# YANGON UNIVERSITY OF ECONOMICS DEPARTMENT OF MANAGEMENT STUDIES MBA PROGRAMME

# EFFECT OF SERVICE QUALITY ON PATIENT SATISFACTION AND PATIENT LOYALTY TOWARDS TELEMEDICINE FOR HEPATOLOGY CARE IN MA HAR MYAING HOSPITAL

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**ACADEMIC YEAR (2020–2023)** 

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# EFFECT OF SERVICE QUALITY ON PATIENT SATISFACTION AND PATIENT LOYALTY TOWARDS TELEMEDICINE FOR HEPATOLOGY CARE IN MA HAR MYAING HOSPITAL

This thesis is submitted to the Board of Examiners in partial fulfillment of the
requirements for the degree of Master of Business Administration (MBA)

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### **ACCEPTANCE**

This is to certify that the thesis entitled "Effect of Service Quality on Patient Satisfaction and Patient Loyalty towards Telemedicine for Hepatology Care in Ma Har Myaing Hospital" has been accepted by the examination Board for awarding the Master of Business Administration (MBA) degree.

<b>Board of Examiners</b>	
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#### **ABSTRACT**

This study aims to study service quality, patient satisfaction, and patient loyalty in the realm of hepatology care delivered through telemedicine. The specific objectives of this study are to analyze the effect of service quality on patient satisfaction and to examine the effect of patient satisfaction on the loyalty of patients using telemedicine for Hepatology care in Ma Har Myaing Hospital. The sample of 155 patients is selected by using the simple random sampling method. Descriptive statistics and regression analysis are used to analyze the data. According to the multiple regression analysis, the quality of "interaction" has only a positive and significant effect on patient satisfaction. Patient satisfaction also has a positive and significant effect on patient loyalty. The findings suggest that telemedicine at Ma Har Myaing Hospital has succeeded in not only satisfying patients' healthcare needs but also in engendering a strong sense of loyalty and commitment among them. Loyalty programs for patients should be developed to reward their continued use of telemedicine services. These programs can strengthen patient loyalty over time.

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### LIST OF ABBREVIATIONS

EBM Evidence-based Medicine

TAM Technology Acceptance Model

WHO World Health Organization

#### **CHAPTER 1**

#### **INTRODUCTION**

The healthcare industry is currently in the midst of a profound transformation, primarily driven by the emergence of telemedicine. Telemedicine, which harnesses technology to facilitate remote medical consultations and services, holds immense potential to reshape healthcare delivery. It has the capacity to surmount geographical constraints, enhance access to specialized care, and redefine the way healthcare services are provided. Within the realm of hepatology care, where ongoing monitoring and follow-up are of paramount importance, telemedicine stands as a promising solution.

Service quality plays a vital role in shaping an organization's strategies and standing out in the market (Tjiptono & Chandra, 2016). It is essentially how customers perceive the services provided (Choudhury, 2013). In the healthcare sector, high-quality services raise expectations of customers (Moghadam & Amiresmaili, 2011). Evaluating service quality has a dual purpose: understanding consumer needs and measuring customer satisfaction (Ghotbabadi et al., 2015). Healthcare providers understand the importance of patient satisfaction, which is closely tied to service quality (Gustke et al., 2000). In assessing service quality, six dimensions are crucial: object, trust, processes, infrastructure, interaction, and atmosphere. This evaluation is essential for understanding how a company operates (Akter, 2021).

The object dimension in telemedicine for hepatology care is crucial. It is rooted in patient-centered care and evidence-based medicine. Patient-centered care means tailoring healthcare to individual needs and involving patients in decisions. In telemedicine, where physical contact is limited, the quality of information is paramount. Patients need unbiased, condition-specific information (Epstein & Street, 2007). Evidence-based medicine stresses making healthcare decisions based on solid clinical evidence. In telemedicine, healthcare providers must rely on accurate and unbiased assessments (Sackett et al., 1996). Clear and unbiased information is vital for patient satisfaction and the success of remote hepatology care. Trust in service quality is a cornerstone of the consumer-service provider relationship. Patients must believe in telemedicine hepatology service providers' competence, integrity, and professionalism. Trust in healthcare providers positively affects patient satisfaction and health outcomes (Mechanic & Meyer, 2000). Trust in the technology used for telemedicine is crucial. Patients need to trust its reliability and security, which significantly affects their acceptance of technology known as Technology

Acceptance Model (TAM) (Davis, 1989). This trust extends to the confidentiality and security of personal and medical information in align with the principles of biomedical ethics. (Beauchamp & Childress, 2013) Trust in telemedicine for hepatology care involves multiple dimensions, including trust in providers, technology, and data security. These dimensions are intertwined and collectively influence patient confidence, satisfaction, and the success of remote hepatology care.

Process quality in telemedicine must align with established frameworks such as SERVQUAL (Parasuraman et al., 1988). It encompasses elements like timely appointments, user-friendly scheduling, clear instructions, and patient-centered care. Efficient processes are vital for the success of telemedicine, ensuring timely consultations and organized care (Epstein & Street, 2007). Telemedicine success also depends on the infrastructure of service; user-friendly technology and secure, reliable infrastructure (Davis, 1989). Patients need a seamless platform with video and audio quality, and reliable internet. Data security is vital for patient trust. Technical support and redundancy systems ensure uninterrupted care. Patient-centered care in telemedicine includes good interaction, active listening, effective communication, and personalized care. Effective communication and rapport building are crucial. (Rathert et al., 2013) A strong patient-provider relationship fosters trust and satisfaction. A welcoming virtual environment is crucial for patient well-being and quality care. Patients need to feel the virtual platform is professional, private, and calming. The atmosphere sets the tone for the patient-provider relationship and affects satisfaction (Ulrich et al., 2008).

However, for the successful implementation and widespread adoption of telemedicine in hepatology care, a critical aspect that warrants investigation is its effect on patient satisfaction and loyalty. This study seeks to explore the intricate relationship between service quality, patient satisfaction, and patient loyalty in the context of telemedicine for hepatology care, with a specific focus on the practices at Ma Har Myaing Hospital. Patient Satisfaction in telemedicine for hepatology care depends on several key factors. A study indicated that when certain conditions are met, telemedicine can lead to high patient satisfaction (Whitten & Mackert, 2005). These conditions include enhanced access to healthcare, especially for patients in remote areas, which contributes to satisfaction (Darkins et al., 2008). Satisfaction is also linked to the perceived quality of care. Patients expect that telemedicine care matches in-person standards. Effective communication and trust are crucial in the patient-provider relationship. Patients should feel heard and trust their healthcare providers even in a virtual setting (Epstein & Street,

2007) Technical aspects like audio and video quality, platform usability, and reliability significantly affect satisfaction. Technical issues can reduce satisfaction, highlighting the importance of a robust telemedicine system. Patients need assurance that their medical information remains secure and confidential (Kruse, 2017). Finally, patients value continuity in hepatology care. Telemedicine should seamlessly fit into their ongoing care plan. Ensuring this contributes to patient satisfaction (Whitten & Mackert, 2005).

Patient loyalty to telemedicine for hepatology care depends on several key factors. Trust in telemedicine services and healthcare providers is paramount, as patients who trust the platform and the care provided are more likely to continue using and recommending telemedicine (Kruse et al., 2017). Consistency in care delivery is another crucial aspect. Patients expect consistent quality over time, and this fosters loyalty. Positive experiences, including effective communication and a welcoming atmosphere, strongly influence patient loyalty (Gagnon et al., 2012). The convenience and accessibility of telemedicine also play a role. Patients valuing remote consultations and reduced travel needs are more likely to stay loyal to telemedicine (Rashid et al., 2014). Strong provider-patient relationships are significant. Patients with positive, trusting relationships are more likely to remain loyal and recommend telemedicine to others (Gagnon et al., 2012). Patients must have confidence in the platform's stability and security to stay loyal to telemedicine. Therefore, patient loyalty in telemedicine for hepatology care is influenced by trust, care consistency, positive experiences, convenience, provider-patient relationships, word-of-mouth recommendations, and the quality of the technical infrastructure (Bashshur et al., 2014).

This study endeavor holds significant importance as it addresses a notable gap within the existing body of literature. While telemedicine has gained recognition and momentum for its potential advantages, a comprehensive investigation specifically delving into the influence of service quality on patient satisfaction and loyalty in the context of telemedicine for hepatology care has been conspicuously absent. By bridging this gap, the study makes a substantial contribution to the knowledge base. It offers valuable insights that can benefit healthcare providers, policymakers, and researchers alike by shedding light on the intricacies of telemedicine services and their profound repercussions on patient outcomes.

#### 1.1 Rationale of the Study

Understanding the effect of service quality on patient satisfaction represents a pivotal step toward enhancing the overall patient experience. Patient satisfaction serves as a primary metric for assessing healthcare service quality and is intrinsically linked to positive health outcomes, adherence to treatment plans, and the general well-being of patients. By scrutinizing the facets of service quality in the context of telemedicine for hepatology care, encompassing dimensions like object, trust, process, infrastructure, interaction, and atmosphere, healthcare providers can pinpoint areas necessitating improvement. This, in turn, enables them to optimize service delivery to augment patient satisfaction.

Patient loyalty constitutes a pivotal factor in the sustained success and viability of healthcare services. Loyal patients tend to exhibit higher retention rates, propagate positive word-of-mouth recommendations, and contribute significantly to the overall reputation and growth of healthcare institutions. An exploration into the nexus between service quality and patient loyalty concerning telemedicine in hepatology care will empower healthcare providers to identify the core elements driving patient loyalty. Subsequently, they can formulate strategies to foster enduring relationships with their patients.

The choice to conduct this study at Ma Har Myaing Hospital offers a distinctive opportunity to evaluate the efficacy and acceptance of telemedicine services within a specific healthcare context. Concentrating on a singular hospital enables the study to capture the nuances and specific challenges experienced by both healthcare providers and patients in the delivery and receipt of telemedicine services. The findings generated can serve as a foundation for tailored interventions and improvements that are contextually relevant and directly enhance the quality of hepatology care provided.

Moreover, as telemedicine gains momentum on a global scale, comprehending the factors influencing patient satisfaction and loyalty toward telemedicine services in hepatology care can extend far beyond the confines of a single hospital. The insights derived from this study can inform healthcare policies, guidelines, and best practices for the seamless integration of telemedicine into routine clinical care, not only at Ma Har Myaing Hospital but also across various healthcare institutions, both nationally and internationally.

#### 1.2 Objectives of the Study

The objectives of the study are as follow:

- (1) To analyze the effect of service quality on patient satisfaction using telemedicine for Hepatology care in Ma Har Myaing Hospital
- (2) To examine the effect of patient satisfaction on the loyalty of patients using telemedicine for Hepatology care in Ma Har Myaing Hospital

#### 1.3 Scope and Methods of the Study

This study emphasizes the service quality, patient satisfaction, and patient loyalty towards telemedicine for hepatology care within the context of Ma Har Myaing Hospital. Specifically, it examines the extent to which service quality influences both patient satisfaction and patient loyalty. A quantitative research approach is employed in this study. This approach facilitated the systematic collection and analysis of data, enabling a rigorous exploration of the study questions at hand. Both primary and secondary data sources are used to achieve the study objectives. Primary data are collected using a structured questionnaire. Incorporating secondary data sources in research serves multifaceted purposes. Firstly, conducting a comprehensive literature review enables the synthesis of existing knowledge, the formulation of theoretical frameworks, and a deeper understanding of the subject. Secondly, secondary data aids in benchmarking, allowing for comparative analysis against established standards. Lastly, it provides crucial contextual information, validates primary findings, and illuminates historical trends, particularly valuable in longitudinal studies.

The questionnaire is structured with five-point Likert scale to collect the primary data from the patients that provide valuable insights into patient perceptions of telemedicine services for hepatology care. To ascertain an appropriate sample size, the following assumptions are considered: a desired margin of error (e) of 5%, a 95% confidence interval (CI), a known population size (N) of 250, and an anticipated response distribution of 50%. The known population size of 250 refers to the total number of patients who utilized the telemedicine services for Hepatology care at Ma Har Myaing Hospital within the timeframe spanning from August 2022 to August 2023. The calculation of the required sample size is conducted using the Raosoft Sample Size Calculator. The sample of 155 patients is selected by using the Simple Random Sampling method. This method ensures that each patient in the population has an equal and independent chance of being included in the study. Data collection for this study was conducted over a period of two weeks, commencing on the

23<sup>rd</sup> of September 2023. The data-gathering process is conducted online through the utilization of Google Forms. Descriptive statistics and regression analysis are used to analyze the data.

#### 1.4 Organization of the Study

This paper is organized into five chapters. Chapter one is an introduction with the rationale of the study, objectives of the study, scope, and method of the study, and organization of the study. Chapter two deals with the theoretical background of the study, exploring concepts such as service quality, patient satisfaction, and patient loyalty. It also investigates the broader landscape of telemedicine within hepatology care. Chapter three includes the background of telemedicine for Hepatology, the profile of Ma Har Myaing Hospital, and the service quality practices of telemedicine services for Hepatology in Ma Har Myaing Hospital. It offers a comprehensive understanding of the hospital's telemedicine setup. Chapter four comprises an in-depth analysis of the telemedicine services offered by Ma Har Myaing Hospital within the context of hepatology care. Chapter five is the conclusion which presents findings and discussion, suggestions and recommendations, and needs for further research.

#### **CHAPTER 2**

#### THEORETICAL BACKGROUND

This chapter describes the theoretical background and literature review dealing with service quality, patient satisfaction, and patient loyalty. It consists of the definitions of service quality, patient satisfaction, and patient loyalty and a review of previous studies concerned with the effects of service quality on patient satisfaction and patient loyalty.

#### 2.1 Service Quality

Service quality contributed significantly to creating differentiation, positioning, and competitive strategies for each organization (Tjiptono & Chandra, 2016). Service quality was generally defined by Choudhury in 2013 as a customer's assessment that serves as their perception of the services provided. In the health sector, the quality of health service is related to ensuring high-quality service thereby increasing people's expectations in obtaining health services (Moghadam & Amiresmaili, 2015). The assessment of service quality serves a dual purpose: it aids in gauging consumer needs while simultaneously scrutinizing customer satisfaction levels concerning the services rendered (Ghotbabadi et al., 2015). This evaluation is imperative for gaining insights into how a company operates, a necessity underscored by Akter in 2021. Within the healthcare sector, the significance of appraising patient perceptions is widely acknowledged by healthcare providers. Patient satisfaction is intricately linked to the quality of services and is regarded as a pivotal indicator of service quality (Gustke, 2000). In assessing service quality, there are six dimensions that are immensely important: object, trust, processes, infrastructure, interaction, and atmosphere.

#### **2.1.1 Object**

The "Object" dimension of service quality in the context of telemedicine for hepatology care is a critical factor that profoundly influences patient experiences and outcomes. The concept of object quality in healthcare, particularly in the context of telemedicine, draws from the broader theoretical framework of patient-centered care and the principles of evidence-based medicine. Object quality aligns closely with the principles of patient-centered care, which emphasize the importance of tailoring healthcare services to meet individual patient needs and preferences. In telemedicine, where physical interactions are limited, the quality of information and care becomes paramount. Patients

must trust that the information they receive is unbiased and based on their specific health conditions.

Patient-centered care underscores the importance of healthcare providers presenting information objectively, ensuring patients are well-informed, and involving patients in decision-making regarding their hepatology care (Epstein & Street, 2007). The practice of evidence-based medicine (EBM) is deeply intertwined with object quality. EBM emphasizes the integration of the best available evidence from clinical research with clinical expertise and patient values. In telemedicine for hepatology care, healthcare providers should base their recommendations and advice on accurate and objective assessments, as mentioned in the survey questions. EBM ensures that healthcare decisions are made based on rigorous, unbiased evaluation of clinical evidence. Patients rely on the objectivity of healthcare providers to make informed decisions about their hepatology care, particularly when delivered through telemedicine (Sackett, 1996).

The "Object" quality dimension within the service quality of telemedicine for hepatology care is grounded in the principles of patient-centered care and evidence-based medicine. It underscores the importance of providing information and care that is clear, unbiased, and based on accurate assessments. Ensuring object quality in telemedicine is crucial for building and maintaining patient satisfaction, and the overall success of hepatology care delivered through remote channels.

#### 2.1.2 Trust

"Trust" in healthcare providers is a fundamental element of the patient-provider relationship. Patients must have confidence in the competence, integrity, and professionalism of healthcare providers offering telemedicine hepatology services. This trust is shaped by past experiences, reputation, and the perception that providers have patients' best interests at heart. The study by Mechanic & Meyer in 2000 emphasized that trust in healthcare providers positively influenced patient satisfaction, adherence to treatment plans, and overall health outcomes. Trust in the technology used for telemedicine consultations is paramount. Patients must trust that the technology is reliable, secure, and capable of facilitating accurate diagnoses and recommendations.

The Technology Acceptance Model (TAM) introduced by Davis in 1989 posited that technology trust, including trust in system reliability and security, significantly influences users' acceptance of technology. Patients' trust in the telemedicine technology directly affects their willingness to engage in remote consultations. Trust also extends to

the confidentiality and security of personal and medical information during telemedicine consultations. Patients need assurance that their data is kept confidential and secure. Trust in data security is crucial for compliance with healthcare ethics and regulations as described in Principles of biomedical ethics by Oxford University Press (Beauchamp & Childress, 2001) Trust in telemedicine for hepatology care is a multifaceted concept, encompassing trust in healthcare providers, technology, and data security. These dimensions of trust are interrelated and collectively influence patient confidence in telemedicine services, ultimately affecting patient satisfaction and the success of remote hepatology care.

#### 2.1.3 Processes

The "Processes Quality" dimension aligns with well-established frameworks for assessing healthcare service quality. One such framework is the SERVQUAL model, which emphasizes five key dimensions of service quality: reliability, responsiveness, assurance, empathy, and tangibles introduced by Parasuraman et al. in 1988. Within the context of telemedicine, processes quality encompasses reliability (timely appointments), responsiveness (user-friendly scheduling and access), assurance (clear instructions and organized consultations), and empathy (patient-centered care). The success of telemedicine relies on patients' ability to easily adopt and use the technology. The Technology Acceptance Model (TAM) posits that perceived ease of use and perceived usefulness are critical factors influencing users' technology adoption. (Davis, 1989)

Patients need to find the telemedicine platform convenient, user-friendly, and efficient, as reflected in the survey questions. The ease of scheduling appointments, accessing the platform, and the simplicity of the registration process are crucial elements in this context. Efficient processes are integral to the success of telemedicine. Patients expect timely consultations with minimal waiting times. Healthcare providers need structured and organized processes to ensure that appointments run smoothly and that patient medical information is accurately recorded and updated. Efficient workflow processes are essential for maintaining patient trust and satisfaction in telemedicine settings. (Epstein, & Street Jr, 2007). The "Processes Quality" dimension within the service quality of telemedicine for hepatology care incorporates principles from established healthcare service quality frameworks, technology adoption theories, and efficiency in workflow processes. These elements collectively contribute to the quality of the telemedicine experience and affect patient satisfaction and the successful delivery of hepatology care through remote means.

#### 2.1.4 Infrastructure

The success of telemedicine heavily relies on the usability and reliability of the technological "infrastructure". According to the TAM, perceived ease of use and perceived usefulness significantly influence users' acceptance of technology (Davis, 1989). In the context of telemedicine, patients must perceive the telemedicine platform as user-friendly and easy to navigate, as indicated in the survey questions. A seamless and intuitive interface contributes to the overall satisfaction with telemedicine services. The quality of the telehealth infrastructure is crucial for delivering high-quality telemedicine services. This includes factors such as video and audio quality, internet connectivity, and data security. Patients must have access to the necessary devices and reliable internet connectivity to ensure smooth telemedicine interactions. Additionally, the infrastructure should guarantee the security and confidentiality of patient's medical information, aligning with healthcare ethics and regulations, according to principles of biomedical ethics (Beauchamp & Childress, 2001).

Technical support and redundancy systems are essential components of telehealth infrastructure. Patients need access to adequate technical support and guidance when using the telemedicine platform, particularly in cases of technical issues. Redundancy systems, such as reliable backup systems, minimize disruptions during technical problems, ensuring continuity of care. The availability of technical support and backup systems enhances patient confidence in the telemedicine infrastructure and the quality of care received. Trust in the telemedicine infrastructure is intricately linked to patient trust in digital healthcare delivery. Patients must trust that the infrastructure is secure, reliable, and capable of delivering high-quality healthcare services. Trust in digital healthcare infrastructure positively influences patient confidence and satisfaction with telemedicine services. The "Infrastructure Quality" dimension within the service quality of telemedicine for hepatology care incorporates principles from technology acceptance, telehealth infrastructure, patient trust in digital healthcare, and the usability of technology. A robust and reliable infrastructure is vital for ensuring the success of telemedicine services, enhancing patient satisfaction, and building trust in remote hepatology care.

#### 2.1.5 Interaction

Interaction quality is a fundamental aspect of patient-centered care, which emphasizes the importance of tailoring healthcare services to meet individual patient needs and preferences (Epstein & Street, 2007). In the context of telemedicine for hepatology

care, healthcare providers must actively listen to patient concerns, engage in effective communication, and establish a rapport. Effective communication is a cornerstone of quality healthcare interactions. Patients need to feel that healthcare providers in telemedicine appointments are attentive to their concerns and questions, as indicated in the survey questions. Effective communication involves active listening, clear explanations of medical information, and the ability to address patient concerns in a manner that is easily understandable. Building a rapport with patients is essential in telemedicine interactions. Patients should feel that healthcare providers try to ensure their comfort and ease during telemedicine hepatology consultations. Establishing a positive rapport contributes to patient trust, satisfaction, and adherence to treatment plans.

Interaction quality also entails delivering care that is personalized and tailored to the specific needs of the patient. In telemedicine, healthcare providers should adapt their approach to address the unique hepatology care needs of each patient. This personalized care enhances the patient experience and contributes to satisfaction. (Fatima et al. 2018) The patient-provider relationship is central to interaction quality. Patients must feel that healthcare providers are responsive to their questions and concerns, providing timely and informative responses. A strong patient-provider relationship fosters trust and confidence in telemedicine services, positively affecting overall satisfaction with hepatology care. Interaction quality is not only about delivering care but also about contributing positively to the overall patient experience. Patients should leave telemedicine appointments with a sense of satisfaction, knowing that their concerns were heard and addressed, and their hepatology care needs were met.

#### 2.1.6 Atmosphere

The quality of the atmosphere in telemedicine consultations is an essential component of the overall patient experience. Patients need to feel that the virtual environment is welcoming, comfortable, and conducive to open and honest discussions about their hepatology condition. Patient experience encompasses not only the medical aspects of care but also the emotional and psychological aspects that contribute to satisfaction (Rathert, 2013). A study in healthcare design and architecture emphasized the importance of creating healing environments that promote patient well-being (Ulrich et al., 2008). Although telemedicine consultations take place virtually, the design and ambiance of the virtual space can affect patient perceptions of care. Patients should feel that the virtual

platform creates a sense of privacy, confidentiality, and calmness, as indicated in the survey questions.

The atmosphere in telemedicine consultations significantly influences patient perceptions of care quality. Patients must perceive the virtual setting as professional, free from distractions, and conducive to quality healthcare interactions. The atmosphere sets the tone for the patient-provider relationship and contributes to patient satisfaction (Rathert, 2013). The "Atmosphere" dimension aligns with patient-centered care principles, emphasizing the importance of tailoring the healthcare environment to meet individual patient needs and preferences (Epstein & Street, 2007) Patients need a calming and stressfree atmosphere during telemedicine consultations to focus on discussing their hepatology concerns. The virtual atmosphere should provide patients with a sense of psychological comfort and safety. Patients should be able to engage in open and honest discussions about their hepatology condition without concerns about privacy or distractions. The quality of the atmosphere in telemedicine interactions plays a pivotal role in patient satisfaction. A welcoming, comfortable, and professional atmosphere positively contributes to overall satisfaction with hepatology care delivered through remote means.

#### 2.2 Patient Satisfaction

Patient satisfaction is a critical aspect of healthcare quality assessment and is influenced by several factors specific to telemedicine in hepatology care. The satisfaction of patients with telemedicine services has gained significant attention in recent years. A study suggested that telemedicine can be associated with high levels of patient satisfaction when certain conditions are met. Understanding these conditions is essential for ensuring patient satisfaction in telemedicine hepatology care. One of the primary advantages of telemedicine is improved access to healthcare services, particularly for patients in remote or underserved areas. Patients appreciate the convenience of receiving hepatology care without the need for long-distance travel, which can be physically and financially burdensome. This enhanced access contributes to higher levels of satisfaction (Darkins, 2008). Patient satisfaction in telemedicine is closely linked to the perceived quality of care. Patients expect that the care they receive through telemedicine is of the same standard as in-person care. Therefore, healthcare providers must ensure that clinical outcomes and patient experiences in telemedicine are comparable to traditional care settings.

Effective communication and trust in the patient-provider relationship are pivotal for patient satisfaction in telemedicine hepatology care. Patients must feel that healthcare

providers actively listen to their concerns, provide clear explanations, and establish trust even in a virtual setting (Epstein & Street, 2007). Building and maintaining trust are critical for patient satisfaction. Technical aspects, such as audio and video quality, platform usability, and reliability, play a significant role in patient satisfaction with telemedicine (Kruse et al., 2017). Technical issues can lead to frustration and decreased satisfaction, underscoring the importance of a robust telemedicine infrastructure. Patients must trust that their medical information is secure and confidential during telemedicine consultations. Ensuring privacy and confidentiality is essential for patient satisfaction. Patients often seek continuity of care in hepatology. Telemedicine should not disrupt the patient's ongoing care plan. Maintaining continuity of care contributes to patient satisfaction (Whitten & Mackert, 2005).

#### 2.3 Patient Loyalty

Patient loyalty in the context of telemedicine for hepatology care is a multifaceted concept influenced by various factors that contribute to a patient's willingness to continue using telemedicine services and recommend them to others. Patient loyalty is closely tied to trust and confidence in telemedicine services and healthcare providers. Patients who trust the telemedicine platform and believe in the accuracy and effectiveness of the care provided are more likely to continue using telemedicine for hepatology care and recommend it to others. (Kruse et al., 2017). Consistency in care delivery is a key driver of patient loyalty. Patients expect that the quality of care they receive through telemedicine remains consistent over time. A reliable and consistent telemedicine experience fosters patient loyalty. Patient loyalty is strongly influenced by the overall patient experience (Mair et al., 2012). Patients who have positive experiences during telemedicine consultations, including effective communication, personalized care, and a welcoming atmosphere, are more likely to remain loyal to the telemedicine services, according to a systematic review done (Gagnon, et al., 2012). Telemedicine's convenience and accessibility are factors that contribute to patient loyalty.

Patients who appreciate the convenience of remote consultations and the reduced need for travel are more likely to continue using telemedicine services (Bashshur et al., 2014). The strength of the provider-patient relationship plays a significant role in patient loyalty. Patients who have developed a positive and trusting relationship with their healthcare providers through telemedicine are more likely to remain loyal to the service. Patient loyalty often extends to recommending telemedicine services to others in the

patient's network. Satisfied patients who have had positive experiences are more likely to become advocates for telemedicine and share their positive experiences with others (Gagnon et al., 2012). The technical reliability of the telemedicine platform also influences patient loyalty. Patients need to have confidence in the platform's stability and security to continue using it for hepatology care. Patient loyalty in telemedicine for hepatology care is influenced by trust, consistency of care, positive patient experiences, convenience, provider-patient relationships, word-of-mouth recommendations, and the quality of the technical infrastructure. These factors collectively contribute to a patient's decision to continue using telemedicine services and recommend them to others (Bashshur et al., 2014).

#### 2.4 Previous Studies

The study conducted by Hussain and Rehman (2012) focused on investigating the effect of the 5Q model of service quality, trust, and reputation on patient satisfaction in the healthcare sector, with a specific focus on Umeå Hospital. This study aimed to explore the perceptions of patients who have utilized services at Umeå Hospital and offers a practical model for healthcare organizations. The study adopts a quantitative research approach, employing the 5Q model for service quality, trust, and reputation attributes to gauge patient perceptions. Data was collected from Umeå Hospital patients using a convenience sampling technique, and the study employed multiple regression analysis in SPSS to test hypotheses.

Service Quality

- Object
- Processes
- Infrastructure
- Interaction
- Atmosphere

Trust

Patient
Satisfaction

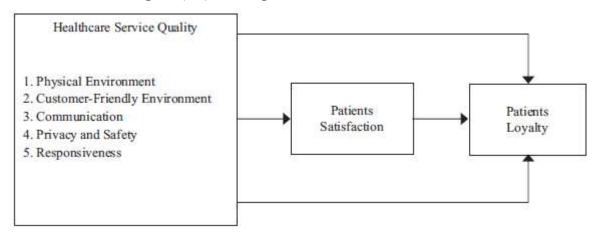
Figure (2.1): Conceptual Framework of Hussain and Biedenbach

Source: Hussain & Biedenbach, 2012

The study's findings reveal interesting insights into patient satisfaction concerning the 5Q model of service quality, trust, and reputation. Within the 5Q model, consisting of quality of object, quality of process, quality of infrastructure, quality of interaction, and quality of atmosphere, two dimensions yielded positive effects on patient satisfaction, while three showed no significant effect. Trust was found to have no significant effect, while reputation positively influenced patient satisfaction with Umeå Hospital. The study's implications highlight that while the 5Q model of service quality plays a role in patient satisfaction within healthcare sectors, trust and reputation are equally crucial factors. This study suggested that organizations should aim to enhance every dimension of service quality, cultivate trust, and build a strong reputation to achieve higher levels of patient satisfaction. The study contributes to existing theories by emphasizing the importance of these additional factors, thereby suggesting that the 5Q model, although comprehensive, may benefit from the incorporation of trust and reputation considerations within the healthcare sector. This study provides valuable insights into patient satisfaction within the context of hospital services and underscores the importance of trust and reputation alongside service quality.

The study by Fatima et al. (2018) aimed to elucidate patients' perceptions of private healthcare service providers with a specific focus on hospital service quality. The study delved into the relative significance of quality measurements in predicting patient satisfaction and loyalty, while also assessing the mediating role of patient satisfaction in the relationship between hospital healthcare service quality and patient loyalty. A total of 611 patients, including both indoor and outdoor patients, participated in a questionnaire survey conducted at six private hospitals in the capital city of Islamabad, Pakistan. The data collected were subjected to various analytical techniques, including descriptive statistics, common method variance analysis, reliability testing, correlation analysis, and regression analysis. The study investigates how patients perceive service quality in healthcare and how these perceptions influence their intentions for loyalty to private healthcare service providers.

Figure (2.2): Conceptual Framework of Fatima et al.



Source: Fatima et al., 2018

The findings of the study indicate that private healthcare service providers in Pakistan are making efforts to enhance the quality of healthcare services offered to their patients. Results corroborate that higher-quality healthcare services are associated with increased patient satisfaction and loyalty. Various dimensions of healthcare service quality, such as the physical environment, customer-friendly atmosphere, responsiveness, communication, privacy, and safety, exhibit positive relationships with patient loyalty. Furthermore, patient satisfaction mediates the relationship between these quality dimensions and patient loyalty. The study's findings offer practical insights for hospital managers, enabling them to devise effective strategies for ensuring superior healthcare service quality for patients. The study encourages hospital management to prioritize the enhancement of private healthcare service systems and address deficiencies in healthcare services. Additionally, the study sheds light on patients' behavioral attitudes, including their satisfaction levels and loyalty intentions toward the quality of healthcare services.

This study contributes by presenting patients' perspectives and perceptions regarding healthcare service quality. It evaluates various dimensions of healthcare service quality, including the physical environment, customer-friendly atmosphere, responsiveness, communication, privacy, and safety. The study investigates the effect of hospital healthcare service quality on patient satisfaction and loyalty, offering valuable insights into the relationship between these variables. This study provides significant insights into patient satisfaction and loyalty in the context of private healthcare service providers, which can be valuable for your study on the influence of service quality on patient satisfaction and loyalty in telemedicine for hepatology care.

#### 2.5 Conceptual Framework of the Study

The conceptual framework for this study has been constructed through a comprehensive review of the literature, drawing upon key variables that underpin the dynamics of healthcare service delivery in the context of telemedicine for hepatology care. This framework encompasses three interrelated variables: service quality, patient satisfaction, and patient loyalty.

Service Quality

Object
Trust
Processes
Infrastructure
Interaction
Atmosphere

Patient Satisfaction
Patient Loyalty

Figure (2.3): Conceptual Framework of the Study

Source: Own Compilation, 2023

The pivotal variable in this framework is service quality, which encompasses six dimensions: object, trust, processes, infrastructure, interaction, and atmosphere. Patient satisfaction represents the outcome variable in this framework. It is a key indicator of the patient's overall experience with telemedicine hepatology care. Patient satisfaction is influenced by the perceived quality of service across the various dimensions of service quality. A higher level of patient satisfaction indicates a positive experience and contentment with the telemedicine services received. Patient loyalty is the final component of the framework. It reflects the patient's intention to continue using telemedicine services for hepatology care in the future and their willingness to recommend these services to others in their network. Patient loyalty is influenced by the patient's satisfaction level and their trust in the telemedicine healthcare providers and the platform. This conceptual framework elucidates the intricate relationships between service quality, patient satisfaction, and patient loyalty in the context of telemedicine for hepatology care. It posits that service quality dimensions directly affect patient satisfaction, which in turn influences patient loyalty. Understanding these relationships is essential for enhancing the delivery of telemedicine services and optimizing patient outcomes in hepatology care.

#### **CHAPTER 3**

# PROFILE AND SERVICE QUALITY PRACTICES OF TELEMEDICINE SERVICES FOR HEPATOLOGY CARE IN MA HAR MYAING HOSPITAL

This chapter consists of the background of telemedicine for Hepatology, the profile of Ma Har Myaing Hospital, and service quality practices of telemedicine services for Hepatology care in Ma Har Myaing Hospital.

### 3.1 Background of Telemedicine for Hepatology

The discipline of medicine involves both scientific knowledge and practical skills that aim to promote health maintenance, prevent illness, and alleviate or cure diseases. The prefix "tele-" means far or distant, and when combined with the term "medicine", it refers to the delivery of healthcare services from remote locations using electronic communication technologies, such as telephones, monitoring devices, and the internet. This practice is known as telemedicine.

One of the great challenges facing humankind in the 21st century is to make highquality health care available to all. Such a vision has been expressed by the World Health Organization (WHO) in its health-for-all strategy in the 21<sup>st</sup> century. In the past, achieving equal access to healthcare has been challenging due to the requirement of the healthcare provider and recipient being in the same location and time. However, recent advancements in information and communication technologies have opened up new opportunities to overcome this obstacle by increasing the range of methods in which healthcare can be delivered (Craig & Petterson, 2005). This applies to both developed countries with strong economies and developing countries with weak or unstable economies. The potential for utilizing information and communication technologies to enhance healthcare delivery, commonly known as "telemedicine" is gaining recognition. Telemedicine has emerged as a solution to address two major challenges in the healthcare system, namely, inadequate access and uneven distribution of resources. This is especially significant in rural areas that lack advanced healthcare technologies and struggle to recruit and retain qualified staff. As medical professionals and advanced healthcare technologies are often concentrated in densely populated areas, rural regions typically have limited access to adequate healthcare. Telemedicine presents an effective means to enhance access to high-quality specialist care in rural areas.

A successful telemedicine program should enable the measurement of process outcome measures, clinical outcome measures, and patient satisfaction (Mauro & Marciano, 2020) Evaluating the effectiveness of telemedicine programs can be achieved through improvements in objective clinical outcomes. Patient satisfaction is a crucial indicator of the effectiveness of telemedicine and can be quantified through surveys that assess user experience and classify patient feedback in response to healthcare providers. Telemedicine can be utilized as a means of addressing liver diseases. However, when compared to other chronic illnesses such as diabetes, and mental illness, there is a significant lack of research on the use of telemedicine in liver disease. There remains a question of whether the benefits of improved access via telemedicine come at the cost of improved quality of care.

Telemedicine, the use of telecommunications technology to deliver healthcare services remotely, has been gaining traction as a transformative solution to address healthcare challenges worldwide. In the context of Yangon, Myanmar, a region marked by its rich cultural heritage and burgeoning healthcare sector, the adoption of telemedicine services represents a significant step forward in enhancing healthcare accessibility and delivery. The deployment of telemedicine in Yangon has been catalyzed by several factors:

- (1) Geographical Challenges: Myanmar is a country characterized by diverse landscapes, including remote and underserved regions. Accessing specialized healthcare services can be a formidable challenge for individuals living in distant areas. Telemedicine bridges this geographical divide by allowing patients to connect with healthcare providers without the need for arduous travel.
- (2) The COVID-19 Pandemic: The global health crisis triggered by the COVID-19 pandemic underscored the need for alternative healthcare delivery models. Social distancing measures and restrictions on movement compelled healthcare institutions to explore telemedicine as a means of providing safe and timely care. In this context, Yangon, as the largest city and economic hub of Myanmar, has witnessed a surge in the adoption of telemedicine services to ensure the continuity of healthcare.
- (3) Technological Advancements: The proliferation of smartphones and improved internet connectivity in Yangon has laid a strong foundation for telemedicine adoption. Patients can now access healthcare services through user-friendly telemedicine platforms, fostering a seamless connection between healthcare providers and the local population.

One notable healthcare private hospital at the forefront of telemedicine adoption in Yangon is Ma Har Myaing Hospital. Renowned for its commitment to excellence in healthcare, this private specialty hospital has embraced telemedicine to cater to the specific needs of hepatology care. Through telemedicine, Ma Har Myaing Hospital offers remote consultations with hepatology specialists, medication management, and follow-up care, thereby ensuring timely access to expertise and continuity of care for liver disease patients.

#### 3.2 Profile of Ma Har Myaing Hospital

Ma Har Myaing Hospital, situated in the vibrant city of Yangon, Myanmar, has earned a distinguished reputation as a pioneer in the realm of private specialty hospitals. This esteemed healthcare institution is committed to delivering comprehensive and exceptional in-patient and out-patient care services, catering to the diverse medical needs of its community. In response to the evolving landscape of healthcare, particularly accentuated by the challenges posed by the global COVID-19 pandemic, Ma Har Myaing Hospital embarked on an innovative journey to augment its healthcare services. It recognized the critical importance of ensuring uninterrupted access to specialized medical care, even in the face of unprecedented circumstances.

The telemedicine service for Hepatology care at Ma Har Myaing Hospital operates as a partnership company, involving a board of directors and a dedicated leadership team. The organizational structure shown in Figure (3.1) includes a Medical Director, a Chief Operating Officer (COO), a Chief Business Officer (CBO), and a Chief Financial Officer (CFO) overseeing various departments within the organization. The key departments relevant to the Telemedicine service for Hepatology care include the Medical Service Department, Human Resources (HR) Department, Customer Service Department, Maintenance and Engineering Department, Sales and Marketing Department, International Relation Department, and Finance Department. The organizational structure of Ma Har Myaing Hospital is shown in Figure (3.1).

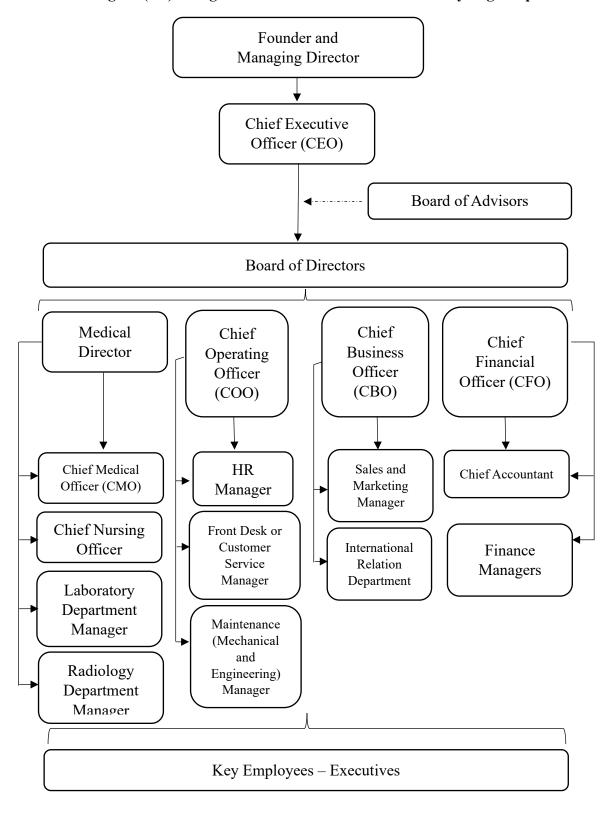


Figure (3.1) Organizational Structure of Ma Har Myaing Hospital

Source: Ma Har Myaing Hospital, 2023

Customer Service Executive is central in the context of telemedicine. They ensure that patients have a positive experience with the service. This includes managing online appointment scheduling, addressing patient inquiries or concerns, and maintaining high patient satisfaction. In addition to the Customer Service Executive, Ma Har Myaing Hospital employs several key executives, each with distinct roles. In a hospital like Ma Har Myaing that offers telemedicine services, the International Relations Executive may play a critical role in establishing and managing international partnerships. This includes collaborating with global healthcare organizations, coordinating telemedicine services with international providers, and addressing cross-border healthcare regulations. Sales and Marketing Executive is responsible for promoting the hospital's services and attracting patients. They develop marketing strategies, manage advertising campaigns, and work to expand the hospital's patient base.

## 3.3 Service Quality Practices of Telemedicine Services for Hepatology Care in Ma Har Myaing Hospital

With a visionary approach, Ma Har Myaing Hospital took a significant stride forward by introducing telemedicine services, meticulously designed to address the unique requirements of hepatology care. These telemedicine services stand as a testament to the hospital's unwavering commitment to patient-centric healthcare solutions and its dedication to overcoming geographical and logistical barriers. The telemedicine services offered by Ma Har Myaing Hospital for hepatology care encompass a spectrum of vital components:

- (1) Remote Consultations: Recognizing the paramount significance of timely access to specialized medical expertise, the hospital now extends remote consultations with renowned hepatology specialists. Patients have the convenience of scheduling virtual appointments, affording them the opportunity to connect with highly qualified healthcare professionals from the comfort of their homes or any other location that suits them. This breakthrough in healthcare delivery transcends the confines of physical boundaries, making high-quality hepatology consultations accessible to all, regardless of geographical constraints, travel limitations, or health-related concerns.
- (2) Medication Management: In an era where precision and continuity in healthcare are paramount, Ma Har Myaing Hospital's telemedicine services go the extra mile by encompassing medication management for hepatology patients. Through virtual consultations, hepatology specialists proficiently evaluate treatment efficacy, closely monitor medication adherence, and provide timely adjustments or recommendations, all from a remote standpoint. This meticulous approach ensures the seamless

management of liver diseases, promoting not only patient well-being but also a sense of reassurance in the continuity of care.

(3) Follow-up Care: Post-treatment follow-up care is an integral facet of comprehensive healthcare. Ma Har Myaing Hospital recognizes this and has incorporated telemedicine into its array of services for hepatology patients. Virtual consultations empower healthcare providers to diligently track patient progress, evaluate treatment outcomes, and promptly address any queries or concerns that patients may harbor. This approach to follow-up care is marked by its utmost convenience, as it significantly reduces the necessity for in-person hospital visits, thus enhancing accessibility and ongoing communication between patients and healthcare providers.

In essence, Ma Har Myaing Hospital's foray into telemedicine for hepatology care is a testament to its unwavering commitment to healthcare excellence. Through these pioneering telemedicine services, the hospital continues to redefine healthcare accessibility, ensuring that patients receive superlative care, regardless of the circumstances or distances that separate them from their trusted healthcare providers. This innovative approach marks a pivotal moment in the evolution of healthcare services in Yangon, Myanmar, and underscores Ma Har Myaing Hospital's dedication to advancing the well-being of its community.

The primary departments responsible for ensuring service quality in this context are the Medical Service Department, led by a Chief Medical Officer (CMO) and the Customer Service Department, managed by a Customer Service Executive. The board of directors holds the highest decision-making authority in the organization and plays a pivotal role in the strategic direction of Ma Har Myaing Hospital. The Medical Service Department is led by a Chief Medical Officer, responsible for overseeing all medical aspects of Telemedicine services. This includes ensuring that patients receive high-quality hepatology care through remote consultations. The Customer Service Department is led by a Customer Service Executive. This role is central to managing patient interactions and ensuring that the telemedicine experience is user-friendly and patient-centered.

The Medical Service Department, under the leadership of the CMO, is responsible for ensuring the "object" quality. This involves delivering accurate and unbiased medical information and care to patients during telemedicine consultations. They must use the best available evidence and clinical expertise to guide medical decisions, aligning with evidence-based medicine principles. Building and maintaining "trust" in telemedicine services is a shared responsibility between the Medical Service Department and the

Customer Service Department. The CMO ensures that healthcare providers inspire trust in patients through effective and empathetic communication. The Customer Service Executive plays a crucial role in establishing trust by addressing patients' concerns, ensuring the security of their medical information, and creating a welcoming atmosphere during telemedicine consultations. The Medical Service Department and the Customer Service Department collaborate to streamline the telemedicine "processes". The CMO ensures efficient and timely appointments and organizes consultations, while the Customer Service Executive manages user-friendly scheduling, registration, and access to the platform. Effective, efficient processes are fundamental to ensuring a smooth and satisfactory telemedicine experience.

Both departments actively contribute to fostering positive "interactions". The Medical Service Department emphasizes the importance of effective communication and personalized care. The healthcare providers strive to establish rapport and ensure patientcentered care, as this is essential for patient satisfaction. The Customer Service Department supports positive interactions by addressing patients' needs and concerns during the telemedicine process, ensuring they feel comfortable and well-informed. The "infrastructure", including the technology platform, is integral to service quality. Ensuring that the telemedicine platform is user-friendly, stable, and secure is a joint effort between the Medical Service Department and the Customer Service Department. The Medical Service Department ensures that healthcare providers can rely on a secure and robust telemedicine infrastructure to provide high-quality care. The Customer Service Department assists patients in navigating the technology and addresses any technical issues, enhancing their confidence in the telemedicine platform. While the "atmosphere" in telemedicine consultations is virtual, it is still significant. The Customer Service Department contributes to creating a welcoming and comfortable virtual environment where patients feel at ease discussing their hepatology concerns. This ambiance sets a positive tone for patient-provider interactions.

Therefore, the Medical Service Department, led by the CMO, focuses on the clinical aspects of Telemedicine services for Hepatology care, ensuring the object quality, trust, and efficient processes. Simultaneously, the Customer Service Department, led by the Customer Service Executive, plays a crucial role in enhancing interaction quality and the overall virtual atmosphere. Together, they collaborate to provide high-quality Telemedicine services in Ma Har Myaing Hospital and ensure patient-centered care that meets the six dimensions of service quality.

#### 3.4 Reliability Analysis

Before conducting data analysis, a reliability analysis was performed using the data from 155 respondents in SPSS software to assess the internal consistency of the questionnaire variables. This analysis utilized Cronbach's Alpha coefficient to measure the stability and reliability of constructs including object, trust, process, infrastructure, interaction, atmosphere, patient satisfaction, and patient loyalty.

The reliability of the constructs was categorized as follows: a Cronbach Alpha coefficient ranging from 0.80 to below 0.95 represented "very good reliability," 0.70 to below 0.80 represented "good reliability," 0.60 to below 0.70 represented "fair reliability," and values less than 0.60 indicated "poor reliability." Generally, a minimum standard for reliability in study is 0.7 or higher, indicating acceptable internal coherence. The Cronbach's Alpha values for each construct are presented in Table 3.1.

**Table (3.1): Reliability Analysis** 

Description	Cronbach's Alpha	Numbers of Items
Object	0.960	5
Trust	0.970	6
Process	0.970	5
Infrastructure	0.950	5
Interaction	0.980	6
Atmosphere	0.970	5
Patient satisfaction	0.990	5
Patient loyalty	0.970	5

Source: Survey data, 2023

According to Table (3.1), Cronbach Alpha values of all variables are more than 0.9. Therefore, the items are reliable and it can be made further analysis.

#### 3.5 Demographic Profile of Respondents

The survey data, based on responses from 155 patients who have utilized telemedicine for Hepatology care at Ma Har Myaing Hospital, were initially examined through descriptive statistics. This analysis aimed to establish a profile of the respondents and identify general trends in the relationships between service quality, patient satisfaction, and patient loyalty. The demographic characteristics of the participants are presented in Table (3.2).

**Table (3.2): Demographic Profile of Respondents** 

Particular		Number of	Percentage
			(%)
	Total	155	100.00
Gender	Male	70	45.16
Gender	Female	85	54.84
	18 – 30 years	45	29.03
	31 – 40 years	51	32.90
Age Group	41 – 50 years	29	18.71
	51 – 60 years	21	13.55
	> 60 years	9	5.81
	Primary school	1	0.65
<b>Education Level</b>	Middle school	10	6.45
Education Level	High school	43	27.74
	Graduated	101	65.16
	Student	10	6.45
Occupation	Self-employed/ Family Business	76	49.03
Occupation	Company staff	49	31.61
	Government staff	20	12.91
	Yangon	51	32.90
	Mandalay	17	19.98
Residential Area	Naypyidaw	10	6.45
Residential Area	Urban (Other than	61	39.35
	Yangon/Mandalay/Naypyidaw)		
	Rural	16	10.32
	Very low	1	0.65
	Low	5	3.23
<b>Health Literacy Level</b>	Average	51	32.90
	High	59	38.06
	Very high	39	25.16

**Table (3.2): Demographic Profile of Respondents** 

Particular		Number of	Percentage
		Respondents	(%)
Technology Literacy	Very low	1	0.65
	Low	2	1.29
	Average	35	22.58
	High	59	38.06
	Very high	58	37.42

In this survey, a total of 155 respondents participated. The gender distribution of the respondents indicated that 70 (45.16%) were male, while 85 (54.84%) were female. The age distribution of the respondents was as follows: 45 (29.03%) fell within the 18 to 30 years age group, 51 (32.90%) were between 31 and 40 years old, 29 (18.71%) were in the 41 to 50 years age range, 21 (13.55%) were aged between 51 and 60 years, and 9 (5.81%) were over 60 years old.

Regarding the education level, the majority of respondents, 101 (65.16%), had graduated, 43 (27.74%) had completed high school, 10 (6.45%) had a middle school education, and only 1 (0.65%) had finished primary school. None of the respondents were categorized as illiterate. In terms of occupation, 76 (49.03%) were self-employed or involved in family businesses, 49 (31.61%) were employed in companies, 20 (12.91%) worked in government positions, 10 (6.45%) were students, and none of the respondents were unemployed or affiliated with non-governmental organizations (NGOs). Regarding the residential area, the majority of respondents lived in urban areas outside the major cities, with 61 (39.35%) falling into this category. Additionally, 51 (32.90%) resided in Yangon, 17 (19.98%) in Mandalay, and 10 (6.45%) in Naypyidaw. Sixteen (10.32%) respondents lived in rural areas.

Health literacy levels were distributed as follows: 39 (25.16%) of the respondents had very high health literacy, 59 (38.06%) had high health literacy, 51 (32.90%) had average health literacy, 5 (3.23%) had low health literacy, and 1 (0.65%) had very low health literacy. In terms of technology literacy, 58 (37.42%) had very high levels of technology literacy, 59 (38.06%) had high technology literacy, 35 (22.58%) had average technology literacy, 2 (1.29%) had low technology literacy, and 1 (0.65%) had very low technology literacy.

#### **CHAPTER 4**

# ANALYSIS ON THE EFFECT OF SERVICE QUALITY ON PATIENT SATISFACTION AND PATIENT LOYALTY TOWARDS TELEMEDICINE FOR HEPATOLOGY CARE IN MA HAR MYAING HOSPITAL

This chapter presents the mean scores of influencing factors of service quality; object, trust, process, infrastructure, interaction, and atmosphere on patient satisfaction on telemedicine for Hepatology care in Ma Har Myaing Hospital. Subsequently, the influencing factor of patient satisfaction on patient satisfaction on telemedicine for Hepatology care in Ma Har Myaing Hospital is analyzed.

# 4.1 Service Quality Telemedicine Service for Hepatology Care in Ma Har Myaing Hospital

In this section, descriptive statistics are utilized to illustrate the service quality of telemedicine for Hepatology care at Ma Har Myaing Hospital. The data are presented in terms of mean values and standard deviations for each statement. The assessment of service quality comprises six dimensions: object, trust, process, infrastructure, interaction, and atmosphere.

The questionnaires encompass a total of 32 statements, including five for object, six for trust, five for process, five for infrastructure, six for interaction, and five for atmosphere. Respondents provided their ratings using a 5-point Likert scale ranging from 1 to 5 (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree). These results are based on responses from 155 patients who have utilized telemedicine for Hepatology care at Ma Har Myaing Hospital. The findings regarding respondents' perceptions of the service quality in telemedicine for Hepatology care at Ma Har Myaing Hospital are summarized in Tables (4.1 - 4.6).

According to Best (1977), the mean value of five-point Likert scale items is interpreted as follows;

- The score among 1.00-1.80 means strongly disagree.
- The score among 1.81-2.60 means disagree.
- The score among 2.61-3.40 means neither agree nor disagree.
- The score among 3.41-4.20 means agree.
- The score among 4.21-5.00 means strongly agree.

**Table (4.1): Service Quality – Object** 

Sr. No.	Object	Mean	Standard Deviation
1.	Clear and unbiased information	3.95	0.76
2.	Accurate and objective assessments	3.97	0.72
3.	Fairly treated by healthcare providers without any bias.	3.95	0.82
4.	Being free from any personal or institutional biases	3.99	0.77
5.	Commitment to objective and evidence-based practices.	4.02	0.72
	Overall Mean	3.98	

The survey results for the "Object" dimension of service quality are shown in Table (4.1). The item with the highest mean score is "Commitment to objective and evidence-based practices" with a mean score of 4.02. This indicates that, on average, respondents tend to agree that the telemedicine service demonstrates commitment to objective and evidence-based practices. The item with the lowest mean score is "Clear and unbiased information" with a mean score of 3.95. This suggests that, on average, respondents tend to agree (but not strongly) that the information provided is clear and unbiased. The overall mean score for all the items in the "object" dimension is 3.98, indicating that, on average, respondents agree with the items related to the "object" dimension of the telemedicine service quality.

**Table (4.2): Service Quality – Trust** 

Sr. No.	Trust	Mean	Standard Deviation
1.	Provider Credibility	4.21	0.66
2.	Reliability of Information	4.14	0.66
3.	Data Security and Privacy	4.14	0.68
4.	Transparency	4.18	0.66
5.	Trust the telemedicine as the same quality and standard as in-person hepatology care	4.06	0.70
6.	Believing that the telemedicine services are delivered with best interests in mind	4.03	0.68
	Overall Mean	4.13	

The survey results for the "Trust" dimension are shown in Table (4.2). The item with the highest mean score is "Provider Credibility" with a mean score of 4.21. This indicates that, on average, respondents tend to strongly agree that healthcare providers offering telemedicine hepatology services are credible and trustworthy. The item with the lowest mean score is "Believing that the telemedicine services are delivered with the best interests in mind" with a mean score of 4.03. While this is the lowest mean among the trust items, it is still in the "agree" range, indicating that respondents tend to agree, though not as strongly, that telemedicine services are provided with their best interests in mind. The overall mean score for all the items in the "trust" dimension is 4.13, indicating that, on average, respondents agree with the items related to the "trust" dimension of the telemedicine service quality.

**Table (4.3): Service Quality – Process** 

Sr. No.	Process	Mean	Standard Deviation
1.	Convenient and user-friendly scheduling	4.05	0.67
2.	Easily accessible telemedicine platform	4.17	0.68
3.	Timely appointment with minimal waiting times	4.10	0.68
4.	Clear and easy-to-follow instructions	4.13	0.66
5.	Accurately recorded and updated medical information	4.16	0.64
	Overall Mean	4.12	

In assessing the "Process" dimension of service quality in telemedicine for hepatology care, the mean scores are shown in Table (4.3) The item with the highest mean score is "Easily accessible telemedicine platform" with a mean score of 4.17. This indicates that, on average, respondents tend to agree that the telemedicine platform is easily accessible. The item with the lowest mean score is "Timely appointment with minimal waiting times" with a mean score of 4.10. However, it is essential to note that even the lowest mean score is well within the "agree" range, demonstrating that respondents still agree, though not as strongly, that appointments are timely with minimal waiting times. The overall mean score for all the items in the "Process" dimension is 4.12, indicating that, on average, respondents agree with the items related to the "Process" dimension of the telemedicine service.

**Table (4.4): Service Quality – Infrastructure** 

Sr. No.	Infrastructure	Mean	Standard Deviation
1.	User-friendly and easy-to-navigate	4.14	0.69
2.	Consistently clear and reliable video quality	3.95	0.69
3.	Necessary devices and internet connectivity required for seamless telemedicine interactions	4.00	0.68
4.	Reliable backup systems to minimize disruptions during technical issues	3.91	0.71
5.	Telemedicine infrastructure enhancing patient's confidence in the quality of care	4.03	0.65
	Overall Mean	4.00	

In assessing the "Infrastructure" dimension of telemedicine service quality for hepatology care, respondents provided generally positive feedback, as shown in Table (4.4). The item with the highest mean score is "User-friendly and easy-to-navigate" with a mean score of 4.14. This indicates that, on average, respondents tend to agree that the telemedicine infrastructure is user-friendly and easy to navigate. The item with the lowest mean score is "Reliable backup systems to minimize disruptions during technical issues" with a mean score of 3.91. However, it is important to note that even the lowest mean score is well within the "agree" range, suggesting that respondents still generally agree, though not as strongly, regarding the reliability of backup systems to minimize disruptions during technical issues. he overall mean score for all the items in the "Infrastructure" dimension is 4.00, indicating that, on average, respondents agree with the items related to the "Infrastructure" dimension of the telemedicine service.

**Table (4.5): Service Quality – Interaction** 

Sr. No.	Interaction	Mean	Standard Deviation
1.	Healthcare providers actively listen to concerns and questions	4.23	0.65
2.	Effective communication and established a rapport	4.17	0.64
3.	Trying to ensure comfortable and at ease	4.19	0.66
4.	Personalized and tailored to specific hepatology care needs	4.14	0.62
5.	Taking enough time	4.21	0.65
6.	Positively contributing interaction	4.17	0.64
	Overall Mean	4.19	

In evaluating the "Interaction" dimension of telemedicine service quality for hepatology care, respondents have expressed notably positive sentiments, as shown in Table (4.5). The item with the highest mean score is "Healthcare providers actively listen to concerns and questions," which has a mean score of 4.23. This indicates that, on average, respondents strongly agree that healthcare providers in the telemedicine service actively listen to their concerns and questions. The item with the lowest mean score is "Personalized and tailored to specific hepatology care needs," with a mean score of 4.14. However, it is essential to note that even the lowest mean score is well within the "agree" range, indicating that respondents generally agree regarding the personalization and tailoring of care to specific hepatology needs. The overall mean score for all the items in the "Interaction" dimension is 4.19, indicating that, on average, respondents agree with the items related to the "Interaction" dimension of the telemedicine service.

**Table (4.6): Service Quality – Atmosphere** 

Sr. No.	Atmosphere	Mean	Standard Deviation	
1.	Welcoming and comfortable environment	4.12	0.66	
2.	Communications openness	penness 4.11		
3.	Calming and stress-free atmosphere for discussing	4.12	0.64	
4.	Professional and conducive to quality healthcare interactions	4.12	0.63	
5.	Positively contributing atmosphere	4.08	0.63	
	Overall Mean	4.11		

In assessing the "Atmosphere" dimension of telemedicine service quality for hepatology care, respondents' perceptions are shown in Table (4.6). The item with the highest mean score is "Welcoming and comfortable environment," which has a mean score of 4.12. This indicates that, on average, respondents agree that the telemedicine service provides a welcoming and comfortable environment. The item with the lowest mean score is "Positively contributing atmosphere," with a mean score of 4.08. However, even the lowest mean score falls within the "agree" range, indicating that respondents generally agree, though not as strongly, regarding the atmosphere's positive contribution. The overall mean score for all items in the "Atmosphere" dimension is 4.11, indicating that, on average, respondents agree with the items related to the "Atmosphere" dimension of the telemedicine service.

#### 4.2 Patient Satisfaction

The survey results from analysis on patient satisfaction upon telemedicine for Hepatology care in Ma Har Myaing Hospital was examined and their mean value are presented in Table (4.7).

**Table (4.7): Patient Satisfaction** 

Sr. No.	Patient Satisfaction	Mean	Standard Deviation
1.	Satisfaction with Service Quality	4.14	0.61
2.	Satisfaction with Healthcare Providers	4.11	0.61
3.	Satisfaction with Interaction	4.11	0.61
4.	Satisfaction with Outcome	4.11	0.61
5. Satisfaction with Convenience		4.11	0.61
Overall Mean		4.12	

In evaluating "Patient Satisfaction" with telemedicine hepatology care, respondents' perceptions are consistently positive. The mean score of 4.14 indicates the agree level for satisfaction with service quality, reflecting their contentment with the overall quality of care provided via telemedicine at Ma Har Myaing Hospital. Similarly, respondents express a high level of satisfaction with healthcare providers, interaction, outcome, and convenience, all with mean scores of 4.11. These scores collectively demonstrate the agree level of contented patient base. The overall mean score for "Patient Satisfaction" is 4.12, highlighting the general satisfaction among respondents regarding various aspects of their telemedicine hepatology care experience. This perception underscores the effectiveness of telemedicine in delivering satisfactory healthcare services, achieving an impressive overall mean score of 4.12 for the "Patient Satisfaction" dimension.

#### 4.3 Patient Loyalty

The survey results from analysis on patient loyal towards telemedicine for Hepatology care in Ma Har Myaing Hospital was examined and their mean value are presented in Table (4.8).

**Table (4.8): Patient Loyal** 

Sr. No.	Patient Loyalty	Mean	Standard Deviation
1.	Intent to Reuse	4.14	0.55
2.	Recommendation Intention	4.21	0.59
3.	Likelihood to choose telemedicine again over other healthcare options in the future.	4.14	0.55
4.	Sense of loyalty to Ma Har Myaing Hospital	4.21	0.59
5.	Continue using telemedicine services for hepatology care rather than switching to inperson care.	4.21	0.59
	Overall Mean	4.18	

The results pertaining to "Patient Loyalty" in the context of telemedicine for hepatology care reflect a notably positive outlook among respondents. With a mean score of 4.14, respondents express agree intent to reuse telemedicine services, indicating their willingness to continue utilizing this mode of healthcare delivery. Additionally, the mean score of 4.21 for recommendation intention highlights a high likelihood of respondents recommending telemedicine for hepatology care to others. This underscores their confidence in the service. Respondents also demonstrate a preference for choosing telemedicine over other healthcare options in the future, as indicated by a mean score of 4.14. The sense of loyalty to Ma Har Myaing Hospital is strong, reflected in a mean score of 4.21, suggesting that respondents have a deep connection and trust in the hospital. Furthermore, they express a commitment to continue using telemedicine services for hepatology care instead of switching to in-person care, as shown by another mean score of 4.21. The overall mean score for "Patient Loyalty" is 4.18, emphasizing the robust loyalty and commitment of respondents to both telemedicine as a mode of care and Ma Har Myaing Hospital as their healthcare provider. These results collectively highlight the effectiveness of telemedicine in engendering patient loyalty, achieving an impressive overall mean score of 4.18 for the "Patient Loyalty" dimension.

# 4.4 Effect of Service Quality on Patient Satisfaction of Telemedicine for Hepatology Care in Ma Har Myaing Hospital

The first objective of this study is to examine the effect of service quality on patient satisfaction regarding Hepatology care through the use of telemedicine at Ma Har Myaing Hospital. To achieve this objective, a linear regression model is employed, analyzing data collected from 155 respondents.

In this analysis, service quality components, namely object, trust, process, infrastructure, interaction, and atmosphere, serve as the independent variables, while patient satisfaction is the dependent variable. The results of this multiple regression model, illustrating the influence of service quality on patient satisfaction within the context of telemedicine for Hepatology care at Ma Har Myaing Hospital, are presented in Table (4.9).

Table (4.9): Effect of Service Quality on Patient Satisfaction

Variable		idardized ficients	Standardized coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	0.677	0.186		3.646	0.001
Object	0.068	0.070	0.082	0.969	0.334
Trust	0.148	0.147	0.158	1.011	0.314
Process	- 0.090	0.142	- 0.095	- 0.631	0.529
Infrastructure	0.151	0.099	0.159	1.527	0.129
Interaction	0.381**	0.148	0.396	2.575	0.011
Atmosphere	0.178	0.133	0.181	1.337	0.183
R		l	0.840		l
R square			0.706		
Adjusted R square	0.694				
Durbin-Watson	2.084				
F-value	59.294***				

Source: Survey Data, 2023

Note: \*\*\*Significant at 1% level, \*\*Significant at 5% level, \*Significant at 10% level

The results of the multiple regression analysis for influencing service quality on patient satisfaction in telemedicine for Hepatology care at Ma Har Myaing Hospital indicate that the model is highly significant, with an F-value of 59.294 at the 1%

significance level. This suggests that the overall model effectively explains the relationship between service quality factors (Object, Trust, Process, Infrastructure, Interaction, and Atmosphere) and patient satisfaction.

The R-squared value of 0.706 implies that approximately 70.6% of the variance in patient satisfaction can be accounted for by these service quality factors. This indicates a strong ability of the model to explain and predict patient satisfaction based on these variables. Among the individual service quality factors, "Interaction" has a significant positive effect on patient satisfaction, with a standardized coefficient (Beta) of 0.396 and a p-value of 0.011. This suggests that the quality of interaction between patients and healthcare providers has a notable positive effect on patient satisfaction. The other service quality factors, "Object," "Trust," "Process," "Infrastructure," and "Atmosphere" variables did not yield statistically significant results, as evidenced by their associated p-values of 0.334, 0.314, 0.529, 0.129, and 0.183, respectively. These findings suggest that these factors do not have a significant impact on the dependent variable.

Among the six independent variables of service quality, "interaction" has the highest standardized coefficient (Beta) which means that "interaction" has greater contribution than other independent variables to increase the patient satisfaction with telemedicine services for Hepatology care. The survey results demonstrate that "interaction" directly influences how patients express their satisfaction with the services. Positively contributing interaction, created by active listening of healthcare providers, effective communication, personalized healthcare management, and taking enough consultation time make patients more likely to satisfy with the services.

Therefore, the results indicate that the overall model is highly significant and effective in explaining patient satisfaction with telemedicine for Hepatology care. Specifically, the quality of interaction plays a crucial role in influencing patient satisfaction, while other service quality factors, such as Object, Trust, Process, Infrastructure, and Atmosphere, do not show statistically significant associations with patient satisfaction in this context.

# 4.5 Effect of Patient Satisfaction on Patient Loyalty towards Telemedicine for Hepatology Care in Ma Har Myaing Hospital

Table (4.10) shows the results of multiple regression model analysis the influence of patient satisfaction on patient loyalty towards telemedicine for Hepatology care at Ma Har Myaing Hospital.

**Table (4.10): Effect of Patient Satisfaction on Patient Loyalty** 

	Unstan	dardized	Standardized		
Variable	coeff	icients	coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	1.100	0.179		6.136	0.001
Patient Satisfaction	0.748***	0.043	0.814	17.362	0.001
R			0.814		
R square	0.663				
Adjusted R square	0.661				
Durbin-Watson	1.834				
F-value		301.439***			

Note: \*\*\*Significant at 1% level, \*\*Significant at 5% level, \*Significant at 10% level

The findings derived from the multiple regression analysis, designed to evaluate the relationship between patient satisfaction and patient loyalty concerning telemedicine for Hepatology care at Ma Har Myaing Hospital, yield highly significant results. The F-value, which stands at 301.439 and is statistically significant at the 1% level, underscores the overall effectiveness of the model in elucidating the link between patient satisfaction and patient loyalty.

The substantial R-squared value of 0.663 is indicative of a robust association between patient satisfaction and patient loyalty, suggesting that approximately 66.3% of the variation observed in patient loyalty can be attributed to the level of patient satisfaction. This underscores the pivotal role played by patient satisfaction in influencing patient loyalty within the domain of telemedicine for Hepatology care.

Furthermore, the unstandardized coefficient for patient satisfaction, denoted as Beta with a value of 0.748, is profoundly significant at the 1% level. This result indicates that an increase in patient satisfaction is positively associated with a heightened degree of patient loyalty. The positive coefficient sign reveals a direct and positive relationship, indicating that greater satisfaction corresponds to greater loyalty to healthcare services provided through telemedicine.

According to the results, patient satisfaction has positively significant on patient loyalty towards telemedicine services for Hepatology care in Ma Har Myaing Hospital. The positive effect means that the increase in patient satisfaction leads to greater patient loyalty

towards the services. The standardized coefficient (Beta) of patient satisfaction means that patient satisfaction has contribution to increase patient loyalty towards telemedicine services for Hepatology care in Ma Har Myaing Hospital. Studies have found that when a business receives a more positive satisfaction from customers, there is a higher likelihood of the customers intention to reuse the services, and recommend to others.

The survey results show that patients want to continue to use telemedicine services rather than switching to in-person care because of the fact that they have a positive satisfaction with the telemedicine services. In summary, these outcomes stress the notable effect of patient satisfaction on patient loyalty towards telemedicine services for Hepatology care at Ma Har Myaing Hospital. It is evident that heightened patient satisfaction contributes to increased patient loyalty to telemedicine services, accentuating the pivotal role of patient satisfaction in fostering patient loyalty.

#### **CHAPTER 5**

#### **CONCLUSION**

This chapter encompasses three main sections: findings and discussions, recommendations and suggestions, and the need for further research. The primary objective of this study is to assess the effect of service quality on patient satisfaction in the context of Hepatology care delivered through telemedicine at Ma Har Myaing Hospital. Additionally, the study aims to investigate how patient satisfaction influences patient loyalty among individuals utilizing telemedicine services for Hepatology care at the same hospital.

#### 5.1 Findings and Discussions

The primary goal of this study is to evaluate how service quality influences patient satisfaction within the realm of Hepatology care provided through telemedicine at Ma Har Myaing Hospital. To accomplish this, 155 patients who have engaged with telemedicine services for Hepatology care at the hospital were administered structured questionnaires. The resulting survey data establishes a substantial and positive connection between service quality and patient satisfaction. Furthermore, this study goes on to confirm that there is a distinct relationship between patient satisfaction and patient loyalty, shedding light on the significance of patient satisfaction in fostering loyalty.

The survey findings reveal several important and significant aspects of telemedicine service quality for Hepatology care at Ma Har Myaing Hospital across various dimensions. The "Object" dimension highlights the perceptions with the findings indicating that patients generally perceive the provision of clear and unbiased information, accurate and objective assessments, fair treatment without bias, and freedom from biases positively. Notably, "Commitment to objective and evidence-based practices" received the highest mean score, demonstrating a strong perception of the dedication of healthcare providers to evidence-based care. The overall mean score for the "Object" dimension means the perception of objectivity, fairness, and a commitment to evidence-based practices within telemedicine services for hepatology care.

In contrast, the "Trust" dimension reveals agree level of trust among respondents. The high mean scores for healthcare providers' credibility, reliability of information, and data security indicate substantial trust. Patients have confidence in the professionalism and expertise of providers and the accuracy of information shared. Additionally, transparency

in processes and a positive belief in the overall quality of telemedicine services contribute to trust. Patients are trust in telemedicine maintaining quality and standards comparable to in-person care suggests a positive level of confidence.

The "Process" dimension shows positive perceptions regarding scheduling convenience, platform accessibility, timely appointments, clarity of instructions, and medical data accuracy. These findings underline the efficient and user-friendly nature of telemedicine hepatology care, contributing to the patient experience. The "Infrastructure" dimension reflects positive feedback, indicating that the telemedicine platform is user-friendly and easy to navigate, enhancing the overall user experience. The perception of consistently clear and reliable video quality, along with available devices and internet connectivity for seamless interactions, contributes to a positive view of the infrastructure. The high mean score for the infrastructure's role in enhancing patients' confidence in care quality underscores the importance of a well-equipped infrastructure.

In assessing the "Interaction" dimension, patients express notably agree sentiments. Active listening, effective communication, efforts to ensure patient comfort, personalized care, and sufficient time allocation all contribute to an impressive overall mean score. These aspects are indicative of patient-centered care, emphasizing the importance of trust and a positive patient-provider relationship. The "Atmosphere" dimension shows the virtual space as welcoming and comfortable, fostering open and transparent communication. Patients find the atmosphere calming and conducive to stress-free discussions, underlining the supportive environment. The telemedicine atmosphere is perceived as professional and conducive to quality healthcare interactions, indicating a commitment to maintaining high care standards.

Therefore, the study provides valuable insights into the service quality dimensions of telemedicine for Hepatology care at Ma Har Myaing Hospital. The study affirms that effective patient-centered interactions within a welcoming and supportive atmosphere are essential for high-quality hepatology care delivery via telemedicine.

The survey findings concerning "Patient Satisfaction" and "Patient Loyalty" in the context of telemedicine hepatology care at Ma Har Myaing Hospital are notably positive and have several key implications. For "Patient Satisfaction," the results indicate the satisfaction among respondents, demonstrating their contentment with various aspects of their telemedicine hepatology care. This satisfaction is observed across dimensions, including service quality, healthcare providers, interaction, outcome, and convenience. This strong positive perception emphasizes the effectiveness of telemedicine in delivering

satisfactory healthcare services. It means that patients are not only content with the quality of care provided via telemedicine but also with the healthcare providers, the interactions they have, the outcomes of their care, and the convenience it offers, achieving an impressive overall mean score for the "Patient Satisfaction" dimension.

Regarding "Patient Loyalty," the findings reveal a robust sense of loyalty and commitment among respondents towards both telemedicine as a mode of care and Ma Har Myaing Hospital as their healthcare provider. This is particularly significant in healthcare, where trust and loyalty play pivotal roles in patient choices. Respondents express a strong intent to reuse telemedicine services, underlining their willingness to continue using this mode of healthcare delivery. Furthermore, their high recommendation intention suggests a strong likelihood of them advocating for telemedicine in hepatology care to others, reflecting their confidence in the service's effectiveness. Additionally, the preference for choosing telemedicine over other healthcare options in the future highlights the belief that telemedicine is a valuable and reliable choice. This hospital loyalty further extends to the commitment to continue using telemedicine services for hepatology care instead of switching to in-person care. These results collectively emphasize the effectiveness of telemedicine in fostering patient loyalty, with an impressive overall mean score for the "Patient Loyalty" dimension.

According to the multiple regression analysis, the quality of "Interaction" stands out as the most influential factor. It has a highly significant positive effect on patient satisfaction, emphasizing the importance of effective communication, attentive care, and personalized interactions in telemedicine hepatology services. On the other hand, the factors of "Object," "Trust," "Process," "Infrastructure," and "Atmosphere" do not show statistically significant relationships with patient satisfaction. While they are important components of service quality, this finding suggests that, in this context, they might not be as crucial in directly affecting patient satisfaction. This could be because these factors are generally well-established and consistent in telemedicine services, leaving less room for variation and, consequently, their effects on patient satisfaction.

The results of the linear regression analysis for the influence of patient satisfaction on patient loyalty are also highly significant, further underlining the significance of patient satisfaction in influencing patient behavior, in this case, patient loyalty in the context of telemedicine for Hepatology care. According to the analysis results, patient satisfaction is a powerful predictor of patient loyalty. This is a crucial finding, as it implies that the hospital's efforts to enhance patient satisfaction can have a substantial effect on building

and maintaining patient loyalty. This positive relationship highlights that as patients become more satisfied with the telemedicine services, they are more likely to exhibit loyalty by continuing to use these services and recommending them to others.

#### 5.2 Suggestions and Recommendations

Since the "Interaction" dimension stands out as the most influential factor in patient satisfaction, it should focus on further improving the quality of interactions between healthcare providers and patients during telemedicine sessions. This may involve training healthcare providers to actively listen, communicate effectively, and personalize care to individual patient needs.

Although "Trust" was generally rated positively, ensuring the credibility and reliability of healthcare providers and the security of information should remain a priority. Transparency in processes and a commitment to maintaining high care standards can further build trust. As the "Infrastructure" dimension received positive feedback, it is important to sustain and potentially enhance the user-friendly telemedicine platform. Continuous monitoring and improvements to video quality, device availability, and internet connectivity can contribute to the positive patient experience. The positive perceptions within the "Process" dimension indicate the efficiency of the scheduling process and appointments. However, efforts should be made to further personalize care to individual patient needs. The "Atmosphere" dimension's positive ratings highlight the importance of creating a welcoming and supportive virtual environment for effective hepatology care delivery via telemedicine. Hospital should continue to foster an atmosphere that promotes open and transparent communication and contributes to stress-free discussions.

Regular assessments of service quality must be implemented to identify areas that might require improvement. Patient feedback, surveys, and monitoring of telemedicine interactions can help in making ongoing adjustments. Patients should be provided with information about what to expect during telemedicine sessions, and should be explained the process, ensuring that they understand how to use the platform, and set clear expectations. Educated patients may feel more at ease and satisfied with the service.

It should be continued to invest in robust data security measures to maintain and strengthen patient trust. Regular audits and updates to these security measures can help keep patient data safe. Clear and accessible channels must be established for patients to provide feedback. This feedback should be used for continuous improvement in service quality. Communication and marketing must be focused on promoting the positive findings

of high patient satisfaction and loyalty, by utilizing this information in marketing efforts to attract more patients to telemedicine services. Loyalty programs for patients should be developed to reward their continued use of telemedicine services. These programs can strengthen patient loyalty over time.

By implementing these recommendations and suggestions, Ma Har Myaing Hospital can continue to improve its telemedicine services, enhancing patient satisfaction and loyalty in the realm of Hepatology care. This will not only benefit current patients but also attract new ones, ensuring the long-term success of telemedicine initiatives. Therefore, the findings suggest that telemedicine at Ma Har Myaing Hospital has succeeded in not only satisfying patients' healthcare needs but also in engendering a strong sense of loyalty and commitment among them. This underscores the value and effectiveness of telemedicine in providing satisfactory healthcare services and building trust and loyalty, which are crucial aspects in healthcare delivery.

#### 5.3 Needs for Further Research

Although this study has given us insights into the important aspects of telemedicine for Hepatology care, there remain areas that need more exploration. Firstly, as telemedicine heavily relies on changing technologies, upcoming research could look at how new technologies like 5G, wearable devices, and telemedicine-specific apps affect the quality of service and the experiences of patients. Secondly, it is essential to investigate how telemedicine can help in areas with limited access to healthcare, particularly in remote or underserved regions. Research in this direction could reveal how telemedicine might reduce healthcare disparities and, importantly, how this affects how satisfied patients are with these services and how loyal they become. Studying these aspects in the future will provide us with a deeper understanding of telemedicine's potential and how it influences patient-focused healthcare. It will also help in continuously improving and expanding telemedicine services.

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# APPENDICES APPENDIX A QUESTIONNAIRE

### Respected Sir/ Madam,

May I introduce myself as a master student studying Business Administration at Yangon University of Economics. The questionnaire is to use only for the research paper "Effect of Service Quality on Patient Satisfaction and Patient Loyalty towards Telemedicine for Hepatology Care in Ma Har Myaing Hospital". To submit as a partial fulfillment towards the degree of Master of Business Administration (MBA) at Yangon University of Economics, please kindly fill in each item of questionnaire according to your experience. It is confidential and only for academic purposes. Thank you for your kind cooperation.

# Influence of Service Quality on Patient Satisfaction and Patient Loyalty towards Telemedicine for Hepatology Care in Ma Har Myaing Hospital

Please tick  $( \square )$  the appropriate answer.

## **Section A: Respondent Profile**

1.	1. Gender						
	□ Male				☐ Fema	le	
2.	Age (years)						
	□ 18 – 30	□ 3	1 – 40	□ 41 – 5	50	□ 51 – 60	□ > 60
3.	Educational	Level					
	☐ Illiterate	☐ Prima	ary	☐ Middle School		□ High School	☐ Graduated
4.	Occupation						
	☐ Student		☐ Unempl	loyed	☐ Self-	employed	Company Staff
	☐ Gove	ernment	□ NGO St	taff	□ Fami	ly Business	

# **Section B: Service Quality**

Please state the level of your agreement on each statement by providing the most relevant number. Please tick  $( \square )$  the one that matches your situation.

Strongly Disagree = 1 Disagree = 2

Neutral = 3

Agree = 4

Strongly Agree = 5

# 1. Object

Sr. No.	Statement	1	2	3	4	5
1	The information provided during my telemedicine					
	hepatology consultations is clear and unbiased.					
2	I believe that the recommendations and advice I					
	receive through telemedicine for my hepatology care					
	are based on accurate and objective assessments.					
3	During my telemedicine appointments for hepatology					
	care, I feel that the healthcare providers treat me fairly					
	and without any bias.					
4	I perceive the telemedicine services I receive for					
	hepatology care at Ma Har Myaing Hospital as being					
	free from any personal or institutional biases.					
5	I feel confident that the telemedicine services I receive					
	for my hepatology care are driven by a commitment to					
	objective and evidence-based practices.					

# 2. Trust

Sr. No.	Statement	1	2	3	4	5
1	I trust the healthcare providers who offer telemedicine					
	hepatology services at Ma Har Myaing Hospital.					
2	I have confidence in the accuracy of the diagnoses and					
	recommendations provided during my telemedicine					
	hepatology consultations.					
3	I trust that my personal and medical information is					
	kept confidential and secure during telemedicine					
	consultations.					

4	I feel comfortable discussing my medical concerns and	
	questions with healthcare providers during	
	telemedicine appointments.	
5	I trust that the telemedicine services I receive are of	
	the same quality and standard as in-person hepatology	
	care.	
6	I believe that the telemedicine services I receive for	
	hepatology care are delivered with my best interests in	
	mind.	

# 3. Process

Sr. No.	Statement	1	2	3	4	5
1	The process of scheduling telemedicine hepatology					
	appointments at Ma Har Myaing Hospital is					
	convenient and user-friendly.					
2	I find it easy to access the telemedicine platform					
	(Viber / Facebook Messenger) for my hepatology					
	consultations.					
3	The telemedicine appointments are conducted in a					
	timely manner, with minimal waiting times.					
4	The instructions provided for using the telemedicine					
	platform are clear and easy to follow.					
5	The telemedicine processes in place ensure that my					
	medical information is accurately recorded and					
	updated.					

# 4. Infrastructure

Sr. No.	Statement	1	2	3	4	5
1	The telemedicine platform used by Ma Har Myaing					
	Hospital for hepatology care is user-friendly and easy					
	to navigate.					
2	The video and audio quality during my telemedicine					
	hepatology consultations is consistently clear and					
	reliable.					
3	I have access to the necessary devices and internet					
	connectivity required for seamless telemedicine					
	interactions.					

4	The hospital's telemedicine infrastructure includes			
	reliable backup systems to minimize disruptions			
	during technical issues.			
5	The telemedicine infrastructure in place enhances my			
	confidence in the quality of care I receive for my			
	hepatology condition.			

# 5. Interaction

Sr. No.	Statement	1	2	3	4	5
1	During my telemedicine hepatology consultations,					
	healthcare providers actively listen to my concerns and					
	questions.					
2	I feel that healthcare providers engage in effective					
	communication and establish a rapport with me during					
	telemedicine appointments.					
3	Healthcare providers make an effort to ensure that I am					
	comfortable and at ease during my telemedicine					
	hepatology consultations.					
4	The telemedicine interactions I have with healthcare					
	providers feel personalized and tailored to my specific					
	hepatology care needs.					
5	Healthcare providers in telemedicine consultations					
	take the time to explain medical information and					
	treatment options in a way that I can easily understand.					
6	The telemedicine interactions I have with healthcare					
	providers contribute positively to my overall					
	experience and satisfaction with hepatology care.					

6. Atmosphere

Sr. No.	Statement	1	2	3	4	5
1	The virtual environment during my telemedicine					
	hepatology consultations at Ma Har Myaing Hospital					
	is welcoming and comfortable.					
2	During telemedicine appointments, I feel that the					
	virtual atmosphere is conducive to open and honest					
	discussions about my hepatology condition.					

3	The telemedicine consultations provide a calming and			
	stress-free atmosphere for discussing my hepatology			
	concerns.			
4	I find the virtual atmosphere during telemedicine			
	consultations to be professional and conducive to			
	quality healthcare interactions.			
5	The atmosphere of the telemedicine interactions			
	positively contributes to my overall satisfaction with			
	hepatology care.			

# **Section C: Patient Satisfaction**

Please state the level of your agreement on each statement by providing the most relevant number. Please tick  $( \square )$  the one that matches your situation.

Strongly Dissatisfied = 1

Dissatisfied = 2

Neutral = 3

Satisfied = 4

Strongly Satisfied = 5

Sr. No.	Statement	1	2	3	4	5
1	I am satisfied the overall quality of telemedicine					
	services I have received for my hepatology care.					
2	I am satisfied with the convenience and accessibility					
	of telemedicine for my hepatology consultations.					
3	I am satisfied the communication and interactions I					
	have had with healthcare providers during my					
	telemedicine hepatology appointments.					
4	I am satisfied with the level of information and					
	guidance provided to my regarding my hepatology					
	condition and treatment through telemedicine.					
5	I am satisfied the overall experience of receiving					
	hepatology care via telemedicine, taking into account					
	all aspects of the service.					

# **Section D: Patient Loyalty**

Please state the level of your agreement on each statement by providing the most relevant number. Please tick  $( \square )$  the one that matches your situation.

Strongly Disagree = 1
Disagree = 2
Neutral = 3
Agree = 4

Strongly Agree = 5

Sr. No.	Statement	1	2	3	4	5
1	I am inclined to continue using telemedicine services					
	for my hepatology care in the future.					
2	I would recommend Ma Har Myaing Hospital's					
	telemedicine hepatology services to friends and					
	family.					
3	I am likely to choose telemedicine for hepatology care					
	at Ma Har Myaing Hospital over other healthcare					
	options in the future.					
4	I feel a sense of loyalty to Ma Har Myaing Hospital as					
	a result of my positive experiences with telemedicine					
	for hepatology care.					
5	If offered the choice, I would continue using					
	telemedicine services for my hepatology care at Ma					
	Har Myaing Hospital rather than switching to in-					
	person care.					

Thank you very much.

#### **APPENDIX B**

#### STATISTICAL OUTPUT

## I. Effects of Service Quality on Patient Satisfaction

#### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin- Watson
1	.840ª	.706	.694	.32761	.706	59.294	6	148	<.001	2.084

a. Predictors: (Constant), Atmosphere, Object, Infrastructure, Interaction, Process, Trust

b. Dependent Variable: Patient Satisfaction

# **ANOVA**<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1 .	Regression	38.185	6	6.364	59.294	<.001 <sup>b</sup>
	Residual	15.885	148	.107		
	Total	54.070	154			

a. Dependent Variable: Patient Satisfaction

b. Predictors: (Constant), Atmosphere, Object, Infrastructure, Interaction, Process, Trust

#### Coefficients<sup>a</sup>

	Unstandardized Coefficients			Standardized Coefficients			Collinearity	Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.677	.186		3.646	<.001		
	Object	.068	.070	.082	.969	.334	.281	3.560
	Trust	.148	.147	.158	1.011	.314	.081	12.282
	Process	090	.142	095	631	.529	.087	11.484
	Infrastructure	.151	.099	.159	1.527	.129	.182	5.496
	Interaction	.381	.148	.396	2.575	.011	.084	11.921
	Atmosphere	.178	.133	.181	1.337	.183	.108	9.272

a. Dependent Variable: Patient Satisfaction

## II. Effect of Patient Satisfaction on Patient Loyalty

## Model Summary<sup>b</sup>

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin- Watson
1	.814ª	.663	.661	.31699	.663	301.439	1	153	<.001	1.834

a. Predictors: (Constant), Patient Satisfaction

b. Dependent Variable: Patient Loyalty

# ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.289	1	30.289	301.439	<.001 <sup>b</sup>
	Residual	15.373	153	.100		
	Total	45.662	154			

a. Dependent Variable: Patient Loyaltyb. Predictors: (Constant), Patient Satisfaction

# Coefficients<sup>a</sup>

	Unstandardized Coefficients						Collinearity	Statistics
Model		В	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.100	.179		6.136	<.001		
	PS	.748	.043	.814	17.362	<.001	1.000	1.000

a. Dependent Variable: Patient Loyalty