



**FACTORS AFFECTING PATIENT SATISFACTION IN OUTPATIENT  
DEPARTMENT; THE CASE OF YEKATIT 12 HOSPITAL MEDICAL  
COLLEGE**

By

Huluager Atero

*A Thesis submitted to St. Mary University School of commerce graduate  
studies for the Partial Fulfillment of the required for the Award of Master  
of Arts Degree in Marketing Management*

Advisor: Yibeltal A. (PhD)

**July 2024**

**Addis Ababa, Ethiopia**

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St. Mary University  
School of Graduate Program  
Department of Marketing Management  
(Approval Sheet)

Factors Affecting Patient Satisfaction in Outpatient Department

*(The Case of Yekatit 12 Hospital Medical College)*

By: Huluager Atero

Approved by: Board of Examiners

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## DECLARATION

I hereby declare that this study entitled “*Factors Affecting Patient Satisfaction in Outpatient Department; The Case of Yekatit 12 Hospital Medical College*” is my original work prepared under the guidance of my advisor Yibeltal A. (Ph.D.). This paper is submitted in partial fulfillment of the requirement for the award of Master of Arts Degree in Marketing Management, and it has not been previously submitted to any diploma or degree in any college or university. I would also like to confirm that all the sources of materials used in this study are duly acknowledged.

By: Huluager Atero

Signature:

Date:

## Statement of Certification

This is to certify that **Huluager Atero** has carried out a research work entitled *Factors Affecting Patient Satisfaction in Outpatient Department; The Case of Yekatit 12 Hospital Medical College*". This thesis is her original work and is suitable for submission for the award of Master of Arts Degree in Marketing Management.

  
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**Advisor: Yibeltal A. (PhD)**

**July 2024**

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## **ACRONYMS AND ABBREVIATIONS**

YH	Yekatiit 12 Hospital Medical College
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization
OLS	Ordinary Least Squares
OPD	Outpatient Department
VIF	Variance Inflation Factor

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## ABSTRACT

*Obtaining patient feedback through satisfaction surveys is crucial for broadly understanding their needs and perceptions of the healthcare services received. These surveys serve as a necessary tool for evaluating the quality-of-care delivery within a hospital setting. The current study adopted a cross-sectional quantitative research approach to investigate the factors influencing patient satisfaction at the Outpatient Department of Yekatit 12 Hospital Medical College in Addis Ababa, Ethiopia. The primary objectives were to ascertain the levels of patient satisfaction and identify the underlying factors that impact it. The study employed a systematic random sampling technique, with a statistically calculated sample size of 110 respondents. Only individuals aged 18 years and above were included in the study. Data collection has taken place from April 1 to 30, 2024, utilizing a pre-structured questionnaire as the research instrument. This study employed descriptive statistics to summarize the collected data on patient characteristics and healthcare service aspects. An Ordinary Least Squares (OLS) regression model was then used to analyze the relationships between these factors and patient satisfaction. Regarding the level of satisfaction, the mean satisfaction score was found to be 2.68 with a standard deviation of 0.754. Regarding socio-economic characteristics, education was identified as having a significant negative relationship with the level of patient satisfaction. Additionally, courtesy, physical environment, convenience and availability, and quality of care exhibited significant positive associations with patient satisfaction. Therefore, to achieve patient-centered healthcare, policymakers and hospital managers must prioritize monitoring patient experiences. By actively analyzing these insights, they can make data-driven decisions regarding service planning and performance evaluation. This focus on patient feedback allows for the customization of healthcare services, ensuring a better fit with patient needs and expectations.*

**Key words:** *Patient Satisfaction, Convenience and Availability, Quality of Care, Courtesy, Physical Environment*

# **CHAPTER ONE**

## **1. INTRODUCTION**

### **1.1. Background of the Study**

Patient satisfaction stands as a crucial and widely employed metric for evaluating the quality of medical services rendered. It exerts great influence on clinical outcomes, patient retention rates, and the incidence of medical malpractice claims. Additionally, patient satisfaction plays a crucial role in facilitating the timely, efficient, and patient-centered delivery of high-quality healthcare (Prakash, 2010). However, a common consensus on the definition of patient satisfaction within healthcare settings remains vague among authors. Different scholars have proposed differing interpretations of this concept. According to a study by Augustine (2014), patient satisfaction is often seen as a reflection of attitudes towards the overall quality of care or specific aspects of how care is delivered. Whereas Jenkinson et al. (2002) characterized patient satisfaction as extending beyond just factual experiences to encompass the emotional responses, feelings, and perceptions patients form about the healthcare services they receive. Despite the lack of a universally accepted definition, patient satisfaction remains a multifaceted and indispensable construct for assessing and enhancing the quality of healthcare services provided to individuals seeking medical attention.

The identification of factors that influence patient happiness has been the subject of numerous studies, with mixed findings. Moreover, it is well known that several patient satisfaction studies have produced conflicting results Enkhjargal, B. et al. (2016). Several researchers suggest that there is misalignment between a patient's expectations for their care and their perception of the quality of care actually received.

There are several justifications for researching the idea of patient satisfaction. In 2009, Andrew and Erik discovered through their research that the primary motivation behind evaluating the quality of healthcare has been the aim to enhance healthcare and reduce disparities within healthcare systems. In addition, the patient's perspective must be taken into consideration while

discussing important topics like structure, method, and outcome, which are typically approached from the physicians' point of view.

Patient satisfaction is a multifaceted concept influenced by a range of factors, as identified by Pavlova (2003). These factors include the doctor's competence and bedside manner, the professionalism of paramedical staff, the range of amenities available at the hospital, the courtesy of support staff, and the overall cleanliness and ambiance of the healthcare facility. Research by Augustine (2014) highlights patient satisfaction as a key indicator of high-quality healthcare delivery. Numerous studies across various domains have consistently demonstrated a positive correlation between patients' satisfaction levels and the quality of services rendered within healthcare facilities. This relationship suggests that as the perceived quality of care provided to patients increases, their overall satisfaction with the medical services and treatment they receive increases.

According to Duggirala et al. (2008), a nation's economic prosperity is intricately linked to the health of its population. This is characterized by balanced birth and death rates, alongside a low prevalence of diseases. This can be achieved when the people receive high-quality healthcare that is effective in managing their illnesses appropriately and is reasonably priced for a substantial portion of the population. This underscores the fundamental purpose of a nation's healthcare system prioritizing the delivery of high-quality care to its citizens. Nonetheless, in low-income nations like Ethiopia, access to health care is made more difficult by inadequate infrastructure, subpar health facilities, a shortage of professionals, and constrained distribution networks (Nada, 2007). Therefore, this study tried to uncover the factors that affect patient satisfaction.

## **1.2. Statement of the problem**

The healthcare industry's service-giving system in previous years was not that much emphasized on the customers' side (Howard, 2000). This may be due to a lack of paying attention to the ultimate consumers. The healthcare landscape is experiencing a period of rapid change, driven by the need to address the growing demands and evolving needs of patients. The healthcare sector is rapidly evolving to address the ever-increasing needs and expectations of its patients. As reported by Ali in 2014, hospitals have transitioned from perceiving patients as

uneducated with limited healthcare options to acknowledging that informed consumers now have numerous services demands and healthcare choices available.

The main challenge lies in designing healthcare systems that can achieve improvements in health, meeting patient expectations, and delivering these services at a reasonable cost (Blazevska et al., 2004). According to Andrew and Erik's 2009 research, the structure, management, and funding of healthcare systems have a great impact on people's lives. Additionally, narrowing health disparities and ensuring everyone has access to quality care is essential for fostering global economic well-being and a healthy society.

The healthcare landscape is undergoing a significant shift. The traditional model, heavily influenced by medical professionals' preferences and decisions, is evolving towards a patient-centered approach that prioritizes the needs and desires of healthcare users (Ware et al., 2005). This shift in focus towards patient needs has raised customer satisfaction to a core principle for healthcare providers worldwide. High satisfaction translates to stronger patient loyalty, fostering better retention and potentially attracting new patients.

As per WHO (2003) report, Ethiopia has achieved a significant improvement in the health status of its citizens. Especially in infant mortality and basic health service facility there is a good progress. But with the expansion of education and increased awareness of society whether those health service developments met the patient's satisfaction is not well studied.

Few studies done on patient satisfaction in other regional hospitals found that patients are satisfied by the service they are rendered (Samson M, et al, 2015; Taklu M et al, 2018). Ethiopia's health service compared to other nations is very poor and patient satisfaction rate is low due to different reasons such as not having enough healthcare resources (e.g., skilled manpower, infrastructure). Especially in Yekatit 12 Hospital such problems are remarkable.

Therefore, it is better to know what factors hinder the service rendering process so as to make adjustments on how to use resources efficiently. This study aimed to assess patient satisfaction with outpatient services offered at Yekatit 12 Hospital Medical College. It explored both the level of satisfaction and the factors influencing it.

Therefore, this study tried to answer the subsequent research questions:

- What is the level of satisfaction of outpatients in the hospital?
- What is the effect of convenience on outpatient satisfaction?
- What is the effect of quality of care on outpatient satisfaction?
- What is the effect of courtesy of the clinical staff on outpatient satisfaction?
- What is the effect of physical environment of the hospital on outpatient satisfaction?
- What are the mechanisms to enhance patient satisfaction?

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

#### **1.3.1. General Objective**

The general objective of this study was to assess factors affecting patient satisfaction in the Hospital; the case of Yekatit 12 Hospital, Addis Ababa.

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

The specific objectives of the study were:

- To identify the level of satisfaction of outpatients in the hospital,
- To investigate the effect of convenience on outpatient satisfaction,
- To examine the effect of quality of care on outpatient satisfaction,
- To explore the effect of courtesy of the clinical staff on outpatient satisfaction,
- To examine the effect of physical environment on outpatient satisfaction, and
- To search for mechanisms to enhance the outpatients' satisfaction.

### **1.4. Significance of the study**

By pinpointing key factors that influence service delivery at Yekatit 12 Hospital, this study offers valuable insights. These findings can empower hospital management to implement targeted improvements, potentially leading to a more efficient and effective service delivery model. Moreover, the research findings can help the Addis Ababa City Administration Office develop a strategy to satisfy the patients in all hospitals under its supervision. Additionally, the study's outcomes can benefit not only Yekatit 12 Hospital but also the wider healthcare community. NGOs and donors focused on supporting the hospital can leverage these findings to strategically allocate their resources and maximize their impact. Additionally, the research

may serve as a foundation for further studies, potentially inspiring other researchers to delve deeper into this area and the hospital's specific needs.

### **1.5. Scope or delimitation of the study**

Geographically, this research directed on recognizing the determinant factors that affect patients' satisfaction (specifically outpatients) in the case of Yekatit 12 Hospital only. However, inpatients and other public and/or private hospitals were not included on this study due to time and financial constraints. Conceptually, though there are other factors that positively and/or negatively affect patient satisfaction, only the four were chosen as per the reviewed literature and the existing condition of the hospital. Methodologically, the research used both qualitative and quantitative approaches. Descriptive statistics were used to summarize the collected data, while inferential statistical analysis helped identify relationships between variables.

### **1.6. Limitation of the study**

Many studies on Human behavior show that the study can be manipulated by the target respondents in answering the questions, in addition people have different views and judgments for issues and things. As a result, limited answer choices can potentially restrict participants from expressing their true feelings or experiences. This study likely hasn't captured every factor influencing patient satisfaction. However, the valuable insights it provides, and the instruments developed can serve as a strong foundation for future research. These tools can guide further studies to explore aspects that may not have been addressed here.



## **CHAPTER TWO**

### **2. LITERATURE REVIEW**

This literature review aims to synthesize existing research on patient satisfaction in healthcare settings. By examining prior studies, key variables can be identified that consistently influence patient experience. This analysis will also assess the potential value of conducting further research in this area. By exploring these questions, this review seeks to enhance the understanding of the factors contributing to patient satisfaction and inform the direction of future research efforts.

#### **2.1. Theoretical Literature Review**

##### **2.1.1. Meaning and Scope of Patient Satisfaction**

While patient satisfaction is a widely used metric for healthcare success, measuring it comprehensively can be challenging. This is because satisfaction is influenced by both clinical outcomes (e.g., treatment effectiveness) and non-clinical factors such as waiting times, facility cleanliness, as highlighted by Agrawal (2006).

According to Kotler (2003), patient satisfaction can be viewed in healthcare as the result of a mental and emotional evaluation. Patients compare their healthcare experience (the perceived performance) against their expectations. When the perceived quality of care falls short of expectations, dissatisfaction arises. Conversely, exceeding expectations leads to satisfaction. If perceived care meets expectations, patients may feel neutral.

According to Wensing and Elwyn (2003), patient satisfaction in healthcare hinges on their perception of the services they receive and the treatment outcomes. This growing recognition of user's perspective is driving a shift in the healthcare sector, with various methods now being employed to gather patient and public feedback to inform service development.

Building on this notion, Linda (2001) elevates patient satisfaction to the same level of importance as other clinical metrics. This highlights its role as a key indicator of the effectiveness of healthcare delivery. This emphasis coincides with the increasingly competitive healthcare landscape, where organizations prioritize patient satisfaction as a strategy for acquiring and retaining patients.

A working definition for patient satisfaction can be understood as the extent to which a healthcare provider and its services fulfill a patient's specific expectations, goals, and preferences (Ware et al., 2005).

A persistent theme in patient satisfaction literature highlights the following connections: satisfaction stems from how well a service meets expectations; satisfaction, in turn, influences a patient's willingness to return or recommend the service. Ultimately, higher satisfaction translates to a greater likelihood of patients choosing that service again (Swan, 1985).

### **2.1.2. Importance of Patient Satisfaction**

In the healthcare industry, as in any service-oriented business, a deep understanding of patient needs and expectations is fundamental (Kotler, 2003). While the content of the service itself (e.g., medical treatment) should address those needs, Kotler emphasizes that the delivery method and patient interactions with the healthcare system must also meet expectations. This holistic approach ensures a truly patient-centered experience.

Patient satisfaction with medical care has become a central metric, with research in this area experiencing a significant surge in recent decades (Cleary, 1998). Several factors have fueled this growth. Firstly, patients are becoming more informed and demanding better quality care (Wensing & Elwyn, 2003). Secondly, healthcare providers are becoming more responsive to these concerns as competition for patients intensifies, especially among both prepaid and fee-for-service models. Finally, a growing interest from social scientists and increased governmental support for healthcare research have contributed to this trend.

Recent years have witnessed a rush in the popularity and utility of patient satisfaction studies in public health settings. As Boyer et al. (2006) pointed out, gathering patient feedback offers a crucial opportunity for healthcare providers and managers to identify areas for service improvement. This feedback can serve as a catalyst for positive change, prompting a reevaluation of existing practices and ultimately leading to a more patient-centered healthcare culture.

Research done in Pakistan by Maliha *et al.* (2012), with the aim of finding determinants of patient satisfaction found that patient experiences and their expectations with healthcare

services were found to be important determinants. younger patients, females, individuals with higher literacy levels, and those from higher socioeconomic backgrounds tend to report greater satisfaction. On the other hand, negative patient experiences can arise from a lack of privacy, limited autonomy in decision-making, poor communication with healthcare providers, and inadequate sanitation or hygiene practices. These factors can collectively contribute to decreased patient satisfaction.

According to Andrew and Erik (2009), healthcare quality evaluation has traditionally focused on improving overall healthcare delivery and reducing disparities within the system. This assessment relied on factors like structure, process, and outcomes, primarily from the provider's standpoint. However, their research highlights the increasing need to incorporate the patient's perspective into quality assessments.

Many researchers emphasize the critical role of patient satisfaction assessments in healthcare research, management, and service design (Papanikolaou & Ntani, 2008). By systematically analyzing patient feedback, healthcare providers can identify alternative service delivery models and optimize care delivery. However, it's important to recognize that patient satisfaction goes beyond simply measuring service quality. It serves as a core objective in modern healthcare systems, guiding continuous improvement efforts.

### **2.1.3. Factors Affecting Patient Satisfaction**

In today's landscape, customer experience has become a paramount factor influencing the success of any organization, including healthcare providers (Chiara, 2007). This growing focus on the customer aligns with the rise of CRM strategies. With the growing frequency of interactions between patients and healthcare systems, closely monitoring and improving the quality of patient experiences across these touchpoints becomes even more crucial.

Another study done by Duggirala (2008) identified several factors influencing patient satisfaction, including patients' perception of physician competence, care, and communication. Additionally, treatment cost emerged as a significant factor. However, the research suggests that less emphasis is often placed on understanding patients' service quality expectations, which can also significantly impact satisfaction.

A study by Bryant C. (1998) categorized variables influencing patient satisfaction into four groups: socio-emotional factors (patients' perception of communication and interpersonal skills of providers), system factors (physical aspects of the service encounter, including technical quality of care, comfort, and convenience of facilities), moderating factors (sociodemographic characteristics and health status), and influencing factors (patients' social networks). The study also identified determinants of provider satisfaction, such as adequate time for patient visits, equipment availability, positive patient relationships, and patient compliance.

Ransom et al. (2005) defined processes within healthcare delivery as the collection of activities that occur during patient care. This research centers on patient-provider interaction variables that influence patient satisfaction. These variables include the patient's perception of the encounter's quality, the duration of the consultation, the provider's communication skills, their respectful demeanor during the visit, and ultimately, the visit's effectiveness in addressing the patient's concerns. He further emphasized that, in healthcare, excellent processes don't guarantee positive outcomes, and positive outcomes don't always indicate good processes. This is because some patients may recover naturally even with poor care, while others may experience negative outcomes despite receiving the best available treatment for their condition. Ultimately, processes, whether positive or negative, cannot guarantee specific patient outcomes.

Patient satisfaction is a complex construct influenced by a multitude of factors (Jenkinson et al., 2002). This category includes factors related to the technical quality of healthcare delivery, such as the competency of clinical services and ensuring patients have access to the medications they need. Additionally, patient interactions with healthcare providers and staff, including their behavior and respect for patient preferences, significantly impact satisfaction. The physical environment (hospital infrastructure, comfort), emotional support provided, and cost of services are also important considerations. Furthermore, McKinley and Roberts (2001) highlighted that a significant gap between a patient's expectations for their care and the actual experience can lead to a substantial decrease in satisfaction.

Boshoff and Gray (2004) emphasized the importance of patients' perceptions of functional aspects of care in shaping their satisfaction with healthcare services. These functional aspects include the physical facilities (cleanliness, comfort), internal processes (appointment

scheduling, waiting times), and interactions with various healthcare personnel (doctors, nurses, support staff).

Patient satisfaction is a multifaceted concept influenced by various aspects of healthcare delivery. Ware et al. (2005) proposed a multi-faceted framework for understanding patient satisfaction in healthcare. This framework highlights the importance of various dimensions, including the provider's interpersonal skills and technical expertise (referring to the technical quality of care delivered). Additionally, factors such as convenient access to services, affordability of care, the physical environment of the healthcare facility, ease of scheduling appointments, continuity of care with the same provider(s), and ultimately, the perceived effectiveness of the treatment all contribute to a patient's overall satisfaction. Additionally, a study in South Africa by Morris (1998) identified inadequate communication and a lack of relevant information provided to patients significantly impact the perceived quality of service. This, in turn, negatively affects patient satisfaction.

Several factors shape a patient's perception of care during an outpatient visit (Linda, 2001). These factors incorporate environmental aspects like cleanliness and facility appearance, ease of navigating the facility, and staff attentiveness to patient well-being. Waiting times, the quality and clarity of communication with providers, and the perceived effectiveness of the care all play a role. Additionally, logistical considerations such as cost, food quality, and perceived efficiency in care delivery can also influence patient satisfaction.

In addition to the factors mentioned, research suggests a connection between patient satisfaction and sociodemographic characteristics (Amin, 2007). Amin highlights age as a potentially influential variable, with evidence from various countries suggesting that older adults tend to report higher satisfaction with healthcare compared to younger patients. Additionally, Fekadu et al. (2010) incorporated sociodemographic characteristics into their analysis of patient satisfaction. Their findings revealed an association between educational attainment, age, and satisfaction levels. Interestingly, the study suggested that respondents with lower educational qualifications (illiterate) and those from older age groups reported higher satisfaction compared to their counterparts with higher education (diploma and above) and younger age groups. Supporting these observations, Oljira's (2001) study at Jimma Hospital found a positive

correlation between age and satisfaction scores. On the contrary, the study revealed an inverse relationship between educational level and satisfaction, with higher education linked to lower satisfaction scores. While some believe that positive patient perceptions might be linked to independent factors like socioeconomic status, gender, age, and marital status, the research on this topic yields mixed results. For instance, Doborah (2001) found little correlation between sociodemographic characteristics and satisfaction levels.

Birna (2006) identified several issues that frequently lead to patient dissatisfaction and potentially hinder service utilization. These problems include lengthy waiting times during various stages of the outpatient experience, such as registration, doctor consultations, laboratory procedures, and follow-up visits to discuss test results. Additionally, difficulty obtaining prescribed medications from the hospital pharmacy and navigating the facility to locate different departments were cited as major concerns. The main determinants of satisfaction that this study is going to investigate include convenience, quality of care, courtesy, and physical environment.

#### **a) Convenience and Availability**

In healthcare, convenience refers to the ease with which patients can access services. This encompasses factors like travel time to the facility, appointment scheduling options, wait times, and the overall experience of receiving care as desired. On the other hand, availability focuses on the resources a healthcare provider has to offer. This includes having readily accessible medical equipment, a sufficient number of qualified doctors and nurses, and well-maintained facilities.

Atinga et al. (2011) identified waiting times, including those associated with both medical procedures and administrative processes, as a key factor influencing patient perception of healthcare quality. Their research suggests that implementing strategies to streamline service delivery and minimize waiting time could lead to a significant improvement in patient satisfaction. A critical challenge facing healthcare systems in some regions is the shortage of qualified pharmacists, particularly in the public sector, with many migrating to private practice (MOH, 2004). This lack of personnel can hinder the efficient management of drugs and supplies within hospitals. Furthermore, research suggests that long waiting times are a significant factor contributing to patient dissatisfaction (Birna, 2006). The study also found that over half of the

outpatients surveyed (54.1%) expressed overall satisfaction with the services provided, but a majority reported negative experiences due to excessive waiting times.

## **b) Quality of Care**

Patient satisfaction with healthcare services is a globally recognized priority. Healthcare institutions are implementing various strategies to improve service delivery. Armstrong (1991), cited in Amin (2007), emphasized that a combination of factors is crucial for patient satisfaction. These factors include access to qualified healthcare professionals, a patient-centered approach that considers human aspects of care, staff with strong educational backgrounds, effective communication, and the ability to translate these elements into a high-quality service experience for patients. The evolving landscape of healthcare service evaluation and improvement is shaping a new paradigm for service users. A key aspect of this shift is the increasing emphasis on a shared understanding of quality standards. This includes factors like accessibility, availability of services, personnel qualifications, and effective communication between patients and providers. These standards are no longer solely considered by healthcare management but are also becoming increasingly important to the patients themselves, who are often referred to as clients.

The prioritization of quality in hospital care took a major leap forward in 1917 with the American College of Surgeons (ACS) establishing its hospital standardization program. It laid the groundwork for future developments. In 1933, the ACS further built upon this foundation by creating the concept of hospital quality as a fundamental principle. Building on the foundation laid by the ACS, The Joint Commission on Accreditation of Hospitals (JCAHO), now known simply as The Joint Commission, emerged in 1951. This organization, established through a collaborative effort by the American College of Physicians, the American Hospital Association, and the Canadian Hospital Association, played a pioneering role in developing the criteria-based audit method for hospital accreditation.

While hospitals increasingly focus on improving quality of care alongside technological advancements, research on patient perceptions of service quality remains limited (Clemes et al., 2001). This contrasts with the prevalent approach in healthcare research, which often emphasizes measuring patient satisfaction through various assessments (Lee et al., 2006).

The relationship between patient satisfaction and their perception of healthcare quality continues to be a topic of active investigation (O'Connor & Shewchuk, 2003). Some argue that a significant portion of research on patient satisfaction relies on basic descriptive analyses without a strong theoretical foundation. These researchers advocate for a greater emphasis on measuring the technical and functional aspects of care delivery, which directly reflect the quality of the service provided.

According to Ali (2014), two key factors significantly influence the quality of services in healthcare centers. The first is provider motivation and satisfaction. A motivated and satisfied workforce is essential for delivering high-quality patient care. The second factor identified is resources and facilities. Adequate resources significantly impact service quality. This includes access to well-functioning information systems, comprehensive patient medical records, and high-quality materials. These resources contribute to optimizing both patient outcomes and staff productivity. This is because patient satisfaction plays a significant role in evaluating healthcare quality which is a core foundation in the practitioners' knowledge and technical skills. Research suggests that factors like in-depth knowledge, specialized expertise, dedication to patient care, and thorough patient examinations are crucial for delivering high-quality healthcare services (original source paraphrase).

### **c) Courtesy**

In addition to the previously discussed variables, courteous interactions between patients and healthcare providers significantly contribute to patient satisfaction. Courtesy encompasses respect, attentiveness, and care demonstrated by healthcare staff. Research by Andaleeb (2007) supports this notion, highlighting that patients' overall satisfaction is significantly influenced by various service factors, including physician treatment, nurse behavior, and the quality of nursing services provided.

Interestingly, Andaleeb's work also found that provider behavior, particularly aspects like respect and politeness, emerged as the strongest predictor of patient satisfaction with healthcare services. As to him for patients, courtesy is a significant factor influencing patient satisfaction, potentially even exceeding the perceived importance of technical competence from the patient's standpoint. This perspective aligns with findings from Anteneh et al. (2014), who reported that



several interpersonal factors contribute to positive patient experiences. These factors include the quality of the doctor-patient relationship, permission for visitation within the hospital, perceived effectiveness of care providers, accessibility of medical staff, and supportive attitudes from support staff.

#### **d) Physical Environment**

Another key element influencing patient satisfaction is the physical environment, which refers to the characteristics of the space where healthcare services are delivered (Hardy et al., 1996). While research has primarily focused on outpatient settings, the physical environment likely plays a role in shaping patient perceptions across various healthcare settings. Factors contributing to patient satisfaction with the care environment encompass the overall ambience, comfortable seating arrangements, aesthetically pleasing waiting areas, clear signage and directions, adequate lighting, a calm atmosphere, and the cleanliness, tidiness, and organization of the facilities and equipment. Lee et al. (2006) highlights the critical role of a clean environment in healthcare settings. Hospitals, by their very nature as healing institutions, require a high standard of cleanliness. Beyond serving as a primary measure to control the spread of infection, these practices also contribute significantly to the psychological well-being of patients.

Given the emphasis on healing and patient well-being, it's essential for hospitals to always maintain a clean and organized environment. Research by Andrew and Erik (2009) supports this notion. Their study found that several aspects of the physical environment, which they termed "tangibility," significantly influence patient satisfaction. These factors include clear and easy-to-understand sign and written materials, accessibility of the hospital location, overall attractiveness of the facilities, consistent cleanliness, and a professional appearance of the staff. Significantly, their research identified the cleanliness of the hospital environment as a particularly powerful factor influencing patient perception of overall care quality.

## **2.2. Assessment of Patient Satisfaction in Healthcare Service**

Evaluating patient satisfaction is a crucial tool for assessing the performance of healthcare services provided by clinical staff (Anjum, 2005). It can offer valuable insights into the success of service implementation and development efforts, ultimately reflecting how patients perceive

the care they receive. Patient satisfaction is a complex concept influenced by a multitude of factors. These factors can include sociodemographic characteristics, such as age and socioeconomic status, as well as individual personality traits, physical and mental health considerations, past experiences with healthcare, and the alignment between patient expectations and the delivered service (Barry, 2001).

While evaluating patient satisfaction can be multifaceted, various methods have been proposed. Integrating patient feedback on healthcare services to drive quality improvement and ensure high standards, adapting marketing strategies within healthcare based on patient satisfaction data, and analyzing patient behavior towards services to enhance treatment adherence.

In quality improvement efforts, assessing patient satisfaction becomes a valuable educational tool. This process helps identify areas for improvement that are potentially cost-effective, ultimately leading to enhanced service performance and the establishment of strong quality standards.

### **2.3. Empirical Literature Review**

Otani et al. (2005) investigated three key attributes influencing patient satisfaction: access to care, staff care, and physician care. Their study, which controlled for patient demographics like age, gender, and race, utilized a survey questionnaire with random sampling to gather data. The analysis indicated that physician care was the most significant factor influencing patient satisfaction, with staff care emerging as a close second. Access to care, however, had a comparatively weaker influence.

The study further explored the specific aspects within each attribute that resonated most with patients. Interestingly, their study suggests that patients act as rational consumers when it comes to physician care. They prioritize factors that signal accurate diagnosis and effective treatment options, as opposed to simply focusing on a doctor's bedside manner. Regarding staff interactions, patients expressed high regard for staff members who exhibited a willingness to assist, displayed compassion, and delivered service promptly. Finally, regarding access to care, positive interactions with appointment staff were a key factor influencing patient satisfaction.

In 2007, descriptive study by Amin et al. investigated patient satisfaction with outpatient healthcare services in the medicine department of Banphaeo Autonomous Hospital, Thailand. The study used 225 participants who were interviewed between January 17th and February 5th, 2007. To gather information, researchers employed a structured questionnaire. This questionnaire assessed various aspects of the patient experience, including demographics, accessibility factors, interactions within the medicine department's outpatient clinic, and overall patient satisfaction.

The study utilized a combination of descriptive statistics, including frequency, percentages, means, medians, and standard deviations, to analyze their data. Additionally, they employed chi-square tests to identify potential associations between variables. A majority of patients (87.56%) reported positive experiences within the medicine OPD, with the exception of concerns regarding medication costs, space limitations in the diagnostic area, and the number of doctors available in the outpatient department. The study investigated the relationship between patient accessibility and satisfaction in an outpatient clinic. Over 64% of respondents reported good accessibility. Overall satisfaction was high, at nearly 87%. Convenience emerged as the most satisfying aspect (84%), while courtesy received the lowest rating (75.11%). Interestingly, statistical analysis revealed a connection between sociodemographic factors (occupation, marital status) and patient experiences, which in turn, influenced satisfaction. Additionally, the study found a link between both prior healthcare experience and accessibility with higher levels of patient satisfaction.

One potential approach to address patient satisfaction concerns in Bulgaria involved identifying the aspects of healthcare services that hold the greatest value for patients. Pavlova et al. (2003) utilized data from a household survey to examine patient priorities, specifically focusing on the relative importance placed on quality of care, access to services, and cost.

Ethiopia faces challenges in its healthcare system, partly due to the country's lower socio-economic development. This situation can lead to a cascading effect, ultimately contributing to a lower standard of living, degraded environmental conditions, and restricted access to social services (MOH, 2003). These factors can indirectly impact patient satisfaction with healthcare.

In 2011, a study by Haile investigated patient satisfaction in Ethiopian university referral hospitals located in Shashemene and Hawassa. The study found that approximately 58.4% of

patients expressed satisfaction with the hospital services, while 41.6% reported dissatisfaction. The study employed a binary logistic regression model to identify factors associated with patient satisfaction. The analysis revealed several statistically significant predictors (at the 5% level) of overall satisfaction. These included patient characteristics like age, education level, occupation, and monthly income. Additionally, factors related to the healthcare experience itself were found to be influential, such as the department visited for diagnosis, the payment structure (fee-for-service), the quality of interaction with doctors, ward comfort, service speed, accessibility of care, and the supportive attitude of hospital staff.

Fekadu et al. (2010) reported a higher level of client satisfaction (77%) compared to a study by Dagnew et al (1997), which found a satisfaction level of only 22.0% in the outpatient department of a hospital in Gondar. The study identified several factors contributing significantly to patient dissatisfaction, including drug and supply shortages, inadequate information provided to patients, lengthy wait times, insufficient cleanliness within the facilities, compromised patient privacy, and restrictive visiting hours. In addition to this, the study further investigated specific aspects influencing satisfaction among outpatients. Interestingly, their study revealed that the manner in which doctors conducted examinations received the highest satisfaction rating (91.36%). Conversely, waiting time to see a doctor resulted in the lowest satisfaction score (53.1%).

Anteneh et al. (2014) conducted a cross-sectional study at Hawassa University Teaching Hospital to assess patient satisfaction with outpatient services and explore the factors influencing it. The analysis utilizing multiple logistic regression, explored the connection between patient satisfaction and potential predictors. The study found that approximately 80% of patients expressed satisfaction with the hospital's outpatient department. This result suggests a higher level of patient satisfaction compared to previous studies conducted in Ethiopia.

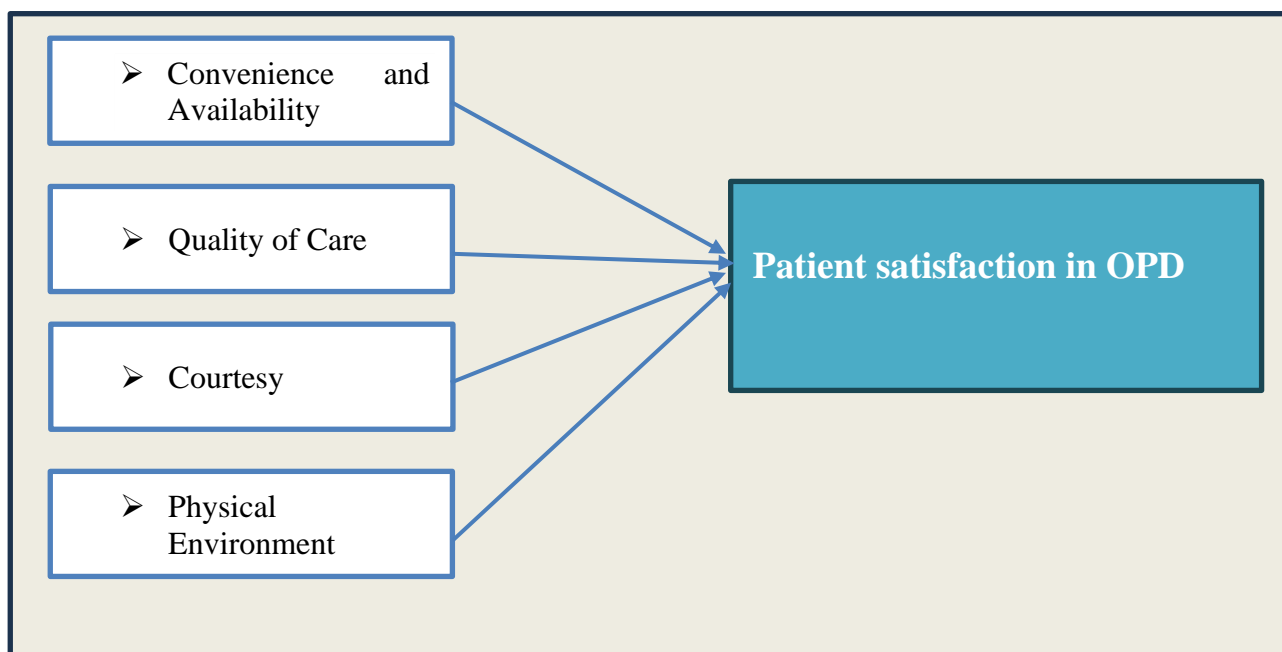
Anteneh et al. (2014) suggest that successful implementation of the Ethiopian civil service reform program could be a key factor in achieving improved service delivery within healthcare facilities. To this respect, it's important to consider factors that influence patient satisfaction in Ethiopian public hospitals. These factors, which are directly related to the perceived quality of care, include waiting times during registration, availability of medical equipment, the overall

physical environment of the facilities, adequate stock of medications and supplies within the pharmacy, courteous interactions with healthcare professionals, and the provision of clear information by medical staff. Having a comprehensive understanding of these factors within the public healthcare system is crucial for developing targeted recommendations to improve service delivery and ultimately enhance patient satisfaction.

## 2.4. Conceptual Framework

This research project was carried out using the theoretical model outlined below. The study was conducted using quantitative methods, with an established, self-administered patient satisfaction survey serving as the primary instrument. As a result, the study's methodology adhered to the conceptual framework presented in the theoretical model.

Figure 1: Conceptual Framework



(Source: Own Literature Review)

## **CHAPTER THREE**

### **3. RESEARCH METHODOLOGY**

This chapter serves as a roadmap for the research, outlining the plan and methods used to achieve the study's objectives. It provides a comprehensive overview of the research design, the specific variables being investigated, the chosen study location, the target population, the sampling technique employed, and the final sample size reached. Additionally, the chapter explores the methods that were used to present and analyze the data collected throughout the research process.

#### **3.1. Description of the Study Area**

The study area is located in the Addis Ababa City Administration Arada Sub City Woreda 06 Yekatit 12 Medical College which serves Partial North Addis Ababa, Northwestern Addis Ababa and Oromia regional Woredas adjacent to those Addis Ababa Territories. The Hospital was inaugurated in 1922 G.C. by emperor Haileselasie, with the name “Betesaida Be Teferi Mekonnon” having 25 treatment beds. Then the name changed to Emperor Haile Selassie I Hospital after he got the Crown. Later the name changed to Yekatit Hospital in 1974 following the overthrow of the regime by Dergue. The Hospital got its current name in 2010 as part of the strategy to teach and graduate many health professionals to the nation. The Hospital has gone through many administrative and ownership changes from the start to its current status. Currently it is under the Addis Ababa City Administration Health Office with a total staff of more than 1200, about 37 medical services and 350 patient beds.

#### **3.2. Research Design**

This study employed both descriptive and explanatory research designs to achieve its objectives. The descriptive component aligns with the goal of characterizing the current state of patient satisfaction within the chosen study area. As Creswell (1994) pointed out, descriptive research methods are valuable for gathering information about existing conditions. This approach facilitates a factual investigation with careful interpretation of the findings. Furthermore, the explanatory component allows a deeper understanding of the factors influencing patient

satisfaction. By employing a cross-sectional design, data was collected at a single point in time to explore potential relationships between variables.

### **3.3. Data Sources, Collection Methods, and Sampling Techniques**

#### **3.3.1. Data Sources and Collection Methods**

This study utilized a survey method for data collection, employing questionnaires as the primary instrument. Questionnaires offer several advantages, as highlighted by Krishnaswami and Ranganatham (2007). These include cost-effectiveness, anonymity for respondents, and the potential for more honest responses due to the reduced influence of the researcher. Furthermore, questionnaires offer the advantage of being self-administered, eliminating potential bias that might arise from the researcher's presence or variations in question phrasing during interviews. To gather data for this study, a structured questionnaire was specifically developed. This instrument underwent pre-testing with a sample group of hospital clients to ensure clarity and its ability to effectively capture all the essential information. The study participants were selected from individuals who visit the hospital's OPD. To ensure high-quality data collection, the enumerators familiar with the study area and fluent in Amharic were recruited. Prior experience in data collection was also a selection criterion. These enumerators received comprehensive training on the questionnaire content and proper data collection procedures.

#### **3.3.2. Target Population, Sample Size Determination and Sampling Technique**

##### **3.3.2.1. Sample Size Determination**

To ensure a representative sample, this study will employ a formula by Yemane (1967) to estimate the appropriate sample size at 90% confidence level. The target population for this survey is outpatients who visited the hospital during the designated data collection period of 20 days. The average number of patients who visit the OPD is 800 per day. Hence, the total target population is 16,000 and the sample size is:

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{16,000}{1 + 16,000 * 0.1^2}$$

$$= 99.38 \approx 100$$

Where:

n- is the sample size.

N- the population size (total OPD patients within the data collection period (20 days)).

e- is the level of precision.

Hence, the total sample size taken for this study was 110 (100+ 10) considering 10% non-response error.

### **3.3.2.2. Sampling Technique**

This study employed a systematic random sampling technique to select participants. The sampling frame comprised the patient registration book, and every 146th patient listed was chosen as a respondent.

## **3.4. Operationalization of Variables**

### **a. Dependent variable**

**Patient satisfaction:** reflects patients' opinions and experiences with outpatient services. To assess the overall level of patient satisfaction, the study employed a 5-point Likert scale. This scale ranged from 1 (highly dissatisfied) to 5 (highly satisfied), with 3 representing a neutral response.

### **b. Independent variables**

This study examined the influence of selected socio-economic characteristics on patient satisfaction. These characteristics include age, educational level, and monthly income of the respondents.



Table 1: Operational definition of independent variables

Variable	Definition and measure
Convenience and availability	Patient's perception of how readily they could access necessary resources and personnel during their healthcare experience. This includes factors like the availability of instruments, doctors, and nurses, as well as waiting times to receive services. It is measured using a 5-point Likert scale.
Quality of Care	Encompasses a patient's perception of the technical skills and knowledge demonstrated by healthcare providers during their treatment. It also includes the adequacy and functionality of the facilities used for care delivery. It is measured using a 5-point Likert scale.
Courtesy	Captures a patient's perception of how respectfully and attentively they were treated by clinical staff. It encompasses factors like the level of privacy provided during interactions, the overall care and consideration shown by healthcare personnel, and the attentiveness to the patient's needs and concerns and measured using a 5-point Likert scale.
Physical Environment	Focuses on a patient's perception of the physical characteristics of the healthcare setting. It encompasses factors like cleanliness, comfort, functionality, and overall ambiance of the facilities used for care delivery and measured using a 5-point Likert scale.
Age	The respondent's age is eighteen years or older. It's a continuous variable.
Education	Refers to the education level of respondents. It is a categorical variable.
Monthly income	The respondent's average monthly income in birr. This is a continuous variable.

(Source: Own literature review)

Thus, this study investigated the following factors as they influence patient satisfaction: convenience and availability of care, perceived quality of care, courtesy of staff, and the physical environment of the healthcare facility. Furthermore, age, education, and monthly income of the respondents are used as potential contributors to patient satisfaction.

Data analysis for variables measured using multi-item scales involves factor analysis. This technique helps identify underlying factors that explain the inter-relationships among multiple questionnaire items. Only factors with loadings exceeding 0.5 were retained for further analysis (details in Appendix 1). Additionally, to ensure the internal consistency and reliability of the multi-item measures used in the questionnaire, this study employed Cronbach's alpha, a statistical method as described by Churchill (1979).

Convenience factor is comprised of four items such as waiting time, availability of instruments, availability of doctors and availability of nurses. Courtesy is composed of four items: attentiveness of doctors, attentiveness of nurses, courtesy of doctors and nurses and privacy. Quality of care is composed of four items: diagnosis, competency, quality of instruments, and quality of medicines. The physical environment is composed of five items: signs and directions, sitting chair availability, atmosphere, ventilation, clean water, and toilets. The analysis revealed satisfactory internal consistency for all identified factors, with Cronbach's alpha coefficients exceeding 0.6 (Joseph & Rosemary, 2003). This indicates that the questionnaire items within each factor measure a unified construct effectively.

### **3.5. Methods of Data Analysis**

After data collection, survey responses were coded and entered into a Microsoft Excel spreadsheet. To ensure data accuracy and prepare it for analysis, the data was then cleaned, classified, and organized. This involved processes such as checking for missing entries, inconsistencies, and coding errors. Once the data was validated, it was imported into IBM SPSS version 26 for statistical analysis.

#### **3.5.1. Descriptive analysis**

This study utilized descriptive statistics to provide a comprehensive overview of the respondents' demographic characteristics. Patient satisfaction levels for each survey item were also analyzed using descriptive statistics. This involved calculating the mean (average) and standard deviation (spread) scores for each variable. The analysis adopted a categorization scheme developed by Zaidatol & Bagheri (2009) to interpret the satisfaction scores. This

scheme classifies satisfaction levels as: Low satisfaction (mean score below 3.39), moderate satisfaction (scores between 3.40 and 3.79), and high satisfaction (scores exceeding 3.80).

### **3.5.2. Quantitative analysis**

To determine the key factors impacting outpatient satisfaction, this study utilized Ordinary Least Squares (OLS) regression analysis. OLS regression is a statistical method that models the connection between a continuous dependent variable, in this case, patient satisfaction scores, and one or more independent variables. It essentially investigates how variations in the independent variables influence changes in the dependent variables.

Prior to estimating the regression model, it's crucial to ensure that the data meets the assumptions of OLS regression. Two key assumptions were assessed: multicollinearity and homoscedasticity. This study addressed multicollinearity, a phenomenon where independent variables are highly correlated. To assess this, Variance Inflation Factor (VIF) test was used. High VIF values would indicate potential multicollinearity issues that could affect the reliability of the regression analysis. Generally, a VIF value exceeding 10 suggests a potential problem. In this study, the mean VIF of 1.45 indicates a lack of significant multicollinearity (see Appendix 2 for details). In regression analysis, the homoscedasticity assumption posits that the error terms (unexplained variations) should exhibit constant variance across all levels of the independent variables. The Breusch-Pagan test was conducted to assess for heteroscedasticity, with a resulting p-value of 0.6467. The Breusch-Pagan test (1979) yielded a p-value greater than 0.05, indicating no statistically significant evidence of heteroscedasticity in the model's error terms.

This study employed a multiple linear regression model to investigate the connections between patient satisfaction and several influencing factors. The model includes the following independent variables: courtesy, physical environment, convenience and availability, quality of care, age, education, and monthly income. Each independent variable is assigned a weight (coefficient) in the model, indicating the strength and direction of its influence on patient satisfaction. An error term is also incorporated to account for any unexplained variations in patient satisfaction. Following Greene (2003), the multiple linear regression model is specified as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \varepsilon$$

Where: Y= Patient Satisfaction in OPD

$\beta_0$ = Constant term

$X_1$ = Age of respondents

$X_2$ = Education level of respondents

$X_3$ = Monthly income of respondents

$X_4$ = Convenience and availability

$X_5$ = Courtesy

$X_6$ = Quality of Care

$X_7$ = Physical Environment

Where the  $\beta_s$  represent the coefficients of the independent variables. These coefficients indicate the magnitude and direction of the influence each independent variable (e.g., courtesy, quality of care, age, etc.) has on patient satisfaction. X represents the values of each independent variable for all the respondents in the study. Finally,  $\varepsilon$  represents the error term, which accounts for any unexplained variations in patient satisfaction that are not captured by the model. The errors are assumed to follow a normal distribution with an average of zero and a constant variance across all observations.

### **3.6. Ethical Considerations**

To ensure ethical conduct, the research received prior approval from the College of Business and Economics at St. Mary's University, adhering to all relevant ethical research guidelines. Prior to data collection, informed consent was obtained from all participants after a thorough explanation of the study's objectives. To safeguard participant privacy and confidentiality, the research ensured that all collected information would not be disclosed to third parties. Names and other identifying details were deliberately omitted throughout the study. Furthermore, to maintain anonymity, participants were assigned unique code numbers instead of using their names.

## **CHAPTER FOUR**

### **4. RESULTS AND DISCUSSION**

This study investigated patient satisfaction with the outpatient services offered at Yekatit 12 Hospital Medical College. A self-administered questionnaire was distributed to a total of 110 patients by two trained data collectors. The results are presented in both descriptive and quantitative formats. Descriptive statistics is displayed in tables using frequencies and percentages, means and standard deviations.

The first section of this chapter presents a sociodemographic profile of the study participants, encompassing age, gender, marital status, educational attainment, and monthly income. The following section delves into the key findings, exploring the relationships between patient satisfaction and the independent variables investigated in this study. The third section presents the findings on the factors that influence outpatient satisfaction. The fourth section discusses the mechanisms used to increase outpatient satisfaction.

#### **4.1. Socio-Economic Characteristics of Respondents**

The sex composition of the sampled respondents was roughly 54.5% male and 45.5% female. This means that slightly more than half of the survey participants were male. About 50.9% of the sampled respondents were married. The proportion of single and divorced patients was approximately 47.3% and 1.8%, respectively (Table 2).

A significant proportion (90%) of the respondents was visiting the hospital without any referral from another health service center. Only about 10% of the respondents indicated that they came to the hospital because of referrals from other health centers. About 81.8% of the patients have completed their higher education and 14.5% have attended secondary school and only about 2.7% were with no education. This may indicate that the majority of respondents have a solid educational background.

Table 2: Socio-economic characteristics of respondents

Items	Frequency	Percentage (%)
Sex		
Female	50	45.5
Male	60	54.5
Marital status		
Single	52	47.3
Married	56	50.9
Divorced	2	1.8
Frequency of patients visit to the hospital		
For the first time	6	5.5
More than once	104	94.5
Referral		
Without referral	99	90
With referral	11	10
Education		
None	3	2.7
Primary	1	0.9
Secondary	16	14.5
Higher	90	81.8
<b>Total</b>	<b>110</b>	<b>100</b>

(Source: Own survey data, 2024).

The sampled respondents' monthly incomes ranged from 800 birr to 15,200 birr. This indicates that there is a greater income disparity among the sampled patient respondents. Respondents who visit the hospital range in age from 18 to 62 (Table 3).

Table 3: Age and monthly income of respondents

Items	n	Min.	Max.	Mean	Std. Deviation
Age of patients	110	18	62	29	9
Monthly income of patients	110	800	15200	3113	2656

(Source: Own survey data, 2024).

## 4.2. Satisfaction Level of Respondents on Hospital Services

### 4.2.1. Overall satisfaction level of respondents on hospital services

The patient satisfaction level of the respondents on hospital services is presented in the below Table 4. Patient satisfaction, the dependent variable in this study, is a composite measure derived from five questions that gauge respondents' perceptions of the hospital's services. Among these questions, Service level is less than I expected has the highest mean value (3.33), and Services are close to my expectation has the lowest mean value of 2.44. Generally, the total mean satisfaction level of outpatients is 2.68 with a standard deviation of 0.754. The analysis revealed a relatively low mean score for overall patient satisfaction. Considering the scale ranged from 1 (high dissatisfaction) to 5 (high satisfaction), this suggests that a significant portion of the participants expressed dissatisfaction with the hospital services. These findings highlight the potential need for improvements in outpatient care delivery to enhance patient-centeredness.

Table 4: Level of patient satisfaction on the Hospital services:

Variable	Level of satisfaction (n= 110)					Mean	St. Dev
	5	4	3	2	1		
Service Satisfaction							
Services are close to my expectation	32 29.1%	34 30.9%	14 12.7%	24 21.8%	6 5.5%	2.44	1.267
Service conditions of this hospital are excellent	24 21.8%	42 38.2 %	18 16.4%	20 18.2%	6 5.5%	2.47	1.179
Satisfied with the services of the hospital	29 26.4%	33 30%	17 15.5%	22 20%	9 8.2%	2.54	1.297
I got important services I want from the hospital	26 23.6%	33 30%	16 14.5%	27 24.5%	8 7.3%	2.62	1.285
Service level is less than I expected	9 8.2%	28 25.5%	11 10%	42 38.2%	20 18.2%	3.33	1.264
Total						2.68	0.754

(Source: Own survey data 2024).

Several factors may explain the variations in patient satisfaction findings across studies. These factors include how satisfaction is measured, patient expectations, the time the study was conducted, the type of hospital involved, and the cultural background of the participants. One potential factor influencing satisfaction levels could be patient expectations. Kotler (2003) suggests that satisfaction is partly determined by the discrepancy between a patient's experience and their prior expectations. In other words, if the reality of care falls short of what patients anticipated, their overall satisfaction might be lower. Patient satisfaction can be influenced by



the gap between their prior expectations and their perceived experience. When expectations exceed reality, dissatisfaction arises. Conversely, exceeding expectations leads to higher satisfaction. If expectations and experience align, patients may feel neutral. This study's lower mean satisfaction score compared to others might be partially explained by differences in patient expectations.

It's important to acknowledge the external generalizability of these findings. Socioeconomic factors can significantly impact health outcomes. Ethiopia's Ministry of Health (MOH, 2003) has identified low standards of living, poor environmental conditions, and limited social services as key contributors to the country's overall health status. These factors may indirectly influence patient expectations and satisfaction with healthcare services. A study by Syed et al. (2012) in India reported a significantly higher patient satisfaction rate compared to this research. In their study, 89% of patients expressed high satisfaction with the services provided by MMIMSR, while only 11% were dissatisfied. This can be taken as a manifestation of the effect of socio-economic development on patient satisfaction.

#### **4.2.2. Respondents' satisfaction level on four service determining factors**

##### ***4.2.2.1. Convenience and Availability***

The section encompassed four questions asking about availability of nurses, doctors and instruments and waiting time, as shown on the table below. As shown in the table 5, only 10.9% of the respondents strongly agreed, and more than half (50.9%) of them agreed that “there are available instruments in the hospital.” About “availability of nurses”; 34.5% disagreed, 22.7% strongly disagreed and 29.1% agreed.

Replying to “availability of doctors”, 28.2% of the patients disagreed and around 23.6% disagreed. And only 3.6% strongly agreed about it. When asked about the fairness of waiting time, almost 31% of the respondents disagreed.

Within the categories of convenience and availability, waiting time received the lowest mean score (2.26), indicating a lower level of satisfaction compared to availability of instruments, which had the highest mean score (3.32). The low mean score for waiting time (2.26) suggests

that patients experience lengthy wait times to access services. This finding aligns with Birna's (2006) study, which identified disappointment with long waiting times as a significant concern.

Table 5: Patients' satisfaction towards Convenience and Availability:

Variable	Level of satisfaction (n= 110)					Mean	St. Dev
	5	4	3	2	1		
Convenience and Availability							
Availability of instruments	12 10.9%	56 50.9%	11 10%	17 15.5%	14 12.7%	3.32	1.234
Availability of nurses	5 4.5%	32 29.1 %	10 9.1%	38 34.5%	25 22.7%	2.58	1.252
Availability of doctors	4 3.6%	28 25.5%	21 19.1	31 28.2%	26 23.6%	2.57	1.207
Waiting time	3 2.7%	25 22.7%	9 8.2%	34 30.9%	39 35.5%	2.26	1.239
Total						2.68	1.233

(Source: Own survey data 2024).

#### 4.2.2.2. Courtesy

This section comprised four items designed to assess patient perceptions of healthcare professional courtesy and attentiveness. Specifically, the questions addressed attentiveness of doctors, attentiveness of nurses, courtesy of doctors, and courtesy of nurses, along with considerations for patient privacy. As shown in the below table, 36.4% replied disagree about doctors' attentiveness while 11.8% neutral and 26.4% agreed. Regarding courtesy of nurses and doctors, almost 41% disagreed and 21% strongly disagreed about that.

Within the courtesy dimension, nurses' attentiveness received the highest mean score (2.67), indicating a relatively higher level of satisfaction compared to patient privacy, which had the lowest mean score (2.36). This shows that there is good treatment of patients in the hospital. While nurses' attentiveness received a higher mean score, the relatively low score for privacy (2.36) suggests that patients may not feel they have sufficient privacy to openly communicate with healthcare providers. This lack of privacy could potentially impede patient satisfaction. This is supported by Andaleeb (2007), highlighting that patients' satisfaction can be significantly influenced by factors including doctor treatment and nurse behavior.

Table 6: Patients' satisfaction towards Courtesy:

Variable	Level of satisfaction (n= 110)					Mean	St. Dev
	5	4	3	2	1		
Courtesy							
Attentiveness of doctors	4 3.6%	29 26.4%	13 11.8%	40 36.4%	24 21.8%	2.54	1.202
Courtesy of doctors and nurses	5 4.5%	24 21.5%	13 11.8%	45 40.9%	23 20.9%	2.48	1.179
Attentiveness of nurses	5 4.5%	29 26.4%	19 17.3%	39 35.5%	18 16.4%	2.67	1.166
privacy	4 3.6%	17 15.5%	23 20.9%	37 33.6%	29 26.4%	2.36	1.139
Total						2.51	1.172

Source: Own survey data 2024.

#### 4.2.2.3. *Quality of Care*

Four questions in the section were asked about quality of care. As we can see from the table below, regarding quality of medicines, 30% and 11.8% disagreed and strongly disagreed respectively. However, 28.2% agreed. Regarding competency, around 31% disagreed about the doctors' knowledge and skill. A significant portion of the respondents expressed disagreement with the diagnosis. Nearly 42% disagreed, and an additional 36.4% strongly disagreed.

Among the sub dimensions of the variable, diagnosis received the lowest mean score (1.97), indicating a lower level of satisfaction compared to quality of medicines, which had the highest mean score (2.87). From this, it is understood that the hospital's medicines are somehow to the expected quality of patients though the diagnosis they are getting is as needed.

Table 7: Patients' satisfaction towards Quality of Care:

Variable	Level of satisfaction (n= 110)					Mean	St. Dev
	5	4	3	2	1		
Quality of Care							
Quality of medicines	7	31	26	33	13	2.87	1.142
	6.4%	28.2%	23.6%	30%	11.8%		
Competency	4	30	26	34	16	2.75	1.121
	3.6%	27.3%	23.6%	30.9%	14.5%		
Quality of instruments	3	29	26	38	14	2.72	1.076
	2.7%	26.4%	23.6%	34.5%	12.7%		
Diagnosis	0%	13	11	46	40	1.97	0.972
		11.8%	10%	41.8%	36.4%		
Total						2.56	1.077

(Source: Own survey data 2024).

#### 4.2.2.4. Physical Environment

It comprised of five questions regarding cleanliness of the atmosphere, availability of sitting chair and water, clear signs & directions, and ventilation in the rooms. The result shows that almost 38% of the patients replied agreed on availability waiting area, 13.6% of the respondent strongly disagreed. Regarding clear signs and directions, 42.7% agreed but 22.7% were disagreed. In relation to clean toilets and water availability almost 31% agreed and at same level there were respondents who are disagreed.

From the below table, among the variables examined, patients expressed the highest level of satisfaction with the availability of seating chairs (3.14). In contrast, satisfaction with the cleanliness and tidiness of the environment was the lowest (2.83). Lee et al. (2006) reinforced the critical role of cleanliness in healthcare environments. They emphasized that hospitals, as institutions dedicated to healing, require high standards of hygiene to promote patient well-being. It is not only crucial for infection control but also contributes to the psychological well-being of patients. However, the respondents perceived that the hospital lacks cleanliness and tidiness. Hence, measures should be taken to make feel the patients pleased.

Table 8: Patients' satisfaction towards Physical Environment:

Variable	Level of satisfaction (n= 110)					Mean	St. Dev
	5	4	3	2	1		
<b>Physical Environment</b>							
Clean & tidy atmosphere	5 4.5%	37 33.6%	20 18.2%	30 27.3%	18 16.4%	2.83	1.195
Availability of sitting chairs	15 13.6%	42 38.2%	11 10%	27 24.5%	15 13.6%	3.14	1.310
Availability of water & toilet	13 11.8%	34 30.9%	9 8.2%	34 30.9%	20 18.2%	2.87	1.349

Clear signs & directions	10 9.1%	47 42.7%	13 11.8%	25 22.7%	15 13.6%	3.11	1.251
Ventilation	7 6.4%	38 34.5%	13 11.8%	34 30.9%	18 16.4%	2.84	1.245
<b>Total</b>						<b>2.96</b>	<b>1.27</b>

(Source: Own survey data 2024).

To assess factors influencing patient satisfaction, the study participants rated their satisfaction with four key service dimensions: convenience and availability, courtesy of staff, quality of care provided, and the physical environment of the outpatient department (See Table 9 and Appendix 3). An analysis of patient satisfaction scores across the four key factors influencing satisfaction in the outpatient department revealed significant variations. The physical environment received the highest average satisfaction score (2.96), followed by convenience and availability (2.68). Among the factors assessed, courtesy received the lowest mean satisfaction score (2.51), indicating a lower level of satisfaction compared to overall patient satisfaction with the healthcare services (2.68).

Table 9: Summary of Mean and standard deviation of independent variables:

Items	n	Mean	Std. Deviation
Convenience and Availability	110	2.68	1.233
Courtesy	110	2.51	1.172
Quality of Care	110	2.56	1.077
Physical Environment	110	2.96	1.270

(Source: Own survey data 2024).

### 4.3. Relationship between Independent Variables and Patient Satisfaction

To examine the relationships between patient satisfaction and the factors influencing it, this study employed partial correlation analysis. These factors included aspects of the outpatient department's service as well as patient demographics. Table 10 shows means, standard deviations and correlations of variables.

This analysis utilized correlation coefficients ( $r$ ) to quantify the direction and magnitude of the associations between patient satisfaction and the independent variables. It's important to remember that correlation coefficients ( $r$ ) range from -1 to +1. A coefficient of -1 indicates a perfect negative relationship, while +1 signifies a perfect positive relationship. A value of 0 suggests no linear association between the variables. The relationship between quality of care, courtesy, convenience and availability and physical environment and patient satisfaction are 0.638, 0.608, 0.621, 0.496 respectively. On the other hand, age, education level and monthly income are negatively correlated with patient satisfaction with value of relationship 0.073, -0.045, -0.015. The correlation coefficients revealed the direction and strength of the associations between patient satisfaction and the influencing factors. These findings provide initial support for the study's conceptual framework and serve as valuable input for the subsequent regression analysis.

Table 10: Spearman correlations of variables

<b>Variables</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1. Patient satisfaction	1							
2. Age	.073	1						
3. Education	-.045	-.143	1					
4. Income	-.015	-.028	0.144	1				
5. Convenience and Availability	.621	-.158	.026	.080	1			
6. Quality of Care	.638	-.093	-.037	.015	.624	1		
7. Courtesy	.608	.013	.188	.048	.603	.685	1	
8. Physical Environment	.496	-.116	.054	.012	.413	.444	.324	1

#### 4.4. Factors Affecting Patient Satisfaction

The findings from the linear regression analysis, detailed in Table 11, reveal that several independent variables exert statistically significant effects on overall patient satisfaction. These factors include educational level and aspects of the outpatient department's service delivery.

The regression model effectively explains over half (56.1%) of the variation in patient satisfaction scores.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.749 <sup>a</sup>	.561	.530	.76625

a. Predictors: (Constant), monthly income of patients, environment, age of patients, mean of education, courtesy, convenience, quality

Table 11: Regression Analysis Results:

Variables	Coefficients		t	Sig.
	B	Std. Error		
(Constant)	.292	.657	.445	.657
Convenience and Availability	.273	.101	2.704	.008
Courtesy	.314	.114	2.746	.007
Quality of Care	.262	.140	1.871	.064
Physical Environment	.290	.097	2.988	.004
Age of patients	.000	.009	-.033	.974
Education level of patients	-.190	.130	-1.462	.047
Monthly income of patients	-1.411E-5	.000	-.503	.616

Source: Own survey data 2024.

From the table the equation of the regression:

$$Y = 0.292 + 0.273X_1 + 0.314X_2 + 0.262X_3 + 0.290X_4$$

Where:

Y = is the aggregate satisfaction,  $X_1$  = Convenience and Availability,  $X_2$  = Courtesy,  $X_3$  = Quality of Care, and  $X_4$  = Physical Environment



According to the regression analysis results in Table 11, courtesy (beta = 0.314), convenience and availability (beta = 0.273), and physical environment (beta = 0.290) emerged as significant factors positively influencing patient satisfaction. These findings suggest that improvements in these areas can lead to higher satisfaction levels among outpatients. However, quality of care is a significant variable with 0.262 beta coefficient. The study revealed that four key factors positively and significantly influence patient satisfaction in the outpatient department. Moreover, courtesy variable has the highest beta value, i.e. among the selected independent variables, it has highest positive linear correlation with the dependent variable. Among the sociodemographic control variables, only education emerged as a statistically significant predictor of patient satisfaction, with a negative correlation coefficient of -0.190.

The analysis revealed a negative linear association between patient education level and overall satisfaction. Interestingly, patients with a high school education reported the lowest satisfaction scores compared to those with other educational backgrounds. This finding aligns with Sekandi and Makumbi's (2008) research in Uganda, which also identified an inverse relationship between educational level and patient satisfaction. One possible explanation for the lower satisfaction scores among patients with a high school education compared to other education levels could be the role of service expectations. Patients with higher education might have greater expectations for the quality and complexity of healthcare services.

Likewise, in the study of the six regions of Ethiopia by Abebe *et al.* (2008), educational status was observed to be significant determinant of the mean score for patient satisfaction. Fekadu *et al.* (2010) also reported interesting findings regarding the association between socioeconomic characteristics and patient satisfaction. Their analysis revealed that educational attainment played a role, with illiterate respondents expressing higher satisfaction compared to those with tertiary education (diploma and above).

While this study identified education level as a factor influencing patient satisfaction, other socioeconomic factors (age and monthly income) did not show a significant relationship. This aligns with previous research by Deborah (2001) highlighting the difficulty in establishing consistent patterns between socioeconomic factors and satisfaction. This complexity likely

arises from variations in study designs, sample characteristics, and the specific measures used to assess satisfaction.

The regression analysis pinpointed courtesy as a significant factor positively influencing patient satisfaction with hospital services. This finding aligns with research by Andaleeb (2007), who suggests that a positive relationship between healthcare providers and patients significantly contributes to patient satisfaction, regardless of the service quality itself. On the same manner, Anteneh *et al.* (2014), several factors contribute to a patient's overall satisfaction with their hospital stay. These include positive interactions with staff, the perceived competence of doctors, the hospital's policy on visitation, the effectiveness of treatments provided, and the availability and helpfulness of medical supplies and support personnel.

These findings underscore the critical role of interpersonal relationships, particularly staff friendliness, in shaping patient satisfaction. This highlights the need for innovative strategies by hospital management to enhance patient-staff interactions across all staff categories. By prioritizing positive interactions, hospitals can improve patients' perception of service delivery.

The study further revealed that the design and upkeep of the healthcare facility itself play a significant role in shaping patient satisfaction. This includes factors like creating a welcoming atmosphere, providing comfortable seating areas, maintaining attractive waiting rooms, ensuring clear signage and directions, adequate lighting, a calm atmosphere, and meticulous cleanliness and organization throughout the facilities and equipment.

The study's findings regarding the importance of the physical environment are consistent with prior research by Andrew and Erik (2009). Their study identified aspects like clear signage, easy-to-understand written materials, convenient location, and a consistently clean and attractive environment as factors influencing patient satisfaction.

Lee et al. (2006) argued that a clean environment is fundamental for hospitals, which serve as places of healing. This goes beyond just preventing infections; it can also contribute to a patient's psychological well-being and recovery process. Building upon these findings, it's clear

that maintaining a consistently clean and organized hospital environment is not merely an expectation, but a crucial factor influencing patient satisfaction with the overall quality of care.

Another key factor influencing outpatient satisfaction is convenience and availability. This includes elements like having necessary equipment and staff readily available, ease of access to the hospital, timely appointments with healthcare providers, and efficient service delivery (receiving services as desired). To ensure high patient satisfaction, minimizing waiting times is paramount. Regardless of the quality of care, lengthy delays can significantly decrease patient satisfaction and potentially impact operational efficiency.

Atinga et al. (2011) identified waiting times for both medical and administrative procedures as a key factor influencing patient satisfaction with healthcare quality. In other words, minimizing waiting times can significantly improve patient experience. This emphasizes the importance of the hospital evaluating and potentially restructuring its processes to optimize patient satisfaction through efficient waiting time management.

Numerous studies have shown that, in addition to other factors, the perceived quality of a hospital is the most important factor in the patient's decision to visit it. This is due to the fact that, when healthcare providers deliver high-quality care that is patient-centered taking into account patients' preferences, values, and needs it tends to result in higher levels of patient satisfaction. This is also this thesis's result that quality of care affects outpatient's satisfaction. It can be considered the staff's competence as they carry out their responsibilities. According to Turris (2005), patient satisfaction is positively impacted by several factors related to staff competency. These include a doctor's proficiency in clinical diagnosis and procedures, a nurse's in-depth knowledge of medication administration, and a laboratory technician's expertise in blood sample analysis. The findings of this survey align with those of David and Mark (1998), whose research identified several key factors influencing patient satisfaction in public hospitals. These factors include the perceived adequacy of consultation time, a doctor's demonstration of empathy, technical competence, and the avoidance of behaviors that convey a lack of experience or ability.

All in all, the selected independent variables appeared to be the determinants of patient satisfaction in the hospital.

#### **4.5. Searched Mechanisms to Enhance Outpatients' Satisfaction**

Despite explaining the importance of the research and how their feedback would be used to enhance quality of care, only 20 out of 110 respondents provided comments or suggestions. This limited response rate suggests a potential lack of interest in providing feedback on their experiences. While additional comments would have been valuable, the feedback received highlighted concerns related to availability and convenience, quality of care, and the physical environment. These areas should be prioritized for improvement within the outpatient department.

Availability and convenience: emerged as key concerns for respondents. Many reported challenges in accessing specialists, experiencing drug and supply shortages in the pharmacy, and a lack of clear information regarding hospital services and their own health conditions. Additionally, long waiting times for care significantly impacted on their overall experience. The survey also highlighted concerns about staffing shortages. Addressing these issues and improving overall availability and convenience would not only alleviate the high workloads of hospital staff, but also significantly enhance patient satisfaction. By ensuring sufficient staffing levels, the hospital can accommodate more patients in a timely manner, leading to a more positive experience.

A consistent concern among patients was lengthy wait times due to doctor unavailability. This appeared to be a common issue across different healthcare units within the facility. Furthermore, some patients reported instances of preferential treatment, where influential patients or relatives of staff received quicker attention. Interestingly, patients perceived medical assistants to be less biased in attending to them compared to doctors.

Quality: The survey identified concerns regarding perceived staff competency, with some respondents suggesting that recruitment practices might prioritize family connections over qualifications. Additionally, a troubling issue emerged related to the availability of expired medicines within the hospital pharmacy.

The survey also revealed concerns about the physical environment of the OPD waiting area. During peak times, seating capacity proved inadequate, leading to overcrowding. Furthermore, a lack of coordination between sanitation and management staff was evident in the unhygienic conditions and poor waste disposal system. Specifically, patients reported a lack of readily available drinking water, insufficient seating, overflowing waste bins, and unclean restrooms.

All in all, they recommended enhancing the outpatient department (OPD) through several key strategies. Firstly, increasing the number of specialist doctors to complement the existing junior doctors. Secondly, establishing a library within the hospital was proposed to provide ongoing learning and knowledge updates for service providers. To address identified issues and implement corrective actions, improved communication and collaboration between management and service providers were recommended. As an alternative approach, encouraging staff to attend external training courses could help them stay abreast of the latest advancements in their respective fields. The study highlights the potential role of educational attainment in shaping patient expectations. Further research could explore how educational initiatives might influence patient satisfaction with healthcare services. Additionally, the findings suggest that interpersonal competencies and communication skills of healthcare professionals may be important contributors to patient satisfaction. Future studies could investigate the effectiveness of training programs designed to enhance these skills among doctors.

## **CHAPTER FIVE**

### **5. SUMMARY, CONCLUSION AND RECOMMENDATIONS**

The purpose of this chapter is to determine whether the research question was answered, if the study's objective was met, and whether the study made any contributions. It begins with a conclusion, then moves on to the implication, theoretical contribution, and limitations. The chapter ends with a suggestion for future research.

#### **5.1. Summary**

Most of the respondents in this study were male, married and who completed higher education. Moreover, a large portion of the respondents visited the hospital more than once. The study participants ranged in age from 18 to 62 years old, with a mean age of 29. The average monthly income was birr 3,113. As stated in the research objective section, the first goal was to determine the status of outpatient satisfaction. The survey results indicated a mean patient satisfaction score of 2.68 (SD=0.754), suggesting moderate overall satisfaction. Patients rated the physical environment the highest (2.96), followed by convenience and availability (2.68), quality of care (2.56), and courtesy (2.51). These findings can guide improvement efforts by focusing on areas where satisfaction scores are lower. Based on this, one can say that patients are not that much satisfied with the services provided by the hospital. A possible reason may probably be because some of the services offered meet their needs but have not achieved the high level of their satisfaction yet.

#### **5.2. Conclusion**

While patient satisfaction can be a subjective concept, it remains a crucial indicator of the success of healthcare delivery models. By understanding patient perceptions of care, healthcare providers gain valuable insights that can be used to improve services. This can involve strategic planning for health initiatives that not only meet, but potentially even exceed, patient expectations and established standards. The effectiveness of patient satisfaction research centers on employing reliable and well-established methods for data collection. Since healthcare is fundamentally a service-oriented field, prioritizing patient involvement and satisfaction is

paramount. In fact, patient satisfaction directly impacts the perceived success of healthcare quality within a health service system.

Patient satisfaction is a critical factor in shaping a hospital's reputation. Satisfied patients are more likely to recommend the hospital to others, contributing to a positive overall image. Numerous studies have highlighted challenges in outpatient services, such as extended wait times and unprofessional staff behavior. These issues can significantly impact patient satisfaction and require hospital management to prioritize improvement strategies. The present study highlighted the level of satisfaction and related determinants among patients attending OPD of YH. Multiple studies have consistently identified relational skills as a key factor influencing patient satisfaction. These skills encompass courtesy, respect, and effective communication from healthcare providers. They are found to be even more important and influential than factors like convenience, availability, physical environment, and even some technical skills such as clinical competency.

Regarding factors affecting outpatient satisfaction, the regression result showed that courtesy, physical environment, convenience and availability, quality of care, and education level of patients were the primary factors significantly influencing the level of patient satisfaction.

While patient satisfaction surveys are a recognized tool for quality improvement in healthcare, their full potential for driving progress is often underutilized. By systematically analyzing patient feedback, hospital administrators and policymakers can gain valuable insights into patient perspectives and their level of engagement in quality improvement efforts. This comprehensive understanding is crucial, as outpatient services significantly contribute to a hospital's overall image. Therefore, prioritizing patient feedback is essential for continuous improvement in the quality of care and amenities offered. By understanding patient needs and concerns, healthcare providers can target specific areas for improvement, such as wait times, communication, or facility cleanliness.

### **5.3. Managerial Implications**

Surveys are a valuable tool for gathering patient-reported data, offering a unique window into patient experiences and satisfaction. This data can be used to develop patient-centered performance indicators that reflect the quality of healthcare services from the patient's viewpoint. Although data on patient behavior can provide some clues about how patients perceive service quality, it's an indirect measure. Direct insight into patient experience comes from surveys that capture patients' perspectives firsthand. For healthcare policies to be truly patient-centered, healthcare managers and policymakers need to actively track patient experience. By understanding patient needs and priorities through survey results, they can make informed decisions about service planning and performance evaluation.

Regularly incorporating surveys that assess patients' knowledge and needs can significantly enhance the patient's role in healthcare. This approach emphasizes the importance of patient perspectives in shaping healthcare delivery. One key finding from such surveys is that strong relationships between doctors and nurses are directly linked to patient satisfaction. This study highlights the importance of a positive hospital environment for patient well-being. A culture of trust and respect among healthcare professionals can significantly reduce patient anxiety. Furthermore, the compassionate behavior of doctors and nurses can have a profound impact on a patient's emotional state. The practical value of this research lies in its exploration of patient perceptions regarding the hospital's services. By understanding how patients view their healthcare experience, we can gain valuable insights into the perceived value of these facilities.

This study offers valuable insights for healthcare organizations seeking to improve their effectiveness. By understanding patient perceptions, healthcare providers can identify areas for improvement across various aspects of service quality. Focusing on these areas, such as waiting time, communication, or facility cleanliness, can lead to enhanced patient satisfaction and a stronger reputation built on high patient-centered values. Thus, being aware of how patients perceive different aspects of care, all staff members can recognize the importance of these factors in the patient's experience. Ultimately, fostering a culture of quality improvement requires holding each professional accountable for the care they deliver.



#### **5.4. Recommendation for Future Research**

Though this study focused on core patient perspectives on the selected independent variables, other potentially influential factors were not explored. To gain a more comprehensive understanding of patient experience, future research should consider assessing patient attitudes towards a wider range of relevant factors. This holistic approach would provide valuable insights for designing effective and far-reaching strategies to improve overall healthcare services.

A subsequent study may be conducted to determine the current level of satisfaction in the hospital. To gain a broader understanding of patient experiences within the public healthcare system, future research should incorporate a comparative analysis. This analysis could involve inpatients from other public hospitals within the city, allowing for an exploration of potential variations in service delivery across seemingly identical institutions. In healthcare systems like Ethiopia's, where public and private institutions coexist, a comparative study is essential to gain a deeper understanding of patient experiences across both sectors. This would allow for a more comprehensive analysis of factors influencing patient satisfaction and healthcare delivery. Public hospital services can be compared to private sector hospitals using key patient satisfaction indicators.

Although the questionnaire's reliability was tested, subjectivity was unavoidable. This study concludes that data collection requires the utmost care to control data quality. Furthermore, data collectors must be fully qualified for their job and understand how to narrate the questions in the questionnaire.

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## **APPENDICES**

Appendix 1: Construct items, loadings, and alpha values

<b>Item</b>	<b>Convenience and Availability (alpha=.723)</b>	<b>Factor loadings</b>
1	Availability of doctors	.708
2	Nurses' availability	.837
3	Fairness of waiting time	.607
4	Availability of instruments	.511

<b>Item</b>	<b>Courtesy (alpha=.777)</b>	<b>Factor loadings</b>
1	Doctors' attentiveness	.774
2	Doctors and nurses' courtesy	.773
3	Nurses' attentiveness	.644
4	Your privacy is maintained	.542

<b>Item</b>	<b>Quality of Care (alpha=.612)</b>	<b>Factor loadings</b>
1	Doctors' knowledge and skill	.581
2	Quality of instruments	.553
3	Quality of medicines	.560
4	Patients can get any diagnosis	.521

<b>Item</b>	<b>Physical Environment (alpha=.664)</b>	<b>Factor loadings</b>
1	Atmosphere of this OPD is clean and tidy	.616
2	Clean toilets and drinking water are available	.586
3	There are clear signs and directions	.545
4	The hospital's inside has good ventilation	.602
5	Sitting chairs available at the waiting area	.621

<b>Item</b>	<b>Patient Satisfaction (alpha=.897)</b>	<b>Factor loadings</b>
1	Services are close to my expectation	.817
2	Service conditions of this hospital are excellent	.840
3	Satisfied with the services of the hospital	.881
4	I got important services I want from the hospital	.782
5	Service level is less than I expected	.575



## Appendix 2: VIF results

<b>Variable</b>	<b>VIF</b>	<b>1/VIF</b>
Quality of care	2.322	0.43066
Convenience and availability	1.936	0.51653
courtesy	2.190	0.45662
Age	1.102	0.90744
Physical environment	1.303	0.76746
Education	1.145	0.87336
Income	1.054	0.94877
<b>Mean VIF</b>	<b>1.45</b>	

Appendix 3: Working definition of factors.

Concept	Factors	Measures	No. of measure
Patient Satisfaction	Convenience and availability	Waiting time, availability of instruments, doctors, nurses	4
	Quality of care	Diagnosis, Competency, quality of instruments, quality of medicines.	4
	Courtesy	Attentiveness of doctors and nurses, privacy, courtesy of doctors and nurses.	4
	Physical environment	Clean and tidy atmosphere, availability of sitting chairs, clear signs and directions, ventilation, availability of drinking water & clean toilets.	5

Source: Own literature review

#### Appendix 4: Survey Questionnaire on service satisfaction

**St. MARY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**  
**MA PROGRAM in MARKETING**  
**Survey Questionnaire on service satisfaction.**

**Dear Sir/Madam:** thank you for your time. Your participation is important in helping us improve patient satisfaction at Yekatit 12 Hospital Medical College. This survey questionnaire is meant for research purposes only and aims to understand your experience with the service delivery. Your honest feedback for this survey is highly valuable. This research project aims to understand patient experiences in hospitals. Your anonymized responses will be used to analyze trends and may be included in published research reports or presentations. Participation in this survey is completely voluntary.

**Background information:** The following questions relate to your background.

1. Age of the respondent in years\_\_\_\_\_
2. Sex: a) Male\_\_\_ b) Female. \_\_\_\_
3. Respondent's education level:  
a) None b) Primary c) Secondary d) University or technical graduate e) If other please specify) \_\_\_\_\_
4. Availability of clinics in your area. a) Available b) Not available
5. Your occupation\_\_\_\_\_
6. Marital status: a) Single b) Married c) Divorced
7. Estimated monthly income level in birr\_\_\_\_\_
8. How many times did you visit this hospital to get service in the past years?  
\_\_\_\_\_
9. Did you come by a referral from other places or without a referral?  
a) By a referral b) without a referral
10. Whenever you come to this hospital do you use the same doctor or different doctors?  
a) The same doctor b) Different doctors

**Patient's opinion regarding the services:**

Items	SD = 1	D= 2	N=3	A = 4	SA = 5
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➤ There are available instruments like BP apparatus, thermometer, weighing scale and other instruments	1	2	3	4	5
➤ There are available nurses/clinical assistances for consultation	1	2	3	4	5
➤ There are available doctors for consultation	1	2	3	4	5
➤ The waiting time to get services is fair	1	2	3	4	5

Items	SD = 1	D= 2	N=3	A = 4	SA = 5
➤ Doctors give enough attention for your questions	1	2	3	4	5
➤ Doctors and nurses are friendly and have courteous manner	1	2	3	4	5
➤ Nurses are attentive while answering your question	1	2	3	4	5
➤ Privacy is maintained before doing any procedure	1	2	3	4	5

Items	SD = 1	D= 2	N=3	A = 4	SA = 5
➤ Medicines available here have good quality	1	2	3	4	5
➤ Doctors are competent for treating the patient	1	2	3	4	5
➤ Instruments which are used for medical care have good quality	1	2	3	4	5
➤ Patients can get any diagnosis here	1	2	3	4	5

Items	SD = 1	D= 2	N=3	A = 4	SA = 5
➤ The atmosphere of this OPD is clean and tidy	1	2	3	4	5
➤ Sitting chairs are available at the waiting area	1	2	3	4	5
➤ Clean toilets and drinking water are available	1	2	3	4	5
➤ There are clear signs and directions to indicate where to go in the service area & easy to follow	1	2	3	4	5

➤ The inside of the hospital has good ventilation	1	2	3	4	5
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**Service satisfaction:**

Items	SD = 1	D= 2	N=3	A = 4	SA = 5
➤ In most ways the service level of the hospital is close to my expectations	1	2	3	4	5
➤ The service conditions of this hospital are excellent	1	2	3	4	5
➤ I am satisfied with the services of this hospital	1	2	3	4	5
➤ So far, I have got the important services I want in all my visits to this hospital	1	2	3	4	5
➤ In most ways the service level of the hospital is less than my expectations	1	2	3	4	5

How satisfied are you with the services you have received from the hospital?

1. Highly dissatisfied    2. Dissatisfied    3. Neutral    4. Satisfied    5. Highly satisfied

Any suggestions or comments for the improvement of the services of the outpatient department:

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**Thank you for your kind cooperation!!!**