participants' perception of the service quality and the fourth part is designed to measure the overall patients' satisfaction. The questionnaire contain different attributes which reflect the dimensions of health center services. The five point Likert Scale range from1 (strongly disagree) to 5(strongly agree) was selected to interpret participants' response. A self- administered questionnaires survey was used for this purpose.

Secondary data Source: - The secondary source of data were collected from review of journals, articles, earlier research works, record reviews, and organization reports. The data obtained from these sources believed to strengthen the data obtained through questionnaires.

3.3.2 Procedure of Data Collection

The collections of data started from a simple observation on the selected health center. The researcher created awareness about the overall purpose of the study to the respondents in order to avoid misunderstanding and confusion. Then, Questionnaires were distributed to the target population. The researcher also explained the content of the questionnaire for those respondents who had limitations in understanding the language.

3.4 Method of Data Analysis

The data was analyzed and interpreted mainly by using quantitative approach. The quantitative approach emphasis on measuring on attributes of items. The collected data were analyzed through SPSS package. These methods include first, the descriptive statistics which involves in collecting, summarizing and interpreting data through frequency distribution, mean and percentage. Second, multiple regression analysis was used to find out the significant impact of service quality dimensions-Tangibles, Reliability, Responsiveness, Assurance and Empathy-as the independent variables and parent satisfaction as the dependent variable. Prior to regression analysis, correlation analysis was conducted to recognize the significant correlation between the patient satisfaction and all of service quality dimensions.

3.5 Instrument Development

The instruments were developed based on the objectives of the study and research questions. The principles of questionnaires such as, use simple and clear languages, statements should not be too long and use of appropriate punctuation were considered when developing the instrument. Even the researcher approaches the questionnaire with positive wording.

3.5.1 Validity

According to Yalew (2004, p.224) Validity can be defined as the accuracy and meaningfulness of the inferences which are based on the data results. He adds that the validity depends on the quality of the measurements. Questionnaires will be tested on 30 potential respondents to make the data collecting instruments objective, relevant, suitable to the problem and reliable as recommended by the advisor. Issues raised by respondents were corrected and questionnaires refined in the pilot test. Besides, proper detection by an advisor was taken to ensure validity of the instruments. Finally, the improved version of the questionnaires were printed, duplicated and dispatched.

3.5.2 Reliability

The reliability of instruments measures the consistency of instruments (Yallew, 2004, p.196).The reliability of a scale indicates how free it is from random error (Pallant, 2010, p.7). The most commonly used statistic for internal consistency is Cronbach's coefficient alpha. This statistic provides an indication of the average correlation among all of the items that make up the scale.

3.6 Ethical Considerations

The study has use the information collected from both primary and secondary sources as it is collected. It has also cited different literature as originally cited by the authors as for justifying and supporting the finding of this research. All the information were treated and kept secretly with high confidentiality without disclosure of the respondents' identity.

Chapter 4   Data Presentation,Analysis and Interpretation

General information

In this study 288 questionnaires were distributed to the respondents/parents and all 288 questionnaires were returned. That means the response rate was 100%.

4.1 Socio - demographic characteristics of respondents

The socio - demographic characteristics of the sampled patients are presented in Table 4.1 below.

Table 4.1 Socio - demographic characteristics of respondents

Demographic		Frequency	Percentage (%)
	Male	115	39.9
Sex	Female	173	60
Age in years			
15 − 24		69	23.9
25 − 35		124	43
35 and above		95	32.9
Educational level			
None		15	5.2
read and write		30	10.4
Primary education		56	19.4
Secondary education		119	41.3
diploma		50	17.4
Tertiary education		18	6.3
Income Level			
<500		0	0
500−1000		1	0.3
1000−1500		44	15.3

		114	39.6
1500−2000		114	39.6
2000 -2500		75	26
>2500		54	18

 In relation to age, about 67% of the respondents were aged 18-35 years and 33% were aged over 35 years. Age of respondents ranged between 15 and 61 years. In terms of gender, 60% were females and 39.9% were males.

In regard to highest education level, 19.4% had primary education and 23.7% had college education and above. In terms of average monthly income, 15.3% were earning between 1000-1500 ETB ,39.6% earn between 1500-2000ETB,26% earn between 2000-2500 ETB and 18% were earning above 2500.

4.3 Patient Satisfaction Index

Satisfaction index was used to determine the level of patients' satisfaction. The index was derived from a mean aggregate score of the five quality dimensions of SERVQUAL model measured using a 5-likert scale namely: tangibles, reliability, responsiveness, assurance and empathy. The results of analysis are shown in Table 4.2.

Table 4.2: Patient Satisfaction Index

Satisfaction Index	Percentage
Tangibility	72%
Reliability	51%
Responsiveness	55%
Assurance	64%
Empathy	52%
Patient Satisfaction Index	**59%**

In determining the satisfaction index, the average of the customers' importance (expectation) score for each variable was calculated and expressed as a factor of that average known as weighted score. The satisfaction (perceived) score was multiplied with the weighted score to obtain a satisfaction index. I.e. Satisfaction Index=Weighted Score * Satisfaction score. To obtain indices for each of the quality dimension, an aggregate mean was calculated. Results of the analysis revealed that a satisfaction score of 72% on service tangibility, 51% for reliability, 55% for responsiveness, 64% for assurance and 52% for empathy of the services. The overall satisfaction index for the services was 59%.

4.4 Quality Perception of Services

4.4.1 Tangibility of Service

Perceived quality of service tangibility was measured using perceived quality gap score. The presence of a positive gap score means that quality expectation (s) was met or exceeded and a negative score implies that the quality expectation(s) was not met.The results of analysis are shown in Table 4.3.

Table 4.3 : Quality perception of tangibility

Tangibles	Expectation Score (E)	Perception Score (P)	Gap Score (P-E)
Health centers should have well maintained and modern equipment	4.8	3.4	-1.4
Physical facilities such as building should be visually appealing and pleasant	4.7	3.7	-1.0
Staff in Health centers should be clean and well groomed	4.9	2.5	-2.4
Patient rooms should be comfortable enough and accord privacy	4.8	4.8	0
Mean Score	4.8	3.6	-1.2

The tangibility quality gap score for each of the four variables studied was computed by subtracting perception score from the expectation score in which the score computed for the variables represent the average score for all the study respondents. Mean score was calculated by obtaining the average scores. Results of analysis showed that patient expectations for the tangibility was not met (GS=-1.2). Patient expectations for well maintained and modern equipment (GS=-1.4) was not met.

However, patient rooms were perceived to be comfortable and to accord sufficient privacy (GS=0.0).

Finally, when we sum up all the results that are explained above we can observe that in all the elements of tangibles dimension of service quality ,customers' expectation is higher than the actual performance of the health center. It also implies that the health centers physical facilities, equipment and appearance of the staffs are not satisfactory to customers.

4.4.2 Reliability of Services

Perceived quality of service reliability was measured using perceived quality gap score. The presence of a positive gap score means that quality expectation (s) was met or exceeded and a negative score implies that the quality expectation(s) was not met.

Table 4.4. Quality perception of reliability

Reliability	Expectation Score (E)	Perception Score (P)	Gap Score (P-E)
Health centers should perform services and procedures correctly the first time without mistakes and or errors	4.8	2.1	-2.7

Health centers should provide services within the time promised in the service delivery charter	4.8	2.8	-2.0
Health centers should submit legible patient reports, documents and information and without errors	4.8	2.6	-2.2
When a patient has a problem, the staff should show sincere interest to solve it	4.9	2.5	-2.4
Doctors/nurses should explain health conditions, diagnosis and treatment in a clear and understandable way	4.9	2.3	-2.6
Mean Score	**4.9**	**2.5**	**-2.4**

The reliability quality gap score for each of the five variables studied was computed by subtracting perception score from the expectation score in which the score computed for the variables represent the average score for all the study respondents. Mean score was calculated by obtaining the average scores. Results of analysis showed quality expectation for the reliability of services was not met (GS=-2.4). The highest quality perception gap score was on performance of services and procedures correctly the first time without mistakes (GS=-2.7). Expectation for provision of services within the time promised in the service delivery charter was also not met

(GS=-2.0).

As we understand from table 4.4, in all reliability variables customers' expectations are higher than their perceived performance. From these, we can conclude that customers are not satisfied in all reliability variables of the selected health center.

4.4.3 Responsiveness of the services

The responsiveness quality gap score for each of the four variables studied was computed by subtracting perception score from the expectation score in which the score computed for the variables represent the average score for all the study respondents. Mean score was calculated by obtaining the average scores.

Table 4.5 Quality perception of responsiveness

Responsiveness	Expectation Score (E)	Perception Score (P)	Gap Score (P-E)
At the health center, staff should inform patients exactly when service will run.	4.8	2.9	-1.9
Shortness of admission waiting time	4.9	2.8	-2.1
Shortness of daily waiting time	4.9	3.1	-1.8
Mean Score	**4.8**	**2.9**	**-2.0**

Results of analysis showed quality expectations for the responsiveness of the services were not met (GS=-2.0). In relation to timeliness of services, the waiting time for admission in the health center (GP=-2.1) and the waiting time for daily services at the health center were perceived to be longer than expected (GS=-1.8). The principal components method of extraction was done to determine variables (components) which accounted for the greatest variation in perceived quality service responsiveness. According to table, 4.5 expectation of customers is higher than the perceived performance of the health center which indicates that employees of the health center are not quickly responding the demands of the customers and their parents. According to the above results the health center is performing below the expectation of customers on all the responsiveness elements. Due to these customers of the health center are dissatisfied.

4.4.4 Assurance of Services

Perceived quality of service assurance was measured using perceived quality gap score. The presence of a positive gap score means that quality expectation (s) was met or exceeded and a negative score implies that the quality expectation(s) was not met. The results of analysis are shown in Table 4.6.

Table 4.6 Quality perception on assurance of services

Assurance	Expectation Score (E)	Perception Score (P)	Gap Score (P-E)
At the Health centers staff should be polite and courteous to patients	4.9	3.8	-1.1
Health staff should be competent to handle patient problems well	4.9	2.9	-1.9
Patients should feel confident and secure when receiving treatment	4.9	2.9	-2.0
Health centers should provide adequate privacy during treatment	4.9	2.9	-2.0
Health staff should have good knowledge to answer patient questions correctly	4.9	2.6	-2.3
Mean Score	**4.9**	3.0	**-1.9**

As we understand from the above results, all of the gap scores are negative which implies that customers' expectation is higher than the actual performance regarding staff politeness ,the competency of staffs to handle problems, patient confidentiality, privacy during treatment and Staff knowledge to answer patient questions correctly. From these we can conclude that customers are not satisfied with the performance of the health center regarding the Assurance dimension of service quality.

4.4.5 Empathy of Services

Perceived quality of service empathy was measured using perceived quality gap score. The presence of a positive gap score means that quality expectation (s) was met or exceeded and a negative score implies that the quality expectation(s) was not met. The results of analysis are shown in Table 4.7.

Table 4.7: Quality perception on empathy of services

Empathy	Expectation Score (E)	Perception Score (P)	Gap Score (P-E)
Health centers should operate at times suitable to patients	4.9	2.6	-2.3
Doctors and nurses should listen to you attentively	4.9	2.4	-2.5
Health centers should have people to attend and assist patients who need help	4.9	2.5	-2.4
Staff should be able to understand specific needs of patients	4.9	2.6	-2.4
Doctors/nurses should spend enough time with each patient	4.9	2.6	-2.3
Mean score	**4.9**	**2.5**	**-2.4**

The empathy quality gap score for each of the five variables studied was computed by subtracting perception score from the expectation score in which the score computed for the variables represent the average score for all the study respondents. Mean score was calculated by obtaining the average scores. Results of analysis showed that quality expectation for empathy was not met (GS=-2.4). The highest quality perception gap was ability of service providers to listen to patients issues attentively(GS=-2.5). Patient expectation that service providers should spend enough time with the patient during service delivery was also not met (GS=-2.3).

The negative gap scores implies that the health center is not performing as expected by customers and customers are not satisfied on the caring and individualized attention given by the health center staffs to customers including enough time provision for patients, communication and understanding specific needs.

4.4.6 Overall Service Quality Perception

In determining the overall service quality perception for the health center, a mean aggregate of the perceived gap quality scope was calculated. The results of the analysis are shown in Table 4.8.

Table 4.8: Perceived quality of services

Quality Dimension	Expectation Score	Perception Score	Gap Score (P-E)

Tangibility	4.8	3.6	-1.2
Reliability	4.9	3.2	-1.7
Empathy	4.9	2.5	-2.4
Responsiveness	4.8	2.9	-1.9
Assurance	4.9	4.1	-0.8

Overall, all the dimensions of service quality do not meet customers' expectation. As a result, they are likely to contribute to lower customer satisfaction.

4.5.1. Correlation analysis between service quality dimensions and customer

satisfaction

Correlation analysis is measuring or indicating the leaner relationship and measure the strength of the association between two variables. The coefficient of correlation founds between -1 and 1. If the correlation coefficient of two variables is 1, these variables will have a positive relationship. And also the correlation coefficient approaches to positive one there is a strong relationship among the two variables. In another way if the correlation coefficient is -1 show that the two variables have a negative relationship. And the correlation coefficient approaches to -1 there is a strong negative relationship among them. If there is no a relationship between the two variables, the correlation coefficient will be zero (0) (Berndt et. al. 2005).

If the correlation coefficient lie between 0.1 and 0.29 the relationship between two variables are weak or non-existent. When the relationship between two variables is moderate, the correlation coefficient found between 0.3 and 0.49 and if the correlation coefficient of the two variables is more than 0.5 there is a strong relationship among them (Ibid).

For this study Pearson correlation coefficient was used to study the relationship between service quality dimensions namely tangibility, reliability, responsiveness, assurance and empathy and customer satisfaction. The following table show that the

Pearson Correlation on the relationship between service quality dimensions and customer satisfaction.

Table 4.9, Pearson correlation on the relationship between service quality dimension and customer satisfaction

Quality Dimension		customer satisfaction
RELIABILTY	Pearson Correlation	523**
	Sig. (2-tailed)	.000
TANGABLE	Pearson Correlation	427**
	Sig. (2-tailed)	.000
RESPONSIVENESS	Pearson Correlation	407**
	Sig. (2-tailed)	.000
ASSURANCE	Pearson Correlation	426**
	Sig. (2-tailed)	.000
EMPATHY	Pearson Correlation	362**
	Sig. (2-tailed)	.000

**. Correlation is significant at the 0.01 level (2-tailed).

Regarding the above table all of the five service quality dimensions do not have a strong statistical or significant positive relationship with customer satisfaction at the p-value 0.000 which is less than the significant level 0.01 (1%). Among them reliability has the relationship with correlation coefficient of 0.523 followed by tangibility with coefficient of 0.427,responsiveness 0.407,assurance 0.426 and empathy 0.362 .Empathy has the weakest relationship with customer satisfaction relative to the other four dimensions at the Pearson correlation coefficient 0.362.

If there is a positive relationship between two variables as one variable increases, the other variable will also increases. Therefore, based on the above discussion most service quality dimensions and customer satisfaction have a weak positive correlation. So, offering a better quality of service enhances customer satisfaction.

The finding of meron (2015) conducted on Impact of Service Quality on Customer Satisfaction: The Case of Bank of Abyssinia S.C and the result show that, assurance is highly correlated to satisfaction (0.606) followed by responsiveness (0.585), reliability (0.512), and tangibility (0.501) and empathy (0.487). It was inconsistent with this study.

4.5.2. Regression analysis

Regression analysis is a statistical measurement of the relationship between two or more variables by showing the change of response variable (dependent variable) as a result of per unit change of the predictor (independent variable). In other word regression model is the process of estimating the value of dependent variable while the independent variable changed by per unit (sekaran and bougie, 2010).

In this study, regression analysis used to see what the dependent variable (customer satisfaction) will be as a result of change occur on the independent variable (service quality dimension namely, tangibility, reliability, responsiveness, assurance and empathy).

4.5.2.1. Assumption of regression analysis

4.5.2.1.1. Multicollinearty test

While computing a multiple regression,testing Multicollinearty between the independent variables is necessary. Multicollinearty test is to measure the closely correlation of independent variables to each other. Multicollinearty of the variables is test by using the tolerance statistics and variance inflation factor (VIF). If the tolerance statistics is below 0.1(10%), there will be multicollinearty problem. And also the value of VIF of variables are more than 10, there will be multicollinearty problem.

Regarding to the following table 4.10,in all variables VIF was below 10 and the tolerance statistics was more than 0.1 (10%). So, there is no a multicollinearty problem or there is no closely correlation among the predictors.

Table 4.10. Collinearity Statistics of the predictors

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.231	.325		6.861	.000		
	TANGABLE	-.082	.104	-.077	-.794	.428	.330	3.035
	RELIABILTY	.103	.064	.194	1.610	.109	.211	4.742
	RESPONSIVENESS	-.107	.051	-.263	-2.100	.037	.196	5.100
	ASSURANCE	-.193	.069	-.288	-2.778	.006	.287	3.489
	EMPATHY	.034	.030	.089	1.122	.263	.484	2.064

a. Dependent Variable: Q60 customer satisfaction

Table 4.10 shows the standardize beta coefficient, which tell us the unique contribution of each factor to the model. A high beta value and a small p value (<.005) indicate the predictor variable has made a significance statistical contribution to the model. On the other hand, a small beta value and a high p value (p >.005) indicate the predictor variable has little or no significant

contribution to the model. Ggorge et al. (2003).

4.5.2.2 Test of Normality

Normality test is used to determine whether the sample data drawn from the normal distributed

population or not. Simply it shows the population distribution is normally distributed or not.

The study used both methods of assessing normality. This can be checked by histogram and

Normal Probability Plot (P-P) graph.

In the Normal Probability Plot it will be hoped that points will lie in a reasonably straight diagonal line from bottom left to top right. This would suggest that there is a normal population distribution. And also Histogram should be approximately normal or it must be bell shaped distribution (http://www.statisticssolutions.com).The following figure 2 shows that the population distribution was not normally distributed. Because all plotted points do not lie near to the straight diagonal line from bottom left to top right. And also figure 3 shows similarly the distribution of population was not normal. Because the curve is not bell curve and the histogram shows that the population is not normally distributed.

Figure 2. Normality test Probability Plot (P-P) graph.

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Q60
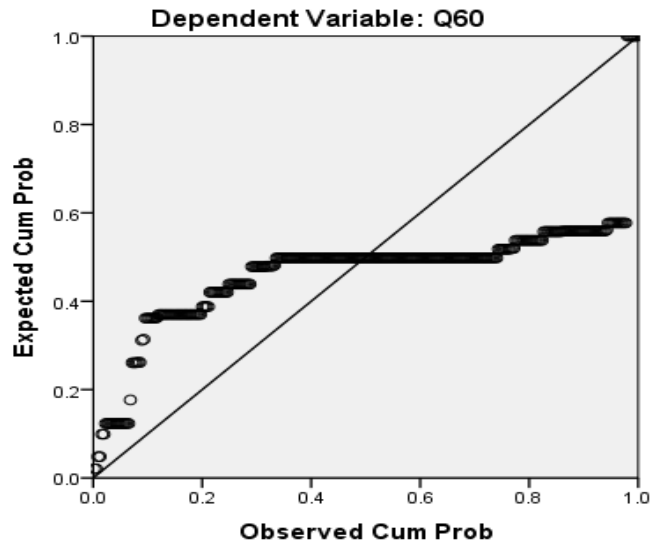
Figure 3. Normality test-histogram

Histogram

Dependent Variable: Q60

Mean = -1.04E-15
Std. Dev. = 0.991
N = 287
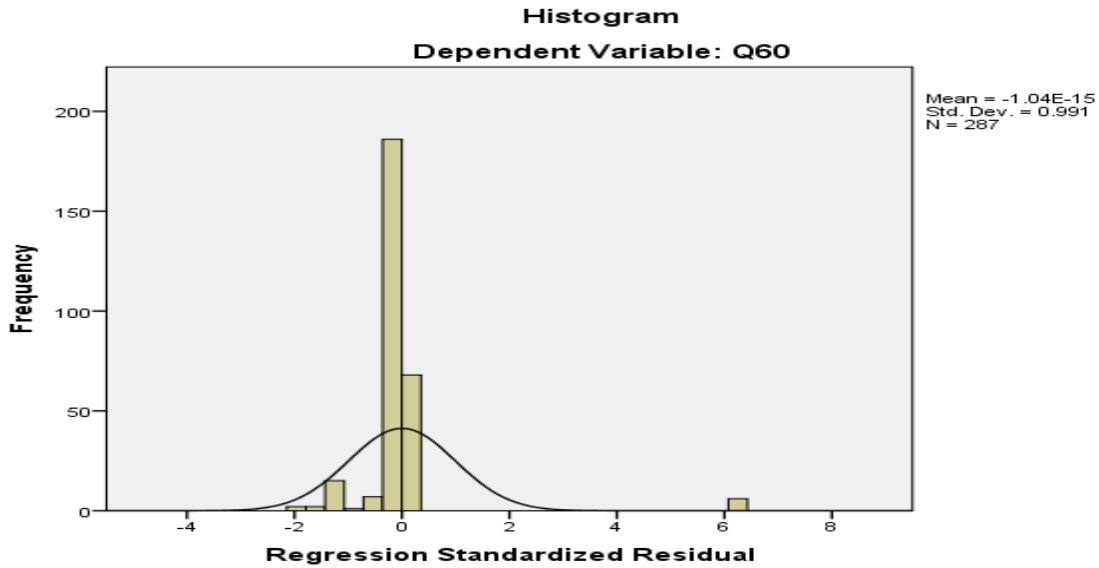
4.5.3 Simple regression analysis

Simple regression analysis is a statistical model that shows the relationship between two variables of which one is the dependent and the other is independent or the predictor of dependent variable (sekaran and bougie, 2010).

4.5.3.1. Regression analysis of tangibility and customer satisfaction

As the result of regression analysis of tangibility and customer satisfaction shows, tangibility can explain the variation of customer satisfaction. On the table below, the result of R^2 which is 0.54 show that 54% of the variation of customer satisfaction explained by tangibility.

Table 4.11, Model Summary of Tangibility

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.233	.054	.051	.140

The independent variable is tangible.

a. Predictors: (Constant), Tangibility

The value of regression coefficient represent that the rate of change of the dependent variable as a result of one unit change of the predictor or independent variable. It is important to know the contribution or impact of the independent variable on the dependent variable. The following regression coefficient table pertain that; the contribution and impact of tangibility on the customer satisfaction. So, the beta (β) value of tangibility on the coefficient table shows that how strongly tangibility have impact on customer satisfaction. Thus the beta value of tangibility is 0.25 which implies that tangibility increases by one unit leads to customer satisfaction increase by 0.25 other things remain constant. So, the health center need more work on the physical appearance of materials and workers to be able to enhance customer satisfaction.

Hence all of the above discussion leads to answer the research question that was what is the gap between customers' expectations and perceived performance of the stated health center? tangibility has a positive impact on customer satisfaction.

Table 4.12, coefficient table of tangibility

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
tangible	.250	.062	.233	4.036	.000
(Constant)	2.262	.308		7.354	.000

a. Dependent Variable: Customer satisfaction

4.5.3.2. Regression analysis of reliability and customer satisfaction

As the result of the output of regression analysis of reliability and customer satisfaction pertain that reliability can explain the variation of customer satisfaction. The R square on the regression table represents the level of impact or contribution of predictor or independent variable on the variation of response or dependent variable. The table 4.13 below exhibits that the contribution of reliability on the variation of customer satisfaction. The result of R square is 0.058 implies that only 5.8 % of the variation of customer satisfaction explained by reliability.

Table 4.13, Model Summary of reliability

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson

1	.241ª	.058	.055	.139	.762

a. Predictors: (Constant), RELIABILTY

b. Dependent Variable: Q60

The beta value of the predictor variable on the regression model represents that the rate of change of the response or dependent variable as the result of the change of independent variable per unit. The following coefficient table 4.14 show that the rate of customer satisfaction changes due to reliability changes by a unit. The beta value of reliability is 0.127 which implies that, if reliability changes by one unit, customer satisfaction will change by 0.127. So, the impact of reliability on customer satisfaction is positive and significant at p=0.000.

Table 4.14, coefficient table of reliability

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.639	.148		11.101	.000
	RELIABILTY	.127	.030	.241	4.191	.000

a. Dependent Variable: Q60

4.5.3.3. Regression analysis of responsiveness and customer satisfaction

From the regression analysis of responsiveness and customer satisfaction, we can see that responsiveness able to explain the variation of customer satisfaction. The value of R square show that the how much the dependent variable explained by the independent variable while other variable remain constant. So, R square value of responsiveness is 0.101 or 10% as shown on the below table 4.15. It means that 10% of the variation of customer satisfaction explained by responsiveness other things being constant.

Table 4.15, Model Summary of responsiveness

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.318[a]	.101	.098	.136	.770

a. Predictors: (Constant), RESPONSIVENESS

b. Dependent Variable: Q60:customer satisfaction

The coefficient or the beta vale of the predictor represent that the impact level of independent variable on the dependent variable. In other word the beta coefficient represent the rate of change of dependent variable while the predictor changed by a unit. The beta coefficient of responsiveness is 0.130 from the following coefficients table of responsiveness. It pertain that responsiveness have a positive and significant impact on customer satisfaction at p=0.000.

Therefore, if responsiveness increases by one unit, customer satisfaction also increased by 0.130 as others remain constant. It implies that the more health centers work on increasing the readiness and voluntarism of its employee to support customers, there will be more customer satisfaction.

Table 4.16, Coefficients table of responsiveness

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.639	.109		14.983	.000
	RESPONSIVENESS	.130	.023	.318	5.667	.000

a. Dependent Variable: Q60

4.5.3.4. Regression analysis of assurance and customer satisfaction

The regression analysis of assurance and customer satisfaction shows, assurance also can explain
the variation of customer satisfaction. On the below table 4.17, the result shows that; 12.3% (R2=0.123) of the variation of customer satisfaction explained by assurance.

Table 4.17, Model Summary Assurance

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.351[a]	.123	.120	.134	.826

a. Predictors: (Constant), ASSURANCE

b. Dependent Variable: Q60

The beta value of the predictor variable on the regression model represents that the rate of change of the response or dependent variable as the result of the change of independent variable per unit. The following coefficient table 4.18 show that the rate of customer satisfaction changes as a result of assurance changed by a unit. The beta value of assurance is 0.236 which implies that, if assurance changes by one unit, customer satisfaction will changed by 0.236. So, assurance has a positive and significant impact on customer satisfaction at p=0.000.

Table 4.18, Coefficients of assurance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.178	.183		11.910	.000
	ASSURANCE	.236	.037	.351	6.334	.000

a. Dependent Variable: Q60

4.5.3.5. Regression analysis of empathy and customer satisfaction

As the result of the output of regression analysis of empathy and customer satisfaction pertains that, empathy can explain the variation of customer satisfaction. The R square on the regression table represents the level of impact or contribution of predictor or independent variable on the variation of response or dependent variable.As table 4.19 show, the result of R square is 0.041 implies that 4.1% of the variation of customer satisfaction explained by empathy other variables remain constant.

Table 4.19, Model Summary of Empathy

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.202[a]	.041	.037	.141	.706

a. Predictors: (Constant), EMPATHY

b. Dependent Variable: Q60

The beta coefficient of the predictor represent that the rate of change of dependent variable while the predictor changed by a unit. The beta coefficient of empathy is 0.076 from the following coefficients table of empathy. It pertain that empathy have a negative impact on customer satisfaction at p=0.000. Therefore, customer satisfaction decreased by 0.076 as empathy increases by one unit while other things remain constant. It implies that health center need to do more on increasing the ability of its

employee to understanding customers feeling, caring and individual attention for more customer satisfaction.

Table 4.20, Coefficients of Empathy

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.380	.103		13.343	.000
	EMPATHY	-.076	.022	-.202	-3.483	.001

a. Dependent Variable: Q60

Table 4.21, Model Summary of all independent variables

Model Summary[b] of the independent variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.371[a]	.138	.122	.134	.818

a. Predictors: (Constant), RESPONSIVENESS, tangible, EMPATHY, ASSURANCE, RELIABILTY

b. Dependent Variable: Q60

Multiple regression analysis

Multiple regressions are the most common and widely used to analyze the relationship between a single continues dependent variable and multiple continues categorical independent variable George et al, (2003). In this study multiple regression analysis was employed to examine the effect of service quality dimensions on customer satisfaction. The following presents the results of multiple regressions analysis. Here the squared

multiple correlation coefficients (R2) which tells the level of variance in the dependent variable (customer satisfaction) that is explained by the model.

Table 4.22: Summary of Standard Multiple Regression Analysis Source: SPSS Regression results output,

Model	Unstandardized Coefficients		Standardized Coefficients	t	sig	R	R2	Adjusted R
	B	Std Error	Beta					
(Constant)	-.318	.136		2.338	.020	.786a	.618	.612
Reliability	.218	.057	.201	3.836	.000			
Responsivenes s	.276	.067	.234	4.095	.000			
Tangibility	.172	.049	.137	3.511	.001			
Assurance	.483	.064	.409	7.524	.006			
Empathy	-.087	.031	-.107	- 2.766	.000			
A. Dependent Variable: Customer Satisfaction. B. Predictors:(Constant) Empathy, Assurance, Tangibility, Reliability, Responsiveness								

Table 4.22 shows the standardize beta coefficient, which tell us the unique contribution of each factor to the model. A high beta value and a small p value (<.005) indicate the predictor

variable has made a significance statistical contribution to the model. On the other hand, a small beta value and a high p value (p >.005) indicate the predictor variable has little or no significant

contribution to the model. Ggorge et al. (2003). The results indicate that tangibility, reliability, responsiveness, assurance and empathy dimension of service quality have a significant influence

on customers" satisfaction at 95% confidence level. The significant service quality factors have been included for the establishment of the function. The established regression function is: $Y=1.604+0.2\ 42x1+0.012x22+0.0211x3+0.037x4+0.05x5$

The result of this study indicates that except empathy, all predictor variables or service quality dimensions (tangibility, reliability, responsiveness, and assurance) that make a statistically

significant contribution on combined influence the satisfaction of customers. On the other hand, empathy has no significant effect on customer satisfaction. Therefore, service quality has a positive and significant effect on customer satisfaction.

4.2 Discussion of the Results

4.2.1 Patient Satisfaction

Patient satisfaction measurement provides an important parameter for assessing quality of health

care indicators which are not well reflected by other service statistics such as patient data, waiting times and consultation times. The study revealed a satisfaction index of 59% which implied that about half of the patients were not satisfied with the perceived quality of the services. A study conducted by Nezenega et al. (2013) in Southern Ethiopia to assess patient satisfaction with tuberculosis treatment revealed a

satisfaction index of 90% which was higher than the 59 %reported in this study. The difference in the satisfaction index can be explained by difference in study area context.

Patient satisfaction level influences patients' decisions on health service utilization, future recommendations and choice of service delivery points. Dissatisfied patients bypassed a facility for another one perceived to offer quality services irrespective of the distance (Nezenega et al., 2013). Similar to a study by Kumar et al., (2008), patients who were dissatisfied with the quality of services had the tendency to spread a bad word of mouth to other potential users which tainted the public image of the facility. Few patients were willing to launch complaints to the facility management or seek redress for fear of discrimination by the service providers. The study established that establishing patients' satisfaction and experiences is important step in improving perceived quality of services and enhancing service utilization rates at the facility level.

4.2.2 Perceived Quality of services

Perceived quality of health services influence patients' satisfaction with service delivery. Patient perception of quality is the perception of patient needs and expectations being met (Hu et al., 2011). The study reported improvement in physical facilities and equipment in the facility. This was attributed to the benefits of devolved health system of governance which had led to increased investment in the health center infrastructure and development. For instance, County governments including that of Nyandarua have signed agreement for modern medical equipment and facilities for treatment which has led to improvement in quality and range of services provided. However, value for such enormous investment can be attested by their transition to efficient and effective service delivery which can be measured by customer satisfaction levels as well as treatment outcomes.

Visual appearance and modernization of available infrastructure and facilities such as building and equipment had been found to impact perceptions of customers on their expectations for services available in a health facility (Wanjau and Wangari, 2012).

Well maintained and visually appearing facilities are presumed to be a mark of quality. Proper maintenance and use of modern technology influences choices of customers for

their preferred service providers (Hutchinson et al., 2011). Lack of adequate comfort and privacy, which is a key aspect of health service delivery, in patient rooms in the hospital impacts negatively service quality perceptions. Lack of sound proof consulting rooms and use of open wards resulted in patients feeling uncomfortable with the privacy and hence confidentiality of their information. This finding was reinforced by Hu et al. (2011) who found patients privacy and confidentiality of patients' information to influence perceived quality of services and patient satisfaction. Many patients felt that the waiting time for the services was unnecessarily long. Timeliness of services was important especially for patients who were critically ill, in pain or had other obligations to undertake after being attended (Halwindi et al., 2013).

Longer waiting time, (i.e. longer time than those indicated in the service delivery charter) experienced when seeking services in the facility was shown to negatively impact on the perceived quality of services. Waiting in the facility have been reported to be unnecessarily long and longer than the time limits indicated in the service delivery charter. Engaging in other activities other than the professional duties such as taking to a friend for a long time over the phone and or in the office, leave the office for refreshment etc. during working hours is perceived to be the cause for longer waiting time and inefficiency in service delivery. This has been linked to poor staff and service delivery supervision which results into longer waiting times (Gopal and Bedi (2014).

 Provision of quality services requires staff to prioritize and be sensitive to clients' needs whether implied or stated. Similar to Dang et al.(2013), patients also valued correct medical interventions and treatment which resulted in positive health outcomes such as fast recovery, reduction of pain and absence of medical errors. Poor treatment options and outcomes taint the trust of a facility and its public image. Health service quality is highly judged based on the treatment outcomes (Nezenega et al., 2013). The purpose of seeking services is to recover from a certain condition of situation. Achieving such an objective leads into positive ratings on the perceived quality of the services available in the facility.

Health care providers are expected to be sincere in helping patients solve their problems. However, in many instances, staffs are not responsive enough in identifying

and attending to patients. This was coupled by poor provider-client communication especially explanation of health conditions, diagnosis and treatment in a clear and understandable way. Staff attitude, commitment and sensitivity to patients' issues is essential for patients to develop effective and friendly relationship with service providers (Dang et al., 2013).

Patient satisfaction with the perceived quality of service has been linked to the subjective feeling of the customers in relation to their experiences during production and consumption of the service products (Argentero et al., 2008). Explaining and communicating provider intentions and interventional outcomes such as explaining diagnosis and treatment plans, their purposes and outcomes has a positive effect on customer perceptions. This requires service providers to create a good rapport that makes patients feel comfortable and confident with the process.

Competency and experience of staff in handling patient problems and issues has a significant impact on quality perceptions. Knowledge and expertise in offering client focused services and the ability to build adequate trust in a patient was important for patients to demand services. Staff competence was identified as important in attending to patient issues, answer patient questions correctly and positive health outcomes. Provider professionalism of staff in dealing with the patients, their ability to handle complaints and the skills they have towards their job constitute key parameters influencing quality of health service delivery (Hutchinson et al., 2011). The study indicated the need for refresher training and sensitization on emerging issues and patients' management to enable them manage changes in health care delivery.

Patient confidence on the services was also useful in improving service quality perceptions and their comfort when receiving services. There were privacy concerns due to lack of adequate measures such as well partitioned rooms for examination. Empathy was also an important aspect of service delivery which influenced their perceptions on quality of services. The facility had insufficient mechanisms for ensuring its staff put themselves into the place of patients and understanding their needs to be able to help them. For instance, service providers were perceived not to listen to

patients issues attentively and not to be able spend enough time with the patient during service delivery which resulted to patients' dissatisfaction.

A study by Nwankwo et al. (2010) reported that service providers in public health facilities do not spend adequate time to examine and understand client needs for appropriate treatment. This lead to patients feeling that the staff were not readily available, committed and willing to assist patients who were in need such as critically ill in outpatient care. Spending adequate time to examine the patients has been linked to ability of providers to provision of appropriate medical interventions and high quality health care intervention outcomes (Kumar et al., 2008).

4.3.3 Health System Factors

Factors within the formal health system influence patient satisfaction perceived quality of health services provided (Nabbuye and Makumbi, 2011). Length of waiting time was an important aspect which influenced patient satisfaction. The results were similar with those of Hutchinson et al., (2011) which associated patient satisfaction with shorter waiting time in public facilities and consultation duration in private facilities. Patients prefer facilities that are prompt in service delivery within the service charter. Time spent when seeking health services is an important aspect which influences patients' decisions on choice service delivery facilities.

Proper communication, patient respect and client-provider relationship boost patients' confidence with the services offered which improves the perceived quality of service delivery and patient satisfaction (Peprah, 2013). Confidence in service delivery is influenced by the trust in the competence of the staff, their ability to understand patient needs and handle patients' problems effectively. Knowledgeable providers are important in providing highly valued treatment therapies associated with good health outcomes (Nabbuye and Makumbi, 2011). Knowledgeable providers increase the confidence of patients when consuming services.

Patient privacy is a primary concern for patients when seeking health care. Patients trust health professionals with their problems and conditions and therefore expect the

staff to protect the trust and confidence. Quality of care has also been associated with the rapport and interpersonal quality of health professionals (Aljumah et al., 2014). Friendliness of staff encourages patients to be free, open and co-operative which influences their treatment outcomes and hence patient satisfaction. Physical and infrastructural investments in the health facility have also been shown to enhance perceived service quality (Tateke et al., 2012). Quality of infrastructure and infrastructure affects the subjective perception of patients' perception regarding the quality of the services provided. Physical appearance and evidence of improved infrastructure such acquisition of new equipment improves patients perceptions towards the facility.

CHAPTER FIVE :SUMMARY ,CONCLUSION AND RECOMMENDATION

5.1 Summary of findings

The results of data analysis indicate that average numbers of respondents were not satisfied

regarding their overall level of satisfaction on the service quality of yeka health center. In all five dimensions of service quality, a gap was observed between customers' perceptions and their expectations as follows; Tangibles: -1.2, Reliability: -1.7, Responsiveness: -1.9, Assurance: -0.8, and Empathy: -2.4. The gap score of all elements of service quality dimensions were negative. The gap analysis between service perceptions and expectations showed that all scores for perceptions were lower than their expectations scores, indicating that there are a lot of service improvements efforts need to be fulfilled to enhance the service quality.

Each service quality dimensions has a different average gap score value which indicates that

customers' satisfaction levels are different in each variable. As the findings indicated, among

SERVQUAL's five dimensions, the dimension with the most negative gap score was Empathy; followed by Responsiveness, Reliability, and Assurance. The findings of this study have several managerial implications for service quality enhancement in the stated health center.

Firstly, Empathy showed the most negative service quality gap mean score. Thus the health center should work on improving empathy, i.e. by understanding customers (patients) specific needs and looking out for their best interests inside and outside of the health center.

Secondly, to address the responsiveness dimensions; health centers need to provide prompt services, demonstrate willingness to help and respond to patients inquiries.

Thirdly, regarding Reliability; health centers should strive that to ensure that they communicate correct and accurate information, and in a timely fashion; also they need to clearly communicate when its services will be performed.

Fourth, the assurance can be strengthened especially by focusing on employees courtesy, and knowledge and ability to convey trust and confidence.

Finally, regarding Assurance; employees can increase over perceived quality by possessing the knowledge to answer patients' questions, and by making sure that their staffs are courteous and friendly at all times to patients. Moreover, the behavior of employees should instill trust among the them.. Therefore, health centers may improve their services in the light of discussed dimensions of SERVQUAL according to the expectations and perceptions of the patients.

The correlation and regression analysis was also conducted in order to realize the relationship

between the independent and dependent variables. Correlation analysis is a statistical method

used in order to measure the relationship between the independent and dependent variables. It is

measured using r value. The results R values of this study stated as follows: empathy(r=0.202),

tangibles(r=0.233), reliability(r=0.241), responsiveness(r=0.318) and assurance(r=0.351).

According to all the r values of analyzed it was found that all the independent variables are

positively correlated with the dependent variable. This indicates that there is a positive and

significant relationship between service quality dimensions and customer satisfaction (patient

satisfaction). The regression analysis is used in order to understand how much of total variance

in the dependent variable is experienced by the independent variable. So in regression analysis

beta value was used in order to find the impact of independent variable towards the dependent

variable. The Beta values of empathy, tangibles, reliability, responsiveness and assurance are

-0.076, 0.250, 0, 127, 0.130 and 0.236 respectively. This result indicates that independent

variables have positive and significant impact on customer satisfaction.

5.2 Conclusion

The purpose of this study was to assess service quality and customer satisfaction in Addis Ababa

Yeka Sub-City Yeka health center . The study used SERVQUAL model in order to assess

service quality. SERVQUAL is an instrument for measuring how customers (patients)

perceive the quality of service. This instrument is based on the five determinants; tangibles, reliability, responsiveness, assurance and empathy on a comparison between customers' expectations of how the service should be performed and their experience of how the service is rendered. The study used 22 attributes to describe the five determinants and respondents were asked to state on five point scale from strongly disagree to strongly agree what they expected from the service and how they perceive the service. The study also used the correlation and regression analysis to determine the relation and impacts of service quality dimensions and overall customer satisfaction.

The findings of this study indicate that the five service quality dimensions have positive and

significant correlation with customer satisfaction. The results also indicate that the explanatory

variables empathy, tangibles reliability, responsiveness and assurance have positive and significant impact on customer satisfaction (patient satisfaction).

Based on the findings it can be conclude that large numbers of customers of the health center are not satisfied regarding their overall satisfaction level on the service quality.

Tangibles dimension of service quality have positive and significant effect on customer

satisfaction. But most health centers did not have modern equipment, visually appealing physical facilities and employees with attractive physical appearance that can satisfy the expectation of customers.

In relation to Reliability, providing service dependably and accurately determines the ability of

the health center to deliver their services as promised and free from errors. However, the health center perform below the expectation of customers in providing service as promised, on time their promises and right the first time. The health center also did not show sincere interest in solving customers' problems.

In general, the health center have a problem of providing reliable service to their customers.

Responsiveness is also one of the essential service quality dimensions in relation to customers'

satisfaction and customers demand health center to have employees who are ready to help customers and provide prompt service. However, employees of the stated health center have problems on telling the exact time on which the service will be performed and they are not always willing to help customers. In addition, performances of employees in providing on time service and quickly responding to customers questions are below satisfactory level.

Assurance is also another service quality dimension which states about Knowledge and courtesy

of employees and their ability to inspire trust and confidence on customers. It is also other

determinants of customer satisfaction. But employees of the health center are not polite as

expected by customers. In addition, there is a gap that needs to be filled to improve the

performance of the health center and satisfy customers regarding the knowledge and ability of

employees to answer customers' questions.

In relation to empathy dimension of service quality, it has also positive and significant relation to

customer satisfaction. Thus customers expect to be given special caring and individual attention

at all times from health center that can increase their satisfaction level. In contrast, the health center had problems on giving individual attention and understanding customers' best interest. In addition, employees were not satisfied because they have a problem of giving

individual attention and understand their specific needs.

5.3 Recommendations

It is suggested that the Ministry of health should effectively enforce the implementation of

the minimum standards and operational guidelines in order to promote the quality of health centers. The implementation of the minimum standards for each health center may improve the quality of health care and create satisfaction to patients on all dimensions which they are not satisfied.

The study recommends that the facility in collaboration with all the stakeholders such as Ministry of health at Country and National level do the following:

1. Improve reliability, empathy and responsiveness of services by ensuring service delivery, adheres to the service charter requirements and continual identification of patients needs for improved patient satisfaction;

2. Scale up quality improvement interventions through provision of modern medical equipment, expansion of facilities for efficient and effective service delivery, professional (competence) development, reduction in waiting times and improved patient-provider relationships;

3. This study was limited in Addis Ababa ,Yeka Sub-City ,Yeka health center; it is thus recommended that a similar study covering a large part of Ethiopia could be conducted in order to provide a broader picture of patients' satisfaction with the quality of health care for the whole country.

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APPENDIX 1

Study Questionnaire

My name is Helen Engedayehu, Master of Business Management student at St Marry University. I am carrying out a study entitled "assessment of the relationship between *patient satisfaction with health services quality in Yeka Health Center"*. The purpose of the study is *to assess the perceived quality of health services in health center and the extent to which patients' are satisfied with the quality of the services provided*. The information obtained and the recommendations will assist health center improve their service quality in line with clients' needs and expectations. Participation in this study is absolutely voluntary. The information in this questionnaire shall not be used for any other purposes other than for this study. You are not required to provide your name, and will therefore remain anonymous.It would be highly appreciated if you could answer all questions accurately. Please give your honest and sincere opinion.

GUIDE FOR COMPLETING THE QUESTIONNAIRE

1. Please answer all questions; do not skip any questions.

2. This questionnaire will only take 15 minutes to complete.

IDENTIFICATION

Name of health center _____   Department_____

Sub-city_____

PART A: BACKGROUND CHARACTERISTICS

Guide for answering questions: Please answer questions by filling any blank space

or making a tick (   ) next to the correct answer and explain where necessary.

1. What is your age? _____yrs

2. What is your gender? [1] Male   [2] Female

3. What is your highest level of education ?   [A] Illiterate   [B] read and write   [C] primary school Diploma   [D] secondary school [E] diploma   [F] degree and above

4. What is your average monthly income in Ethiopian Birr?

[A] Less than 500 ETB   [B] 500-1,000 ETB   [C] 1 000 - 1,500 ETB   [D] 1,500-2,000 ETB [E] 2000-2,500ETB   [F] Over 2, 500 ETB

PART B: CUSTOMER EXPECTATIONS

5. The following questions will measure your expectations for the quality of service provided in this health facility. Please answer by circling the correct response to each of the question in the table below using a scale of 1 to 5 where **1** means "**strongly disagree**", **2** means "**slightly disagree**", **3** means neither "**agree nor disagree**", **4** means

"slightly agree" and 5 means "strongly agree".

No	Statement	1	2	3	4	5
Tangible						
1	Health Centers should have well maintained and modern equipment?					
2	Physical facilities such as building should be visually appealing and pleasant?					
3	Staff in health centers should be clean and well groomed?					
4	Patient rooms should be comfortable enough and accord privacy?					
Reliability						
5	Health centers should perform services and procedures correctly the first time without mistakes and or errors					
6	Health centers should provide services within the time promised in the service delivery charter					
7	Health centers should submit legible patient reports, documents and information and without errors					
8	When a patient has a problem, the staff should show sincere interest to solve it					
	Doctors/nurses should explain health conditions,diagnosis and treatment in a clear and understandable way					
Responsiveness						
10	At the Health centers, staff should inform patients exactly when service will run					
11	Staff should be willing to help patients					
12	Waiting time for visit in the health center should be short					
13	Waiting time for daily services at the Health centers should be short					
Assurance						
14	At the Health centers , staff should be polite and courteous to patients					

No	Statement	1	2	3	4	5
15	Health staff should be competent to handle patient problems well					
16	Patients should feel confident and secure when receiving treatment					
17	Health centers should provide adequate privacy during treatment					
18	Health staff should have good knowledge to answer patient questions correctly					
Empathy						
19	Health centers should operate at times suitable to patients					
20	Doctors and nurses should listen to you attentively					
21	Health centers should have people to attend and assist patients who need help					
22	Staff should be able to understand specific needs of patients					
23	Doctors/nurses should spend enough time with each patient					

PART C: CUSTOMER PERCEPTIONS

6. The following questions will measure your perception on the quality of service provided in this health facility. Please answer by circling the correct response to each of the question in the table below using a scale of 1 to 5 where **1** means "**strongly disagree**", **2** means "**slightly disagree**", **3** means neither "**agree nor disagree**", **4** means "**slightly agree**" and **5** means "**strongly agree**".

No	Statement	1	2	3	4	5
Tangibles						

1	This Health center has well maintained and modern equipment					
2	Physical facilities in this Health center such as building are visually appealing and pleasant					
3	Staff in this Health center have clean and well groomed					
4	Patient rooms in this Health center are comfortable enough and accord privacy					
Reliability						
5	This Health center performs services and procedures correctly the first time without mistakes and or errors					
6	This Health center provides services within the time promised in the service delivery charter					
7	This Health center submits legible patient reports, documents and information and without errors					
8	In this Health center , when a patient has a problem, the staff show sincere interest to solve it					
9	Doctors/nurses explains health conditions, diagnosis and treatment in a clear and understandable way					
Responsiveness						
10	At the Health center, staff inform patients exactly when service will run					
11	Staff are willing to help patients					
12	Waiting time for admission in the Health center is short					
13	Waiting time for daily services at the Health center is short					
Assurance						
14	At the Healh center, staff are polite and courteous to patients					
15	Health staff are competent to handle patient problems well					
16	Patients feel confident and secure when receiving treatment					
17	The Health center provides adequate privacy during					

	treatment					
18	Health staff have good knowledge to answer patient questions correctly					
Empathy						
19	The Health center operates at times suitable to patients					
20	Doctors and nurses listen to me and my issues attentively					
21	This Health center has people to attend and assist patients who need help					
22	Staff are able to understand specific needs of patients					
23	Doctors/nurses spend enough time with each patient					

PART D: HEALTH SYSTEM FACTORS

7. The section will ask you questions which relates to health services delivery. Using a scale of **1** to **5,** where **1=**Strongly Disagree**, 2=** Slightly Disagree**, 3=**Neither Agree nor Disagree**, 4=**Slightly Agree **and 5=**strongly Agree**,** please rank each of the statement in the table below.

	Staff are well trained to offer services					
	Health staff are friendly					
	Prescribed drugs are readily available in the Health center pharmacy					
	Lab tests are done within the Health center					
	Health center provides privacy during treatment					
	Health Service charges are pocket friendly					
	The staff are friendly to the patients					
	The health center maintains patient information confidentiality					
	Patient waiting time is within the service delivery charter					

8. Are you satisfied with the quality of services provided at this facility? [1] Yes [2] No

9. Would you recommend the services of this health center to other people or friends?

   [1] Yes [2] No

THANK YOU FOR YOUR TIME AND PARTICPATION

ለዚህ ጥናት የሚሰጡን መረጃ ለሌላ ነገር በፍፁም አንጠቀምበትም። እርስዎም ስምዎን ያለመፃፍ መብት አለዎት። ሁሉንም መልሶት በትክክል ቢመልሱን እንመርጣለን ስለዚህ እባክዎ ተገቢ ነው የሚሉትን መልስ ይስጡን።

ጥያቄዎ ን የተሟሉ ለማድረግ

1. ይህ ጥያቄ 15 ደቂቃ ብቻ ይወስዳል፣
2. ሁሉንም ጥያቄ ሳይዘለላ ይመልሱን

መግለጫ

የጤና ጣቢያው ስም -------------------------------   የገቡበት ክፍል --------------------------

ክፍለ ከተማው ---------------------

ክፍል አንድ

የመግቢያ ጥያቄዎት

ተከታዮቹን ጥያቄዎት ባዶ ቦታውን በመሙላት ወይም የ   ምልክት በማድረግ ይመልሱ።

1. ዕድሜዎት ስንት ነው ----------- በዓመት

2. ፆታ   ሀ/ወንድ -----------   ለ/ ሴት -----------

3. የደረሱበት የተምህርት ደረዳ   ሀ/ አልተማርኩም ----------

   ለ/ ማንበብና ማፃፍ ---------

   ሐ/ መደመሪያ ደረዳ --------

   መ/ ሁለተና ደረዳ   -------

   ሠ/ ዲፕሎማ   ---------

   ረ/ ዲግሪና ከዚ በላይ -------

4. አማካ   ወርሃዊ ገቢዎ ስንት ይሆናል
   ሀ/ 500 -1000 ለ/ 1000-1500   ሐ/ 1500-2000   መ/ 2000-2500
   ሠ/ ከ2500 በላይ

ክፍል ሁለት

ተገልጋይ ከተቋሙ ስለሚጠብቀው ግልጋሎት

ተከታዮቹ ጥያቄዎ በጤና ጣቢያው ውስጥ ጥራት ያለው አገልግሎት ለማግ   ት ምን እንደሚጠብቁ የሚላካ

ነው፡፡ መልሶቹ በአምስት ደረዳ የተከፋፈሉ ሲሆን:

1 ማለት በጣም አልማማም

2 ማለት በመጠኑ አልስማማም

3 ማለት መልስ የለንም

4 ማለት በመጠኑ እስማማለው

5 ማለት በጣም እስማማለው የሚሉ ናቸው

	ተጨባጭ ዕይታዋ	1	2	3	4	5
1	ጤና ጣቢያዋት በደንብ የተያዘና ዘዉናዊ መሳሪያዋት ሊኖራቸው ይገባል					
2	የጤና ጣቢያዉ አካባቢ እንደ ፎቅ ያሉት ለአይን ሳቢ መሆን አለባቸው					
3	በጤና ጣቢያዉ ያሉት ሠራተT ንፅህና ጥ\ አለባበስ ሊኖራቸው ይገባል					
4	የታካሚዉ ክፍሎት ምቹና ነፃነት የሚሰጡ መሆን አለባቸው					
	አስተማማንነትን በተመለከተ					
5	ጤና ጣቢያዋት ለመፈመሪያ ጊዜ ቢሆንም እንኳን የአገልግሎት አገልግሎታቸው ወይም ሥራቸው ያለምንም ስህተት ትክክል መሆን አለበት					
6	ጤና ጣቢያ አገልግሎታቸውን በተገቢዉ ሠዓት መደመር አለባቸው					
7	ጤና ጣቢያ የታካሚዋ ን መረዳዋ ያለስህተት መያዝ አለባቸው					
8	እንድ ታካሚ ግር ሲገጥመዉ ሠራተP በትህትና ግ\ን ለመፍታት መጣር አለባቸው					
9	ሀኪሙ/ነርሷ የታማሚዉን የጤና ሁኔታ የህመሙን ዓይነትና መድሀኒቱን በግልፅና በሚገባ መልኩ ማስረዳት አለባቸው					
	ኃላፊነትን በተመለከተ					
10	የጤና ጣቢያዉ ሠራተኞትን በተመለከተ የአገልግሎት ሠዓት ማሳወቅ አለባቸው					
11	የጤና ጣቢያዉ ሠራተኞት ታካሚን ለመርዳት ፈቃደR መሆን አለባቸው					
12	በጤና ጣቢያ ለህክምና የቆይታ ጊዜ አጭር መሆን አለት					
13	በጤና ጣቢያዉ ለሚኖረዉ የቀን ተቀን አገልግሎት ቆይታ ጊዜ አጭር መሆን አለበት					
	መተማመን በተመለከተ					
14	የጤና ጣቢያዉ ሠራተ� ስለታካሚዋ ትህትና እና ከበሬታ ሊኖራቸው ይገባል					
15	ባለሙያዎቹ የታካሚዉን ግር ለማወቅ የሚረዳ ዕዉቀት ሊኖራቸው ይገባል					
16	ታካሚዋ በሚያገኘት ህክምና መተማመን እና ደህንነት ሊሰማቸው ይገባል					
17	ጤና ጣቢያዉ በህክምና ወቅት ለታካሚዉ በቂ የሆነ ነፃነት ሊሰጡት ይገባል					
18	የጤና ጣቢያዉ ባለሙያዋት የታካሚዉን ጥያቄ ለመመለስ የሚ ል ጥ\ ዕዉቀት ሊኖራቸው ይገባል					
	ትህትና					
19	ጤና ጣቢያዋ ለታካሚዉ ምቹ በሆነ ሠዓት ሁሉ ክፍት መሆን አለባቸው					

20	ዶርተሮ ና ነርሶ ታካሚውን በትኩረት ሊያዳምጡ ይገባል					
21	ጤና ጣቢያዋ እርዳታ ለሚፈልጉ ታካሚዎት ድጋፍ የሚሰጡ ሠራተP ሊኖ\ት ይገባል					
22	የጤና ጣቢያው ሠራተኞ የታካሚውን ልዮ ፍላጎት መረዳት አለባቸው					
23	ዶርተሮ /ነርሶ ክእያንዳንዱ ታካሚ ጋር በቂ ጊዜ ሊቆዩ ይገባል					

ክፍል ሶስት

የተገልጋል ዕይታን በተመለከተ

	ተጨባጭ ዕይታዎ	1	2	3	4	5
1	ይህ ጤና ጣቢያ የተሟላና ዘመናዊ መሳሪያዎ አሉት					
2	የጤና ጣቢያው አካባቢ ለምሳሌ ህንጻው ለዓይን ሳቢና አስደሳት ነው					
3	የዚህ ጤና ጣቢያ ሠራተኞ ንጹህና የተሟላ አለባበስ አላቸው					
4	የመመመርመሪያ ክፍሎቹ ምቹና ለታካሚ ነፃነትን የሚሰጡ ናቸው					
	አስተማማ ነት					
5	ይህ ጤና ጣቢያ ለመጀመሪያ ጊዜ ቢሆንም አገልግሎቱን ያለ ምንም ስህተት ይሰራል					
6	ጤና ጣቢያው አገልግሎት መስጫ ቻርተ\ ላይ እንደተገለፀው በሰዓት ሥራ ይጀምራል					
7	ይህ ጤና ጣቢያ የታካሚውን ተገቢ መረቦ ያለምንም ስህተት ተቀማጭ ያደርጋል					
8	በዚህ ጤና ጣቢያ እንድ ታካሚ ጋር ቢገጥመው ሠራተኞ ቀና ትብብር ለማድረግ ፍላጎት ያሳያሉ					
9	በጤና ጣቢያው ያለ ዶርተሮ /ነርሶ የታካሚውን የጤና ሁኔታ የበስታውን ዓይነትና የሚወስደውን መድሀኒት ግለሰቡ በሚገባው መልኩ ማብራሪያን ይሰጣሉ					
	ኃላፊነት					
10	የጤና ጣቢያው ሠራተP በትክክል ሥራ የሚጀመርበትን ሠዓት ያሳውቃል					
11	ሠራተኞ ታካሚውን ለመርዳት ፍቃደR ናቸው					
12	በጤና ጣቢያው የታካሚ የቆይታ ጊዜ አጭር ነው					
13	በጤና ጣቢያው የዕለት ተዕለት አገልግሎት ለማግQ የቆይታ ጊዜ አጭር ነው					
	መተማመንን በተመለከተ					
14	በዚህ ጤና ጣቢያ ሠራተኞ ለታካሚው ቅንና አክባሪ ናቸው					
15	በዚህ ጤና ጣቢያ ሠራተኞ የታካሚውን ጋር ለመፍታት ብቁ ናቸው					
16	በዚህ ጤና ጣቢያ ታካሚዎች ሲታከሙ የደህንነትና በራሰ የመተማመን ይሰዉጣቸዋል					
17	በዚህ ጤና ጣቢያ በህክምና ጊዜ ለታካሚው በቂ ነፃነት ይሰጠዋል					
18	በዚህ ጤና ጣቢያ የጤና ባለሙያው የታካሚውን ጥያቄ በአግባቡ					

	ለመመለስ የሚሆን ዕውቀት አለው					
	ትህትና					
19	ጤና ጣቢያዋ ለታካሚው ምቹ በሆነ ሁኔት ሁሉ ክፍት መሆን አለባቸው					
20	ዶርተሮ ና ነርሶ ታካሚውን በትኩረት ሊያዳምጡ ይገባል					
21	ጤና ጣቢያዋ አርዳታ ለሚፈልጉ ታካሚዎት ድጋፍ የሚሰጡ ሠራተኞ ሊኖ\ት ይገባል					
22	የጤና ጣቢያው ሠራተኞ የተካሚውን ልዮ ፍላጎት መረዳት አለባቸው					
23	ዶርተሮ /ነርሶ ከአያንዳንዱ ታካሚ ጋር በቂ ጊዜ ሊቆዩ ይገባል					

ክፍል አራት

ከጤና ተቋሙ ጋር በተገናኘ	1	2	3	4	5
ባለሙያዎቹ አገልግሎት ለመስጠት በቂ ዕውቀት አላቸው					
የሚታዘዙ መድሃኒት በጤና ጣቢያው መድሃኒት ቤት ይገኛሉ					
የላብራቶሪ ምርመራ በጤና ጣቢያው ውስጥ ይገኛል					
ጤና ጣቢያው ለታካሚው ነፃነት ይሰጠዋል					
የአገልግሎት ዋጋቸው ብዙ ኪስ የሚጎዳ አይደለም					
ሠራተኞ ከታካሚው ጋር ጥ\ ግንኙነት አላቸው					
ጤና ጣቢያው የተካሚውን ሚስጢር ይጠብቃል					
የቆይታ ጊዜው ቻርት\ ላይ በተጠቀሰው መሠረት ነው					

ከልምድዎ በዚህ ጤና ጣቢያ በሚሠጠው አገልግሎት እረክተዋል

    1) አዎ   2) አልረካሁም

የዚህን ጤና ጣቢያ አገልግሎት አሠጣጥ ለሌሎ ግለሰቦ ሊነግ\ ወይም ሊያሳውቁ ፈቃደR ነዎት

    1) አዎ   2) አይደለሁም