

**JIMMA UNIVERSITY**

**COLLEGE OF SOCIAL SCIENCES AND HUMANITIES**

**DEPARTMENT OF SOCIOLOGY**

**Assessment of Inpatients' Satisfaction with Health Care Services in Bedelle  
General Hospital, Oromia, Ethiopia**

A Thesis Submitted to Department of Sociology in Partial Fulfillment of the  
Requirements for Master of Arts Degree in Sociology (Specialization in Social  
Policy)

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December, 2020

Jimma, Ethiopia

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This is to certify that the thesis prepared by Kassahun Bulti, entitled: Assessment of Inpatients' Satisfaction with Health Care Services in Bedelle General Hospital: A Thesis Submitted to Department of Sociology in Partial Fulfillment of the Requirements for Master of Arts Degree in Sociology (Specialization in Social Policy) complies with the University regulations and fits the agreed expectations in terms of originality and quality.

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## **ACKNOWLEDGMENTS**

I would like to extend my sincere thanks to Mr. Amanti Baru (Asst. prof.), my principal advisor, for his professional guidance and unreserved support throughout my study time. It is also my pleasure to thank Mr. Adamu Amanu, my co-advisor, for his insightful remarks. Without guidance, support and moral encouragement from my advisors, this paper would not have been possible.

I would like also express my heartfelt gratitude to Bedelle General Hospital administration office for getting me a letter of approval and establishing a favorable condition for data collection in the midst of the worst COVID -19 outbreak.

Last but not least, my special thanks go to all my respondents and informants for their willingness to share useful information for achievement of this study.

## ABSTRACT

**Background:** Studies reveal that health service qualities in developing countries are low. Ethiopian health sector has encountered problems related to poor patients care and services particularly in government health care institutions. This paper aims to assess inpatients' satisfaction with healthcare services in Bedelle General Hospital, Oromia, Ethiopia.

**Methods:** Both quantitative (survey) and qualitative (in-depth interviews, observation and key informant interviews) methods were used to gather data. Cross sectional study design was employed to select 192 participants using stratified and systematic sampling technique. An interviewer-administered questionnaire was used to collect survey data. Descriptive and inferential statistics were carried out to analyze the quantitative data using SPSS version 20.0. Multiple logistic regression models were employed to indicate the association between independent and dependent variables. The qualitative data was analyzed thematically and triangulated alongside with quantitative data.

**Results:** A total of 192 inpatients were included to the study. The level of inpatients satisfaction was 51%. The highest satisfaction of respondents was found in physician services 190 (96.88%) and the lowest was found in access to water 36 (18.75%). The important predictors that influenced inpatients satisfaction were up-to-date equipment, physical facilities, materials, employees good-looking, dependability of the hospital, providing services on time, patients feeling safe in transactions, employees' politeness, employees' knowledge, attention given to patients, understanding patients, doctors' willingness to answer patients questions, information provided, information addressed, lab test fee, drug cost, transport fee, and accommodation cost. Challenges inpatients face to access healthcare service in the hospital were poor health infrastructure, inadequacy of medical supply, poor sanitation and poor attitudes of health workers.

**Conclusion:** Policy interventions on healthcare quality may contribute to quality of services rendered in public health care facilities in Ethiopia. The main implication of this study is the need to improve physical facilities, upgrade medical supplies, improved sanitation and strengthening a way of monitoring and evaluating work performance. Providing quality healthcare services in the public healthcare facilities may have a significant paramount for the well-being of the people and social development.

**Key words:** Satisfaction, Inpatient satisfaction, healthcare services, quality improvement, Bedelle General Hospital, Ethiopia

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## **ACRONYMS AND ABBREVIATIONS**

AOR	Adjusted Odd Ratio
BGH	Bedelle General Hospital
COR	Crude Odd Ratio
ETB	Ethiopian Birr
EU	European Union
FMoH	Federal Ministry of Health
Gyn/Obs	Gynecological and Obstetrics
IPD	Inpatient Department
JUSH	Jimma University Specialized Hospital
KM	Kilometers
NICU	Neonatal Intensive Care Unit
OOP	Out-Of-Pocket
SERVQUAL	Service Quality
SPSS	Statistical Package for Social Sciences
THE	Total Health Expenditure
UNICEF	United Nations Children's Fund
WHO	World Health Organization

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

Patient satisfaction is defined as a perception and an attitude that a consumer can have or view towards a total experience of health care (Zohrevandi and Tajik 2014). Patient satisfaction is a relative phenomenon, which has been around since 1960's but active research on topic initiated in late 1970's and early 1980's. Patient satisfaction studies has been used to reflect patients' perceptions, experiences, and evaluations of services received as a subjective mode of research that fulfills what being looked for and purposed (Baker and Crompton 2000). Patient satisfaction is one of the major indices of quality care and health care services outcome, it is gaining importance globally as one of the main tools for the assessment of quality of healthcare delivery, and as a means of measuring the effectiveness of health services (Patwardhan and Spencer 2012).

Patients have explicit desire or needs for care when they visit hospitals. However, inadequate response to their needs or expectations could result in patient dissatisfaction. There is growing consensus that assessment of the quality of hospital services should base in part, on patients' perceptions of overall care and dissatisfaction (Arbyn et al. 2010). Poor quality of services and lack of information underlie the poor perception of public health facilities voiced by the users. Characteristics of poor quality of services include poor infrastructure, poor staff attitudes towards patients and lack of drugs (WHO and UNICEF 2014).

Higher levels of patients' satisfaction indicate higher levels of patient empowerment, commitment to care and compliance to recommended management—all of which results in better health outcomes (DuPree, Anderson, and Nash 2011). Evaluation of clients satisfaction can address the reliability of services, or the assurance that services are provided in a consistent and dependable manner; the responsiveness of services or the willingness of providers to meet clients need; the courtesy of providers and the security of services and records to keep the best level of confidentiality (Al Doghaither 2004). A recent systematic review Batbaatar et al. (2017) found that providers' competence, interpersonal skills and facility characteristics (e.g. physical environment, type and level of facility) were positively associated with patients' satisfaction. Conversely, patient-related characteristics, for example, gender, age, race, socio-economic status, health status and expectation were weak and inconsistent predictors of patients' satisfaction.

Studies reveal that health service qualities in developing nations are low (De Geyndt 1995; Grönroos 1984; Peabody et al. 2006). For example, a study conducted in Ethiopia showed that lack of drugs and other supplies, long waiting time, lack of privacy and inadequate visiting hours were major factors related to dissatisfaction among patients (Assefa and Mosse 2011).

To solve this problem, currently the Ethiopian Federal Ministry of Health (FMoH) is striving to develop different national quality management guidelines and health sector development plans to increase patients' satisfaction and improve the overall quality of the healthcare service in the country (Mensa et al. 2017). But Ethiopian health sector has encountered a couple of problems related to poor patients care and services particularly in government healthcare institutions. Therefore, it is imperative to assess the perspective of patients and their level of satisfaction with the existing healthcare services to improve the quality and efficiency of healthcare services.

## **1.2 Statement of Problem**

Levels of patient satisfaction are varying across the world based on the variables and types of hospitals in which specific studies conducted. Study conducted by WHO reveals that 54% of all the patients that visit different health care facilities, like hospitals, are satisfied with the service they received. The remaining 46% seems to be dissatisfied due to different factors (Piron et al. 2008).

A study on inpatient satisfaction with nursing care and communication at Debre Markos hospital indicated an overall inpatient satisfaction of 56% (Alemu et al. 2014). Likewise, a study conducted by Woldeyohanes et al. (2015) on perceived patient satisfaction with in-patient services at Jimma University specialized hospital showed that overall satisfaction of 61.9%.

Another research done at Zewditu memorial hospital identified an overall rating of 67% satisfaction among inpatients admitted to medical, surgical and gynecological wards (Girma 2015). Moreover, a study conducted on adult inpatients at Black Lion and Land Mark general hospital revealed overall satisfaction of 70.4%. Patients were satisfied with access to service laboratory and x-ray diagnosis, adequacy and maintenance of ward equipment, cleanliness of the ward, ward room light and ventilation, physician consultation and communication with nurses, while 40.5% of the respondents were dissatisfied concerning access to water, latrine and hand washing facility (Mekonnen 2017).

Additionally, socio-demographic factors including age, education, health status, race, marital status, income, social class, and working status had been studied and found to be associated with higher patient satisfaction (Alrubaiee and Alkaa'ida 2011; Quintana et al. 2006). For instance, one of the studies conducted in Jimma University specialized hospital found satisfaction with health care to have a significant association with the age of the respondents ( $p=0.034$ ) and educational level of the respondents ( $p=0.003$ ) (Assefa and Mosse 2011). Another study on the patients' perspective in Eastern Ethiopia showed that satisfaction with health care found to have a significant association with waiting time, the availability of drugs, the payment status of the respondent and the address of the patient (Abdosh 2006).

Parasuraman, Zeithaml, and Berry (1988) identified five dimensions of service quality, commonly applied in the healthcare industry, which are assurance, empathy, reliability, responsiveness and tangibles implemented for measuring perceived service.

In this regard, no research was conducted to identify significant factors influencing inpatient satisfaction with health care services in Ethiopia using these variables. There is also a gap in the study area that Bedelle general hospital has never been a topic of studies on the satisfaction of inpatients with health care services.

This study therefore fills this gap and investigates inpatients' satisfaction with health care services at hospital level with the aim to improve the quality of health care services.

### **1.3 Objectives of the Study**

#### **1.3.1 General Objective**

The main objective of the study was to assess inpatients' satisfaction with health care services in Bedelle General Hospital

#### **1.3.2. Specific Objectives**

- To investigate the level of inpatients' satisfaction with health care services in Bedelle General Hospital
- To identify factors affecting inpatients' satisfaction with health care services in Bedelle General Hospital
- To describe the inpatient perceptions of the quality of health care services they received in Bedelle General Hospital

## **1.4 Significance the Study**

The findings of the study will be very helpful in providing an insight to both government and policy makers to get components that influence inpatients' satisfaction inside the hospital. More specifically, the findings of the research could serve as essential inputs for policy makers to set up evidence-based interventions by looking into major areas of concern, which might result in substantial improvements in achieving the aspiration of better health facility in the country. In addition, this study will serve as a guideline for researchers who may conduct further studies on inpatients satisfaction.

## **1.5 Scope of the Study**

This study was delimited to assessing inpatients satisfaction, specifically: level of inpatients satisfaction, factors affecting inpatients satisfaction, and inpatient perceptions of the quality of health care services they received. The study has methodological and geographical scope. Methodologically, the study used mixed method approach. The study was delimited to one general hospital of Bedelle town.

## **1.6 Limitations and strength of the study**

The study has certain limitations. The study did not investigate other factors that might affect inpatients satisfaction. For instance, in the study cultural and environmental aspects were not included as a factor for inpatient satisfaction with health care services. Moreover, the study was conducted in only one general hospital that may not be generalizable to hospitals found in the country. On the other hand, the study has many strong sides in that the researcher employed mixed method approach, to better address the research questions which increase credibility of the findings. In addition, the questionnaire was pre-tested at the study site before data collection took place so as to ensure reliability of the survey instrument. As a result, after a pilot test was carried out, items that would not go with the questionnaire were omitted. For instance, discrimination based on race, religion and sex. Moreover, the study was carried out in the course of a COVID-19 outbreak challenge.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter deals with definitions, measurement and factors affecting patient satisfaction. Moreover, this part presents related studies conducted by various scholars across the world with respect to inpatient satisfaction. It addresses theoretical and conceptual framework of the study. The theoretical part more importantly investigates the independent and dependent variables. This enables the researcher to recognize the contribution of former researchers and to sort-out the gap for the current topic under investigation.

### **2.2 Definitions of Patient Satisfaction**

Patient satisfaction is complicated to define due to its multi-dimensional concept (Batchelor et al. 1994). Consumer satisfaction, which is defined, as satisfaction with goods or services, is similar to patient satisfaction, which relates to satisfaction with services rendered (Cohan 2015). Patient satisfaction is the patients' subjective evaluation of their cognitive and emotional reaction because of the interaction between their expectations regarding ideal care and their perceptions of the actual care (Allan et al. 2009). It also described as a health care recipient's reaction to several aspects of their service experience. It used in many health care facilities as an important indicator of quality care and is frequently included in health care planning and evaluation (Wagner and Bear 2009).

Patient satisfaction considered as one of the desired outcomes of health care and it directly related with utilization of health services. Assessing patient satisfaction has become an integral part of hospital management strategies across the globe. Moreover, the quality assurance and accreditation process in most countries requires that the satisfaction of patients measured on a regular basis (Allan et al. 2009). The absence of a solid conceptual basis and consistent measurement tool for consumer satisfaction , has led to a proliferation of surveys that focus exclusively on patient experience, i.e. such as waiting times , the quality of basic amenities and communication with healthcare providers, all of which help identify tangibles priorities for quality improvement (Bleich, Özaltın, and Murray 2009). Few researchers have commented that defining quality improvement from patients' perspective provides a better value for their money with improved safety, accessibility, equity and comprehensiveness of care.

Quality of improvement from a provider's point of view may be more efficient, more effective services to a greater number of consumers with a reasonable level of satisfaction, with the letter

being enough for customer retention (Patwardhan and Spencer 2012). A handful of studies have attempted to relate patient's health status to factors such as the performance of healthcare services (Bleich, Özaltin, and Murray 2009) or other demographic and economic factors (Mummalaneni and Gopalakrishna 1995; Popescu, Rat, and Rebeleanu 2007). Particularly Bleich, Özaltin, and Murray (2009) found what with respect to patient satisfaction and for 21 EU countries for the year 2003, about a quarter of the variation is attributed to healthcare service itself and to patient expectations, health status, type of care and immunization coverage.

According to Donabedian the effectiveness of care, in achieving or producing health and satisfaction, is the ultimate indicator of the quality of care. Satisfaction data play a significant role in the strategy and tactics health care providers use in delivering services for patients. In addition, measurement of patient satisfaction is increasingly playing important role in the growing push towards accountability among health care providers. It is also viewed as an established indicator of quality of care (Allan et al. 2009; Mekonnen 2017).

A study on patient satisfaction in an Urban Health Care Centers of Siliguri Municipal Corporation, Darjeeling, and West Bengal shows that overall satisfaction was 73.1% with a mean value of 3.655. The only matter of concern was time spent with the doctor, lack of facility and poor quality of services were the major reasons for dissatisfaction among patients (Allan et al. 2009).

### **2.2.1 Measurement (Dimensions) of Patient Satisfaction**

A widely accepted study theoretical and empirical articles define the measurement of patient satisfaction with healthcare system and found eight distinguishable dimensions: art of care, technical quality of care, accessibility, finances, physical environment, availability, continuity, and efficacy/outcome of care (Ware, Davies, and Stewart 1977). The art of care is supposed to capture the amount of physician caring towards the patient, such as concern, whereas the technical quality of care measures the patient's perceptions of the competence of providers.

Accessibility/convenience also measures satisfaction with the factors, which are involved in arranging to receive medical care while the finance dimension measures the cost of care. Additionally, the availability dimension measures the satisfaction with the number of providers in the given area, while the physical environment measures satisfaction with the comfort. Satisfaction with continuity measures the regularity of care from the same providers. Efficacy/outcomes of care measures the satisfaction with a patient's improving and maintaining health status (Swanson 2002).

Most researchers have used a five-point Likert scale or seven-point Likert scale, which is the most widely used approach to scaling responses in survey (Oliver 2014). The seven-point scale used to evaluate models of emotion should contain a neutral point like “extremely satisfied” and “extremely dissatisfied”(Forgas 1995). Researchers have used various types of the scales to measure patient satisfaction. Ware and Hays argued that a single rating feature of response scale, “excellent” to “poor” is the simplest method of assessing satisfaction (Ware and Hays 1988).

In order to develop a mechanism to evaluating patient satisfaction, one of the studies focused on satisfaction found that several factors have been identified that contribute to overall patient satisfaction. For instance, satisfaction with physician, availability, and waiting time are included as the factors (DiTomasso and Willard 1991). Moreover, another study found that four conceptualized categories, knowledge, access, competence, and trust are to contribute to overall patient satisfaction (Crestani et al. 1999). Additionally, patient expectations of care have found as a factor affecting patient satisfaction, which differs greatly among patients (Thiedke 2007).

Patient satisfaction with healthcare services has been associated with various factors as measurement including the changing of providers or health plans (Ferlie and Shortell 2001; Rubin et al. 1993) and the cost and quality of care received (Yucelt 1995). One of the most comprehensive examination of patient satisfaction found that low levels of satisfaction (dissatisfaction) with healthcare services received are linked with poor health outcomes (Fitzpatrick 1997).

## **2.2.2 Factors Affecting Patient Satisfaction in Hospital**

### **2.2.2.1 Socio-Demographic Characteristics**

The socio-demographic characteristics of patients are the most often studied predictors of patient satisfaction with the healthcare system or providers (Hekkert et al. 2009). Even though some of socio-demographic factors such as age, gender, and race are not modifiable, they are crucial to take into account when conducting patient satisfaction studies (Lo 2014). Age is one of the most consistent predictors of patient satisfaction (Hall and Dornan 1990; Jackson, Chamberlin, and Kroenke 2001), whereas the effect of socio-demographic on patient satisfaction is not as clear as age (Jadoo et al. 2012). Many studies conclude that older patients tend to be more satisfied than younger patients (Alrubaiee and Alkaa'ida 2011; Jackson, Chamberlin, and Kroenke 2001). Besides, the role of gender on patient satisfaction with healthcare service is not consistent. Jackson, Chamberlin, and Kroenke (2001) in their study concluded that gender seems to be unimportant.



Another study found that women were more likely satisfied with healthcare services compared to men (Alrubaiee and Alkaa'ida 2011).

The relationships between marital status and patient satisfaction are also found to be inconsistent (Quintana et al. 2006). The study concluded that single or divorced patients have higher patient satisfaction scores, whereas another study (Nicolucci et al. 2009) found that married and single patients are more satisfied than widowed and divorced patients. In addition, another study found that residence and marital status were significantly associated with satisfaction with the healthcare services ( $p < .05$ ) (Park et al. 2016).

Besides, health status, both physically and psychologically, is associated with patient satisfaction. Health status and health outcomes affect satisfaction; sicker patients and psychologically distressed patients record lower satisfaction (Crow et al. 2002). From social-demographic characteristics younger, less educated, lower ranking, married, poorer health and high service use were associated with lower satisfaction with healthcare system (Alrubaiee and Alkaa'ida 2011). One of the satisfaction studies that analyzed 139 articles to provide evidence about the determinants of satisfaction found that evidence about socioeconomic status and patient satisfaction is equivocal (Crow et al. 2002).

However, more studies have found a relationship between income and education with patient satisfaction. For example, patients who have a lower education level were more satisfied compared to those with a higher education level (Hall and Dornan 1990; Lo 2014; Sitzia and Wood 1997). Consistently with the other studies, a study concluded that dissatisfied respondents had significantly a higher level of education than satisfied ones ( $P < 0.001$ ) (Maharlouei et al. 2017). In addition, patients who have higher household income have a negative significant correlation with satisfaction with healthcare system (Stepurko, Pavlova, and Groot 2016). The results can be explained by considering that those patients with more education and income who were less satisfied are likely to have higher expectations of their care, which results in more disappointment as well as dissatisfaction (Hall and Dornan 1990).

#### **2.2.2.2 Tangibles**

The tangibles involve the firms' representatives, physical facilities, materials, and equipment as well as communication materials. Furthermore, Physical environmental conditions appeared as a clear evidence of the care and attention paid for the details offered by the service provider (Schechter et al. 2001). More specifically, Parasuraman, Zeithaml, and Berry (1985) defined

tangibility as appearance of physical facilities, equipment, personnel, and written materials. The physical facilities of a hospital include the building, amenities, adequate equipment for patient care, patient records and lab. The hospital facilities, however, requires effective support of critical infrastructure such as a well-designed space for operating theatres, lobbies, entrance hall, waiting area, consulting rooms, conveniences, in-patient wards, out-patient corridors and medical treatment for the patients offered by the trained professionals' staff (Ogaji et al. 2015).

The perceived attractiveness positively influences the affective response to the wait, a known component of waiting time satisfaction. Therefore, it anticipated that satisfaction with the environment would positively affect the customer satisfaction with waiting times. The greater the satisfaction with the environment, the more waiting time satisfaction (Pruyn and Smidts 1998).

Hospital physical facilities generally consist of the in-patient, outpatient and attached facilities and amenities. The inpatient facilities provide overnight stay for patient medical care such as Pediatric ward, Obstetrics ward among others while the out-patient facilities provide premises for consultation such as drop off, registration counter, waiting area, consultation room, pharmacy and toilet facilities (Samah, Ibrahim, and Wahab 2018). A study done in India tertiary care hospital indicated that patients were more satisfied with the behavior of doctors and dissatisfied with cleanliness of toilets and wards (Singh, Kaur, and Rochwani 2013).

### **2.2.2.3 Reliability**

Reliability depends on handling customer service issues, performs the services right the first time; offers services on time, and maintain a record of error-free. Moreover, they define reliability as the most significant factor in conventional service (Parasuraman, Zeithaml, and Berry 1988). More specifically, in a study done by Parasuraman, Zeithaml, and Berry (1985) on SERVQUAL was applied to gather data in four different companies, including banks, credit card companies, the company's maintenance services, and long distance phone company. He found high reliability in all four of these companies, with the possible exception of some of the values associated with significant dimensions (Parasuraman, Zeithaml, and Berry 1985). Finally, reliability is defined as the “ability to perform the promised service dependably and accurately” (Parasuraman, Zeithaml, and Berry 1988).

#### **2.2.2.4 Responsiveness**

Responsiveness is defined as "the willingness to help customers and provide prompt service" (Parasuraman, Zeithaml, and Berry 1988). Furthermore, Johnston (1997) defines responsiveness such as speed and timeliness of service delivery. This consists of processing speed and service capabilities to respond promptly to customer service requests, and wait a short and queuing time. More specifically, responsiveness defined as the willingness or readiness of employees to provide services. It contains the timeliness of service (Parasuraman, Zeithaml, and Berry 1985).

According to Baron and Kenny (1986) the gap between the perception and expectation for waiting experience determines the customer satisfaction with waiting (Davis and Heineke 1994) specify Maister's definition, replacing "perception" by "performance interpretation", noting that perception depends on both the customer's interpretation of the service encounter and the actual service performance.

In the last decade, many definitions of overall satisfaction proposed, underlining the cognitive and/or affective constituents of the concept. Regarding waiting time, both aspects seem to be appropriate (Anderson 1994). Past results show evidence that the objective and subjective waiting time have negative effects on affective and cognitive responses to waiting. Indeed, a delay (measured by a combination of objective and subjective aspects) significantly influences the feelings of anger (Taylor 1994).

Moreover, Pruyn and Smidts (1998) found that the perceived waiting time affects the cognitive dimension of the wait appraisal. Consequently, we do consider perceived waiting time as a determinant of waiting time satisfaction. Indeed, real waiting time is an antecedent of perceived waiting time rather than an antecedent of waiting time satisfaction. Waiting time has an impact on patient satisfaction. A study in South Africa reported that in respect of country setting ( developed and not developed), the highest levels of dissatisfaction was with waiting times (Westaway et al. 2003).

Study conducted in Southern Ethiopia revealed that patients' satisfaction was positively associated with less waiting times to attend other staff for injection. Patients who had waited for injection <1 hour had a better satisfaction level than those waited 1-2 hours (Hagisso et al. 2019). Similarly, study conducted in central Ethiopia, showed that patients were satisfied with a less than 30 minutes waiting time to have attended by their doctors (62.3%) (Birhanu et al. 2010).

### **2.2.2.5 Assurance**

Naidu (2009) defines assurance as employees' knowledge and courtesy, and ability of the organization and its employees to inspire trust and confidence. This dimension is important when customers perceive services as high risk or feel uncertain about their ability to evaluate outcomes. The company has to seek to build trust and loyalty between key contact people and customers (Teigland et al. 2013).

Customers allocated to Assurance the lowest weighting, indicating it to be of least importance to them, yet they expect most from this service dimension. This apparent anomaly is probably because customers expect staff to be knowledgeable about the service and therefore, they can see no reason for this dimension not to be achieved. It is assumed that for this reason, customers have weighted this dimension lowest (Shahin 2004).

### **2.2.2.6 Empathy**

Parasuraman, Zeithaml, and Berry (1985) defined empathy as a caring and individual attention that the firm provides to its clients. It contains giving individual attention of employees who understand the needs of their customers and customer facilities during business hours. Furthermore, Ananth, Ramesh, and Prabakaran (2010) demonstrates empathy in their research of private sector banks, provide individual attention and easy operation time; give personal attention, and understand the specific needs of customers. Chuang (2007) suggest that empathy contains approachability, sensitivity, and efforts to understand customer needs. Johnston (1997) also defined empathy as the ability to make customers feel welcome, especially by staff contacts. Additionally, the SERVQUAL model indicates that satisfaction related to the size and direction of disconfirmation of a person's experience when he or she faces his or her initial expectations (Churchill Jr and Surprenant 1982; Houston and Smith 1982; Parasuraman, Zeithaml, and Berry 1985).

A hospital's primary objectives are usually humanitarian, philosophical or regulatory' and based on some perceived need. However, a problem may arise when what the patient 'needs' is different from what the patient 'wants'. For instance, what a patient needs from a hospital is reasonable good quality medical care (Naidu 2009). Yet market research over the past few years has shown that hospitalized patients want a variety of amenities not associated with their need for reasonable good quality medical care. They want smiling, empathetic nurses and staff, a wide selection of foods for their meals and a quick response to their calls (Naidu 2009).

### **2.2.2.7 Communication**

Communication is the extent to which the patient has heard, kept informed through understandable terms, afforded social interaction and time during consultation and provided with psychological and non-technical information (Smith et al. 2002). If communication is good, which includes information from the service provider (the patient on the type of care he or she will receive, thereby alleviating uncertainty that increases his or her awareness and sensitivity about what to expect, then patient satisfaction is higher (Naidu 2009).

### **2.2.2.8 Health Care Costs**

According to Schlossberg (1990) and Wong (1990) in the more affluent Western world, health care consumers have become much more sensitive to costs, despite health insurance coverage. Wong also predicts that consumers will shop for the best value. In the developing world, cost is a perennial concern among those seeking health care service, given their low earnings. Such costs include consultation fees, laboratory test charges, travel, drugs and accommodation.

World Health Organization (WHO) stated that out-of-pocket (OOP) payment is described to constitute payments made directly to health care providers when receiving service (Organization 2017). OOP spending is high in most low-income countries, representing more than half of total health expenditure (THE) in 47 low-income countries. In terms of financial aspects of care, patients tend to be more satisfied with lower-cost plans as well as prepaid plans. Moreover, this satisfaction can differ by patient income level. Higher-income patients are less satisfied with prepaid plans than lower income patients (Swanson 2002).

## **2.3 Theoretical Frameworks**

### **2.3.1. Baker's Model**

Baker proposed a model of patient satisfaction in 1997. Firstly, in the model attitude, which generally learned from experience, is an evaluative judgment. Even though the theory states that patient expectation is the most important aspect of patient satisfaction, attitude is considered as a matter of perception, where some elements of care may be more important than others on a patient-to-patient basis. Secondly, satisfaction also considered as continuous rather than dichotomous variable in the model. Thirdly, elements of care have affected patient satisfaction differently. For instance, a patient can be satisfied with one element of care such as the appointment system, but

may not be satisfied with another such as the clinical examination. Therefore, a measure of overall satisfaction should evaluate all relevant elements of care (Baker 1997).

### **2.3.2. Donabedian's Model**

The human, physical, and financial resources are the parts of “structure” that provide medical care and describe how medical care is financed and delivered (Swanson 2002). Patient satisfaction is influenced by hospital organization and cost of care. The basic characteristics of structure include the physical and organizational environment; the structure of care is focused on two main factors: (a) number, distribution, and qualifications of professional personnel, and (b) the number and size of hospitals, available equipment, and geographic distribution of hospitals and other facilities. At the same time, hospital resources and a suitable system of healthcare delivery have effects on quality care. Another study found that physical environment is one of the dimensions of patient satisfaction with healthcare (Chunuan 2003).

Process denotes the set of activities that occur between practitioners and patients (Swanson 2002). A study found that interpersonal relationships affect a patient's perception of quality of care and suggested that patient satisfaction has significantly influenced by personal interactions between caregivers and patients. Due to the importance of direct interactions, the process of healthcare has mainly focused on the patient-physician relationship (Chunuan 2003; Shivaji 2012). In addition, outcome refers to the change in a patient's health status (Swanson 2002). Researchers found that patient satisfaction with healthcare is positively associated with changes in health status, and thus healthier patients are more likely to be satisfied with healthcare.

Furthermore, low levels of satisfaction (dissatisfaction) with healthcare services received have linked with poor health outcomes (Fitzpatrick 1997; Aydin 2019). At the same time, hospital resources and a suitable system of healthcare delivery have effects on quality care. Another study found that physical environment is one of the dimensions of patient satisfaction with healthcare (Chunuan 2003).

### **2.3.3. Disconfirmation Model**

Disconfirmation model is based on product quality literature which is the base of service quality. Based on disconfirmation model, Parasuraman, Zeithaml, and Berry (1985) suggested a new model for service quality measurement by measuring the gap between perceived service and

expected service. They proposed the gap analysis for service quality by measuring the difference between expectation and service performance.

**Gap 1:** The difference between consumers' expectations and management perceptions of the customers' expectations

**Gap 2:** The difference between management perceptions of consumers' expectation and service specifications

**Gap 3:** The difference between service quality specifications and service provided

**Gap 4:** The difference between service provided and external communications to the customers

**Gap 5:** The difference between customers' expectation and consumers' perception of the services

#### **2.3.4. SERVQUAL**

SERVQUAL is an instrument developed for the measurement of service quality. They have made a serious improvement to the model in 1988, 1991 and again in 1994 (Parasuraman, Zeithaml, and Berry 1985). This model conceptualizes the gap between what the customer expects by way of service quality from the service providers and their evaluations of the performance of a particular service provider. Service quality presented as a multidimensional construct. In their original formulation Parasuraman, Zeithaml, and Berry (1985) identified ten dimension of service quality, which are reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles.

The SERVQUAL instrument is a popular instrument to measure service quality applied in the healthcare industry extensively. Five dimensions (i.e., assurance, empathy, reliability, responsiveness and tangibles) are proposed and the magnitude of the differences between customer perceptions and expectations implemented for measuring perceived service (Parasuraman, Zeithaml, and Berry 1988).

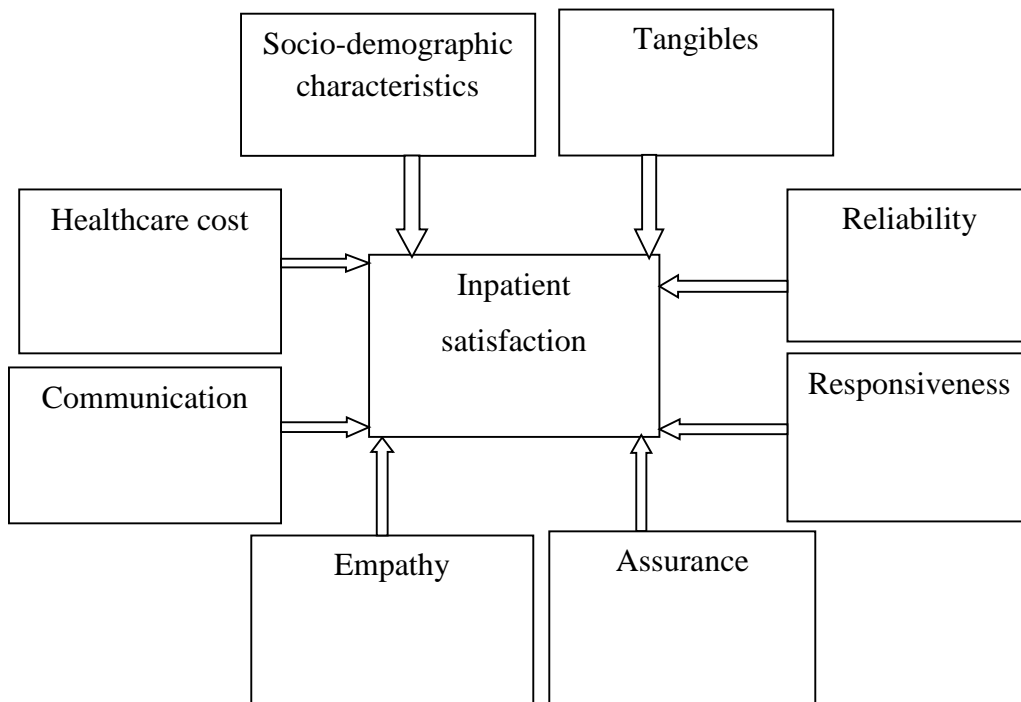
- ❖ **Tangibles:** The appearance of physical facilities, equipment, appearance of personnel, and communication materials
- ❖ **Reliability:** The ability of hospital to perform the promised service dependably and accurately (i.e., when something is promised, it is done and provision of services at the time promised).

- ❖ **Responsiveness:** The willingness of hospital's personnel to help customers and provide prompt service.
- ❖ **Assurance:** The knowledge and courtesy of hospital employees and their ability to inspire trust and confidence.
- ❖ **Empathy:** The caring, individualized attention the hospital provides to its customers (i.e., employees understand specific needs and employees give personal attention).

## 2.4 Conceptual Framework

The conceptual framework depicted below was developed based on SERVQUAL Model adopted from Parasuraman, Zeithaml, and Berry (1988) in order to demonstrate the relationship among the study variables. It aimed to conceptualize the study and provide a clue for interpretations of findings. In this study, eight distinguishable dimensions: socio-demographic characteristics, tangibles, reliability, responsiveness, assurance, empathy, communication and health care costs are independent variables, whereas inpatient satisfaction is dependent variable.

Figure 1: **Conceptual Framework**



Source: Adopted from Parasuraman, Zeithaml, and Berry (1988)



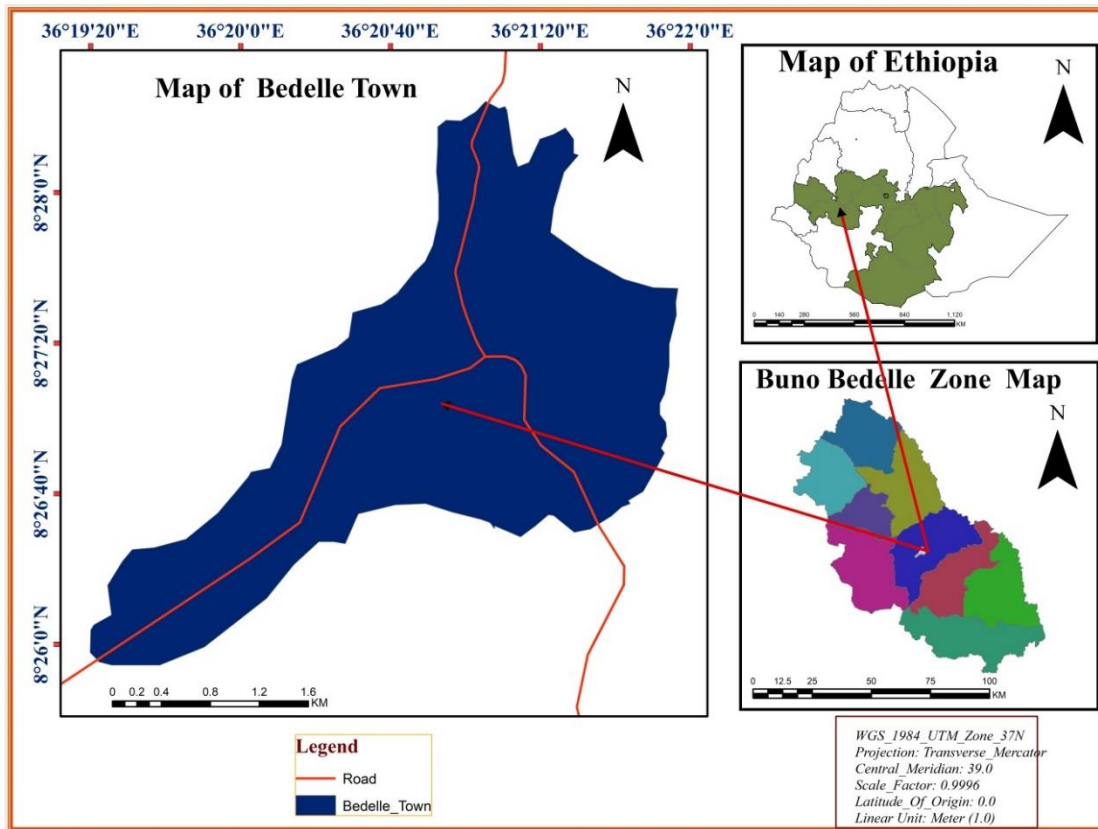
## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Study Area**

This study was conducted in Bedelle General Hospital, which is located in Bedelle town, southwestern part of Ethiopia at a distance of 480 Km away from Addis Ababa. According to figures from the town's administration office, Bedelle town has a total population of 33,381, of which 16,825 are men and 16,556 are women. The town is located topographically between 8<sup>o</sup>27'N and 36<sup>o</sup>21'E longitude. Its altitude is 253m above sea level. In the town there are 1 hospital, 1 health center, 6 clinics, 1 pharmacy, 13 drug stores and 2 health extensions. In this case, Bedelle General Hospital selected among 24 health facilities purposively, because a hospital is a place where multiple healthcare practitioners provides medical services and has long stay inpatient beds when the remaining do not have.

Based on figures from the hospital, BGH is one of the largest hospitals in Bunno Bedelle Zone. It was established in 2011 as primary hospital and became general hospital in 2018. It has a catchment population of 942,000 nowadays. It organized IPD (Inpatient Department) into five wards namely Medical, Surgical, Pediatrics, Gynecological and Obstetrics (Gyn/Obs) and Neonatal Intensive Care Unit (NICU). It has been offering health care services to inpatients on a 24-hour basis. Currently, the hospital has a total of 249 employees, of whom 114 are supportive staffs.

**Figure 2: Map of the Study Area**



Source: Ethio-GIS, 2020

### 3.2 Study Design

As relevant data were collected at one point in time, a cross-sectional study design was carried out and is therefore ideally suited for drawing inferences on the characterizes of the population from which the sample was taken. Both descriptive and explanatory research design were used for the study to this effect. In order to compare the socio-demographic details of respondents and satisfaction level of hospital patients, descriptive study design was more fitting. On the other hand, explanatory research was employed to analyze the relationship between explanatory variables (tangibles, reliability, responsiveness, assurance, empathy, communication and healthcare costs) and the outcome variable (inpatient satisfaction). The design is more appropriate for this study, because it helps to relate two or more variables if they influence each other and predict the effect of each explanatory on an outcome variables (Creswell and Creswell 2017).

Basically, a mixed approach (both qualitative and quantitative) methods were applied as it helps the researcher to collect sufficient information to better clarify the subject under investigation and to enhance the validity of the research. Creswell (2012) declares knowing that each of the approach has some inadequacies, the use of both qualitative and quantitative methods is to make sure that biases inherent in either of the approaches were counter balanced by the strength of the other. The use of a mixed research method, therefore, enabled the researcher to triangulate more data sources and techniques to analyze the research and validate the finding.

### **3.3 Target Population**

All inpatients who had been admitted to the hospital wards.

### **3.4 Study Population**

The participants of the study were all inpatients' who had been admitted to Medical, Surgical, Gyn/Obs, Pediatrics and NICU wards in the hospital during the study period.

### **3.5 Inclusion and exclusion criteria**

#### **3.5.1 Inclusion criteria**

- ❖ Inpatients, 18 years of age and above (Inpatient relatives in the NICU and pediatrics wards were invited to participate in the study on behalf of their children).
- ❖ Volunteer to engage in the study

#### **3.5 2 Exclusion criteria**

- ❖ In-patients who were critically ill and unable to communicate.

### **3.6 Sampling Technique and Procedure**

According to data gained from the hospital, Bedelle General Hospital has five inpatient wards with 86 beds. It offers health care services for nearly 4,584 inpatients per a year. During the study duration from March 10, 2020 - April 09, 2020, all admitted inpatients were included in the study. The sampling frame from each ward was developed to select the subject of the study so that the final sample was extracted based on the sampling frame using stratified and systematic sampling technique.

Accordingly, using stratified sampling the sample was proportionally assigned to the size of patients admitted to in each ward. Using a systematic sampling method, the final respondents in

each ward were chosen. The interval calculated between the sampling units is 2, and the researcher was followed this interval until the required sample size is complete.

Besides, purposive sampling technique also utilized to pick five participants for in-depth interviews and five health professionals for key informant interviews. There is a better chance of mitigating participants' hesitation to use purposive sampling because they were recruited on the bases of their experiences on the subject. As a result, it was found that purposive sampling was more suitable to identifying participants and could provide supplementary information to improve the result.

### 3.7 Sample Size Determination

The sample size that represents the hospital inpatients was calculated on the basis the number of inpatients admitted to the hospital. An estimate of the sample size was calculated based on the following assumptions: confidence interval, margin of error and proportion of patient satisfaction. Since there is no previous research on Bedelle general hospital, estimation of patient satisfaction proportion should be 50%. If there is no estimation for P, it is considered 0.5 which maximizes n and the sample would be large enough (Khosravi and Anvari 2013).

Using single population proportion formula, the sample size was made as follows:

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

$$n = \frac{(1.96)^2 (0.5) (1-0.5)}{(0.05)^2}$$

$$n_0 = 384 \text{-----(1)}$$

The total population (N) is 382. Since N is less than 10,000, using correction formula would be appropriate to calculate the sample size. If  $n_0/N$  is greater than 5%, the sample size must be adjusted by correction formula (Cochran 1977). Accordingly,

$$n = \frac{n_0}{1 + n_0 / N}$$

$$n_0 = 384$$

$$N = 382$$

Where, n= Total sample size

N= Total inpatients admitted in the hospital in one month

$n_0$ = Sample size derived from equation (1)

$$n = \frac{n_0}{1 + n_0 / N} = \frac{384}{1 + \frac{384}{382}} = 191.52 \approx 192$$

Hence, the sample size was determined to be 192.

Using stratified sampling technique, the sample was proportionally allocated to the size of admitted patients' in each ward. Accordingly, number of inpatients was proportionate by the formula of  $\frac{n}{N} \times$  stratum size.

$$\text{Thus, Medical Ward} = \frac{192}{382} \times 74 = 37$$

$$\text{Surgical Ward} = \frac{192}{382} \times 81 = 41$$

$$\text{Gyn/Obs Ward} = \frac{192}{382} \times 63 = 32$$

$$\text{Pediatrics Ward} = \frac{192}{382} \times 118 = 59$$

$$\text{NICU Ward} = \frac{192}{382} \times 46 = 23$$

Then, the study utilized systematic sampling technique to pick patients at fixed intervals from each group strata. In this manner, the total number of patients was divided by the sample size in order to get the interval as follows:

$$K = N/n$$

$$K = 382/192 = 1.99$$

$$K \approx 2$$

Where, K= Sample interval

N=Total number of patients

n= sample size

Thus, the sampling unit is 2, the first patient to be included in the study was randomly selected from the 2<sup>nd</sup> interval and the remaining patients of the sample were picked at fixed intervals from order of registration for inclusion in the sample.

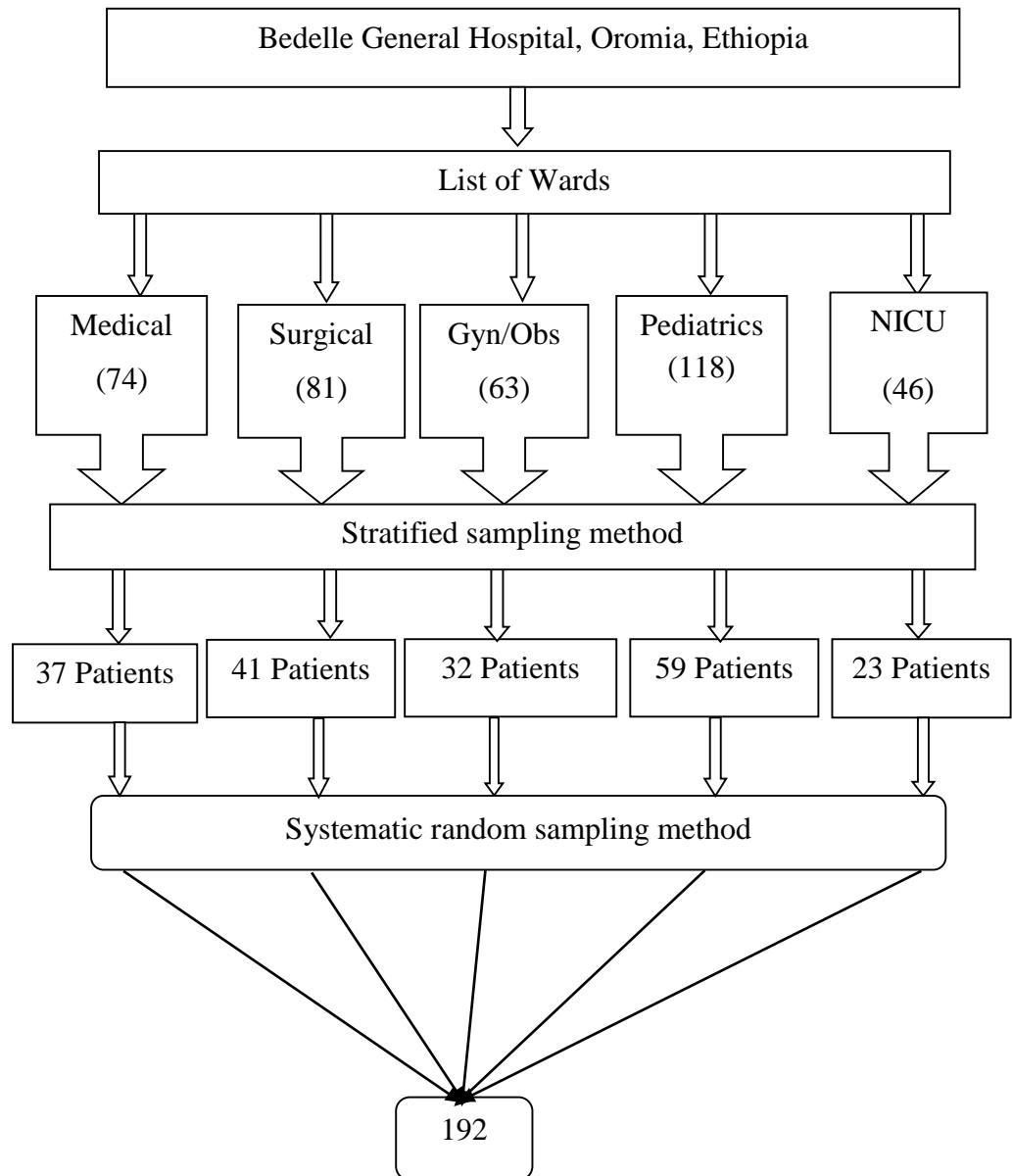


Figure 3: Schematic representation of sampling procedure

### 3.8 Data Collection Techniques and Instruments

#### i) Questionnaire

An interviewer-administered questionnaire was used to collect survey data from inpatients. The structured questionnaire was employed to assess both independent and dependent variables. The

researcher's prime objective in developing an interviewer-administered questionnaire was to eliminate as far as any possible bias that might have occurred from respondents' educational background. Standardized questionnaires were adopted to collect data. The key reason for adopting the questionnaires from previous literatures was due to the instruments are more common and have been commonly used by a various scholar in their studies and have regularly ensured their validity and reliability.

The questionnaire has three sections. The first part of the questionnaire was structured to collect the socio-demographic information of respondents. The second part consists of satisfaction instrument to measure satisfaction level of inpatients identified as satisfied and dissatisfied, developed after reviewing some literatures (Chunuan 2003; Curry and Stark 2000; Cohen, Forbes, and Garraway 1996; Greco et al. 2001; Hargraves et al. 2001; Harris et al. 1999). The final part composed of dimensions from providers' side, facility and quality of care to identify factors affecting inpatients satisfaction with health care services. In total 30 items were adopted from previous studies, particularly from (Aduo-Adjei 2015; Alotaibi 2015; Andaleeb, Siddiqui, and Khandakar 2007; Parasuraman, Zeithaml, and Berry 1988).

Seven distinctive factors were grouped into 30 questions in this segment (tangibles, reliability, responsiveness, assurance, empathy, communication and health care costs). These items are scored on a five-point Likert scales ranging from strongly disagree to strongly agree (1 to 5 numerical value) were utilized for all study items. In this case, 4 and 5 (highest scoring) were viewed as positive answers and 1 and 2 (lowest scoring) were viewed as negative answers, while, 3 (middle) were viewed as neutral responses (not sure).

Therefore, the participants response was dichotomized into poor (strongly disagree, disagree and neutral) and, good (strongly agree and agree) in order to make the analysis of data more feasible. Each independent variable was taken as explanatory variable. Then, inpatient satisfaction association with healthcare services with explanatory variables were independently tested using bivariate logistic tests. For the multivariate logistic regression tests, the independent variables with P-value of less than 0.25 were selected based on the output.

As a result, from the Likert scales questionnaire, twenty-two items that better characterize the association were selected and analyzed as a cumulative factor.

## **ii) In-depth Interview**

In-depth interview is one of the important tools of qualitative data collection methods, in this case the researcher involves in-depth interview to encourage the participants to tell as much as possible through probing questions to explore the experience of inpatients' have had in the hospital. To accomplish this, one to one interview was undertaken with purposively selected participants from each ward. This helped the study to deal freely with sensitive experiences of inpatients. The in-depth interview was carried out with five inpatients. In this regard, the sample size increased until saturation point reached when no new issues arise. A semi-structured interview with a list of questions focusing on health service delivery were used so as to probe for more detailed answers and to clarify what participants were said. The interviews were beginning from broader topics to quite specific issues in order to explore the conversation with participants in full detail. Criteria for inclusion was based on participants' experience with hospital services. The interview had taken 30-45 minutes per participator.

With the consent of participants audio-recordings and notes were also taken to the site where in-depth interview was carried out. The Afan Oromo (local language) audio and notes were translated into English language.

## **iii) Observation**

In this study, the researcher had carefully visited the physical features of the study area to capture its environment. Checklist of observation were drawn up and observation reports were properly documented during the study site visit. Observation was selected because it enabled the researcher to better define and complement with data collected from the survey and interviews.

## **IV) Key Informant Interview**

Key informants were selected for interviews as an appropriate tool for this study. For this purpose, five health care providers that were working in IPD at the time of data collection were recruited from each ward. The health professionals included doctor, nurse, lab technician, midwife and pharmacist. The sample size of participants was increased until saturation point reached when no new issues emerge. Semi-structured interviews which encompassed a list of questions focusing on health service provision were employed. In each interview, the interview did not deal with all of the participants in each interview or the interview never required to follow any particular order



but relied on the direction of their answers. The criteria for selection were based on the experience of the participants.

### **3.9 Method of Data Analysis**

Both descriptive and inferential statistics were used to analyze the data using SPSS (Statistical Package for Social Sciences) software version 20.0. Descriptive statistics were used to analyze the socio-demographic information of respondents and measures of dependent variables (satisfaction tools) with simple frequency distribution and percentages. Then the data were presented using numerical summary measures, tables and graphs.

On the other hand, multiple logistic regression analysis was employed to determine factors affecting inpatient satisfaction. In the bivariate regression analysis, an independent variable with a P-value  $\leq 0.25$  were selected to the final model to identify factors associated with inpatient satisfaction with health care services and statistical significance was declared at a 95% confidence level with a P-value  $\leq 0.05$ . Likewise, the qualitative data was analyzed thematically and triangulated alongside with quantitative data. Thematic Analysis is a type of qualitative analysis and used to analyze classifications and present themes (patterns) that relate to the data. It illustrates the data in great detail and deals with diverse subjects via interpretations (Clarke, Braun, and Hayfield 2015).

### **3.10 Data Quality Control**

#### **3.10.1 Validity**

The researcher used both quantitative and qualitative method so as to increase its validity and complement the survey instrument with qualitative data by optimizing the accuracy of collected data. Furthermore, the researcher reviewed previous questionnaires to increase and assure the internal validity of the instrument.

#### **3.10.2 Reliability**

The questionnaire was written in English and then translated to Afan Oromo, to ensure its consistency, and returned to English. Until data entry, the questionnaires were coded. Cronbatch's alpha test was used to measure the internal consistency of collected data using Nunnally's recommended standards (Cornbrash's  $\alpha \geq 0.7$ ) where its value ranges from 0.0 to 1.0 (Bollen 1984).

Accordingly, 19 items were included to the study so as to measure satisfaction level of inpatients (Cronbach's alpha value = 0.864). Similarly, 30 items (Cronbach's alpha = 0.758) were included to the study in order to determine factors affecting inpatients satisfaction with health care services. In order to ensure reliability of the survey instrument, the questionnaire was pre-tested at the study site on 10 inpatients selected purposively from each ward, prior to data collection.

### **3.11 Study Variables**

Dependent variable

- ❖ Inpatient satisfaction

Independent variables

- ❖ Socio-demographic characteristics (Age, Sex, Marital status, Educational status, Income, Occupation, Religion and Place of residence)
- ❖ Tangibles
- ❖ Reliability
- ❖ Responsiveness
- ❖ Assurance
- ❖ Empathy
- ❖ Communication
- ❖ Health care costs

### **3.12 Ethical Clearance**

Ethical endorsement was received from the department of Sociology, College of Social Sciences and Humanities of Jimma University. Before the data collection took place, a letter of consent for the research was received from Bedelle General Hospital.

The purpose of the study was briefly oriented to all participants and politely asked for their willingness to take part in the study. Clients were assured that; they have a right to deny participating in the study or withdraw at any time during data collection process and such actions would not influence their care and services they are getting. Confidentiality of the information and privacy was kept up and respected.

### **3.13 Operational Definitions**

The table below shows the relationship of variables between their indicators and the variables, the unit of measurement, and shows the degree at which the indicators are measured.

Table 1: **Operationalization of terms**

<b>Variable</b>	<b>Indicator</b>	<b>Level and unit of measurement</b>
<b>Age</b>	Period of the time one is alive	<b>Ordinal:</b> ----years old
<b>Sex</b>	Indicate male or female	<b>Nominal:</b> Male or female
<b>Marital status</b>	Getting or not marrying	<b>Nominal:</b> Never married, married, divorced and widowed.
<b>Educational status</b>	Achieved education level	<b>Ordinal:</b> Cannot read and write, Primary school, secondary school, certificate, diploma....
<b>Income</b>	The flow of money earned from the job	<b>Ordinal:</b> Higher, medium, lower
<b>Occupation</b>	A sort of work done	<b>Nominal:</b> Farmer, Merchant, Government employee and others.
<b>Place of residence</b>	A place where an individual live	<b>Nominal:</b> Urban, Semi-urban or rural inhabitants.
<b>Religion</b>	An individual's belief system	<b>Nominal:</b> Orthodox, Muslim, Protestant and others.
<b>Tangibles</b>	This refers to the tangible aspects of service such as the condition of physical facilities, equipment, the appearance of employees and communication materials (Bernardi et al. 2013).	<b>Ordinal:</b> Strongly disagree, disagree, agree and strongly agree using Likert Scales.
<b>Reliability</b>	The ability to provide the service correctly and dependably, such as keeping appointments consistently, completing duties on time, and keeping promises to patients (Al-Alak and Alnaser 2012).	<b>Ordinal:</b> Strongly disagree, disagree, agree and strongly agree using Likert Scales.

<b>Responsiveness</b>	The willingness to help customers. Service providers must be willing to respond to individual customer needs and make sure that customers remain involved(Kasper et al. 2008).	<b>Ordinal:</b> Strongly disagree, disagree, agree and strongly agree using Likert Scales.
<b>Assurance</b>	This encompasses competence, courtesy, credibility and security. It involves training employees to acquire knowledge of the service delivery process and customer relationship (Meng et al. 2009).	<b>Ordinal:</b> Strongly disagree, disagree, agree and strongly agree using Likert Scales.
<b>Empathy</b>	This includes communication, access and understanding. It focuses on the communication between the service provider and the recipient of the service (Kokou, Van Tonder, and Roberts-Lombard 2015).	<b>Ordinal:</b> Strongly disagree, disagree, agree and strongly agree using Likert Scales.
<b>Communication</b>	Exchanging of information between service provider and patient by speaking and writing	<b>Ordinal:</b> Strongly disagree, disagree, agree and strongly agree using Likert Scales.
<b>Health care costs</b>	Payments made directly to health care providers when receiving service	<b>Ordinal:</b> Strongly disagree, disagree, agree and strongly agree using Likert Scales.
<b>Inpatients</b>	Patients who had a hospital stay for at least 24-hour	<b>Nominal:</b> Patients who admitted to Medical, Surgical, Gyn/Obs, Pediatrics and NICU.
<b>Inpatients satisfaction</b>	Patients' expectation and perception of the services	<b>Ordinal:</b> Strongly disagree, disagree, agree and strongly agree using Likert Scales.

## CHAPTER FOUR: FINDINGS AND DISCUSSION

### 4.1 Findings

#### 4.1.1 Introduction

This section presents the socio-demographic characteristics of the respondents, overall satisfaction of the respondents and factors affecting inpatients satisfaction.

#### 4.1.2 Socio-demographic characteristics of the respondents

A total of 192 respondents were participated in this study, from the respondents 98 (51%) were males and the rests 94 (49%) were females. Concerning age distribution of respondents, the majority were found between 28 to 37 years followed by 18-27 and 38-47 which comprises 46.9%, 24.5% and 18.2% respectively. In relation to occupation, most respondents 69 (35.9%) were farmers and the remains were government employees 40 (20.8%), merchants 37 (19.3%), private employees 19 (9.9%), students 16 (8.3%) and others 11 (5.7%). With respect to education, 37% of participants attended primary school, 31.3% secondary school, 13.5% had certificate or diploma, 9.4% cannot read and write and 8.9% were holders of first degree or above qualifications. Majority of participants' monthly income 73 (38%) were found below 1000 ETB followed by  $\geq 4000$ , 1000-2999 and 3000-3999 which accounts 25.5%, 29.2% and 7.3% respectively. Out of study participants 34.9% were Orthodox, 33.9% were Muslim and 29.7% were Protestant religion followers. About four-fifths of the study participants of all categories were married with the remaining never married 17 (8.9%), divorced 14 (7.3%) and 3 (1.6%) widowed. Most of the participants 181(94.3%) were Oromo ethnic followed by Amhara 5 (2.6%), Gurage 2 (1%) and others 4 (2.1%). Majority of participants were rural dwellers which accounts about 52.6%. Majority of the respondents 60 (31.3%) came from a far distance of 0-9 Km followed by 10-19 Km, 30-39 Km, 40-49 Km,  $\geq 50$  Km and 20-29 Km which accounts 50 (26.0%), 40 (20.8%), 20 (10.4%), 19 (9.9%) and 3 (1.6%) respectively. Of the total respondents, 59 (30.7%) were admitted to pediatrics, 41(21.4%) were to surgical, 37 (19.3%) were to medical, 32 (16.7%) were to Gyn/Obs and 23 (12%) were to NICU ward (See Table 2).

**Table 2: Socio-demographic characteristics of the respondents**

Variables	Category	Frequency (Percentage)
Sex	Male	98 (51)
	Female	94 (49)
Age	18-27	47 (24.5)
	28-37	90 (46.9)
	38-47	35 (18.2)
	48-57	10 (5.2)
	≥58	10 (5.2)
Occupation	Farmers	69 (35.9)
	Merchant	37 (19.3)
	Private employee	19 (9.9)
	Government employee	40 (20.8)
	Students	16 (8.3)
	Others	11 (5.7)
Academic status	Cannot read and write	18 (9.4)
	Primary school	71 (37)
	Secondary school	60 (31.3)
	Certificate or diploma	26 (13.5)
	First degree or above	17 (8.9)
Monthly income	<1000	73 (38)
	1000-2999	56 (29.2)
	3000-3999	14 (7.3)
	≥4000	49 (25.5)
Religion	Orthodox	67 (34.9)
	Muslim	65 (33.9)
	Protestant	57 (29.7)
	Others	3 (1.6)
Marital status	Never married	17 (8.9)
	Married	158 (82.3)
	Divorced	14 (7.3)
	Widowed	3 (1.6)

Ethnicity	Oromo	181 (94.3)
	Amhara	5 (2.6)
	Gurage	2 (1)
	Others	4 (2.1)
Place of residence	Urban	91 (47.4)
	Rural	101 (52.6)
Distance from the hospital	0-9 Km	60 (31.3)
	10-19 Km	50 (26.0)
	20-29 Km	3 (1.6)
	30-39 Km	40 (20.8)
	40-49 Km	20 (10.4)
	≥50 Km	19 (9.9)
Ward	Medical	37 (19.3)
	Surgical	41 (21.4)
	Gyn/Obs	32 (16.7)
	Pediatrics	59 (30.7)
	NICU	23 (12)

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*Source:* Field survey, 2020

#### **4.1.3 Overall satisfaction of the respondents**

The overall satisfaction of respondents was determined by summing each participant's response on the satisfaction tools of dependent variable. The dependent variable was recoded into two categories: satisfied (response category = 2) and dissatisfied (response category = 1) after the mean of each respondent was calculated. Then, the final cutoff point was subsequently made to assess the percent cases for each dependent variable. Thus, more than half of participants 98 (51%) were satisfied with healthcare services they received from the hospital, whereas 94 (49%) were dissatisfied (See Figure 3).

##### **4.1.3.1 Information Exchange**

A language barrier to communicate with health service providers was reported as a challenge to health care services by a relatively smaller proportion of the participants (15.1%). Data obtained from key informant interview also shows that patients are sometimes facing significant language

barriers to communicate with health professionals. In this regard, one nurse adds his point as the follow:

Majority of the clients speak Afan Oromo language, whereas a few health professionals of the hospital cannot speak Afan Oromo. Therefore, language differences to some extent may affect the delivery of healthcare services. In such conditions, health professionals' try to look for the staff members who can speak both Afan Oromo and Amharic in order to treat clients as per their demand (Key informant Nurse, age 38).

Responses from in-depth interviewees also illustrated the same:

There is sometimes a language problem between doctors and patients. I used to go to Karl Mettu hospital, in the hospital I saw a language translator. It is my first time in this hospital and I didn't see any translator. In such situations, patients could not tell the sign of their illness to health professionals properly. Therefore, a language translator should be assigned permanently for patients (Female in-depth interviewee, age 35).

In addition, the results of the interview with caregivers show that there is slight distinction between rural and urban communities' in terms of successful communication held between patients and health workers. The health professional informant said,

Rural people do not fully believe in what health professionals are doing. Frankly speaking, it is not to discriminate rural people. I myself was born in rural area. However, what we are observing here is that they have a tendency to complain and urge you to give them the drug they know from their personal experience and when health practitioners have failed to consider their appeal, they would become dissatisfied. The same applies to guards; they often come into conflict with guards to enter the compound regardless of obeying the hospital's rules and regulations. By comparison, urban people are very respectful and carefully understand health workers. Therefore, health workers favor for urban dwellers most of the time (Key informant Nurse, age 38).

Data obtained from the observation also sort-out another constraint that could affect the exchange of information in the compound that the sign and direction indicators itself can



be inappropriately placed and the location of wards also not identified by numbers so that it is quite confusing to patients.

#### **4.1.3.2. Admission procedure**

The existence of admission complexities also reported as a negative influence on delivery of healthcare services according to one-sixth of the respondents (17.7%). The qualitative data reveal that failure of complete registration on time was emphasized as obstacle to healthcare service delivery. One inpatient stated the issue as follows:

The record room has complicated procedure, when they get register, they didn't send patients card to concerned rooms on time; they must register for another patient in order to send many cards altogether and this would take several minutes (Female in-depth interviewee, age 35).

#### **4.1.3.3 Waiting time**

About 55 (28.65%) of respondents were not satisfied with the delivery of healthcare services in the hospital due to long waiting time. The qualitative interviews show more information on factors contribute to inpatients dissatisfaction in relation to service providers. One medical doctor explained as follows:

Health workers are serving patients day and night according to their schedule, but there are several factors which hinder the staff not to satisfy our clients. For instance, poor working environment, less education opportunity, no transportation services for health staff and also no toilet for health professionals. Besides, caregivers are not earning enough. Combinations of these factors have profound effect on service providers. The management of the hospital is also poor and does not handle human resource efficiently. So, as staff we are not happy with our job. Anyhow we are discharging our responsibility amidst these challenges (Key informant Doctor, age 28).

#### **4.1.3.4 Laboratory investigations**

Lack of medical resources at the laboratory room was cited as constraint by about one-fifth of the inpatient participants (20.31%). The statement is almost similar with data gathered from key informants, which reveals the hospital has lack of laboratory equipment and amenities. The key informant lab technician succinctly laid the issue as follows:

As a laboratory room there is no problem regarding the delivery of healthcare services. Really, we are serving our clients through a team spirit and commitment. But a big problem is that shortage of properly designed laboratory room and shortage of standardized laboratory equipment. So, most of the time a laboratory tests are being performed in private clinics, which may expose patients to unwanted excess cost and even time killing (Key informant lab technician, age 30).

#### **4.1.3.5 Nursing services**

With regard to nursing care, about 28.12% of participants complained the impolite behavior of nurses as a challenge to the delivery of health care services. One in-depth interview participant supported the above point, saying:

Most of nurses follow us carefully and provide us medication on time. Some of them can however, be very impatient and intolerant with villagers. They disrespect patients and are less interested in customer service. There is a woman nurse who has given us medical treatment in this room. She always verbally insults patients. At the time she enters the room I would try to escape from her by covering my face, because I suspect her that she might have broken a needle inside my body. But the rests are polite and kind to patients (Male in-depth interviewee, age 28).

#### **4.1.3.6 Physician services**

Significant majority of respondents (96.88%) were satisfied with the services given by physicians. In support of this, an in-depth interview participant expressed it as the following:

I am very surprised with the way doctors treat patients. They attentively follow inpatients on beds. When I compare their approach with other healthcare workers, they are kind-hearted and sensitive. They even sometimes pay for individuals out of their own pocket for those who cannot pay for the healthcare services. They listen to us and respond cheerfully and try as best they can to solve our problems immediately. And they are incredibly polite (Male in-depth interviewee, age 42).

#### **4.1.3.7 Access to water**

Lack of sufficient and continuous water supply was the most reported barrier by four-fifth of the respondents (81.25%). The qualitative data also reveal that shortage of amenities such as safe water

and washing facility could be part of the reason for inpatient dissatisfaction. The in-depth interview participant explained the challenge of the hospital as follows:

There is an inadequate amount of water in the compound to keep our personal hygiene. Water comes at midnight once. Our relatives go a long way to get water from a river in order to wash our bodies and clothes. In addition, since there is no washing room, we wash our clothes on a pan, after buying from a shop. It is necessary for women who give a birth and children under treatment to protect personal hygiene (taking a shower), they are exceptional (Female in-depth interviewee, age 35).

From the observation made at Bedelle General Hospital inpatients were less accessible to water and washing facilities. Due to shortage of water, families of inpatients travel a long distance on foot to fetch water and wash their clothes on their own flat plates because the toilet is in poor condition, patients were not freely use the toilet.

#### **4.1.3.8 Cleanliness of toilet**

Of the respondents only 26.04% of the inpatients were satisfied with cleanliness of toilet. The remaining vast majority (73.96%) cited that poor sanitation of the hospital negatively affects their satisfaction. In this regard, in-depth interviewee suggested:

The toilet is dirty and inconvenient to use. I don't feel comfortable using it. It is not washed every day because there is a shortage of water supply. And for males and females, it is also not distinct. For these reasons, some patients would defecate in the open area (Female in-depth interviewee, age 35).

#### **4.1.3.9 Ward room light and ventilation**

Concerning ward room and ventilation, the electric power failure was complained as a significant hindrance to delivery of healthcare services by about 22.92% of the respondents. The qualitative data result shows that the failure of electric power which frequently happens in the hospital would affect healthcare services delivery to some extent. One of interviewee from the inpatients explained the issue as follows:

The light is often gone out and generator is used instead during power failure, which may put the provision of health service delivery at risk. Similarly, there is no ventilator to monitor the temperature of the rooms. In addition, the rooms do not have charging outlets for mobile phones (Male in-depth interviewee, age 28).

#### **4.1.3.10 Cleanliness of room and bed**

Unhygienic condition and unavailability of blankets and sheets on beds were reported as significant problem to delivery of healthcare services in the hospital by about 54.69% of the survey participants. The qualitative data also depicts that inpatients are facing challenges due to unhygienic environment and unavailability of blanket and sheets. From in-depth interview one patient from rural area explains the issue as follows:

The hospital beds are uncomfortable; there are no night-clothes available. Urban dwellers carried their own blanket and sheets from their homes, but we can't bring those clothes because we came from the rural far. On the other hand, there is still a major concern with the hygienic quality of beds. For example, whenever a woman giving birth to a child on a bed with bleeding, another woman also sleeps on that bed next day to give birth to a child without removing the blood from the bed, which may increase the spread of the infection. So, how do women sleep like that on a dirty bed? Cleaners of the ward do not clean a room properly and they lack discipline. They insult patients harshly because of hospital's weak leadership (Female in-depth interviewee, age 35).

Data obtained through observation also verify the above facts. The hospital beds have no clothing, so clients have been always worried what to wear. And also, there are no ventilators in the wards, which are used to regulate temperature. In each ward, I also observed a bad odor, as a large number of inpatients perceived medical care in small room, resulting in suffocation among inpatients. Similarly, patients were throwing away both solid and liquids waste generated anywhere else in the compound, because there is no careful follow-up on removal of waste materials.

#### **4.1.3.11 Availability of drugs**

A larger proportion of the respondents (79.2%) were dissatisfied with limited availability of drug in the hospital. The qualitative result also reveals that the unavailability of drugs was found to be a major problem in the hospital. The in-depth interview with inpatient man depicted the issue as follows: -

This hospital is a public hospital. I came here to get a better medical care at low prices, but since the prescribed medicines are not available within the hospital pharmacy, I am exposed to extra costs. I have been a health insurance member for 1 year. I have the

right, according to our agreement, to obtain free care from health Centre to Tikur Ambessa Specialized hospital. However, I was unable to get the prescribed drugs from the hospital pharmacy. So, I have to look for it. In this case, I am going to lose my money in two ways. For one thing, as I should move by Bajaj from one location to another, I have to pay the price of transportation. For another thing, the price of the drug is relatively high from private pharmacy. In every private pharmacy in the area, I tried to find the drug, but I could not find. He insulted me when I told to the doctor that I could not get the drug from a private pharmacy. So, these days we no longer get better services from public hospital other than wasting all our money here and there (Male in-depth interviewee, age 45).

Information obtained from key informant interview confirmed that the hospital does not have any standardized medical supplies such as drugs and oxygen. The hospital issued prescriptions, but they were not always able to afford the prescribed drugs. This may be due to higher cost of medical supplies. In fact; there is no problem with quality of care, but shortages of medical supplies. Since essential materials were not fulfilled, caregivers could not offer standardized comprehensive services. One medical doctor stressed:

In our hospital since we have no adequate laboratory instrument and drugs, we are unable to offer a full medication. Although a lot of patients are a member of health insurance, there is insufficient medical supply in the hospital. The current Ethiopian health policy that failed to cope with the decline in quality healthcare service in health facilities was also an important fundamental factor for the case. Nowadays, the government has not deeply involved in improving the quality of healthcare services in the country (Key informant Doctor, age 28).

In addition, one health professional added similar point which supports the above issues as follows:

There are very limited medicines available in our hospital. Lack of sufficient drugs in our hospital is a major problem. The drugs available could not satisfy patients' needs. So, we usually send patients to private pharmacy to get medicine which may expose them to additional costs. For this reason, a few physicians who own clinics or pharmacies have taken the greatest advantage of directly sending patients to their clinics or pharmacies. The drug shortage is not limited to Bedelle general hospital;

however, it is the major problem of the whole health facility across the country (Key informant Pharmacist, age 25).

#### **4.1.3.12 Completeness of the information given**

A large number of respondents (94.8%) were satisfied with the completeness of information given from the hospital. The in-depth interview with inpatients also reveals that patients obtained information they seek about their illness. One inpatient shared his experience as following:

Patients told more about their laboratory diagnosis, treatment prescribed and follow-up. In my case, I have much better informed about my illness. Doctors told me the sign and causes of my illness and what I should do as well (Male in-depth interviewee, age 42).

#### **4.1.3.13 The way confidentiality is kept**

From the total respondents 175 (91.15%) were satisfied with the way confidentiality is kept. In addition to the above result the finding from an in-depth interview with inpatients highlights the following response directly relates to this figure:

As far as I know patient confidentiality is protected exclusively by health professionals. Patients freely explain their concern to health practitioners, and since they are responsible for it, health professionals often should not expose them to others (Male in-depth interviewee, age 28).

#### **4.1.3.14 Perceived accommodation of the room**

Of participants, 75% were satisfied with accommodation services provided for inpatients. From the qualitative results a participant suggested that the accommodation services were more or less adequate in terms of quantity. The in-depth interview with one man yields the same result regarding provision of food:

Accommodation services are decent in terms of quantity, and their prices are also moderate. The hospital provides several different diets of three meals a day served in bed. But in terms of quality, sometimes it is good and other times it would be bad so that a few hospitalized patients would prefer to order meals from outside the hospital. With cooking a large amount of food in one dish, it is not surprising that the quality of the food

has declined. So, for such reason it may not be delicious food like the one prepared at home (Male in-depth interviewee, age 36).

#### **4.1.3.15 Visiting hours**

One hundred seventy-two (89.59%) of participants were satisfied with the time to visit patients. The qualitative data obtained from key informant interview also points out similar idea. Key informant reported:

I would say there is no problem with health workers activities; they are devoted to perform their tasks. They are actually punctual except for medical specialists. Medical specialists do not act like most health professionals permanently; they are also called by telephone from outside. Of course, this would create a gap in the delivery of perceived services (Key informant Head nurse, age 25).

#### **4.1.3.16 Respect for patients' privacy**

A narrowness of rooms at the ward was mentioned as constraint to maintain patients' privacy by about one-thirds of the participants (39.58%). In addition to the above quantitative result observation result depicts almost similar points. For instance, the inpatient wards are not large enough and unhygienic, so that its environment is stressful and overcrowded. The sizes of the rooms are also too narrow and no adequate chairs and tables. Huge numbers of patients were taking medical treatment in a single room. Although there are separate rooms for males and females' inpatients, the rooms are inadequate and could not comprehensively meet the needs and expectations of inpatients.

#### **4.1.3.17 Treatment costs**

Majority (92.23%) of the survey respondents reported that they were satisfied with the costs of health care treatment. The qualitative data also shows that participants were satisfied with healthcare costs. One inpatient stated,

The price of healthcare service is moderate. For bed and accommodation services each of us paid 720 birrs earlier, which is relatively good. Similarly, the prices of medicines and laboratory investigations are also not that much high. Patients who are a member of health insurance have been taking medical care free of charges (Male in-depth interviewee, age 36).

#### **4.1.3.18 Time to get back home (hospital stay)**

Health workers attitude was also claimed as a challenge to delivery of healthcare services cited by relatively smaller proportion of the respondents (17.7%). The qualitative data shows that inpatients were complaining with staff performance based on the way they behave and treat people at the hospital. Accordingly, clients rose that the health workers were not welcoming and sometimes ignore the rural people on the gate of the hospital. One in-depth interview informant explained the case as follows:

The guards do not permit anybody to get into the compound. For a single patient one relative is allowed. Our relatives did not get permission from the guards when they had brought to us food and drinks so that they get back to their house without giving us the food. The guards often favor of urban tenants by looking at their wearing style. They annoyed us every time we asked for permission to enter the compound (Male in-depth interviewee, age 28).

Another inpatient described his experience in the quote below:

I was happy with the way doctors' treat me and a follow up nurses made for me during my hospital stay. However, my grievance is that, health professionals would not inform patients for how many days they have to stay in the ward and they often fail to make an appointment with patients. They simply forced patients to leave the operational unit without providing them a feedback and ensuring that they were return to their usual state of health. For example, I am simply urged to leave the ward, but I have not yet recovered from my illness, and they have never made any appointment with me either. So, I do not know what I'm going to do (Male in-depth interviewee, age 45).

#### **4.1.3.19. Health education during discharge**

Failure of teaching to patients during their discharge was also another challenge mentioned as key attributes of inpatient dissatisfaction by close to half of the participants (49.5%). The qualitative data also reveals that inpatients were not getting enough education during their discharge regarding their illness. An in-depth interview with an inpatient mentioned the following idea:

Health professionals do not teach patients at the time of their discharge. They only give orders to patients to leave the ward, regardless of awareness rising. If they were



educating us about the disease prevention, it would be better because we are now vulnerable to illness due to lack of knowledge (Male in-depth interviewee, age 36).

#### **4.1.3.20 other problems**

Furthermore, in the qualitative data some inpatients reported that there is another shortcoming inside the compound related to inpatient dissatisfaction. One inpatient elaborates this issue as the following:

.... there is a deep hole at the back of the ward where garbage is collected. At the time waste materials are burning it makes awful scent which disturbs inpatient. On the other hand, many dogs move here and there in the compound in search of the leftover of patients' food. The movements of these dogs make the hospital to be insecure because they might cause patients to have other diseases. Similarly, the fence of the hospital is also not strong enough; so, the security of the hospital is very frustrating for patients. Generally, the compound has not focused at all (Male in-depth interviewee, age 28).

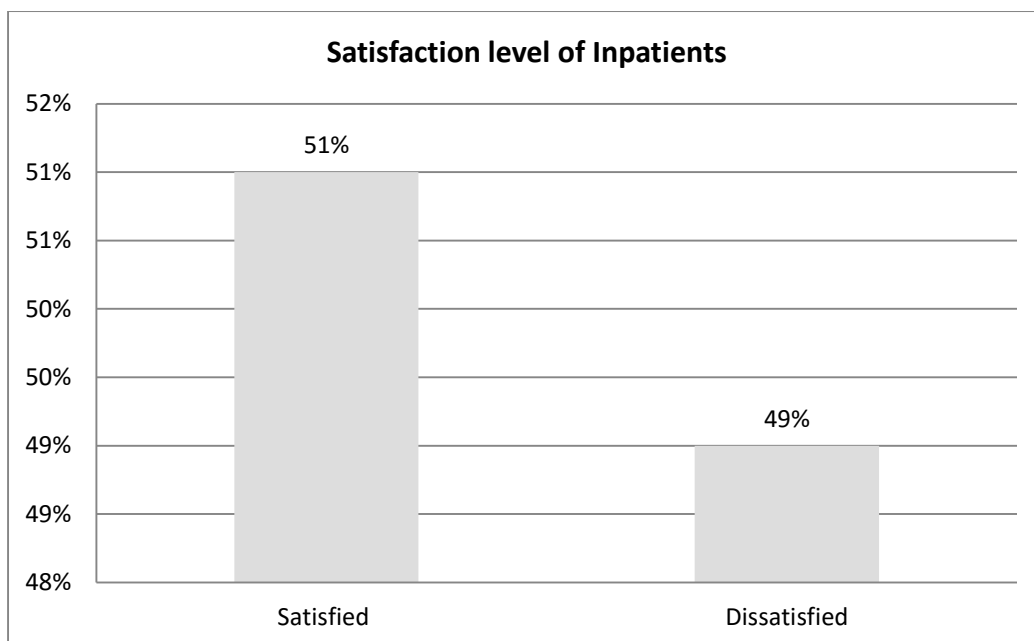
Interview conducted with key informants has also yielded other challenges to inpatients which related with physical infrastructure of the hospital. The key informant interview with midwife describes her opinion in the following statements:

The compound of the hospital is less well-developed with infrastructural facilities and physically unattractive. For example, starting from the gate the road is concrete road that has been totally gets broken which is not suitable for patients, especially for disabilities. As you have seen, the green cultivate is also not well-preserved. There is no waiting area provided separately for inpatients families. Due to absence of waiting area, relatives of patients urged to remain in the ward unit for hours with inpatient. Such overcrowding had helped promote other health problems (Key informant Midwife, age 28).

**Table 3: Satisfaction level of inpatients with different components of healthcare services**

Items	Level of satisfaction n (%)	
	Satisfied	Dissatisfied
Information exchange	163 (84.89)	29 (15.1)
Admission procedure	158 (82.29)	34 (17.7)
Waiting time	137(71.35)	55 (28.65)
Laboratory investigations	153 (79.69)	39 (20.31)
Nursing services	138 (71.88)	54 (28.12)
Physician services	186 (96.88)	6 (3.13)
Access to water	36 (18.75)	156 (81.25)
Cleanliness of toilet	50 (26.04)	142 (73.96)
Ward room light and ventilation	148 (77.08)	44 (22.92)
Cleanliness of room and bed	87 (45.31)	105 (54.69)
Availability of drugs	40 (20.8)	152 (79.2)
Completeness of the information given	182 (94.8)	10 (5.2)
The way confidentiality is kept	175 (91.15)	17 (8.85)
Perceived accommodation of the room	144 (75)	48 (25)
Visiting hours	172 (89.59)	20 (10.41)
Respect for patients' privacy	116 (60.42)	76 (39.58)
Treatment costs	179 (92.23)	13 (6.77)
Time to get back home (hospital stay)	158 (82.29)	34 (17.7)
Health education during discharge	97 (50.5)	95 (49.5)
Overall satisfaction	98 (51)	94 (49)

Source: Survey, 2020



Source: Survey, 2020

Figure 4: Level of inpatients satisfaction in Bedelle general hospital, Oromia, Ethiopia, 2020

#### 4.1.3 Factors affecting inpatients' satisfaction

With binary logistic regression analysis, first bivariate analysis for each independent variable was calculated at 95% confidence level to identify important predictors that influence in-patient satisfaction. An item, with a p-value < 0.25 was selected to multivariate logistic regression analysis. Then, using selected variables, statistically significant association was found with twenty-two variables at 95% confidence level with a p-value  $\leq 0.05$ . Accordingly, occupation, monthly income, place of residence, distance from the hospital, up-to-date equipment, physical facilities, materials, employees good-looking, dependability of the hospital, providing service on time, patients feeling safe during in transactions, employees' politeness, employees' knowledge to answer patients' questions, personal attention employees would give to patients, understanding the specific needs of patients, doctors' willingness to answer any questions relating to illness, information that always provided to patients on their health conditions, information addressed to patients on medical treatments, lab test fee, drug cost, transport fee and accommodation cost (See Table 4).

As indicated in table 4, Occupation has statistically significant relationship with inpatients satisfaction. As the multivariate logistics regression analysis shows government employees were nighty times less likely to be satisfied with healthcare services than farmers, AOR 0.10 (95% CI; 0.014-0.727).

Income has statistically significant predictor with inpatients satisfaction. Adjusted odd ratio reveals in-patients who earned  $\geq 1000$  were 1.5 times more likely to be satisfied with health care services than who earned less than 1000 ETB, AOR 1.5 (95% CI; 0.432-5.075).

Multivariate analysis shows statistically significant relationship between place of residence and inpatients satisfaction. Respondents who come from rural areas were 13 times more likely to be satisfied with healthcare services as compared to participants who come from urban areas, AOR 13.04 (95% CI; 3.005-56.539).

Adjusted odd ratio depicts that statistically significant prediction found between distance from the facility and inpatients satisfaction. Accordingly, inpatients who come from  $\geq 10$  Km were 2.2 times more likely to be satisfied with healthcare services when compared to those who come from less than 10 Km, AOR 2.15 (95% CI; 0.452-10.255). However, no association was found between inpatients' satisfaction and sex, age, academic status, religion, marital status, ethnicity and type of ward.

In multiple logistic regression analysis, inpatients who are satisfied with up-to-date equipment were close to 3 times more likely to be satisfied when compared to those who are dissatisfied with up-to-date equipment, AOR 2.92 (95% CI; 0.732-11.609). Similarly, the study found that inpatients who are satisfied with physical facilities were 5.4 times more likely to be satisfied compared to those who are dissatisfied with physical facilities, AOR 5.37 (95% CI; 1.249-23.063).

Adjusted odd ratio reveals that, in-patients who are satisfied with employees good-looking were 2.2 times more likely to be satisfied as compared to those who are unsatisfied with employees good-looking, AOR 2.2 (95% CI; 0.460-10.568). And also, inpatients who are satisfied towards materials were 2.3 times more likely to be satisfied when compared to those who are dissatisfied with materials, AOR 2.3 (95% CI; 0.710-7.448). In this study, it was identified that inpatients who are dissatisfied towards dependability of the hospital were forty-six times less likely to be dissatisfied when compared to those who are satisfied with dependability of the hospital, AOR 0.54 (95% CI; 0.127-2.265).

Multivariate analysis also shows in-patients who are satisfied with providing service on time were close to 4 times more likely to be satisfied compared to those who are dissatisfied with providing service on time, AOR 3.65 (95% CI; 0.723-18.434).

Adjusted odd ratio reveals inpatients who are satisfied with patients feeling safe in transactions were seven times less likely to be dissatisfied compared to those who are satisfied with patients

feeling safe in transactions, AOR 0.93 (95% CI; 0.246-3.501). Inpatients who are satisfied with employees' politeness were 3 times more likely to be satisfied compared to those who are unsatisfied with employees' politeness, AOR 3.02 (95% CI; 0.690-13.206).

Adjusted odd ratio shows in-patients who are dissatisfied towards employees' knowledge to answer patients' questions were seven times less likely to be dissatisfied when compared to those who are satisfied with employees' knowledge to answer patients' questions, AOR 0.93 (95% CI; 0.255-3.424). Similarly, inpatients who are dissatisfied with a personal attention employee would give to patients were eighteen times less likely to be unsatisfied when compared to those who are satisfied with personal attention employees would give to patients, AOR 0.82 (95% CI; 0.224-2.994).

In addition, inpatients who are dissatisfied towards understanding the specific needs of patients were seventy-five times less likely to be dissatisfied as compared to those who are satisfied with understanding the specific needs of patients, AOR 0.25 (95% CI; 0.058-1.087). Multivariate logistic regression shows in-patients who are satisfied with doctors' willingness to answer any questions relating to illness were 1.1 times more likely to be satisfied when compared to those who are unsatisfied with doctors' willingness to answer any questions relating to illness, AOR 1.1 (95% CI; 0.229-4.641).

Inpatients who are satisfied with information that always provided to patients on their health conditions were 1.5 times more likely to be satisfied when compared to those who are unsatisfied with information that always provided to patients on their health conditions, AOR 1.5 (95% CI; 0.276-7.626). Adjusted odd ratio also shows in-patients who are dissatisfied with information addressed to patients on medical treatments were seventy-seven times less likely to be unsatisfied when compared to those who are satisfied with information addressed to patients on medical treatments, AOR 0.23 (95% CI; 0.034-1.528).

Inpatients those who are satisfied with lab test fee were 1.1 times more likely to be satisfied when compared to those who are unsatisfied with lab test fee, AOR 1.1 (95% CI; 0.278-4.112). Adjusted odd ratio shows in-patients who are satisfied with drug cost were 1.5 times more likely to be satisfied as compared to those who are unsatisfied with drug cost, AOR 1.5 (95% CI; 0.388-5.434).

Logistic regression reveals inpatients who are satisfied with transport fee were nearly 2 times more likely to be satisfied compared to those who are dissatisfied with transport fee, AOR 1.67 (95% CI; 0.477-5.857).

Moreover, the result of multivariate logistic regression analysis shows in-patients who are satisfied with accommodation cost were nearly 3 times more likely to be satisfied when compared to those who are unsatisfied with accommodation cost, AOR 2.81 (95% CI; 0.773-10.203).

**Table 4:** Logistic regression analysis of factors affecting inpatients' satisfaction

Variable	Categories	In-patient satisfaction		COR 95% CI	AOR 95% CI
		Satisfied	Dissatisfied		
Occupation	Farmer	53	16	1	1
	Merchant	16	21	0.23 (0.098-0.542) **	0.56 (0.123-2.507)
	Private employee	8	11	0.22 (0.075-0.639) **	0.84 (0.079-8.934)
	Gov.t employee	10	30	0.1 (0.041-.250) ***	0.10 (0.014-0.727)
	Student	5	11	0.14 (0.042-0.454) **	0.38(0.045-3.190)
	Others	6	5	0.36 (0.098-1.345)	0.73(0.066-8.015)
Monthly income	<1000	42	31	1	1
	≥ 1000	56	63	0.66 (0.365-1.180)	1.5 (0.432-5.075)
Place of residence	Urban	16	75	1	1
	Rural	82	19	20.23 (9.7-42.193) ***	13.04 (3.005-56.539) **
Distance	<10 Km	9	54	1	1
	≥10 Km	89	40	13.35 (6.009-29.658) ***	2.15 (0.452-10.255)
Up-to-date equipment	Poor	34	71		
	Good	64	23	5.81 (3.102- 10.886) ***	2.92 (0.732-11.609)
Physical facilities	Poor	29	75		
	Good	69	19	9.39 (4.833-18.253) ***	5.37 (1.249-23.063) *
Materials	Poor	19	53	5.38 (2.818- 10.252) ***	2.3 (0.710-7.448)
	Good	79	41		
Employees good- looking	Poor	9	20	2.67 (1.148-6.222) *	2.2 (0.460-10.568)
	Good	89	74		
Dependability of the hospital	Poor	40	57	2.23 (1.254- 3.980) **	0.54 (0.127-2.265)
	Good	58	37		
Providing services on time	Poor	39	50	1.72 (0.970- 3.047)	3.65 (0.723-18.434)
	Good	59	44		
Patients will feel safe in transactions	Poor	35	44	1.58 (0.888- 2.825)	0.93 (0.246-3.501)
	Good	63	50		

Employees' will consistently polite with patients	Poor	35	54	2.43 (1.359- 4.346) **	3.02 (0.690-13.206)
	Good	63	40		
Employees will have the knowledge to answer patients' questions	Poor	38	54	2.13 (1.198- 3.794) *	0.93 (0.255-3.424)
	Good	60	40		
Employees give patients personal attention	Poor	42	51	1.58 (0.894- 2.796)	0.82 (0.224-2.994)
	Good	56	43		
Understanding the specific needs of patients	Poor	41	52	1.72 (0.972- 3.048)	0.25 (0.058-1.087)
	Good	57	42		
Doctors will always be willing to answer any questions relating to illness.	Poor	22	32	0.56 (0.296- 1.062)	1.03 (0.229-4.641)
	Good	76	62		
Information will always be providing to patients on their health conditions.	Poor	22	33	0.54 (0.283- 1.011)	1.5 (0.276-7.626)
	Good	76	61		
Information will always be addressing to patients on medical treatments.	Poor	23	37	0.47 (0.253- 0.882) *	0.23 (0.034-1.528)
	Good	75	57		
Lab test fee	Poor	33	47	1.97 (1.100- 3.526) *	1.07 (0.278-4.112)
	Good	65	47		
Drug cost	Poor	38	70	4.61 (2.486- 8.531) ***	1.5 (0.388-5.434)
	Good	60	24		
Transport fee	Poor	29	56	3.51 (1.928- 6.377) ***	1.67 (0.477-5.857)
	Good	69	38		
Accommodation cost	Poor	31	69	5.97 (3.193- 11.144) ***	2.81 (0.773-10.203)
	Good	67	25		

\*P < 0.05, \*\* P <0.01 \*\*\*p < 0.001



## 4.2 Discussion

This study has shown that the overall satisfaction of inpatients was 51%, which is lower as contrasting with studies done at hospitals in Ethiopia (Ambelie, Demssie, and Gebregziabher 2014; Amdemichael, Tafa, and Fekadu 2014; Bekele 2016; Bogale, Kassa, and Ali 2015; Marama et al. 2018; Woldeyohanes et al. 2015). This huge difference might be due to characteristics of the study population, type of health facility and methodological approaches. For example, a research conducted in Mekelle Public Hospitals did not comprehensively study inpatient wards, but focused predominantly on Obstetrics and Gynecological wards, where the government has given due emphasis to the delivery of women after Millennium Development Goals were introduced. Likewise, when we see a study done at Shenen Gibe hospital, the population of the study was restricted to medical laboratory services. When we compare BGH with Jimma specialized hospital in terms of the type of health facility, JUSH is a tertiary hospital where standardized equipment fulfilled with a number of qualified man power and delivery of broad services.

Moreover, the possible reason for the low satisfaction rate might be due to excess flow of inpatients to the hospital, since BGH is the only general hospital in Bunno Bedelle Zone.

On the contrary, the result of this study is higher than earlier studies conducted in Gamo Gofa Zone, SNNPR, Yekatit 12 hospital medical college, Addis Ababa and Mizan-Aman general hospital, Bonga and Tepi hospitals, SNNPR (Mensa et al. 2017; Sahile, Getahun, and Bogale 2019; Shewasinad and Sayih 2018). Socio-cultural and economic status of patients might have contributed to this disparity.

A study on patient satisfaction with healthcare services in Nigeria noted that the level of patient's satisfaction was 96.1% (Adekanye et al. 2013). This variation also might arise from type of health facility, number of qualified personnel, population size and target population.

Among socio-demographic factors included to this study, only a few were found to have significant association with inpatients satisfaction with healthcare services: include occupation, monthly income, place of residence and distance from health facility. Accordingly, occupation has statistically significant relationship with inpatients satisfaction. Government employees were eighty times less likely to be satisfied with healthcare services than farmers. The finding is consistent with previous studies conducted in JUSH and, Shashamene and Hawassa University Referral hospitals (Assefa and Mosse 2011; Tariku 2011). It could be due to government employees are more conscious of customer rights so that they are less satisfied with healthcare services because they more demanding.

With regard to income level, respondents who earned  $\geq 1000$  ETB were 1.5 times more likely to be satisfied with health care services than who earned less than 1000 birr. Similarly, patients who have monthly income of 1201-2500 ETB were more likely to be satisfied than patients who have monthly income of less than 600 ETB (Teklemariam et al. 2013). Another study also reported that patient with high income were more satisfied than with low-income patient (Lee et al. 2009). This may be because higher income individuals are better able to afford health care costs in order to receive higher health coverage than lower-income patients.

This finding is opposite with study done in Mizan-Aman general hospital, Bonga and Tepi hospitals, which showed that respondents whose income was  $\geq 750$  ETB were less likely to be satisfied with nursing care than those whose income was  $<750$  ETB (AOR = 0.126, 95% CI; 0.022- 0.730) (Shewasinad and Sayih 2018). A study carried out in Khartoum, Sudan, found that the low-income level patients were more satisfied than the high income level patients (Hassan et al. 2018).

Respondents coming from rural areas were 13 times more likely to be satisfied with healthcare services as compared to participants coming from urban areas. The possible reason might be that rural patients are less educated; this may lower their expectations toward healthcare services so that they satisfied easily. This result is in agreement with different studies conducted in JUSH, Mekelle public hospitals and Mizan-Aman general hospital, Bonga and Tepi hospitals (Assefa and Mosse 2011; Marama et al. 2018; Shewasinad and Sayih 2018) which revealed that, respondents who come from rural areas were more likely to be satisfied than those who come from urban areas.

Inpatients those who come from  $\geq 10$  Km were 2.2 times more likely to be satisfied with healthcare services when compared to those who come from less than 10 Km, AOR 2.15 (95% CI; 0.452- 10.255). This is for the fact that patients who come by travelling long distances are from rural areas where health facilities are not well expanded, whereas urban residents have access to numerous private health centers which could influence on their expectation to the services they get. In contrast, a study carried out in Addis Ababa health centers revealed that patients who come from a distance of  $>5$  Km were 3.21 times more likely to be dissatisfied than patients who come from a distance of  $< 5$  Km (Zienawi et al. 2019).

Conversely, no association was found between inpatients' satisfaction and sex, age, academic status, religion, marital status, ethnicity and type of ward. This finding is similar with study conducted in Addis Ababa, Jimma and Eastern Ethiopia which dictated that socio-demographic characteristics, such as age group, sex and marital status of respondents did not have any

significant association with overall satisfaction of patients (Assefa and Mosse 2011, Mindaye and Taye 2012, Teklemariam et al. 2013, Tesfaye 2014).

Out of study participants only 26.04% were satisfied with cleanliness of toilet. The result is lower compared to study conducted in JUSH and rural primary healthcare facilities in Ilubabor Zone, Southwest Ethiopia which reported that satisfaction rate of cleanliness of latrine were 66.6% and 65.6% respectively (Assefa and Mosse 2011, Tume, Salgado, and Jaleta 2015).

About 20.8% of inpatients were satisfied with availability of drug in the hospital which is the lowest rate compared to study carried out in Wolaita Sodo University Teaching Hospital showed that nearly two third (64.3%) of the respondents did get all prescribed drugs from the hospital pharmacy (Sagaro, Yalew, and Koyira 2015). Similarly, study done in JUSH revealed that 54.7% of patients were satisfied with drug availability and supply in inpatient pharmacy (Woldeyohanes et al. 2015). The result of the study is also much lower than study conducted in Hospitals of Amhara region in which about 66% of the clients obtained the prescribed drugs (Mitike, Mekonnen, and Osman 2002). Study conducted in Tigray Zonal Hospitals which reported that about 61% of patients with prescription paper for drugs did not get the ordered drugs from the hospital pharmacies (Adane 2006). Study done in rural primary healthcare facilities, in Ilubabor Zone showed nearly 40% of patients were not satisfied with limited availability of drugs in the facility (Tume, Salgado, and Jaleta 2015). The difference could be due to type of health facility and degree of commitment to leadership.

Study by Geberu et al. (2019) depicted that patients who did not get some ordered drugs in the hospital had decreased their satisfaction by 86% compared with patients who got all ordered drugs. Likewise, a cross sectional study carried out in Shashogo District, Southern Ethiopia reported that clients who had no drugs and supplies from pharmacy were 3.24 times more likely to be dissatisfied compared to patients who had drugs and supplies from pharmacy (Hagisso et al. 2019).

In addition, study conducted in Nepal, revealed that 79% of the respondents did get all prescribed drugs from the hospital pharmacy (Rajbanshi et al. 2014). This variation could be due to hospital level, study population characteristics and style of leadership.

About 54.69% patients were dissatisfied with cleanliness of room and bed which is lower than study conducted in JUSH which showed 76.6% of satisfaction with cleanliness of room and bed (Woldeyohanes et al. 2015). Study by Muhondwa et al. (2008) in Daresalaam hospital, Tanzania

revealed that 88.5 % of respondents were satisfied with cleanliness of room and bed. This great difference may be due to human resources, weak leadership and low motivation for workers.

About 60.42% of patients are satisfied with the way privacy is kept. The result is relatively similar with study conducted in rural primary healthcare facilities, in Ilubabor Zone, which revealed that 62.6% were satisfied with the way privacy was kept (Tume, Salgado, and Jaleta 2015). On the other hands, the result is lower than study done in Wolaita Sodo Teaching Hospital which reported that 20% of the respondents claimed that their privacy was not respected during consultation (Sagaro, Yalew, and Koyira 2015). However, the result is higher than that of Indonesia which shows 18% of satisfaction rate (Nazirah 2008).

Based on the finding, inpatients those who are satisfied towards up-to-date equipment were close to 3 times more likely to be satisfied when compared to those who are dissatisfied with this service, AOR 2.92 (95% CI; 0.732-11.609). Similarly, it was found that inpatients who are satisfied with physical facilities were 5.4 times more likely to be satisfied than those who are unsatisfied with physical facilities, AOR 5.37 (95% CI; 1.249-23.063). Inpatients who are satisfied with employees good-looking were 2.2 times more likely to be satisfied when compared to those who are dissatisfied with this service, AOR 2.2 (95% CI; 0.460-10.568). In this study, it was identified that inpatients those who are satisfied towards materials were 2.3 times more likely to be satisfied than those who are unsatisfied with materials, AOR 2.3 (95% CI; 0.710-7.448).

Dependability of the hospital, providing service on time, inpatients feeling safe in transactions, employees' politeness, employees' knowledge to answer patients' questions, personal attention employees would give to patients, understanding the specific needs of patients, doctors' willingness to answer any questions relating to illness, information that always provided to patients on their health conditions, information addressed to patients on medical treatments, lab test fee, drug cost, transport fee and accommodation cost were predictors of inpatients satisfaction with healthcare service.

## **CHAPTER FIVE: CONCLUSION AND RECOMMENDATION**

### **5.1 Introduction**

This chapter concludes the main objective of the study and gives recommendations depending upon major findings of the study.

### **5.2 Conclusion**

The overall satisfaction of inpatients with healthcare services at BGH was low. From a total of 192 respondents only 51% of inpatients were satisfied with healthcare services. Among services rendered by the hospital, inpatients were highly satisfied with physicians' care services, completeness of the information given, the way confidentiality is kept, treatment costs, visiting hours, information on the services of the hospital, admission procedure and laboratory services. Conversely, inpatients were highly dissatisfied with access to water, availability of drug and cleanliness of toilet.

This study also has shown that, occupation, income, place of residence, distance, up-to-date equipment, physical facilities, materials, employees good-looking, dependability of the hospital, providing service on time, patients feeling safe during in transactions, employees' politeness, employees' knowledge to answer patients' questions, personal attention employees would give to patients, understanding the specific needs of patients, doctors' willingness to answer any questions relating to illness, information that always provided to patients on their health conditions, information addressed to patients on medical treatments, lab test fee, drug cost, transport fee and accommodation cost were significantly associated with inpatients satisfaction.

Policy interventions on healthcare quality may contribute to quality of services rendered in public healthcare facilities in Ethiopia. Challenges inpatients face to access healthcare service in public health facility were poor health infrastructure, inadequacy of medical supply, poor sanitation and poor attitudes of health workers. The main implication of this study is the need to improve physical facilities, upgrade medical supplies, improved sanitation and strengthening a way of monitoring and evaluating work performance. Providing quality healthcare services in the public healthcare facilities may have a significant paramount for the well-being of the people and social development.

### 5.3 Recommendations

In light of the findings, the researcher recommends the following initiatives:

- Expanding physical facilities such as asphalt road, water supply, power supplies (light and ventilation), washing rooms, toilet facilities, shower rooms, waste disposal (removing waste materials), increasing number of beds and operational units are imperative to address the health needs of patients.
- Upgrading of medical supplies such as drugs and oxygen should be encouraged and the laboratory room should be equipped with sufficient and standardized equipment to enhance diagnostic capacity.
- The hospital ought to offer clean bedding with clean clothes (blankets and sheets) for inpatient to build a confidence in minds of patients that improves their reliability the hospital's services.
- Government should make ensure that service delivery standard document promotes efficient, fair and quality services through strengthening a way of monitoring and evaluating work performance.
- Government ought to now take into account motivation, job satisfaction and employee promotion by offering educational opportunities, paying sufficient wages and providing adequate training.
- Privacy and confidentiality of patients should be respected at all times throughout the whole admitting process.
- A waiting area with adequate seating capacity should be constructed for inpatient relatives.
- The Ethiopian health policy should be revised so as to combine both supply and distribution of drugs because limited availability of drugs in public hospitals is becoming the single greatest challenge that maximizes risk factors.
- It would be advisable for policymakers in Ethiopia to consider building and follow-up of healthcare systems that can fully accommodate the delivery of integrated healthcare services at hospital level through making discussion with community, service providers and stakeholders to improve quality service.

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## APPENDIX



JIMMA UNIVERSITY  
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### Questionnaires

Dear respondent!

My name is Kassahun Bulti and this is a questionnaire to collect data for the study on “Assessment of Inpatients’ Satisfaction with Healthcare services in Bedelle General Hospital” for partial fulfillment of the requirements for the degree of Masters in Sociology (Specialization in Social Policy) at Jimma University. The information you generate will be used only for academic purpose and will be kept secretly so that the study report will never let you know. Your genuine answer to the questions is very essential in achieving goal of the study. Thus, I cordially request your cooperation for interview on this survey honestly.

## Part 1: Socio-demographic Characteristics

In this section, I am going to ask you few details about yourself that best fits your status. Having such information will helps me to conduct more accurate research. Therefore, please tell me a correct information of your background for a question no.1 to 11.

1. Sex (1=Male, 2= Female) -----
2. Age \_\_\_\_\_
3. What is your occupation? (1=Farmer, 2= Merchant, 3=Private employee, 4= Government employee, 5= Students, 6= others) -----
4. Academic status (1=Cannot read and write, 2=Primary education, 3=Secondary education, 4=Certificate or diploma, 5=first degree or above) -----
5. Would you tell me your average monthly income in birr? \_\_\_\_\_
6. Religion (1=Orthodox, 2=Muslim, 3=Protestant, 4=Others) -----
7. Marital status (1=Never married, 2=Married, 3=Divorced, 4=Widowed) -----
8. Ethnicity (1=Oromo, 2= Amhara, 3=Gurage, 5=Others) -----
9. Place of residence (1=Urban, 2=Rural) -----
10. Could you tell me the estimated distance of the place where you came from Bedelle general hospital in Km? \_\_\_\_\_
11. In which ward are you taking medical treatment? (1=Medical, 2=Surgical, 3=Gyn/Obs, 4=Pediatrics, 5= NICU) -----

## Part 2: Level of Inpatients Satisfaction

I would like to investigate how satisfied or dissatisfied you are with the performance of Bedelle general hospital. So, please tell me your level of satisfaction in this hospital with regard to the following statements (for no. 12 to 30, where, 1= Dissatisfied, 2= Satisfied).

12. Information on the services of the hospital (1= Dissatisfied 2= Satisfied) -----
13. The admission procedure (1= Dissatisfied 2= Satisfied) -----
14. Waiting time (1= Dissatisfied 2= Satisfied) -----
15. Nursing services (1= Dissatisfied 2= Satisfied) -----
16. Physician services (1= Dissatisfied 2= Satisfied) -----
17. Access to water (1= Dissatisfied 2= Satisfied) -----
18. Ward room light and ventilation (1= Dissatisfied 2= Satisfied) -----
19. Toilet cleanliness (1= Dissatisfied 2= Satisfied) -----
20. Time to get back home (hospital stay) (1= Dissatisfied 2= Satisfied) -----
21. Availability of drug (1= Dissatisfied 2= Satisfied) -----
22. Completeness of the information given (1= Dissatisfied 2= Satisfied) -----
23. The way confidentiality is kept (1= Dissatisfied 2= Satisfied) -----
24. Health education (1= Dissatisfied 2= Satisfied) -----
25. Cleanliness of room and bed (1= Dissatisfied 2= Satisfied) -----
26. Perceived accommodation of the room (1= Dissatisfied 2= Satisfied) -----
27. Respect for patients' privacy (1= Dissatisfied 2= Satisfied) -----
28. Visiting hours (1= Dissatisfied 2= Satisfied) -----
29. Treatment costs (1= Dissatisfied 2= Satisfied) -----
30. Laboratory service (1= Dissatisfied 2= Satisfied) -----

### Part 3: Factors Affecting Inpatient Satisfaction

In this final section, I would like also ask you to give me appropriate answer with regard to your level of agreement/disagreement on the following statements. (Where, 1= strongly disagree, 2= Disagree, 3=Neutral, 4= Agree, and 5= Strongly Agree).

	Statement	Likert Scales				
		1	2	3	4	5
<b>A</b>	<b>Tangibles</b>					
1	The hospital has up-to-date equipment					
2	The hospital physical facilities are visually appealing					
3	The hospital employees are well dressed and appear neat					
4	The appearance of the physical facilities of the hospital is in keeping with the type of service provided.					
<b>B</b>	<b>Reliability</b>					
5	Promise to do something by a certain time					
6	A sincere interest in solving patients' problem					
7	The hospital is dependable					
8	Employees provide their services at the time they promise to do so.					
9	The hospital keeps its records accurately					
<b>C</b>	<b>Responsiveness</b>					
10	Employees tell patients exactly when services will be performed					
11	Employees will give prompt services to patients					
12	Employees will always be willing to help patients					
13	Employees will never be too busy to respond to patients' requests					
<b>D</b>	<b>Assurance</b>					
14	Patients will trust employees of the hospital.					
15	Patients will feel safe in transactions with the hospital.					
16	Employees' will consistently polite with patients					
17	Employees will have the knowledge to answer patients' questions					
<b>E</b>	<b>Empathy</b>					
18	Employees give patients individual attention					

19	Employees give patients personal attention					
20	Employees understand specific needs of patients					
21	Have patients' best interests at heart					
22	The hospital has operating hours convenient to all their patients					
<b>F</b>	<b>Communication</b>					
23	Patients will always be receiving adequate explanation of any tests they undergo					
24	Doctors will always be willing to answer any questions relating to illness.					
25	Information will always be providing to patients on their health conditions.					
26	Information will always be addressing to patients on medical treatments.					
<b>G</b>	<b>Health care costs</b>					
27	Lab test fee is medium					
28	Drug cost is affordable					
29	Transport fee is medium					
30	Accommodation cost is medium					

**Thank you so much for taking the time to fill out this questionnaire!**

**Your thoughts are respected a lot!**

## **List of questions that the researcher asked inpatients**

Interview time: from \_\_\_\_\_ to \_\_\_\_\_ date \_\_\_\_\_

Thank you for taking your time to talk with me.

1. Would you please tell me your reason for visiting the hospital? (How did you decide to visit this hospital?)
2. How do you see your stay here or your visit to this hospital? Why?
3. How do you see your interaction with hospital staff (guards, cleaners, doctors, lab technicians, pharmacists)?
4. How do you see the services you have obtained (starting from the gate (guards), case room, investigation (by doctor), laboratory test, pharmacy/drugs, and toilet)? What you most liked? Why? Most disliked? Why?
5. What were your expectations during hospital visit? How do you see this hospital in terms of satisfying your expectation? Why? Which of your expectation meet? Which of your expectation is unmeet?
6. Do you have any suggestions for improvements (interaction with guards, cleaners, doctors, pharmacists; language; services, medications, payments, time...)?
7. Is there anything left that you want to tell me about your visit to this hospital?

## Observation Checklist

This checklist was formulated in order to carefully scrutinize the physical environment of the study site on the following points.

- Are there signs and indication symbols?
- Are there green areas and plants?
- How big the room is, and its state? (dirty or clean, cold or hot)
- Where the windows and the doors are?
- How are the furniture arranged?
- What type of lighting is there?
- What are the smells or sounds?
- Where does waste materials gathered?
- Do the inpatients are accessible to water, toilet and washroom? What is the cleanliness of these facility look like?

## **List of questions that the researcher asked health professionals**

Interview time: from \_\_\_\_\_ to \_\_\_\_\_ date \_\_\_\_\_

1. How do you express the service you deliver for inpatients (in terms of quality, affordability, time, medication, trustworthy, payment, language...?)
2. What do you think about factors affecting inpatients' satisfaction? Are there any efforts made to solve inpatients satisfaction? In what way?
3. Do you believe that health professionals are fully satisfying the expectation of inpatients? To what extent?
4. Is there anything that could be improved?
5. Any other comments?