

**Arab American University  
Faculty of Graduate Studies  
Department of Administrative and  
Financial Sciences  
Master Program in Quality Management**



**Measuring the Quality of Services and its Impact on the  
Satisfaction of Users of Primary Healthcare Clinics in the  
North-West Jerusalem Using SERVQUAL Model**

**Muhammed Natheer Dar Taha  
201712565**

**Supervision Committee:  
Prof. Atieh Musleh  
Dr. Ashraf Almimi  
Dr. Shaher Obaid**

**This Thesis Was Submitted in Partial Fulfilment of the  
Requirements for the Master Degree in Quality Management**

**Palestine, February/2025**

**© Arab American University. All rights reserved.**

**Arab American University**  
**Faculty of Graduate Studies**  
**Department of Administrative and**  
**Financial Sciences**  
**Master Program in Quality Management**






## **Thesis Approval**

### **Measuring the Quality of Services and its Impact on the Satisfaction of Users of Primary Healthcare Clinics in the North-West Jerusalem Using SERVQUAL Model**

Muhammed Natheer Dar Taha  
201712565

This thesis was defended successfully on February 8<sup>th</sup>, 2025 and approved by:

Thesis Committee Members:

Name	Title	Signature
1. Dr. Atieh Musleh	Main Supervisor	
2. Dr. Ashraf Almimi	Members of Supervision Committee	
3. Dr. Shaher Obaid	Members of Supervision Committee	

Palestine, February/2025

## **Declaration**

I declare that, except where explicit reference is made to the contribution of others, this thesis is substantially my own work and has not been submitted for any other degree at the Arab American University or any other institution.

Student Name: Muhammed Natheer Dar Taha

Student ID: 201712565

Signature: Muhammed Dar Taha

Date of Submitting the Final Version of the Thesis: 21.8.2025

## **Acknowledgements**

Praise be to God and thanks to God always. I extend my sincere thanks to the main supervisor of this thesis, Prof. Atieh Musleh, for his efforts with me. I thank my wife and children for their patience and cooperation with me. Many thanks to the Arab American University and Faculty of Graduate Studies.

# **Measuring the Quality of Services and its Impact on the Satisfaction of Users of Primary Healthcare Clinics in the North-West Jerusalem Using SERVQUAL Model**

**Muhammed Natheer Dar Taha**

**Prof. Atieh Musleh**

**Dr. Ashraf Almimi**

**Dr. Shaher Obaid**

## **Abstract**

**Background:** The model known as SERVQUAL places a strong emphasis on functional quality by highlighting precise procedures, diagnosis, and professional competence. In order to deliver healthcare effectively and meet functional quality targets, it is imperative that patients' expectations are met.

**Aim:** To assess the quality of service and user satisfaction provided by the primary health care clinics in northwest Jerusalem, this research evaluates these aspects from the customers' point of view using the SERVQUAL model.

**Methods:** A cross-sectional design was conducted among 382 clients from Primary Healthcare Clinics in the North-West Jerusalem. The study was carried out from October 2, 2024, to November 2, 2024. The data were collected through a self-administered questionnaire.

**Results:** Dissatisfaction was highest with tangibility (67.5%), while reliability received neutral responses (52.9%). Empathy had the highest agreement, and 78.3% of patients remained neutral regarding overall quality. Patients were dissatisfied with administrative and emergency services but satisfied with cleaning services. Tangibility positively influenced satisfaction with cleaning ( $r=0.476$ ), administrative services ( $r=0.267$ ), and overall satisfaction ( $r=0.449$ ), but not emergency services. Reliability impacted administrative ( $r=0.196$ ) and cleaning services ( $r=0.163$ ). Responsiveness negatively affected cleaning ( $r=-0.137$ ), while assurance showed no significant effects. Empathy improved satisfaction with emergency services ( $r=0.165$ ) but negatively affected other areas. Total quality only impacted emergency services ( $r=0.147$ ). Regression analysis identified empathy and tangibility as key predictors of satisfaction. Gender differences were minimal, but females reported higher administrative satisfaction. Younger patients (18–28 years) rated services lower, while older patients favored empathy. Clinics varied in ratings, with Qattanah rated highest and Beit Duqqu lowest. Higher education correlated with better satisfaction across dimensions.

**Recommendations:** To improve patient satisfaction, the Primary Healthcare Clinics (PHCs) may need to focus on upgrading equipment, improving management practices, and ensuring a more reliable and responsive healthcare delivery system. Given the high levels of satisfaction in empathy, efforts to maintain and enhance this strength can help balance and compensate for deficits in other areas.

**Key Words:** SERVQUAL Model; Users Satisfaction; Primary Health Care Centers

## Table of Contents

#	Title	Page
	Declaration	I
	Acknowledgements	II
	Abstract	III
	List of Tables	VII
	List of Figures	VIII
	List of Appendices	IX
	List of Definitions of Abbreviations	X
	Chapter One: Introduction	1
1.1	Overview	1
1.2	Background	3
1.3	Statement of the Problem	6
1.4	Significance of the Study	7
1.5	Study Aim	8
1.5.1	Specific Research Objectives	8
1.5.2	Research Questions	9
1.5.3	Research Hypotheses	9
1.6	Conceptual Framework	10
1.6.1	Conceptual Definitions	10
1.6.2	Operational Definitions	12
1.7	Summary Of the Chapter	14
	Chapter Two: The Literature Review	15
2.1	Introduction	15
2.2	Search strategy	15
2.3	Quality of Services and Users Satisfaction of Primary Healthcare Clinics Using SERVQUAL Model	16
2.3.1	Quality of Services	16
2.3.2	User Satisfaction	19
2.3.3	Impact of Service Quality on Customer Satisfaction	21
2.4	Summary	24
	Chapter Three: Methodology	25
3.1	Introduction	25
3.2	Design	25
3.3	Setting	25
3.4	Population	25
3.4.1	Sampling and Sample Size	26
3.4.2	Inclusion Criteria	26
3.4.3	Exclusion Criteria	26
3.5	Data Collection	26

3.5.1	Response Value to Dimensions of SERVQUAL Model	27
3.5.1	Response Value to Dimensions of Satisfaction	28
3.6	Data Analysis	29
3.7	Ethical Considerations	29
3.8	Pilot Study	30
3.8.1	Aim of the Study	30
3.8.2	Population and Sample Size	30
3.8.3	Data Collection Methods	30
3.8.4	Reliability and Validity of Instruments	30
	Chapter Four: Results	34
4.1	Introduction	34
4.2	Tests for Normality and Scales Reliability	34
4.3	Demographic Characteristics of Participants	35
4.4	The Quality of Services in the PHCs in the North-West Jerusalem	36
4.4.1	Tangibility	36
4.4.2	Reliability	37
4.4.3	Responsiveness	37
4.4.4	Assurance	37
4.4.5	Empathy	38
4.5	The Satisfaction of Users of PHCs in the North-West Jerusalem	40
4.5.1	Satisfaction with Administrative Services	40
4.5.2	Satisfaction with Emergency Services	40
4.5.3	Satisfaction with Cleaning Services	40
4.5.4	Total of Satisfaction	41
4.6	Impact of Quality of Services on the Satisfaction of Users of PHCs in the North-West Jerusalem	42
4.8	SERVQUAL Dimensions and Patients' Agreement Levels based on participants characteristics	44
4.9	Satisfaction's Dimensions and Patients' Levels based on participants characteristics	46
4.10.	Summary	47
	Chapter Five: Discussion	49
5.1	Introduction	49
5.2	The Quality of Services of PHCs in the North-West Jerusalem Using SERVQUAL Model	49
5.3	Satisfaction of Users of PHCs in the North-West Jerusalem	51
5.3.1	Satisfaction with Administrative Services	51
5.3.2	Satisfaction with Emergency Services	52
5.3.3	Satisfaction with Cleaning Services	52
5.3.4	Overall Satisfaction	53
5.4	Impact of Quality of Services on the Satisfaction of Users of PHCs in the North-West Jerusalem	53
5.5	Satisfaction with Quality of Services Based on Demographic Characteristics	54

5.6	Conclusion	55
5.7	Limitations of the Study	56
5.8	Recommendations	56
	References	58
	Appendices	66
	ملخص	71

## List of Tables

Table #	Title of Table	Page
Table 3.1	Calculated Scores for Response to Dimensions of SERVQUAL Model	28
Table 3.2	Calculated Scores for Response to Dimensions of Satisfaction	29
Table 3.3	Reliability Statistics	31
Table 3.4	Items Correlation for its Dimension of SERVQUAL Model	32
Table 3.5	Items Correlation for its Dimension of Satisfaction with PHCs Services	33
Table 4.1	Tests of Normality	34
Table 4.2	Reliability Statistics	34
Table 4.3	Demographic Data (N = 382)	36
Table 4.4	The SERVQUAL Dimensions in the PHCs in the North-West Jerusalem	38
Table 4.5	SERVQUAL Dimensions and Patient Agreement Levels	39
Table 4.6	The Satisfaction of Users of PHCs in the North-West Jerusalem	41
Table 4.7	Dimensions of Satisfaction and Patient Satisfaction Levels	41
Table 4.8	The Impact of the Quality of Services on User's Satisfaction	43
Table 4.9	Standardized Coefficients for Predicting Satisfaction across SERVQUAL Dimensions	44
Table 4.10	SERVQUAL Dimensions and Patient Agreement Levels Based on Participants Characteristics	45
Table 4.11	Satisfaction's Dimensions and Patient's Levels Based on Participants Characteristics	47

## List of Figures

Figure #	Title of Figure	Page
Figure 1.1.	Conceptual Framework	10
Figure 4.1.	Tests of Normality	35

## List of Appendices

Appendix #	Title of Appendix	Page
Appendix 1.	The Questionnaire in English	66
Appendix 2.	The Questionnaire in Arabic	68

## List of Definitions of Abbreviations

Abbreviations	Title
APS	Atenção Primária à Saúde (Primary Health Care)
BPJS	Badan Penyelenggara Jaminan Sosial (Indonesian National Health Insurance System)
BHU	Basic Health Units
CINHL	Cumulative Index to Nursing and Allied Health Literature
COP	Cut-off Points
CSI	Customer Satisfaction Index
Df	Degrees of Freedom
EBSCO	Elton B. Stephens CO (company)
et al	and others
ESF	Estratégia de Saúde da Família (Family Health Strategy)
M	Mean
MOH	Ministry of Health
N	Frequency
p-Value	Probability Value
PHCs	Primary Health Care Clinics
R	Correlation
SD	Standard Deviation
SERVQUAL	Service Quality Scale
Sig.	Significance
SPSS	Statistical Package for the Social Sciences
SQ	Service Quality
UBS	Unidade Básica de Saúde (Primary Health Units)
UHS	Unified Health System

# **Chapter One: Introduction**

## **1.1 Overview**

Improving healthcare services enhance overall quality, may consequently increase customer satisfaction. The three most important factors that contribute to overall quality and client satisfaction are atmosphere, interaction, and infrastructure quality (Verma et al., 2022). In all structural, clinical, and technical areas, the basic healthcare services offered in the staff clinic excelled expectations. In order to guarantee efficient healthcare systems, patient satisfaction is a critical indicator of healthcare quality. Only a small number of earlier studies examined patient satisfaction in staff/employee clinic settings; the majority concentrated on patient satisfaction in primary health care facilities, tertiary hospitals, or other settings (Chalhoub et al., 2024).

The second half of the 20th century saw the emergence of a new trend in the management of medical services across Europe. Numerous facets of human life, both personally and professionally, have evolved in conjunction with these shifts. In the service work, "quality," which was well-known in antiquity, then made a comeback. According to Aristotle, "quality" is one of the basic characteristics of human life and thought. The SERVQUAL approach enables us to comprehend the patient's expectations, while the service provider may identify irregularities and make modifications. It allows the executive personnel of medical institutions to change various parts of medical operations, which improves the quality of services provided and increases customer satisfaction and compliance (Jonkisz et al., 2021).

Quality is difficult to define and measure in services, while quality control measures for tangible goods have long existed, in services it is determined by imprecise individual factors such as perceptions, expectations and experiences of other people, and this will affect patients' satisfaction of services provided since it cannot reflect the actual service quality, even all variables that could influence the degree of satisfaction could not be measured (Ross & Venkatesh, 2015).

Although there has been much discussion on healthcare quality for more than 40 years, it is still difficult to define and evaluate because of a number of issues. Inadequate healthcare services can lead to inefficiencies, restricted access, elevated expenses, grievances, discontent among practitioners and patients, harm to reputation, and fatalities. The gap between what customers perceive and what they expect from a service is its service quality. As consumers evaluate healthcare services, perceived quality is being

emphasized in the evolving idea of satisfaction. Metrics that track customer satisfaction effectively take into account the expectations, preferences, and perceptions of the degree to which those expectations are satisfied. To guarantee user satisfaction, relationships with users must be of a high caliber. Developed nations have taken into account the feedback from healthcare consumers to enhance procedures and assess consumer satisfaction and perceived quality (Bermúdez-Hernández et al., 2021).

Quality is a prerequisite for survival in the competitive and sophisticated world of today's dynamic marketing climate. When it comes to services, quality is a critical problem that must be measured. Managers of healthcare institutions can take specific actions to meet the expectations of their clients, foster a sense of trust, and enhance their opinion of the caliber of services provided (Tripathi & Siddiqui, 2020).

Primary healthcare serves as the first point of interaction between the general public and the healthcare system in lower- and middle-income nations. Wherever strong health care system performance correlates with positive health indicators, the majority of these nations place more emphasis on the quantity of their health centers than the caliber of the medical services they provide (Shouly, 2011).

The Alma-Ata Declaration defines Primary Health Care (PHC) as the provision of all nations with comprehensive, universal, equitable, and reasonably priced healthcare services. The Alma Ata Declaration acknowledged that PHC services, including "preventive, curative, and rehabilitative" care, ought to be available to everyone. It has PHC service providers such medical technicians (MT), dispensers, female and male medical officers (LMOs), and vaccinators (Ali & Panezai, 2021).

The primary healthcare services offered by the Ministry of Health's clinics serve as the core foundation of Palestine's healthcare system. Vaccination services, maternity and pediatric clinics, chronic illness clinics, health education programs, emergency and general medical clinics, specialty clinics, pharmacies, labs, and radiology are just a few of the programs they offer that focus on prevention. This study concentrated on the Ministry of Health's centers and primary health clinics in Jerusalem's northwest district, which consists of 14 villages, populated by about 50,000 people and served by eight medical centers. This study attempted to measure the level of services offered in northwestern Jerusalem by the primary health care clinics. This was the first research to discuss this subject from a users' point of view. The reason for choosing this area was because it is suffering from the Israeli restrictions and it is classified as zone C.

## 1.2 Background

Research on patient satisfaction started in the 1950s and is still going strong today. Indicators of quality and performance for healthcare services now include patient satisfaction. It is an evaluation of the services obtained by the patient, impacted by their experiences and expectations. Patient input is useful in assessing and tracking the quality of healthcare. Knowledge, personal values, lifestyle, and prior experiences are some of the variables that influence contentment. Concerns about employee attitudes, work procedures, high workloads, lengthy wait times, and suitable facilities all have an impact on patient satisfaction in public healthcare (Zun et al., 2018). Competition among health administrations leads to improvements in productivity, effectiveness, and quality of care; patients choose a clinic with a solid reputation because they are competing with one another for patients by raising the caliber of their services, which is essential to achieving patient satisfaction and loyalty (Erickson et al., 2017; Ferrand et al., 2016).

Three important elements allow health care providers to enhance their services and cost-effectiveness: patient satisfaction, loyalty, and health center quality. All aspects of healthcare services, particularly patient retention—the primary determinant of a patient's decision to return to the same facility—are impacted by patient satisfaction. Providing top-notch medical care, encouraging employees, and expressing gratitude all contribute to patient retention. Determining the factors that motivate patients to seek additional services is crucial for putting into practice methods that will keep them loyal (Setyawan et al., 2020).

Achieving the Universal Health Coverage aim requires not just financial stability and efficient coverage of basic health services in each nation, but also the provision of high-quality treatment or services. A commitment to person-centered care lies at the heart of providing high-quality care. To make certain that health services are tailored to local health requirements, communities must be involved in their conception, execution, and continuous assessment. Additionally, since it affects patient safety, survival, and long-term health, it's critical to find a balance between quality improvement programs and patient expectations (Rahim et al., 2021).

In order to achieve high standards of quality care, it is imperative that healthcare providers improve access to care within organizational boundaries. They can do this by first listening to patients' needs and then incorporating those needs into the services they provide. This requires innovative and creative ways to engage clients and provide them

with products and services that meet their needs. Patients set the standard for healthcare, therefore physicians must deliver the best possible treatment. It is difficult for businesses to keep clients in light of the rapid innovations and rising demands of consumers. Changing medical facilities into welcoming, patient- and staff-satisfied clinics improves management, guarantees satisfaction for patients, and encourages good consumer behavior (Bentum-Micah et al., 2020).

One of the industries in the service economy with the quickest rate of growth is healthcare. When it comes to the strategic planning of healthcare facilities' management procedures, user happiness and service quality are crucial components. Nonetheless, the public sector is still in charge of selecting the services to be rendered, setting the standards for their performance and quality, and taking the required remedial action in the event that either meets or exceeds expectations. Conventionally, professional practice standards serve as the foundation for the quality of health services. However, it has been emphasized that patient perceptions of healthcare are an important metric for assessing the quality of healthcare as well as a vital element in enhancing clinical efficacy and performance (Carvalho & Rodrigues, 2022).

Promoting client-oriented care with an emphasis on local cultural variables is crucial, regardless of the difficulty in finding a balance between psychological and medical care. This can be accomplished by providing the recipient with written prescriptions that include information on the symptoms, indicators, treatment, and referral sites, as well as by providing community-focused training. Assessing the satisfaction of beneficiaries is essential for enhancing the quality of care, and the frequency of use of those health services is greatly influenced by the perceived quality of those services (Talukder et al., 2022).

Definitions and understandings of quality vary, especially in the context of healthcare. Diverse specialists have different points of view: Deming, Feigenbaum, and Ishikawa stress customer pleasure, Crosby concentrates on specification compliance, and Juran integrates the two. The distinct characteristics of healthcare—intangibility, variety, and simultaneity—make it challenging to define and assess quality. This problem is made more difficult by the complexity of healthcare, the variety of provider interests, and ethical issues. The backgrounds and experiences of professionals vary, which causes variations in the services they provide. Divergent opinions about what constitutes quality among healthcare stakeholders cause conflicts between staff, legislators, and patients. Current quality indicators are frequently imprecise and broad. Several viewpoints and

roles must be integrated in order to improve the quality of healthcare. To attain better healthcare services, researchers support the development of integrated models that synchronize medical and managerial inputs, procedures, and outputs (Endeshaw, 2021).

The model known as SERVQUAL places a strong emphasis on functional quality by highlighting precise procedures, diagnosis, and professional competence. In order to deliver healthcare effectively and meet functional quality targets, it is imperative that patients' expectations are met. Perceptions of the quality of services are the result of contrasting expectations with real experiences. SERVQUAL was created by Parasuraman et al. to quantify this disparity. SERVQUAL is a valuable tool for tracking quality trends over time and is relevant to all service businesses. It evaluates five dimensions: tangibles, reliability, assurance, responsiveness, and empathy (Teshnizi et al., 2018).

By assessing the service quality (SQ) gap—the discrepancy between customer expectations and perceptions—the SERVQUAL instrument assesses customer satisfaction. Whereas a negative SQ gap denotes dissatisfaction, a positive gap suggests satisfaction (Zun et al., 2018).

A popular method for assessing service quality across a broad range of service contexts, industries, and countries is service quality (SERVQUAL). The approach effectively assesses customer service demands and perceptions because it takes into account five dimensions: tangible, reliability, responsiveness, empathy, and assurance. The necessity of creating new data sources for evaluating patient views and care quality was highlighted by the discrepancy between traditional surveys and treatment quality and patient perceptions. Innovation in technology is necessary to develop new methods for quickly and affordably evaluating the quality of services. As a result, social media platforms—often called patient online reviews—have been proposed as a novel method of measuring patient satisfaction and tracking the effectiveness of treatment (Rahim et al., 2021).

Because primary care is more cost-effective, health systems that prioritize it are probably more equitable and produce better health outcomes. High levels of patient satisfaction and enduring relationships between primary care physicians and patients are unavoidable in the ideal primary care system. Therefore, addressing doctor-patient conflicts and enhancing health reform can be achieved by concentrating on patient satisfaction with primary health facilities (Gao et al., 2022).

The establishment of a patient-centered health care service is emphasized in the Quality Standards for Accreditation of Health Care Institutions. Patient-centered

healthcare systems have the potential to greatly enhance population health outcomes, care access, and overall health spending, according to the World Health Organization (2016). The cost-effectiveness of the medical services rendered demonstrates the importance of patient-centered primary healthcare. Establishing patient-centered primary health care can increase the cost-effectiveness of medical services. In this regard, a stronger focus on patient input ought to be seen as a crucial component of both the certification procedure and quality control (Kurti & Kalaja, 2024).

Furthermore, a challenge for the contemporary urban planning management system is the notable increase in patient and healthcare worker satisfaction from the established healthcare facilities. These days, patient satisfaction is linked to the quality of healthcare services and returning to medical facilities in search of better and more dependable care. To accomplish sustainable urban planning management, medical facilities must keep up with patients' increasing awareness and expectations as well as the expanding range of medical services available to clients (Rauf et al., 2024).

### **1.3 Statement of the Problem**

User satisfaction is an important quality outcome indicator for the healthcare system in primary healthcare settings, it is important to study and measure user satisfaction with primary healthcare services as these services are considered primary determinants of overall satisfaction and quality of care in the clinics of the northwest Jerusalem region. No one can argue that any health institution's success or failure depends mainly on the clients' satisfaction with its services it provides. Consumer satisfaction is a primary measure of service quality due to its importance to medical advice enforcement and recall. To that end, assessing customer satisfaction is critical for evaluating health care delivery and for assessing patient outcomes. Various international and local customer satisfaction studies have been conducted in different health settings, but there is a lack of evidence on customer satisfaction in this area.

Patient satisfaction is a crucial measure of healthcare quality that must be met to ensure effective healthcare systems. Prior research has mostly focused on patient satisfaction in primary healthcare facilities, tertiary hospitals, or other settings, with only a few studies looking at patient satisfaction in staff/employee clinic settings (Chalhoub et al., 2024). There is a lack of evidence and documentation on the level of client satisfaction with primary health care provided at primary health care clinics in the northwest area of Jerusalem. Socio-demographic and service-related factors most likely influence the

client's satisfaction. Client satisfaction provides the ability to identify and resolve potential issues related to the quality of health services. Knowing the level of client satisfaction in primary health care is distinct from other services, therefore Assessment in this sector depends on many variables such as crowded environment, shortage of staff, in-availability of resources, environment, and staff communication with clients. All of these variables may affect satisfaction.

Assessment of clients' satisfaction at primary health care clinic studies was conducted in many areas but in this area not examined yet. The researcher will investigate the factors influencing the quality of services, evaluate the clients' satisfaction with the medical care they receive in these clinics, and investigate the factors influencing the clients' satisfaction with the clinics they attend. Based on the findings, recommendations will be made to improve the quality of health services.

Primary healthcare clinics are vital to the community's provision of basic medical services in North-West Jerusalem. Concerns over these services' quality and how they affect patients' pleasure are, nevertheless, becoming more and more prevalent. Notwithstanding the significance of providing patients with high-quality healthcare, little is known about how effectively these clinics match patient expectations and what causes disparities.

In order to close this gap, the SERVQUAL model is being used in this study to assess the level of care given by North-West Jerusalem primary healthcare clinics as well as the ways in which these services affect patient satisfaction. The study has the potential to offer significant insights for healthcare practitioners and policymakers to improve patient happiness and service delivery in these clinics by pinpointing particular areas where patients' expectations are not being met.

## **1.4 Significance of the Study**

Ensuring patient satisfaction and enhancing healthcare delivery necessitate the measurement of service quality. The performance of primary healthcare clinics, particularly in areas such as North-West Jerusalem, can be greatly impacted by the comprehension and improvement of service quality. Information about measuring quality of service will serve as a guide for Ministry of Health (MOH) to follow and regulate the services provided at this clinic. It will illustrate the most important quality aspects of the services provided in this facility from a customer perspective. It will provide

policymakers with the real situation about level of users' satisfactions and quality level of primary health services in this area.

This study will offer a thorough evaluation of the level of care provided in North-West Jerusalem's primary healthcare clinics using the SERVQUAL paradigm. This can lead to improved healthcare delivery by pointing out particular areas that require improvement. Better health results result from satisfied patients, who are more likely to follow their treatment regimens.

The results of this study can help legislators and healthcare professionals create focused initiatives to solve inadequacies that are found. Better procedures and policies that place a higher priority on patient-centered care may result from this. This study contributes to the amount of information already available on patient satisfaction and the quality of healthcare services, especially when it comes to primary healthcare clinics in a given area. It can be used as a guide for similar study in the future.

This analysis can aid in the efficient distribution of resources by identifying the areas that need more focus. This guarantees that healthcare expenditures are allocated to the most significant domains, augmenting the general caliber and efficacy of services. Patients can be empowered and become active participants in their healthcare by being made aware of the value of their comments in determining the quality of the services they get. This fosters a healthcare environment that is more responsive and cooperative.

## **1.5 Study Aim**

The main purpose of this study is to assess the quality of service and user satisfaction provided by the primary health care clinics in northwest Jerusalem, this research evaluates these aspects from the customers' point of view using the SERVQUAL model.

### **1.5.1 Specific Research Objectives**

- 1- To identify the quality of service (reliability, tangibility, responsiveness, assurance, and empathy) currently perceived in primary health care clinics (PHCs).
- 2- To assess the level of patient's satisfaction in primary health care clinics.
- 3- To determine the impact of the SERVQUAL dimensions on satisfaction with the services among patients in the PHCs in the North-West Jerusalem.

- 4- To identify the difference in the responses of participants regarding SERVQUAL dimension based on participants' characteristics among patients in the PHCs in the North-West Jerusalem?
- 5- To identify the difference in the responses of participants regarding satisfaction dimensions based on participants' characteristics among patients in the PHCs in the North-West Jerusalem?

### **1.5.2 Research Questions**

The main research question was how does service quality affect users' satisfaction in primary health care per the SERVQUAL model? To answer the following unique sub-problems are pursued to achieve the study's main question:

1. What is the level of SERVQUAL dimensions (reliability, tangibility, responsiveness, assurance, and empathy) from the viewpoint of patients in the PHCs?
2. What is the level of satisfaction of users with PHCs services in the North-West Jerusalem?
3. What is the impact of the SERVQUAL dimensions on satisfaction with the services among patients in the PHCs in the North-West Jerusalem?
4. Is there a significant difference in the responses of participants regarding SERVQUAL dimension based on participants' characteristics among patients in the PHCs in the North-West Jerusalem?
5. Is there significant difference in the responses of participants regarding satisfaction dimensions based on participants' characteristics among patients in the PHCs in the North-West Jerusalem?

### **1.5.3 Research Hypotheses**

The null hypotheses of this study are as follow:

1. There is no statistically significant impact (at  $p < 0.05$ ) of the SERVQUAL dimensions (tangibility, reliability, responsiveness, assurance, empathy) on satisfaction dimensions (administrative, emergency, cleaning services) or overall satisfaction in healthcare services
2. There is no statistically significant differences (at  $p < 0.05$ ) in the levels of agreement with SERVQUAL dimensions based on participants' characteristics among patients in the PHCs in the North-West Jerusalem?

3. There is no statistically significant differences (at  $p < 0.05$ ) in satisfaction levels with the dimensions of services based on participants' characteristics among patients in the PHCs in the North-West Jerusalem?

## 1.6 Conceptual Framework

The conceptual framework for this study explores the complex link that emerges between the quality of services and its impact on the satisfaction of users of primary healthcare clinics in the North-West Jerusalem using SERVQUAL model. Figure (1) illustrates the Conceptual framework of this study consisted of independent variable (quality service including reliability, tangibility, responsiveness, assurance, and empathy from the viewpoint of patients in the primary healthcare clinics in North-West Jerusalem), dependent variables (level of patient satisfaction in primary healthcare clinics in North-West Jerusalem including satisfaction with administrative services, satisfaction with medical services and satisfaction with the cleanliness services) and demographic variables.

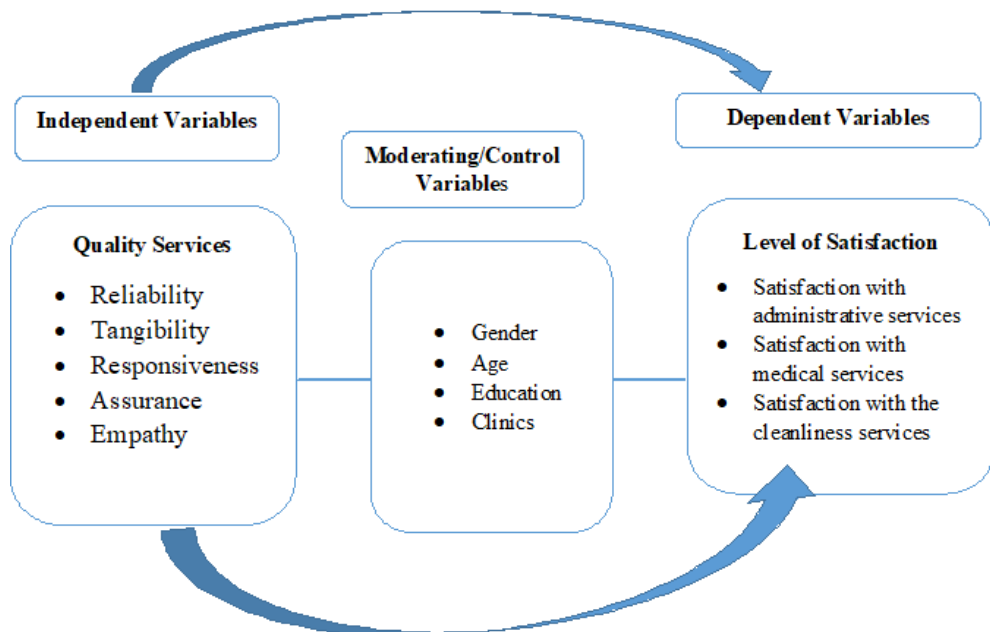


Figure 2.1 Conceptual Framework

### 1.6.1 Conceptual Definitions

#### 1.6.1.1 Satisfaction (noun)

"The satisfaction or gratification of a need, appetite, or desire", "The joy or contentment that results from such satisfaction" (<https://www.merriam-webster.com/dictionary/>, n.d.).

### **1.6.1.2 User Satisfaction**

The extent to which patients' expectations are met or surpassed by the services offered by healthcare institutions is known as user satisfaction. It serves as a gauge of how well people feel they were treated generally and how satisfied they are with the healthcare system (<https://www.merriam-webster.com/dictionary/>, n.d.).

### **1.6.1.3 In the Context**

User satisfaction in North-West Jerusalem's primary healthcare clinics gauges how happy or satisfied consumers are with the services they receive, taking into account things like waiting times, interactions with medical professionals, and treatment results (<https://www.merriam-webster.com/dictionary/>, n.d.).

### **1.6.1.4 Primary Healthcare Clinics**

Primary care clinics are medical establishments that offer first-contact, easily accessible, ongoing, all-encompassing, and well-coordinated care. In the healthcare system, they act as the patient's first point of contact and provide a wide range of services, such as wellness promotion, illness and condition treatment, and prevention (Starfield, 1994).

### **1.6.1.5 In the Context**

Primary healthcare clinics are the community-based facilities in North-West Jerusalem where people go for the majority of their medical needs, such as routine checkups, vaccinations, and care for minor wounds and diseases (Starfield, 1994).

### **1.6.1.6 Quality (noun)**

“The degree of excellence of something; the standard by which something is judged against other similar items” (<https://www.merriam-webster.com/dictionary/>, n.d.).

### **1.6.1.7 Service (noun)**

“The action of helping or doing work for someone” (<https://www.merriam-webster.com/dictionary/>, n.d.).

### **1.6.1.8 Quality of Services**

The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are compatible with current professional knowledge is referred to as quality of services in the context of healthcare. It includes a number of aspects, including as patient-centeredness, equity, effectiveness, efficiency, and accessibility (Donabedian, 1988).

### **1.6.1.9 In Context**

Evaluating the quality of services at North-West Jerusalem primary healthcare clinics would entail determining how effectively these clinics satisfy professional standards and fulfill patients' expectations and health needs.

### **1.6.1.10 SERVQUAL Model**

A multi-dimensional research tool called the SERVQUAL model was created to measure customer expectations and perceptions of service quality. The five essential components of service quality are identified as follows: tangibles, assurance, responsiveness, consistency, and empathy (Parasuraman et al., 1998).

### **1.6.1.11 In Context**

By quantifying the discrepancy between patients' expectations and experiences in these five areas, the SERVQUAL model would be useful in assessing the quality of treatment provided in North-West Jerusalem's basic healthcare facilities. This can assist in pinpointing areas that require improvement in order to raise patient satisfaction.

## **1.6.2 Operational Definitions**

### **1.6.2.1 Satisfaction**

Patients can score their experiences with the healthcare services they received using a standardized survey instrument to determine satisfaction in this setting. Questions like wait times, communication with healthcare providers, care quality, and the clinic's general atmosphere may be included in the survey. After analyzing the responses, it will be possible to determine how satisfied the patients are and what needs to be improved (Mrabet, 2022).

### **1.6.2.2 Service Quality**

The SERVQUAL model was used to gauge the quality of services. This research instrument is employed to evaluate the discrepancy between client expectations and their impressions of the services rendered. Five criteria are used to assess service quality: tangibles (physical assets, machinery, and staff appearance); assurance (empathy); responsiveness (willingness to assist customers and deliver prompt service); assurance (knowledge and courtesy of employees and their ability to inspire trust and confidence); and responsiveness (ability to perform the promised service dependably and accurately). The SERVQUAL model, when used in North-West Jerusalem's basic healthcare clinics, measures the disparities between patients' expectations and their actual experiences in each of the five dimensions quantitatively, providing an operational definition of service quality. In order to do this, patients rate their expectations and views on each dimension using a standardized survey instrument. After the data has been gathered, it can be examined to determine which specific areas the clinics fulfill or fail to meet patient expectations. This will allow for the identification of areas that require improvement in order to improve overall patient satisfaction (Parasuraman et al., 1998).

The SERVQUAL model, which offered an organized method to assess service quality across multiple dimensions, served as the foundation for the theoretical framework of this study. The study of the relationship between service quality and user satisfaction in North-West Jerusalem primary healthcare clinics was guided by this paradigm. The SERVQUAL model is a well-known instrument for assessing service quality that was created by Parasuraman, Zeithaml, and Berry in 1988. Five essential elements are identified: tangibles, assurance, responsiveness, reliability, and empathy (Parasuraman et al., 1998). Understanding and assessing the quality of services given by healthcare facilities was based on these characteristics.

### **1.6.2.3 Tangibles**

It represented the physical assets, equipment, staff appearance, and communication tools, such as the clinic's cleanliness, recent medical equipment, and staff members' professional attitude (Tripathi & Siddiqui, 2020).

#### **1.6.2.4 Reliability**

Capacity to deliver the stated service with accuracy and dependability, such as reliable follow-up treatment, on-time appointments, and consistent and accurate medical diagnosis (Tripathi & Siddiqui, 2020).

#### **1.6.2.5 Responsiveness**

Readiness to assist clients and deliver timely service For example, brief wait times, prompt patient inquiries, and healthcare practitioners' availability (Tripathi & Siddiqui, 2020).

#### **1.6.2.6 Assurance**

Employee respect and knowledge, as well as their capacity to exude confidence and trust in aspects including healthcare professionals' professionalism and competency, clear communication, and general sense of security (Tripathi & Siddiqui, 2020).

#### **1.6.2.7 Empathy**

Giving each consumer specific attention in the form of compassionate care, recognizing their needs, and providing tailored attention (Tripathi & Siddiqui, 2020).

### **1.7 Summary of the Chapter**

This chapter introduced the research topic, providing background information. It outlined the research problem, highlighting the need for this study. The objectives and significance of the research were discussed, emphasizing its contribution to the field of study. Additionally, an overview of the study's scope and limitations was presented. The next chapter will review relevant literature to provide a theoretical foundation for the study.

## **Chapter Two: The Literature Review**

### **2.1 Introduction**

This chapter's primary focus is on using the SERVQUAL model to measure service quality and its effect on primary healthcare clinic users' satisfaction. Empirical investigations, theoretical frameworks, and conceptual models were among the academic publications, research, and studies that were reviewed in relation to this subject.

### **2.2 Search strategy**

The goal of the chapter's search strategy guided the several processes that made up the literature review's search approach. Finding pertinent terms and expressions for the subjects of measuring the quality of services and its impact on the satisfaction of users of primary healthcare clinics using SERVQUAL model. The following keywords pertain to quality of services: "Service quality", "primary healthcare", "healthcare clinic", "primary care", "SERVQUAL model" and "user satisfaction".

Boolean operators (AND, OR) were used to combine the keywords to produce search strings that captured the intersections between the service quality and user satisfaction. Such search terms "service quality" AND ("primary healthcare" OR "healthcare clinic" OR "primary care"), "user satisfaction" AND ("primary healthcare" OR "healthcare clinic" OR "primary care"), "SERVQUAL model" AND ("primary healthcare" OR "healthcare clinic" OR "primary care").

Using the provided search phrases to perform searches in online library databases, such as CINAHL Plus, ERIC, MEDLINE Complete, and PubMed. In addition to employing demographics, publication dates, study designs, inclusion and relevance criteria, and research design to filter search results, primary healthcare clinics should prioritize the quality of their services in order to ensure patient satisfaction and improve healthcare outcomes. Analyzing the full texts and abstracts of selected studies to extract relevant information, including methodology, theoretical underpinnings, and significant findings. Sorting and compiling the material that was retrieved to provide a comprehensive synopsis of the topics discussed. The search process covered articles published during the last ten years.

## **2.3 Quality of Services and Users Satisfaction of Primary Healthcare Clinics Using SERVQUAL Model**

Ensuring satisfaction for patients and improving healthcare outcomes require measuring the quality of services provided in primary healthcare clinics. The SERVQUAL model's application in evaluating service quality and its effect on user satisfaction in various contexts was examined in this review. In addition to offering a thorough grasp of the relationship between client satisfaction and service quality in primary healthcare clinics, this study aimed to pinpoint best practices and knowledge gaps in the field.

### **2.3.1 Quality of Services**

Using SERVQUAL dimensions and the Kano model, a study assessed the service quality of the Basic Health Units (UBS) of the Unified Health System (SUS) in Recife, Pernambuco, Brazil. This study offered important insights for determining and prioritizing areas for improvement in primary care by integrating the SERVQUAL and Kano models in a novel way for public health service assessment. Important characteristics include "Clean and pleasant environment," "Reliability and security of information," "Knowledge of employees," "Service performed in the promised time," "Polite and kind staff," as well as "Effectiveness of the service." These characteristics are essential for raising user pleasure and lowering dissatisfaction since they had satisfaction and dissatisfaction coefficients over 1.575 (Lacerda et al., 2022).

A study was conducted to evaluate the many aspects of service quality related to healthcare services. Various service-quality characteristics have been prioritized, and the components of these qualities have been further arranged hierarchically. After that, gap analysis was done to gauge the overall quality of the services provided and pinpoint the precise areas where the gap is so that it may be closed. The study's conclusion included recommendations for specific actions that managers of healthcare institutions should take to meet the expectations of their clients, foster a sense of confidence, and enhance their opinion of the level of services being provided (Tripathi & Siddiqui, 2020).

Aristotle believed that "quality" was one of the fundamental dimensions of human experience and thought. Learning the patient's expectations through the SERVQUAL technique allowed the service provider to spot any discrepancies and make the necessary adjustments. It made it possible for medical facility executives to alter some aspects of

medical operations, which raised the standard of care given and, consequently, patient satisfaction and compliance (Jonkisz et al., 2021).

A study aimed to assess how consumers in Šibenik's public institutions perceived the quality of primary healthcare services. Results revealed that every SERVQUAL dimension had to be improved. The study also examined how different service perceptions are influenced by factors like gender, age, work position, and frequency of service use. The findings indicated that whilst work position and usage frequency had substantial impact on perception, age and gender do not. The five-dimension SERVQUAL model was not supported by factor analysis, which instead found three trustworthy factors of perceived quality (Mečev & Kardum Goleš, 2015).

Primary Health Centers (PHCs) are essential in developing nations like India because they can successfully manage 85% of healthcare demands at the basic care level for less money. Getting inexpensive and easily accessible healthcare is a struggle for many individuals, particularly the impoverished. Using the SERVQUAL methodology, a study looked at PHCs' service quality aspects in rural Karnataka. The calculation of service quality gaps involved deducting expectations from perceptions. The most significant quality factor, according to key findings, was empathy, which was followed by assurance, responsiveness, tangibility, and reliability. Legislators and non-governmental organizations were counseled to hire healthcare professionals with the right training and financial incentives and to make sure para-clinical staff members were taught how to treat patients with dignity and courtesy (Sathyanarayana et al., 2019).

A study evaluated the quality of medical care in five private hospitals in Damascus, Syria, from the viewpoint of the patients. With the exception of tangibility, which exhibited a positive gap of +0.57, all SERVQUAL dimensions were negative. Expectations showed that patients gave empathy the highest rating (4.37), followed by assurance (3.45), tangibility (3.82), responsiveness (4.17), and reliability (3.90). The listening abilities of hospital employees (-1.52) and the amount of time they spent with patients (-1.81) showed the most deficits. Tangibility made up for shortcomings in other areas by a large margin. To improve patient impressions, medical professionals should work on improving their communication abilities (AlOmari, 2021).

A research including 381 elderly Primary Health Care patients was conducted. The Family Health Strategy's Primary Health Units (UBS) provided an adaptation of the Service Quality Scale (SERVQUAL) (ESF). The assessed dimensions of tangible elements (-0.65, guarantee (-0.91), responsiveness (-0.56), empathy (-0.52), and

reliability (-1.19) showed results of negative gaps. The negative gaps in every measure showed low satisfaction among senior UBS/ESF/APS users and gaps in the quality of services (Andrade et al., 2019).

Throughout Chandigarh and Punjab, In order to improve customer satisfaction and quality services, the results of a study can be used in a variety of public sectors to adapt e-Healthcare services according to consumer perception. Each quality component was shown to have a part in e-healthcare services' ability to improve overall quality, which will ultimately increase customer happiness. "Functionality," "timeliness," and "responsiveness" were the three qualities that defined the process quality of e-Healthcare services. The infrastructure's "technical infrastructure," "physical infrastructure," "manpower skills," and "organizational infrastructure" were used to define its quality. Interaction quality was determined by "timely interaction" and "manner of interaction." There was only one component that represented the atmosphere. The findings also imply that the most important factors in overall quality that contribute to customer happiness are infrastructure, interaction, and atmosphere quality (Verma et al., 2022).

From the viewpoints of patients and healthcare professionals, a study examined the expectations and quality discrepancies in services offered at public health clinics in Natal, Brazil. In all aspects, providers felt that users had lower expectations than users themselves expressed. The three most crucial elements—explanations, degree of expertise, and care from medical professionals—were acknowledged by both groups. A Student's t-test at a 5% significance level revealed that the quality gaps that consumers and providers felt were equivalent and statistically significant (Campos et al., 2017).

Progress in health care quality is necessary to achieve universal health coverage, and this calls for quantifiable and useful evaluations. Tanzania's primary healthcare system saw regular quality measurements with the use of the electronic assessment tool, which aided in local development initiatives. To prevent biases and unfavorable outcomes, its use to accreditation or performance-based remuneration plans should be carefully addressed. The program categorized indicators into pertinent quality characteristics and consistently provided health facilities correct rankings. The tool effectively tested and tracked primary healthcare quality across various facility levels and ownership categories, with a focus on processes and structural adequacy (Mayumana et al., 2019).

### **2.3.2 User Satisfaction**

Patient satisfaction surveys were frequently used in hospital evaluations around the world, although the public is frequently not given access to the results. Public opinion, which could offer practical insights into service quality, is so diminished. Policies for regular auditing in public healthcare had not been developed as a result of efforts to measure patient satisfaction. Hearing what patients had to say could increase trust, encourage user-friendly facilities, and enhance the standard of service. However, statistics frequently highlight only a few features of hospitalization. Patient needs might be better served by placing an emphasis on direct user-suggested improvements (Dimitrios Theofanidis, 2021).

A study examined the relationship between total quality management, perceived service quality, and their impact on patient satisfaction and behavior intentions in Palestinian healthcare organizations. Total quality management significantly affected both perceived service quality and patient satisfaction. Perceived service quality positively influenced both patient satisfaction and behavior intentions. Behavior intentions were positively influenced by patient satisfaction, and the relationship between perceived service quality and behavior intentions was mediated by patient satisfaction (Zaid et al., 2020).

Thirty-two quality attributes were identified by analyzing care in a primary care clinic. The study conducted in Mexico clarified the relationship between beneficiary satisfaction and the quality of service provided by physicians and medication delivery services; quality of service by clinical analysis staff and quality of facilities also significantly impacted satisfaction; quality of nursing services, pharmacy staff services, and front desk services (assigning turns) did not significantly impact satisfaction (Vera & Trujillo, 2018).

In order to improve healthcare quality, traditional quality indicators must be addressed in conjunction with patient satisfaction, which is critical to any healthcare system. Under the National Transformation Program, the Saudi Ministry of Health sought to increase the quality of healthcare, increase privatization, and draw in both domestic and foreign investors. To make it easier for the government to privatize its services, politicians and businessmen should focus on establishing an atmosphere that is welcoming to both foreign and domestic investors. The doctor's care and attention, the

nurses' and laboratory personnel's kindness and respect, and the clinic receptionists were the top one-dimensional qualities (Howsawi et al., 2020).

### **2.3.2.1 Factors that Affect Customer Satisfaction**

Patient satisfaction is multifaceted and impacted by a wide range of individual and societal factors. Expectations from past experiences influence expectations for the future, and cultural differences have a big impact on how people view care. There was little regional research on the factors that influence patient satisfaction, which suggests that more study is necessary. Important regional factors influencing patient satisfaction were ease of access to care, cultural sensitivity, communication and language barriers, faith in the skill of medical staff, physical surroundings, interpersonal care, promptness, and simplicity of the patient experience. Most regional hospitals responded promptly, and many of them had tidy patient experience portfolios. (Stafrace, 2016).

A study made clear how crucial it was to take demographic variables like age, gender, and educational attainment into account when assessing how well patients believe their healthcare is providing. At Amanah Bunda Medika Clinic, it was essential to inform patients about the importance of perception surveys and incorporate their input into strategies for service improvement in order to improve patient happiness and service quality (Setianingsih et al., 2023).

Investigating operational challenges in Greece's private diagnostic medical centers at the International Hellenic University. The goal of the study was to give managers guidance on how to streamline their processes and acquire a competitive advantage in the healthcare industry through ongoing development. In order to stay competitive in the healthcare industry, recommendations center on boosting doctor-patient relations, making investments in cutting-edge diagnostic technologies, upgrading scheduling systems, protecting data, and placing a strong emphasis on continual improvement (Noe, 2020).

One important measure of the quality of the medical sector is patient satisfaction with the services received. The degree of patient satisfaction with the services provided by the Health Center of Elis Province was gauged using the SERVQUAL model. Even while features like "Assurance" and "Empathy" satisfy the needs of the users, more has to be added, such as a thorough medical record and an upgrade to the equipment (Karavida et al., 2014).

A study examined if examinees' perceptions of a particular healthcare service varied according to their gender, age, work position, and frequency of use. It was found that while there are substantial disparities in satisfaction with job status and frequency of service consumption, demographic characteristics such as age and gender did not produce significant differences in the perception of healthcare service quality (Mečev & Kardum Goleš, 2015).

Enhancing basic healthcare is essential for efficient and adaptable health systems; nevertheless, there is a paucity of empirical data from low- and middle-income nations. In PHC settings, reports of unclean facilities, trouble scheduling appointments, unprofessional behavior by doctors, and excessive medical expenses drastically decreased ( $P < 0.001$ ), but they remained greater in urban, low-income, and working-age groups. It suggested that more PHC consultations, greater user happiness, and better service quality resulted from the introduction of family medicine in Turkey. Nonetheless, differences in service experience continue to exist, especially among working-age, low-income, and urban populations (Hone et al., 2017).

Three factors contribute to the quality of healthcare: process (medical personnel services), results (impact on patient satisfaction), and structure (materials and infrastructure). Achieving excellent quality of care requires removing institutional barriers to improve access to healthcare. Infrastructures, rules, procedures, and human resources are important factors in determining care standards. Since patients are the foundation of the healthcare system, providing effective and efficient care must come first. Healthcare management can be strengthened by addressing patient and medical staff satisfaction and transforming health services into a welcoming environment. Effective health policies, easily accessible health financing, and medical staff communication abilities are further areas that require development (Setyawan et al., 2019).

### **2.3.3 Impact of Service Quality on Customer Satisfaction**

Tangibility, assurance, and responsiveness all had an impact on patient satisfaction with service quality. According to a study, the management of Sonotech Medical and Diagnostic Centers must closely monitor the elements that fall under the categories of tangibility, assurance, and responsiveness because they continue to be important factors in determining patient satisfaction. These indicators could also be used by healthcare policymakers to increase cooperation with private healthcare providers in order to create plans to improve the standard of care delivery (Adomah-Afari & Buckman, 2024).

A study looked into the relationship between patient satisfaction and service quality in hospitals in Hebron, Palestine. In order to comprehend their influence on patient satisfaction, it concentrated on five aspects of service quality: tangibility, reliability, responsiveness, assurance, and empathy. The results indicated that patient satisfaction and each of the five service quality aspects were positively and significantly correlated, with empathy and dependability having the largest effects on satisfaction levels. The SERVQUAL model's ability to predict patient satisfaction in this situation was validated by statistical research. By emphasizing observable facility upgrades, dependable service, responsiveness to patient demands, trust-building, and compassionate patient care, the study advises hospitals to improve service quality in order to increase patient satisfaction ( Qabaja, 2023).

In Kutai Kartanegara Regency, Indonesia, a study sought to investigate the relationship between patient satisfaction and the quality of services provided by public health centers. The doctors' and pharmacists' dimensions received the highest service quality score of 99.5%. 10.4% was the lowest percentage of patients' satisfaction with the assurance and empathy dimensions. The level of satisfaction of patients was correlated with the quality of care provided by physicians, nurses, pharmacists, and administrators. The greatest coefficient correlation score for the nurse dimension was 0.273, indicating that the nurses were providing high-quality care that had an impact on people's satisfaction. It was determined that a high level of service quality will influence people's satisfaction, which in turn influences people's choice of health care provider. In order to provide better services, it is anticipated that the health service center will improve its physical surroundings and the awareness and performance of its nurses and registration officials (Husain Akbar & Tegar Jaya, 2017).

An inquiry into the relationships among international students studying in Kuala Lumpur, Malaysia, between behavioral intentions, satisfaction, and the perceived quality of healthcare services was the goal of the study. With a value of 89% and an effect size of 0.78, the results showed that satisfaction was considerably and directly impacted by the perceived quality of healthcare services. Additionally, it significantly influenced international students' behavioral intentions indirectly (0.78). Furthermore, there was a statistically significant correlation between participants' satisfaction and their behavioral intentions (0.77). International students' satisfaction with healthcare services and their behavioral intentions were significantly influenced by their perception of the quality of

care they received. Positive and significant connections were found between the three criteria under investigation (Aljaberi et al., 2018).

A study was carried out at the Kamonji Public Health Center in Palu City to investigate the connection between patient loyalty and service quality. The results showed a strong correlation between patient loyalty and four aspects of service quality: assurance, dependability, responsiveness, and empathy. Patients were more likely to stick with the health facility if they thought these attributes were present in greater amounts. However, there was no discernible link found between patient loyalty and the material components of service quality, such as infrastructure and facilities (Parmin et al., 2020).

A study conducted at Manukan Kulon PHC assessed the satisfaction levels of BPJS and non-BPJS patients using the Customer Satisfaction Index (CSI) and SERVQUAL principles. Reliability, tangibles, assurance, empathy, and responsiveness were among the variables examined in the study. Those with BPJS had a slightly higher satisfaction level (CSI 83.9%) than those without BPJS (CSI 83.4%). The tangibles (-0.3), assurance (0.9), empathy (0.6), responsiveness (0.3), and dependability (-1.0) satisfaction gaps for BPJS patients were as follows. For patients who did not have BPJS, the gaps were in reactivity (-0.1), tangibles (0.1), assurance (0.1), empathy (0.2), and reliability (0.1) (Darmawan et al., 2022).

In five public service facilities in Seoul, Korea, a study examined the effects of servicescape—more especially, appearance, cleanliness, layout, and comfort—on behavioral intentions, including loyalty and the desire to return. According to the findings, cleanliness increases user happiness directly and indirectly increases loyalty and intents to reuse. Comfort greatly increases perceived service quality and user contentment, and an intuitive layout is crucial for both service quality and satisfaction. It's interesting to note that there was no discernible correlation between attractiveness and satisfaction or service quality (Lee & Kim, 2014).

A study was carried out to assess the standard of treatment given to patients in private clinics. The five dimensions of service quality and a descriptive analytical technique were used in the study. There were fifty patients in the sample. According to the survey, tangibility had a mean score of 3.64, meaning that the hospital kept the hallways clean and offered facilities like a rest area. These elements were crucial in determining how satisfied patients were with the caliber of care they received (Tawafuq, 2021).

The importance of high-quality healthcare for socioeconomic and developmental objectives worldwide was highlighted by a study that examined the effects of healthcare service quality on patient satisfaction and continued service use in hospitals in Koforidua, Ghana. Structural equation modeling was used to examine the connections between perceived quality, patient satisfaction, and service use characteristics based on 398 valid responses. The findings showed that tangible components of service, patient satisfaction, and perceived quality were all strongly positively correlated. It's interesting to note that, in contrast to expectations, safety precautions and empathy did not significantly correlate with perceived quality (Ampaw et al., 2020).

The SERVQUAL methodology was used in a study to evaluate online customer satisfaction in the healthcare services industry in Bangladesh. It looked at how Zaynax Health Ltd. could improve its service capabilities by fortifying assurance and supervisory procedures, as well as the growing need for online healthcare solutions. This method integrated a strategic examination of potential to enhance customer happiness in the online healthcare market with a practical assessment of the company (Jisan, 2023).

## **2.4 Summary**

The SERVQUAL dimensions were utilized to evaluate the quality of healthcare services, and the results indicated that assurance, cleanliness, empathy, and responsiveness were critical factors in improving patient satisfaction. Numerous regional studies shown that these variables have a direct effect on satisfaction and a secondary effect on loyalty and plans to reuse. In rural settings, empathy was shown to be the most important quality feature, whereas in urban settings, tangibility made up for deficiencies in other areas. In general, addressing patient satisfaction and traditional quality measures was necessary to improve the quality of healthcare. A more comfortable and effective healthcare setting can be achieved by placing a higher priority on hygiene, empathy, assurance, responsiveness, and the patient-doctor connection. These findings provided politicians and healthcare administrators a road map for improving patient satisfaction and service quality in a variety of primary healthcare settings.

## **Chapter Three: Methodology**

### **3.1 Introduction**

The methodology utilized in this study is described in this chapter, along with the research design, participant selection, data collection methods, and analysis methodologies. Using the SERVQUAL model, the goal of the study is to produce reliable and accurate insights into the relationship between service quality and user satisfaction at primary healthcare clinics located in North-West Jerusalem. Through the implementation of a methodical and exacting methodology, this chapter provides the validity and reliability of the research outcomes.

### **3.2 Design**

A cross-sectional design was conducted. This method was chosen because it allows the researcher to more fully understand the subject at the moment and allows to investigate the links between the variables in an efficient manner. This method allows for the quick collection of data from a large number of participants, providing an insight into their perspectives and experiences (Hommerich & Kottmann, 2020).

### **3.3 Setting**

The MOH clinics in the Governorate of Al-Quds served as the study's setting. Primary healthcare services are provided in large part by MOH clinics, which are a feature of many countries' government health systems. Both citizens and non-citizens can receive vaccinations, health screenings, treatment for common illnesses, and prenatal care at these clinics. This study focused on the primary health clinics and facilities run by the Ministry of Health in the northwest region of Jerusalem, which is made up of 14 villages with a combined population of approximately 50,000 and eight medical centers. Bir Nabala, Al-Jib, Al-Judeira, Beit Duqqu, Biddu, Al-Qubeiba, Beit Anan, and Qattanah were the centers that were easily accessible.

### **3.4 Population**

Health services customers in the primary health clinics run by the Ministry of Health in the northwest region of Jerusalem. Approximately 50,000 persons who meet these services.

### **3.4.1 Sampling and Sample Size**

Using the Raosoft Sample size calculator (Raosoft, n.d.), a sample size of 382 was recommended with a 5% margin of error and a 95% confidence level. Conveniently, this size was chosen from the eight clinics over the course of a month.

### **3.4.2 Inclusion Criteria**

Clients aged 18 and over who utilized health services at the primary health clinics operated by the Ministry of Health in the northwest region of Jerusalem. Participants were required to have the ability to provide informed consent without any mental or cognitive impairments.

### **3.4.3 Exclusion Criteria**

Clients under the age of 18. Individuals with mental or cognitive impairments that prevent them from providing informed consent. Clients who did not utilize health services at the primary health clinics operated by the Ministry of Health in the northwest region of Jerusalem.

## **3.5 Data Collection**

The study was carried out from October 2, 2024, to November 2, 2024. The data was collected through a self-administered questionnaire. Appendix 1 shows all data about the questionnaire that was used. The questionnaire consisted of three parts:

- Demographic data included some participants characteristics based on age, education level, and gender and health center.
- The SERVQUAL scale comprises of 22 elements and is widely used in the evaluation of the quality of services in different industries acute care, tire retailing, recruitment center for business schools, dental clinics and medical sector (Khamis & Njau, 2014; Mecev et al., 2015). A modified SERVQUAL scale by adding two items to empathy dimension. The modified and Arabic translated research instrument was presented to five reviewers. These statements were first advanced by Parasuraman and associated in 1988. While the original SERVQUAL instrument remained unchanged, the statements were rephrased to give them more context-relevant. It has five dimensions: tangibles (six items), reliability (five items), responsiveness (four items), assurance (four

items), and empathy (six items). Likert's scale (one to five) was used to assess agreement with quality of health services (1- Fully disagree, 5- Fully Agree).

- **Service Satisfaction:** In this study, three dimensions associated with health clinics were used to evaluate customer satisfaction through the assessment of service quality. This indicates that in order to determine which aspects consumers are satisfied with, customer satisfaction was taken into account on particular dimensions of service quality. The three dimensions included satisfaction with administrative services, satisfaction with emergency services, and satisfaction with cleaning services. Likert's scale was used to assess level of satisfaction (1- very unsatisfied. 2- unsatisfied. 3- neutral. 4- satisfied. 5- very satisfied).

### **3.5.1 Response Value to Dimensions of SERVQUAL Model**

In order to interpret scores across the SERVQUAL model's five dimensions—which assess service quality through attributes including tangibility, reliability, assurance, responsiveness, and empathy—(Table 3.1) offers the cut-off points. There is a fixed number of items in each dimension, and the cumulative response values within predetermined intervals that represent disagreement, neutrality, or agreement levels are used to score each dimension. Responses on a Likert's scale (1 = Strongly Disagree to 5 = Strongly Agree) are added together for each dimension to determine its score. The number of objects in each dimension is predetermined. Since "Tangibility" comprises six questions, for instance, the possible score range is  $6 \times 1 = 6$  (with all answers selecting "Strongly Disagree") to  $6 \times 5 = 30$  (with all responses selecting "Strongly Agree"). This was implicated to other dimensions.

The formula for class intervals was used to determine the Cutoff Points (Class Intervals). Since the Likert's scale here has three main levels of interpretation (Disagreement, Neutral, Agreement), we divide the range into three intervals.

**Class Interval = (Upper Limit - Lower Limit) / Number of Assumed Levels**

Table 3.1. Calculated Scores for Response to Dimensions of SERVQUAL Model

Dimension	Items (n)	Lower Limit	Upper Limit	Cut off Points		
				Disagreement	Neutral	Agreement
Tangibility	6	6	30	6-14	15-23	24-30
Reliability	5	5	25	5-11	12-18	19-25
Responsiveness	4	4	20	4-9	10-15	16-20
Assurance	4	4	20	4-9	10-15	16-20
Empathy	6	6	30	6-14	15-23	24-30
All items	25	25	125	25-58	59-92	93-125

### 3.5.1 Response Value to Dimensions of Satisfaction

In order to interpret scores across the satisfaction dimensions—which assess Satisfaction with Administrative Services, Satisfaction with Emergency Services and Satisfaction with Cleaning Services—(Table 3.2) offers the cut-off points. There is a fixed number of items in each dimension, and the cumulative response values within predetermined intervals that represent dissatisfaction, neutrality, or satisfaction levels are used to score each dimension. Responses on a Likert's scale (1- very unsatisfied. 2- unsatisfied. 3- neutral. 4- satisfied. 5- very satisfied) are added together for each dimension to determine its score. The number of objects in each dimension is predetermined. Since "Satisfaction with Administrative Services" comprises five questions, for instance, the possible score range is  $5 \times 1 = 5$  (with all answers selecting "very unsatisfied ") to  $5 \times 5 = 25$  (with all responses selecting "very satisfied"). This was implicated to other dimensions.

The formula for class intervals was used to determine the Cutoff Points (Class Intervals). Since the Likert's scale here has three main levels of interpretation (Unsatisfied, Neutral, Satisfied), we divide the range into three intervals.

$$\text{Class Interval} = (\text{Upper Limit} - \text{Lower Limit}) / \text{Number of Assumed Levels}$$

Table 3.2. Calculated Scores for Response to Dimensions of Satisfaction

Dimension	Items (n)	Lower Limit	Upper Limit	Cut off Points		
				Unsatisfied	Neutral	Satisfied
Satisfaction with Administrative Services	5	5	25	5-11	12-18	19-25
Satisfaction with Emergency Services	4	4	20	4-9	10-15	16-20
Satisfaction with Cleaning Services	6	6	30	6-14	15-23	24-30
<b>All items</b>	<b>15</b>	15	75	15-35	36-56	57-75

### 3.6 Data Analysis

The data collected from the questionnaire was analyzed using statistical methods by SPSS version 20 to explore the relationship between the quality of services and the satisfaction of users of primary healthcare clinics in the North-West Jerusalem using SERVQUAL Model.

Descriptive statistics, such as means and standard deviations, were calculated to summarize the responses to individual items on the SERVQUAL Model scale and their satisfaction. Tests for normality and scales reliability based on Kolmogorov-Smirnov and Shapiro-Wilk tests and Cronbach's Alpha.

Furthermore, inferential statistics, such as the Mann-Whitney U test (for comparing two groups like gender) and the Kruskal-Wallis test (for comparing more than two groups like age, clinic, and education).

The Spearman correlation and regression analysis had been employed to examine the associations between different variables. The significance level ( $\alpha < 0.05$ ) chosen for the analysis would indicate the threshold for determining whether observed relationships are statistically meaningful.

### 3.7 Ethical Considerations

Clear information on the study's objectives, the requirements for participation, and the participants' freedom to discontinue involvement at any moment without consequences had been maintained. Prior to their participation in the study, every

participant provided informed consent. There had been precautions made to protect the privacy of participant data. To protect participant privacy, this involved anonymizing participant replied and securely storing data. The study had been completely voluntary, with no pressure or compulsion of any kind. Prior to the start of data collection, the project was ethically approved by an institutional review board or ethics committee.

### **3.8 Pilot Study**

One of the most important steps in getting ready for a large-scale research work is doing a pilot study. It aids in locating possible problems, improving the study plan, and enhancing the technique as a whole.

#### **3.8.1 Aim of the Study**

The main purpose to evaluate the questionnaire's reliability and validity, and the secondary one of finding any problems with the overall organization, question phrasing, and format of the questionnaire.

#### **3.8.2 Population and Sample Size**

Patients from North-West Jerusalem primary healthcare clinics. Convenient sample size of  $n = 40$  (greater than 10% of the full study sample, and so excluded from the main study).

#### **3.8.3 Data Collection Methods**

Data was collected via self-administered questionnaire at September 3, 2024. Data was collected from the researcher himself. It composed of three parts as seen in (Appendix 2).

#### **3.8.4 Reliability and Validity of Instruments**

Cronbach's Alpha was used to assess the internal consistency of the items designed to measure the same construct. Evaluating the instrument's correlation with a pertinent criteria measure is part of criterion validity. In order to investigate the relationship between the criterion measure and the instrument scores, correlation analysis was done.

As shown in (Table 3.3), both instruments were reliable evidenced by Cronbach's Alpha were more than 0.7.

Table 5.3. Reliability Statistics

<b>Instrument</b>	<b>Cronbach's Alpha</b>	<b>N of Items</b>
SERVQUAL Model	0.784	35
Satisfaction with PHCs services	0.712	15

#### **3.8.4.1 Dimensions of SERVQUAL Model**

Table (3.4) shows the correlation of each items with its SERVQUAL dimensions. All items had a positive correlations with p-values less than 0.05. Each of the model's dimensions—tangibility, reliability, responsiveness, assurance, and empathy—has multiple items that are scored according to the strength of their link with the framework for evaluating service quality.

Adequacy of facilities (e.g., patient rooms and reception areas), specialty services, technological assistance, and the quality and modernity of clinic equipment are the main topics of the items. These items have moderate to strong associations with the tangibility dimension, as indicated by correlation coefficients ranging from 0.455 to 0.739 ( $p < 0.001$ ). Items discuss management's dedication to keeping their word, offering prompt services, addressing grievances, and building trust via medical expertise. The reliability component exhibits a moderate to strong link with correlation values ranging from 0.448 to 0.696 ( $p < 0.001$ ).

Items evaluate prompt service delivery, staff assistance readiness, request responsiveness despite workload, and patient communication. Values between 0.724 and 0.824 ( $p < 0.001$ ) show strong correlations, suggesting a strong relationship with responsiveness. Items center on staff competency and credibility, patient trust, reassurance, and polite treatment. The correlation values exhibit moderate to high associations with the assurance dimension, ranging from 0.525 to 0.787 ( $p < 0.001$ ).

These include management's focus on the patient, the capacity to identify healthcare needs, the availability of services that work with the patient's schedule, and the prioritizing of the patient's interests. The correlation values show moderate to significant relationships with empathy, ranging from 0.522 to 0.804 ( $p < 0.001$ ).

Table 3.4. Items Correlation for its Dimension of SERVQUAL Model

Items	Tangibility Q1-Q6 r(p)	Reliability Q7-Q11 r(p)	Responsiveness Q12-Q15 r(p)	Assurance Q16-Q19 r(p)	Empathy Q20-Q25 r(p)
The clinic's devices, equipment, and medical supplies are up-to-date.	0.455 (0.000)				
The institution/center/clinic that provided the service to me has modern technological equipment that helped in treatment and diagnosis.	0.739 (0.000)				
Primary care centers have various specialties and support services for providing services.	0.699 (0.000)				
Patient rooms, waiting areas, reception areas, doctors' offices, reception desks, accounting, and laboratory offices meet patient needs.	0.706 (0.000)				
I sense care and attention from the staff.	0.651 (0.000)				
The institution/center/clinics have comprehensive facilities.	0.605 (0.000)				
The management fulfills its promises to patients regarding healthcare and treatment services.		0.696 (0.000)			
The management is committed to providing healthcare in a timely, quick, and accurate manner.		0.650 (0.000)			
The management responds to patients when handling their complaints.		0.448 (0.000)			
Patients trust the medical competencies in the institution.		0.621 (0.000)			
The institution has an electronic medical file or database that allows the patient to access their file		0.652 (0.000)			
Patients are informed about their treatment schedules.			0.803 (0.000)		
Employees provide services to patients promptly.			0.824 (0.000)		
Employees are always willing to help patients.			0.724 (0.000)		
Despite the pressures of being busy providing services, they respond to patients' requests.			0.772 (0.000)		
Patients trust the employees in the center.				0.590 (0.000)	
Patients feel reassured when receiving services, knowing they are in safe hands.				0.732 (0.000)	
Patients feel courteous treatment from healthcare staff—kindness and politeness.				0.787 (0.000)	
Employees possess competence, credibility, and reliability in performing their work.				0.525 (0.000)	
The institution/center management gives patients attention, making it easy to file a complaint or communicate with the center's management if needed.					0.671 (0.000)
Employees have the ability to care for patients.					0.804 (0.000)
Employees have the ability to recognize patients' healthcare needs.					0.534 (0.000)
The center/institution offers services according to working hours that meet patients' needs.					0.754 (0.000)
The best possible service is provided to patients in the clinic.					0.746 (0.000)
The institution's employees place the patient's interest above all else.					0.522 (0.000)

### 3.8.4.2 Dimensions of Satisfaction

Table (3.5) shows the correlation of each items with its satisfaction dimensions. All items had a positive correlation s with p-values less than 0.05. Values nearer  $\pm 1$  suggest a stronger correlation.

Staff availability, responsiveness, cooperation, following rules, and fair treatment are the main topics of discussion. These items had moderate to strong relationships with administrative service satisfaction, as indicated by correlation coefficients ranging from 0.322 to 0.715 ( $p < 0.001$ ).

Items evaluate the medical team's proficiency, ethical interactions, prompt doctor availability, and patient reception. The correlation values, which reveal moderate relationships with emergency service satisfaction, range from 0.391 to 0.604 ( $p < 0.001$ ).

The availability of cleaning services, adequate staffing, regular cleaning schedules, sterilization procedures, and general cleanliness (beds, floors, and restrooms) are some examples. The item pertaining to regular cleaning schedules had a particularly strong link, with correlation values ranging from 0.414 to 0.751 ( $p < 0.05$ ).

Table 3.5. Items Correlation for its Dimension of Satisfaction with PHCs Services

Items	Satisfaction with Administrative Services Q26-30 r(p)	Satisfaction with Emergency Services Q31-Q34 r(p)	Satisfaction with Cleaning Services Q35-Q40 r(p)
Administrative staff is available 24 hours.	0.345 (0.000)		
There is a high level of responsiveness from the administrative staff in following up on patient-related issues.	0.322 (0.000)		
Patients feel the administrative staff is cooperative with them.	0.608 (0.000)		
The administrative staff adheres to regulations.	0.715 (0.000)		
The administrative staff deals with patients impartially, without favoritism.	0.561 (0.000)		
The patient is received well.		0.559 (0.000)	
The patient is promptly seen by doctors in the emergency department.		0.391 (0.000)	
There are high ethics in dealing with patients by the emergency department staff.		0.604 (0.000)	
Medical teams have high competency, capability, and professionalism in dealing with patients.		0.590 (0.000)	
There is general satisfaction with cleanliness, including (beds, floors, and bathrooms).			0.586 (0.000)
Cleaning and sterilization services are noticeably and sufficiently available.			0.414 (0.042)
There is an adequate number of cleaning staff around the clock.			0.606 (0.000)
Clinic rooms are clean.			0.604 (0.000)
Rooms are cleaned regularly according to a specified and organized schedule.			0.751 (0.000)
Cleaning and sterilization services are noticeably and sufficiently available.			0.676 (0.000)

## Chapter Four: Results

### 4.1 Introduction

The information gathered from the field to address the research questions is covered in this chapter. Respondents to the various SERVQUAL model questions constituted the primary basis for the data collection. Furthermore, a demographic description of the participants was gathered. Using descriptive statistics, a general description of the clients across the several aspects was completed. A brief overview of the clients is also provided in order to assess their level of satisfaction. Additionally, results on reliability and normality are provided in this chapter. It was highlighted how the dependent and independent variables were correlated.

### 4.2 Tests for Normality and Scales Reliability

As shown in Table (4.1) and Figure (4.1), the total of services quality and total of satisfaction were not normally distributed based on Kolmogorov-Smirnov and Shapiro-Wilk tests. The reliability statistics revealed that Cronbach's Alpha of all domains were acceptable (Bhattacharya et al., 2023). Table (4.2) shows reliability statistics results.

Table 6.1. Tests of Normality

Variables	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	P	Statistic	df	P
Total of Services Quality	0.097	382	0.000	0.986	382	0.001
Total of Satisfaction	0.052	382	0.014	0.986	382	0.001

Table 4.2. Reliability Statistics

Instrument	Cronbach's Alpha	N of Items
Independent variables: SERVQUAL Model Total	0.727	25
Tangibility	0.714	6
Reliability	0.691	5
Responsiveness	0.786	4
Assurance	0.700	4
Empathy	0.743	6
Dependent variables: Satisfaction	0.698	15

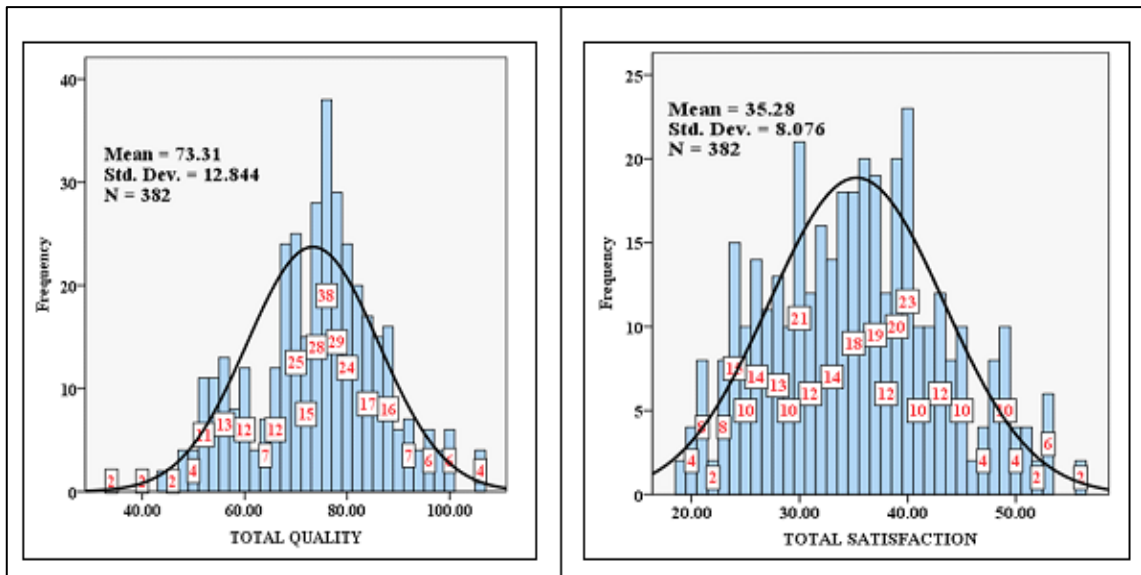


Figure 4.1. Tests of Normality

### 4.3 Demographic Characteristics of Participants

There were almost equal numbers of males and females, with 51.8% being females. The age distribution showed a notable skew towards participants over 50 years old (58.4%), with the smallest age group being between 18 and 28 years old (2.6%). In terms of the distribution of clinics, the two biggest groups were Bir Nabala (18.6%) and Biddu (16.2%). The distribution of clinics was generally even, ranging from 9.9% to 12.0%, for other clinics such as Al-Jib, Al-Judeira, Beit Duqqu, Al-Qubeiba, Beit Anan, and Qattanah. The data on education levels indicated that the sample consisted of those from a variety of educational backgrounds, but that those with only a high school education (36.6%) were more prevalent. Others as a master's degree or above (3.1%), a diploma (31.2%), and a bachelor's degree (29.5%). More information is shown in (Table 4.3).

Table 4.3. Demographic Data (N = 382)

	<b>Variables</b>	<b>N</b>	<b>%</b>
<b>Gender</b>	Male	184	48.2
	Female	198	51.8
<b>Age</b>	18 - 28 years	10	2.6
	From 29 - 39 years	50	13.1
	From 40 - 50 years	99	25.9
	Above 50 years	223	58.4
<b>Clinic</b>	Bir Nabala	71	18.6
	Al-Jib	39	10.2
	Al-Judeira	41	10.7
	Beit Duqqu	43	11.3
	Biddu	62	16.2
	Al-Qubeiba	46	12.0
	Beit Anan	38	9.9
	Qattanah	42	11.0
<b>Education Level</b>	High school or less	140	36.6
	Diploma	119	31.2
	Bachelor's degree	111	29.1
	Master's degree or higher	12	3.1

Data were based on Frequencies (N) and Percentages (%)

#### 4.4 The Quality of Services in the PHCs in the North-West Jerusalem

This section attempted to answer the first research question: What is the level of (reliability, tangibility, responsiveness, assurance, and empathy) from the viewpoint of patients in the PHCs?

Based on a Likert's scale with cut-off points (COP) (1 = Fully Disagree, 5 = Fully Agree). The SERVQUAL model's dimensions varied noticeably among the North-West Jerusalem primary healthcare clinic's clients.

##### 4.4.1 Tangibility

The majority of patients (67.5%) indicated dissatisfaction with the tangible nature of healthcare services, with a mean score of  $13.063 \pm 5.250$ . A majority of the participants (50.5% and 52.6%, respectively) expressed disagreement that the clinic had modern technical apparatus and that its medical supplies, equipment, and gadgets were up to date. Of those surveyed, 43% agreed and 50.2% disagreed that primary care centers offered a range of specializations and support services. A large percentage (70.2%) disagreed that patient requirements are met in patient rooms and other places. Interestingly, 81.7% of respondents said they didn't feel like the personnel was paying them attention. The institution's comprehensive facilities were questioned by the majority (61.8%), which

raised more doubts about the sufficiency of the existing material and technological resources.

#### **4.4.2 Reliability**

According to (Table 4.1), a large percentage of patients (52.9%) expressed neutrality towards the dependability of the services with mean score of agreement was  $(12.602 \pm 4.167)$ . A sizable percentage (45.3% and 73%, respectively) disagreed that management keeps its word and delivers healthcare on time. The majority (51%) did not feel that management handles patient problems well. There was divergent views on trust in medical competences, with 38% agreeing and 43.4% opposing. 36.4% of patients disagreed with the 46.9% who agreed that the facility had an electronic medical file system, suggesting that not all patients had good experiences using or having access to these systems.

#### **4.4.3 Responsiveness**

There was a larger proportion of agreement (42.9%) with the responsiveness with mean score was  $(13.194 \pm 5.068)$ . Positive communication was cited by the vast majority (74.6%) who felt that they were informed about their treatment plans. There appears to be disconnection between communication and actual service delivery, since 48.9% of respondents disagreed that services were provided promptly. The majority (79.3%) agreed that although this was not always felt in other areas of tangibility and reliability, staff members' constant willingness to assist was a positive reflection of their attitude toward patient care. The fact that 70.7% of respondents denied that staff members answer to patients' requests even when they are busy may indicate that, despite the staff members' want to assist, they may be overworked or understaffed, which causes responses to be delayed (Table 4.1).

#### **4.4.4 Assurance**

The mean score for assurance was  $(11.123 \pm 4.111)$ . The majority of patients were either neutral (54.2%) or disagreed (33.8%) with the responses. 84.8% of respondents said they didn't trust the staff. Regarding sentiments of security and reassurance, respondents were divided (45.6% disagreed vs. 42.1% agreed), indicating that although some patients felt safe, many of them did not. Most respondents (58.4%) said they were treated politely, and 46.9% said that staff members have these traits. There appears to be

a moderate amount of confidence in the staff's abilities, but it's worrying that 25.1% of respondents were neutral and 14.7% disagreed (Table 4.1).

#### 4.4.5 Empathy

Empathy was the dimension with the highest level of agreement, indicating that a majority of patients (56.8%) felt that staff were empathetic and considerate of their needs with a mean of (23.325 ± 6.055). (73.3%) of participants expressed agreement that the hospital's administration provided patients with individual attention and made it simple to contact or submit a complaint. 67.8% of respondents said they thought staff members could take care of patients. The majority (82.4%) agreed that staff members are able to identify patients' healthcare needs. 72% agreed that the facility provides services that fit patients' needs and are tailored to work hours. 50.3% of respondents disagreed, with 46% believing that the top service possible was given. Employees prioritized the patient's interest above anything else, according to 84.3% of respondents (Table 4.1).

With a total mean of (73.306 ± 12.844), the majority of patients (78.3%) had a neutrality in their agreement about the general quality of healthcare services. For more information are presented in (Table 4.4, Table 4.5).

Table 4.4. The SERVQUAL Dimensions in the PHCs in the North-West Jerusalem

Variables	COP	N	%	M	SD	Value
<b>Tangibility</b>	Disagreement (6-14)	258	67.5	13.063	5.250	Disagreement
	Neutral (15-23)	102	26.7			
	Agreement (24-30)	22	5.8			
<b>Reliability</b>	Disagreement (5-11)	148	38.7	12.602	4.167	Neutral
	Neutral (12-18)	202	52.9			
	Agreement (19-25)	32	8.4			
<b>Responsiveness</b>	Disagreement (4-9)	80	20.9	13.194	5.068	Neutral
	Neutral (10-15)	138	36.1			
	Agreement (16-20)	164	42.9			
<b>Assurance</b>	Disagreement (4-9)	129	33.8	11.123	4.111	Neutral
	Neutral (10-15)	207	54.2			
	Agreement (16-20)	46	12.0			
<b>Empathy</b>	Disagreement (6-14)	52	13.6	23.325	6.055	Agreement
	Neutral (15-23)	113	29.6			
	Agreement (24-30)	217	56.8			
<b>Total of Quality</b>	Disagreement (25-58)	59	15.4	73.306	12.844	Neutral
	Neutral (59-92)	299	78.3			
	Agreement (93-125)	24	6.3			

Data were based on Mean (M), Standard Deviation (SD), Frequencies (N) and Percentages (%). COP= Cut Off Points based on Likert's scale (one to five; 1= Fully Disagree, 5= Fully Agree).

Table 4.5. SERVQUAL Dimensions and Patient Agreement Levels

Dimensions of SERVQUAL Model		Disagreement		Neutral		Agreement	
		N	%	N	%	N	%
<b>Tangibility</b>							
1.	The clinic's devices, equipment, and medical supplies are up-to-date.	193	50.5	38	9.9	151	39.5
2.	The institution/center/clinic that provided the service to me has modern technological equipment that helped in treatment and diagnosis.	201	52.6	41	10.7	140	36.6
3.	Primary care centers have various specialties and support services for providing services.	192	50.2	26	6.8	164	43
4.	Patient rooms, waiting areas, reception areas, doctors' offices, reception desks, accounting, and laboratory offices meet patient needs.	268	70.2	32	8.4	82	21.5
5.	I sense care and attention from the staff.	312	81.7	16	4.2	54	14.1
6.	The institution/center/clinics have comprehensive facilities.	236	61.8	36	9.4	110	28.7
<b>Reliability</b>							
7.	The management fulfills its promises to patients regarding healthcare and treatment services.	173	45.3	63	16.5	146	38.2
8.	The management is committed to providing healthcare in a timely, quick, and accurate manner.	279	73	30	7.9	73	19.1
9.	The management responds to patients when handling their complaints.	195	51	57	14.9	130	24.1
10.	Patients trust the medical competencies in the institution.	166	43.4	71	18.6	145	38
11.	The institution has an electronic medical file or database that allows the patient to access their file	139	36.4	64	16.8	179	46.9
<b>Responsiveness</b>							
12.	Patients are informed about their treatment schedules.	81	21.2	16	4.2	285	74.6
13.	Employees provide services to patients promptly.	187	48.9	24	6.3	171	44.7
14.	Employees are always willing to help patients.	75	29.7	4	1.0	303	79.3
15.	Despite the pressures of being busy providing services, they respond to patients' requests.	270	70.7	22	5.8	90	23.5
<b>Assurance</b>							
16.	Patients trust the employees in the center.	324	84.8	2	0.5	40	10.5
17.	Patients feel reassured when receiving services, knowing they are in safe hands.	174	45.6	47	12.3	161	42.1
18.	Patients feel courteous treatment from healthcare staff—kindness and politeness.	137	35.8	22	5.8	223	58.4
19.	Employees possess competence, credibility, and reliability in performing their work.	107	14.7	96	25.1	179	46.9
<b>Empathy</b>							
20.	The institution/center management gives patients attention, making it easy to file a complaint or communicate with the center's management if needed.	84	22	12	3.1	280	73.3
21.	Employees have the ability to care for patients.	82	21.4	41	10.7	259	67.8
22.	Employees have the ability to recognize patients' healthcare needs.	38	10	29	7.6	315	82.4
23.	The center/institution offers services according to working hours that meet patients' needs.	69	18.1	38	9.9	275	72
24.	The best possible service is provided to patients in the clinic.	192	50.3	14	3.7	176	46
25.	The institution's employees place the patient's interest above all else.	30	7.8	30	7.9	322	84.3
<b>Data were based on Frequencies (N) and Percentages (%).</b>							

## **4.5 The Satisfaction of Users of PHCs in the North-West Jerusalem**

This section attempted to answer the second research question: What is the level of satisfaction of users with PHCs services in the North-West Jerusalem?

Based on a Likert's scale with cut-off points (COP) (1 = Unsatisfied, 5 = Satisfied), the dimensions of clients' satisfaction varied noticeably toward the quality of services in North-West Jerusalem primary healthcare clinics. (Table 4.6) and (Table 4.7) presents more details.

### **4.5.1 Satisfaction with Administrative Services**

With a mean score of  $10.416 \pm 3.325$ , patients expressed dissatisfaction with the administrative services, an opinion shared by the majority of patients (65.2%). A majority of the participants (95.5%) expressed that administrative staff is not available 24 hours. 80.6% of participant were unsatisfied with level of responsiveness and (49.2%) with staff is cooperation from the administrative staff. The majority of participants (53.1%) expressed dissatisfaction with impartiality and bias.

### **4.5.2 Satisfaction with Emergency Services**

With a mean score of  $10.524 \pm 3.087$ , patients expressed their satisfaction with the emergency services, an opinion shared by the majority of patients (54.2%) which it was at neutral at all. A majority of the participants (53.9%) expressed that the patient is not received well. 59.1% of participant were unsatisfied with immediate response by doctors and (55%) with staff professionalism. Ethics in dealing with patients were addressed by participants between dissatisfied (42.1%) and satisfied (41.8%).

### **4.5.3 Satisfaction with Cleaning Services**

With a mean score of  $14.338 \pm 5.236$ , patients expressed their satisfaction with the cleaning services, an opinion shared by the majority of patients (49.5%) which it was at neutral at all. There was a general dissatisfaction with cleanliness (73.3%), (49.5%) were dissatisfied with availability of cleaning and sterilization services, and (56.8%) with adequacy of cleaning staff, (60.5%) claimed that rooms were not clean. But in case of regularly cleaning according to a specified and organized schedule, there was a satisfaction with majority of participants (46.8%) and cooperation of cleaners (36.7%).

#### 4.5.4 Total of Satisfaction

The mean overall satisfaction score was  $35.278 \pm 8.076$ , indicating that the patients were in the neutral to dissatisfied range (Table 4.6).

Table 4.6. The Satisfaction of Users of PHCs in the North-West Jerusalem

Variables	COP	N	%	M	SD	Value
<b>Satisfaction with Administrative Services</b>	Unsatisfied 5-11	249	65.2	10.416	3.325	Unsatisfied
	Neutral 12-18	127	33.2			
	Satisfied 19-25	6	1.6			
<b>Satisfaction with Emergency Services</b>	Unsatisfied 4-9	150	39.3	10.524	3.087	Neutral
	Neutral 10-15	207	54.2			
	Satisfied 16-20	25	6.5			
<b>Satisfaction with Cleaning Services</b>	Unsatisfied 6-14	179	46.9	14.338	5.236	Neutral
	Neutral 15-23	189	49.5			
	Satisfied 24-30	14	3.7			
<b>Total of Satisfaction</b>	Unsatisfied 15-35	196	51.3	35.278	8.076	Unsatisfied to Neutral
	Neutral 36-56	186	48.7			
	Satisfied 57-75	0	0			

Data were based on Mean (M), Standard Deviation (SD), Frequencies (N) and Percentages (%).  
COP= Cut Off Points based on Likert's scale (one to five; 1= Unsatisfied, 5= Satisfied).

Table 4.7. Dimensions of Satisfaction and Patient Satisfaction Levels

Dimensions of Satisfaction	Unsatisfied		Neutral		Satisfied	
	N	%	N	%	N	%
<b>Satisfaction with Administrative Services</b>						
Administrative staff is available 24 hours.	365	95.5	14	3.7	3	0.8
There is a high level of responsiveness from the administrative staff in following up on patient-related issues.	308	80.6	9	2.4	65	17
Patients feel the administrative staff is cooperative with them.	188	49.2	43	11.3	151	39.5
The administrative staff adheres to regulations.	267	69.9	60	15.7	55	14.4
The administrative staff deals with patients impartially, without favoritism.	203	53.1	67	17.5	112	29.3
<b>Satisfaction with Emergency Services</b>						
The patient is received well.	206	53.9	28	7.3	148	38.8
The patient is promptly seen by doctors in the emergency department.	226	59.1	32	8.4	124	32.4
There are high ethics in dealing with patients by the emergency department staff.	161	42.1	61	16.0	160	41.8
Medical teams have high competency, capability, and professionalism in dealing with patients.	210	55	67	17.5	115	27.5
<b>Satisfaction with Cleaning Services</b>						
There is general satisfaction with cleanliness, including (beds, floors, and bathrooms).	280	73.3	34	8.9	68	17.8
Cleaning and sterilization services are noticeably and sufficiently available.	189	49.5	76	19.9	117	30.6
There is an adequate number of cleaning staff around the clock.	217	56.8	32	8.4	133	34.8
Clinic rooms are clean.	231	60.5	20	5.2	131	34.3
Rooms are cleaned regularly according to a specified and organized schedule.	174	45.5	29	7.6	179	46.8
Cleaners respond and cooperate to meet needs.	193	50.5	49	12.8	140	36.7
Data were based on Frequencies (N) and Percentages (%).						

## 4.6 Impact of Quality of Services on the Satisfaction of Users of PHCs in the North-West Jerusalem

This section attempted to test the hypothesis #1: *“There is no statistically significant impact (at level of  $p < 0.05$ ) of the dimensions of quality (tangibility, reliability, responsiveness, assurance, empathy) on the dimensions of satisfaction (administrative, emergency, and cleaning services) and overall satisfaction in healthcare services.”*

As shown in Table (4.8), the Spearman correlation analysis between patients' satisfaction and service quality dimensions revealed the following:

Tangibility had a statistically significant positive impact on satisfaction with cleaning ( $r=0.476$ ,  $p= 0.000$ ) and administrative services ( $r=0.267$ ,  $p= 0.000$ ) and on all satisfaction ( $r= 0.449$ ,  $p= 0.000$ ). Nevertheless, the effect on satisfaction with emergency services was not statistically significant ( $r = 0.064$ ,  $p = 0.212$ ). Reliability had no influence on emergency services ( $r = -0.004$ ,  $p = 0.934$ ) or overall satisfaction ( $r = 0.187$ ,  $p < 0.001$ ), but it did have a favorable impact on satisfaction with administrative services ( $r = 0.196$ ,  $p < 0.001$ ) and cleaning services ( $r = 0.163$ ,  $p = 0.001$ ). While responsiveness had a negative impact on cleaning services ( $r = -0.137$ ,  $p = 0.007$ ), it had no significant effect on emergency services ( $r = 0.029$ ,  $p = 0.577$ ) or administrative services ( $r = -0.035$ ,  $p = 0.492$ ). Overall satisfaction did not significantly change ( $r = -0.085$ ,  $p = 0.096$ ). Satisfaction with emergency services ( $r = 0.096$ ,  $p = 0.062$ ), cleaning services ( $r = -0.092$ ,  $p = 0.074$ ), administrative services ( $r = -0.079$ ,  $p = 0.121$ ), and overall satisfaction ( $r = -0.062$ ,  $p = 0.225$ ) was not substantially impacted by assurance. The study found that while empathy had a favorable influence on satisfaction with emergency services ( $r = 0.165$ ,  $p = 0.001$ ), it had a negative effect on satisfaction with administrative services ( $r = -0.333$ ,  $p < 0.001$ ) and cleaning services ( $r = -0.259$ ,  $p < 0.001$ ). Additionally, there was a negative association ( $r = -0.240$ ,  $p < 0.001$ ) between it and overall satisfaction. Though it had no significant effect on administrative services, cleaning services, or overall satisfaction, total quality had a positive impact on emergency services satisfaction ( $r = 0.147$ ,  $p = 0.004$ ).

Table 4.8. The Impact of the Quality of Services on User's Satisfaction

IDV	DV	Satisfaction with Administrative Services	Satisfaction with Emergency Services	Satisfaction with Cleaning Services	Total Satisfaction
		r(p)	r(p)	r(p)	r(p)
<b>Tangibility</b>		0.267 (0.000)	0.064 (0.212)	0.476 (0.000)	0.449 (0.000)
<b>Reliability</b>		0.196 (0.000)	-0.004 (0.934)	0.163(0.001)	0.187(0.000)
<b>Responsiveness</b>		-0.035 (0.492)	0.029 (0.577)	-0.137 (0.007)	-0.085 (0.096)
<b>Assurance</b>		-0.079 (0.121)	0.096 (0.062)	-0.092 (0.074)	-0.062 (0.225)
<b>Empathy</b>		-0.333 (0.000)	0.165 (0.001)	-0.259 (0.000)	-0.240 (0.000)
<b>Total Quality</b>		-0.028 (0.579)	0.147 (0.004)	0.063 (0.217)	0.094 (0.067)

IDV= Independent Variables; DV= Dependent Variables  
P Values were based on Spearman Correlation (r)

The findings of a regression analysis are shown in Table (4.9), where the dependent variable is administrative service satisfaction and the predictors are SERVQUAL model components (empathy, assurance, reliability, and tangibility) as well as an overall quality metric. P-values ( $p > 0.05$ ) showed that there was no statistically significant difference between changes in administrative service satisfaction and changes in each of the following units: tangibility, reliability, assurance, and overall quality. With a statistically significant ( $p$ -value=0.000) and largest negative impact of empathy on satisfaction, which had a beta value of -0.421.

Regarding to satisfaction with emergency services, P-values ( $p > 0.05$ ) showed that there was no statistically significant difference between changes in emergency services satisfaction and changes in each of the following units: reliability, assurance, and overall quality. With a statistically significant ( $p$ -value  $< 0.05$ ) and positive impact of tangibility and empathy on satisfaction, which had a beta value of (0.191, 0.331) respectively.

Tangibility had a large positive impact on both satisfaction with cleaning services (beta value of 0.408) and total satisfaction (beta value of 0.380) and statistically significant ( $p$  –values that were  $< 0.05$ ).

Table 4.9. Standardized Coefficients for Predicting Satisfaction across SERVQUAL Dimensions

Independent Variables	Dependent Variables	Standardized Coefficients Beta	t	P
Tangibility	Satisfaction with Administrative Services	0.104	1.188	0.236
Reliability		-0.109	-1.268	0.205
Assurance		-0.072	-0.592	0.554
Empathy		-0.421	-3.909	0.000
Total Quality		0.218	1.212	0.226
Tangibility	Satisfaction with Emergency Services	0.190	2.079	0.038
Reliability		0.075	0.831	0.407
Assurance		0.078	0.616	0.538
Empathy		0.331	2.954	0.003
Total Quality		-0.151	-0.808	0.420
Tangibility	Satisfaction with Cleaning Services	0.408	4.820	0.000
Reliability		-0.124	-1.491	0.137
Assurance		-0.078	-0.666	0.506
Empathy		-0.164	-1.581	0.115
Total Quality		0.037	0.215	0.830
Tangibility	Total Satisfaction	0.380	4.427	0.000
Reliability		-0.097	-1.149	0.251
Assurance		-0.050	-0.424	0.672
Empathy		-0.153	-1.455	0.147
Total Quality		0.056	0.319	0.750
P Values were based on Regression Analysis				

#### 4.8 SERVQUAL Dimensions and Patients' Agreement Levels based on participants characteristics

This section attempted to test the hypothesis #2: *“There is no a statistically significant differences at the level of  $p < 0.05$  in the level of agreement with SERVQUAL dimensions based on participants' characteristics among patients in the PHCs in the North-West Jerusalem?”*

Table (4.10) represents the results of Mann-Whitney test (for comparing two groups like gender) and the Kruskal-Wallis test (for comparing more than two groups like age, clinic, and education). These statistical tests used to assess differences between mean ranks of the dimensions of SERVQUAL model participants' characteristics. There were no statistically significant differences between male and female and their agreement levels on the five SERVQUAL dimensions or total quality (all p-values  $> 0.05$ ). There

were a statistically significant differences across all dimensions based on age (all p-values < 0.05). Younger age groups (18–28 years) generally gave lower ratings, while older groups (especially those over 50 years) tend to rate service quality more positively, particularly in empathy. Significant differences were observed across clinics for all dimensions except total quality (p = 0.065). Notably, Beit Duqqu and Qattanah received high ratings in dimensions like responsiveness and empathy, suggesting variance in service quality perceptions by location. Education level significantly affected perceptions of tangibility, reliability, assurance, empathy, and total quality (all p-values < 0.05). Those with higher education (Master's or above) generally rate service quality higher across all dimensions, especially in empathy and total quality.

Table 4.10. SERVQUAL Dimensions and Patient Agreement Levels Based on Participants Characteristics

Variables		Mean Rank					
		Tangibility	Reliability	Responsiveness	Assurance	Empathy	Total Quality
Gender	Male	180.28	185.42	185.06	188.01	189.98	184.44
	Female	201.93	197.15	197.48	194.74	192.91	198.06
	<b>Z (P)</b>	<b>-1.923 (0.054)</b>	<b>-1.042 (0.30)</b>	<b>-1.109 (0.27)</b>	<b>-0.598 (0.55)</b>	<b>-0.260 (0.80)</b>	<b>-1.205 (0.23)</b>
Age	18 - 28 years	132.25	100.60	144.10	109.15	150.45	96.30
	29 - 39 years	282.64	267.43	194.97	167.21	125.22	206.94
	40 - 50 years	207.83	204.05	157.92	170.64	163.10	169.24
	>50 years	166.47	172.98	207.75	209.90	220.81	202.19
	<b>X<sup>2</sup> (P)</b>	<b>51.01 (0.000)</b>	<b>38.23 (0.000)</b>	<b>16.18 (0.001)</b>	<b>17.86 (0.000)</b>	<b>42.00 (0.000)</b>	<b>14.54 (0.002)</b>
Clinic	Bir Nabala	223.49	182.18	160.46	181.66	154.49	170.60
	Al-Jib	200.00	216.87	165.08	169.59	184.29	179.78
	Al-Judeira	200.60	190.29	206.60	170.78	184.49	190.39
	Beit Duqqu	119.49	150.81	247.31	238.24	247.01	211.53
	Biddu	173.66	179.28	217.76	209.67	210.80	202.60
	Al-Qubeiba	197.12	190.39	165.10	167.83	190.15	166.48
	Beit Anan	180.87	203.29	193.29	201.54	159.24	187.80
	Qattanah	224.17	235.11	185.15	190.87	212.94	232.65
<b>X<sup>2</sup> (P)</b>	<b>30.80 (0.000)</b>	<b>16.27 (0.023)</b>	<b>26.37 (0.000)</b>	<b>15.50 (0.030)</b>	<b>26.12 (0.000)</b>	<b>13.29 (0.065)</b>	
Education	High school or less	201.59	200.59	198.78	203.27	189.52	206.56
	Diploma	152.59	164.87	194.47	179.29	221.40	171.53
	Bachelor's degree	209.95	201.38	175.36	181.39	152.29	179.85
	Master's degree or higher	289.00	258.08	226.50	268.83	280.83	321.67
	<b>X<sup>2</sup> (P)</b>	<b>28.65 (0.000)</b>	<b>13.21 (0.004)</b>	<b>4.35 (0.27)</b>	<b>9.95 (0.019)</b>	<b>30.87 (0.000)</b>	<b>24.44 (0.000)</b>

P values were based on Mann-Whitney Test (Z); Kruskal Wallis Test (X<sup>2</sup>)

## **4.9 Satisfaction's Dimensions and Patients' Levels based on participants characteristics**

This section attempted to test the hypothesis #3: *“There are no a statistically significant differences at the level of  $p < 0.05$  in the level of the satisfaction with the dimensions of services based on participants' characteristics among patients in the PHCs in the North-West Jerusalem?”*

Table (4.11) presents results on patient satisfaction across three service categories—administrative services, emergency services, and cleaning services—along with overall total satisfaction, based on participant characteristics (gender, age, clinic, and education). The tests used were the Mann-Whitney test (for comparing two groups like gender) and the Kruskal-Wallis test (for comparing more than two groups like age, clinic, and education). Female patients reported significantly higher satisfaction with administrative services ( $p = 0.007$ ) and total satisfaction ( $p = 0.028$ ) compared to males. Differences in satisfaction with emergency services and cleaning services between genders are not statistically significant ( $p > 0.05$ ). Satisfaction with administrative services, emergency services, cleaning services, and total satisfaction differ significantly based on age (all  $p$ -values  $< 0.05$ ). Younger age groups (18–28 years and 29–39 years) rate satisfaction higher across all service categories, with especially high satisfaction in administrative services for the youngest group. Older age groups (over 50 years) generally reported lower satisfaction levels. Significant differences were observed across clinics for satisfaction with administrative services ( $p = 0.036$ ), Cleaning services ( $p = 0.003$ ), and total satisfaction ( $p = 0.026$ ). Qattanah consistently ranks high in satisfaction, especially in emergency services and cleaning services. Beit Duqqu shows notably low satisfaction, particularly for cleaning services and total satisfaction. Education level significantly affected all satisfaction categories (all  $p$ -values  $< 0.05$ ). Higher education levels (Master's degree or higher) were associated with higher satisfaction, especially for emergency services, cleaning services, and total satisfaction. Patients with a diploma report notably lower satisfaction, particularly in cleaning services.

Table 4.11. Satisfaction`s Dimensions and Patient`s Levels Based on Participants Characteristics

Variables		Mean Rank			
		Satisfaction with Administrative Services	Satisfaction with Emergency Services	Satisfaction with Cleaning Services	Total Satisfaction
Gender	Male	175.82	181.34	185.54	178.63
	Female	206.07	200.94	197.04	203.46
	<b>Z (P)</b>	<b>-2.688 (0.007)</b>	<b>-1.742 (0.082)</b>	<b>-1.021 (0.31)</b>	<b>-2.198 (0.028)</b>
Age	18 - 28 years	265.30	72.50	249.00	250.75
	29 - 39 years	262.55	201.58	245.40	258.88
	40 - 50 years	205.60	183.21	229.92	215.41
	>50 years	166.00	198.26	159.78	163.12
	<b>X<sup>2</sup> (P)</b>	<b>39.036 (0.000)</b>	<b>13.560 (0.004)</b>	<b>45.296 (0.000)</b>	<b>40.938 (0.000)</b>
Clinic	Bir Nabala	190.77	190.53	214.49	206.69
	Al-Jib	185.26	181.74	193.00	184.18
	Al-Judeira	235.24	166.62	194.37	204.51
	Beit Duqqu	147.07	195.13	123.52	136.27
	Biddu	182.92	203.17	203.27	197.15
	Al-Qubeiba	198.46	185.76	180.92	183.15
	Beit Anan	191.11	177.99	196.72	189.63
	Qattanah	206.73	224.06	207.52	218.95
	<b>X<sup>2</sup> (P)</b>	<b>15.020 (0.036)</b>	<b>7.551(0.374)</b>	<b>21.638 (0.003)</b>	<b>15.901(0.026)</b>
Education	High school or less	203.68	190.04	202.45	201.19
	Diploma	160.28	178.71	137.16	140.38
	Bachelor's degree	203.50	194.61	228.27	223.18
	Master's degree or higher	248.08	306.58	262.50	292.42
	<b>X<sup>2</sup> (P)</b>	<b>15.822 (0.001)</b>	<b>14.893(0.002)</b>	<b>47.767(0.000)</b>	<b>45.810(0.000)</b>

P Mann-Whitney Test (Z); Kruskal Wallis Test (X<sup>2</sup>)

#### 4.10. Summary

Patients expressed dissatisfaction with the tangibility of healthcare services, an opinion shared by the majority of patients (67.5%). A large percentage of patients (52.9%) expressed neutrality towards the reliability of the services. There was a larger proportion of agreement (42.9%) with the responsiveness. Empathy was the dimension with the highest level of agreement, indicating that a majority of patients (56.8%) felt that staff were empathetic and considerate of their needs. The majority of patients (78.3%) had a neutrality in their agreement about the general quality of healthcare services.

Patients expressed dissatisfaction with the administrative services, while they expressed their satisfaction with the emergency services and cleaning services. Tangibility positively impacted satisfaction with cleaning, administrative services and overall satisfaction, but had no significant effect on emergency services. Reliability influenced satisfaction with administrative and cleaning services, but not emergency services or overall satisfaction.

Responsiveness negatively affected cleaning services and had no significant impact on other areas. Assurance did not substantially affect satisfaction in any area. Empathy

improved satisfaction with emergency services but negatively affected administrative, cleaning, and overall satisfaction.

Regression analysis revealed that empathy was the only statistically significant predictor and had a strong negative association with administrative service satisfaction. Empathy and tangibility were the only statistically significant predictors and had a strong positive association with emergency service satisfaction. Tangibility was the only statistically significant predictor and had a strong positive association with cleaning service satisfaction and total satisfaction.

The study found no gender differences in SERVQUAL dimensions, though females reported higher satisfaction with administrative services. Age significantly impacted ratings, with younger patients (18–28 years) giving lower scores, while older patients rated service quality higher, especially in empathy. Clinics varied in satisfaction, with Qattanah rated highly and Beit Duqqu rated lower. Higher education was linked to better ratings across all dimensions, while lower-educated patients reported lower satisfaction, particularly with cleaning services.

## **Chapter Five: Discussion**

### **5.1 Introduction**

An extensive analysis of the main findings is given in this chapter, along with a discussion of the implications for future study, practice, and policy, as well as any patterns or discrepancies. This part evaluates the relevance of the study's findings, identifies its strong aspects, and indicates any potential weaknesses by analyzing the data gathered. In order to provide insights that advance knowledge of healthcare service quality, the data are analyzed and compared to current theories and frameworks, with a focus on primary healthcare centers (PHCs) in North-West Jerusalem. The practical implications of the findings for healthcare administrators and clinicians are also covered in this chapter, along with suggestions for feasible strategies to raise the standard of treatment in accordance with patient experiences and expectations.

### **5.2 The Quality of Services of PHCs in the North-West Jerusalem Using SERVQUAL Model**

The findings showed that when it came to patient satisfaction with PHCs in North-West Jerusalem, tangibility and reliability were the least important factors. Many respondents voiced dissatisfaction with outdated facilities and equipment, which may have an impact on the standard of diagnosis and care. The tangibility of services (equipment, facilities, etc.) did not live up to the expectations of 67.5% of respondents. This implies that a large number of PHCs may not have enough or modern equipment. Merely 5.8% concurred, indicating a considerable disparity in the evaluation of healthcare facilities' physical attributes. Facilities like waiting areas also received high levels of disagreement (70.2%), highlighting dissatisfaction with the physical environment.

Patients are dissatisfied with the efficiency and reliability of the management; 38.7% of respondents disagreed that PHC administration is trustworthy in keeping its word, while the majority (52.9%) expressed no opinion. The high degree of neutrality can imply uncertainty or variation in management reliability experiences. But with 38% in agreement, trust in medical skill was more evenly distributed.

Although expectations regarding assurance and responsiveness have somewhat improved, worries about staff workload and care consistency still exist. But empathy

stands out as the best-performing characteristic, indicating that patients value the individualized attention and care from medical professionals despite issues with infrastructure and reliability.

In comparison to the other dimensions, a comparatively positive outcome was 42.9% of respondents who felt that personnel were responsive to their requirements. 36.1% were neutral, though, so there's still opportunity for development. Items with high agreement (74.6%) on "Patients are informed about treatment schedules" are indicative of good communication in PHCs. Other factors, such "Responding to patient requests despite being busy," on the other hand, had a 70.7% disagreement rate, indicating a significant problem with workload management. Concerns over patients' faith in the caliber of care received were raised when more than half (54.2%) stayed indifferent when asked if they felt confident in the staff's competency and 33.8% disagreed. Responses to the question on trust in staff competency were divided, with 46.9% agreeing and 25.1% disagreeing. On the other hand, 58.4% of respondents agreed more strongly with questions pertaining to civility and respect, indicating that staff members' interpersonal skills are generally well-regarded.

The view of the healthcare staff's empathy was strong, as evidenced by the 56.8% of respondents who agreed with this statement. This highlights the significance of individualized and empathetic care and stands out as the most favorably perceived feature of care quality. With items like "Recognizing healthcare needs" (82.4% agreement) and "Giving attention to patients" (84.3% agreement), this element has the highest positive assessment. This suggests that PHCs are excellent at developing a patient-centered strategy that prioritizes compassion and individual attention. The neutral category, which includes 78.3% of responses, indicates that opinions on overall service quality across all SERVQUAL characteristics are not consistent.

The low agreement rate (6.3%) suggests that a limited number of patients believe PHCs deliver high-quality care that meets their expectations. These results align with a study that examined PHCs' service quality aspects in rural Karnataka. The most significant quality factor, according to key findings, was empathy, which was followed by assurance, responsiveness, tangibility, and reliability in (Sathyanarayana et al., 2019).

While in a study, patients' perceived that all SERVQUAL dimensions were negative, with the exception of tangibility, which showed a positive gap of +0.57. Anticipations revealed that patients rated empathy as the highest, with assurance,

tangibility, responsiveness, and reliability coming in second and third, respectively (AlOmari, 2021).

Regarding to the overall quality, 78.3% of respondents fell into the neutral category, suggesting a mixed perception of overall service quality across the SERVQUAL dimensions. The low percentage of agreement (6.3%) indicates that only a small portion of patients perceive the care provided by PHCs as meeting high standards of service quality. This is congruent with a study revealed the dimensions of tangible elements, responsiveness, empathy (-0.52), and reliability showed results of negative gaps. The negative gaps in every measure showed low satisfaction among senior UBS/ESF/APS users and gaps in the quality of services (Andrade et al., 2019). From the viewpoints of patients and healthcare professionals in Natal, Brazil, providers felt that users had lower expectations than users themselves expressed. And the quality gaps that consumers and providers felt were equivalent and statistically significant (Campos et al., 2017).

### **5.3 Satisfaction of Users of PHCs in the North-West Jerusalem**

According to the results, administrative services were the least acceptable area, especially in terms of staff response and availability. Patients' opinions on emergency services were divided; although some were pleased with professionalism and ethics, others were not happy with wait times or the first impression. Overall perceptions of cleaning services were neutral, with complaints regarding the quality of cleanliness and cleaning schedules. This indicates a significant area for improvement, likely linked to poor responsiveness or availability of administrative staff. The results of this study suggest that efforts to improve administrative efficiency, emergency responsiveness, and cleaning consistency are critical for increasing overall satisfaction in PHCs. Addressing these issues could help improve the quality of care and patient experience in these healthcare centers.

#### **5.3.1 Satisfaction with Administrative Services**

95.5% of users were unsatisfied with the availability of administrative staff around the clock, and 80.6% report dissatisfaction with their responsiveness. However, 39.5% feel that the staff is cooperative, showing some positive interaction.

A previous study claimed that personnel resources all play a significant role in setting care standards. The provision of effective and efficient care must come first because patients are the cornerstone of the healthcare system. By addressing patient and

medical staff satisfaction and creating a pleasant environment in health services, healthcare management can be strengthened. Other areas that need improvement are medical staff communication skills, freely accessible health finance, and effective health policies (Setyawan et al., 2019).

"Polite and kind staff," in addition to "Effectiveness of the service." Given that their satisfaction and dissatisfaction coefficients were above 1.575, these attributes are crucial for increasing user satisfaction and decreasing dissatisfaction (Lacerda et al., 2022). While 53.9% of patients in the current survey were dissatisfied with their care, a noteworthy 38.8% expressed satisfaction, suggesting some good experiences. However, with 59.1% of users dissatisfied, the length of time patients wait to see doctors was a worry. There was a more balanced level of satisfaction with staff professionalism and ethics, with about 42% expressing satisfaction in these areas.

### **5.3.2 Satisfaction with Emergency Services**

39.3% of respondents were unsatisfied with emergency services, while 54.2% remain neutral. A small proportion (6.5%) expressed satisfaction, suggesting that while emergency services might not be outright poor, they failed to meet many patients' expectations. Although 53.9% of patients are unsatisfied with how they are received, a notable 38.8% express satisfaction, indicating some positive experiences. Yet, the time patients wait to see doctors is a concern, with 59.1% unsatisfied. Satisfaction with staff ethics and professionalism is more balanced, with around 42% showing satisfaction in these areas.

In comparison to previous study, by the National Transformation Program, the Saudi Ministry of Health seeks to enhance the standard of healthcare, promote privatization, and draw in both domestic and global investors. The competence of the physician, the kindness and professionalism of the lab and nursing staff, and the promptness of the clinic receptionists are important elements that improve patient satisfaction (Howsawi et al., 2020).

### **5.3.3 Satisfaction with Cleaning Services**

Cleaning services received the most neutral responses, with 49.5% expressing neutrality and 46.9% expressing dissatisfaction. Only 3.7% are satisfied, indicating some dissatisfaction with the quality or consistency of cleaning. Satisfaction with cleanliness is mixed; 73.3% are unsatisfied with the overall cleanliness, while 34.8% believe there

are enough cleaning staff available. Clinic rooms and their cleaning schedules show mixed satisfaction levels, with 46.8% agreeing that rooms are cleaned regularly.

According to a study conducted in five public service facilities in Seoul, Korea, comfort raises perceptions of service quality and satisfaction, while cleanliness directly increases consumer satisfaction and loyalty. Attractiveness had no discernible effect on any of the two indicators, but an intuitive layout is essential for both service quality and satisfaction (Lee & Kim , 2014).

#### **5.3.4 Overall Satisfaction**

More than half of the users (51.3%) are unsatisfied with the overall services provided by the PHCs, while 48.7% are neutral. None of the respondents reported overall satisfaction, signaling an urgent need for service improvement.

### **5.4 Impact of Quality of Services on the Satisfaction of Users of PHCs in the North-West Jerusalem**

This study revealed the impact of various service quality dimensions on patient satisfaction. Tangibility positively impacted satisfaction with cleaning ( $r=0.476$ ), administrative services ( $r=0.267$ ), and overall satisfaction ( $r=0.449$ ), but had no significant effect on emergency services. Reliability influenced satisfaction with administrative ( $r=0.196$ ) and cleaning services ( $r=0.163$ ), but not emergency services or overall satisfaction. Responsiveness negatively affected cleaning services ( $r=-0.137$ ) and had no significant impact on other areas. Assurance did not substantially affect satisfaction in any area. Empathy improved satisfaction with emergency services ( $r=0.165$ ) but negatively affected administrative, cleaning, and overall satisfaction. Total quality had a positive impact only on emergency services ( $r=0.147$ ). Excessive empathy on the part of administrative professionals might occasionally be interpreted as a replacement for effectiveness. Patients or healthcare professionals may believe that although staff members are emotionally supportive, they are not adequately attending to their administrative needs, such as making appointments or processing paperwork. Administrative employees may be expected by patients or medical professionals to be more task-oriented than emotionally invested. Empathy may result in decreased satisfaction if it is thought to be superfluous or distracting in administrative settings. Interactions that are extremely sympathetic may put more emotional strain on employees, which could result in slower or less efficient service. This might be seen as ineffective, which would result in a poor evaluation of administrative services.

Four characteristics of service quality—assurance, reliability, responsiveness, and empathy—were shown to be strongly correlated with the findings of a prior study conducted at the Kamonji Public Health Center in Palu City. If patients believed these qualities were more prevalent, they were more inclined to remain at the medical center. Nevertheless, no clear correlation was observed between patient loyalty and the tangible elements of service quality, such facilities and infrastructure (Parmin et al., 2020).

In contrast, the Customer Satisfaction Index (CSI) and SERVQUAL principles were used in another study carried out at Manukan Kulon PHC to evaluate the satisfaction levels of BPJS and non-BPJS patients. Among the factors looked at in the study were responsiveness, empathy, tangibles, certainty, and reliability. The satisfaction level of individuals with BPJS was somewhat greater (CSI 83.9%) than that of those without BPJS (CSI 83.4%). For BPJS patients, the satisfaction gaps for tangibles (-0.3), assurance (0.9), empathy (0.6), responsiveness (0.3), and reliability (-1.0) were as follows. The gaps in responsiveness (-0.1), tangibles (0.1), assurance (0.1), empathy (0.2), and reliability (0.1) were seen in patients without BPJS (Darmawan et al., 2022).

## **5.5 Satisfaction with Quality of Services Based on Demographic Characteristics**

The study analyzed patients' agreement levels on SERVQUAL dimensions and satisfaction across various characteristics. No significant differences were found between males and females in agreement on SERVQUAL dimensions or total quality. However, females reported higher satisfaction with administrative services and overall satisfaction. Significant differences were observed in both SERVQUAL dimensions and satisfaction based on age. Younger patients (18–28 years) generally rated service quality and satisfaction lower, while older groups (over 50) gave higher ratings, particularly in empathy. Service quality perceptions and satisfaction varied by clinic, with Qattanah receiving high satisfaction ratings, particularly for emergency and cleaning services, while Beit Duqqu had lower satisfaction levels. Higher education levels (Master's or above) were linked to higher ratings across SERVQUAL dimensions and satisfaction, especially in empathy and total quality, whereas patients with lower education (diploma) reported lower satisfaction, particularly with cleaning services.

When it came to general satisfaction and administrative services, female patients expressed greater pleasure than male patients did, but there were no gender differences that were statistically significant when it came to emergency or cleaning services. Older

patients (50+ years) expressed lower satisfaction, while younger age groups (18–39 years) rated satisfaction higher across all categories, especially in administrative services. There were notable variations in clinic satisfaction; Qattanah was very satisfied, particularly with emergency and cleaning services, whereas Beit Duqqu was less satisfied. Patients with a diploma expressed lower satisfaction overall, especially with cleaning services, whereas those with a master's degree or more showed greater happiness in all areas.

Regarding to Turkish study, differences in service experience continue to exist, especially among working-age, low-income, and urban populations (Hone et al., 2017). A study looked at how respondents' opinions of a certain healthcare service vary according on their age, gender, employment status, and frequency of use. A study discovered that although there are notable differences in work status satisfaction and service consumption frequency, demographic traits like age and gender did not yield noteworthy variations in the evaluation of healthcare service quality (Mecev et al., 2015).

## **5.6 Conclusion**

Using the SERVQUAL approach, this study evaluated the level of service provided in North-West Jerusalem's primary healthcare centers (PHCs), identifying important areas where patient satisfaction might be raised. The least significant variables were found to be tangibility and reliability, with many patients complaining about outdated facilities and equipment. A notable gap in the standard of the physical environment was shown by the fact that 67.5% of respondents thought that the tangibility of services did not live up to expectations.

Patients expressed a significant sense of empathy from healthcare practitioners despite worries about the effectiveness and dependability of management, suggesting that personalized care is a valued part of the service experience. Although there was space for improvement in certain areas, such as responsiveness, treatment schedule communication was well accepted, indicating strengths in patient participation.

The degree of satisfaction varied by demographic group, with older patients generally rating services higher and females expressing higher levels of satisfaction with administrative services. The study also showed that perceptions of service quality were highly influenced by education level, with higher education levels being associated with higher levels of satisfaction across a number of variables.

Ultimately, the results point to the urgent need for enhancements to PHC patient experiences through increased administrative effectiveness, emergency response, and

cleaning consistency. By addressing these issues, it may be possible to raise patient happiness and enhance care quality, which would ultimately bring services more in line with what patients need and want.

### **5.7 Limitations of the Study**

The cross-sectional design of the study makes it difficult to determine a cause-and-effect relationship between patient satisfaction and aspects of service quality. The results may not be broadly applicable to other contexts or geographic areas since the sample size may not be sufficient to accurately reflect all patients utilizing PHCs in North-West Jerusalem. Response bias may have resulted from participants giving socially acceptable answers instead of expressing their true feelings about the quality and satisfaction of the services.

Because patients may interpret satisfaction surveys differently and provide subjective evaluations of their experiences, relying solely on patient-reported data may introduce biases. Even while the SERVQUAL model addresses all of the important aspects of service quality, it might not account for all of the variables that affect patient satisfaction, such as cultural considerations or individual patient demands. Because the study was conducted over a short period of time, it might not have captured seasonal variations or swings in patient satisfaction brought on by staffing, management, or outside variables like changes in policy.

### **5.8 Recommendations**

It is recommended to make investments in updating medical equipment and remodeling waiting areas in PHCs to modernize their physical environments. This would improve the overall quality of the services and help satisfy the tangibility demands of the patients. Modernize vital diagnostic equipment like X-ray machines, ultrasound scanners, and patient monitoring systems to improve secondary health services' precision and effectiveness. Redesigning waiting areas with cozy seating, improved ventilation, and computerized queue management systems can improve patient satisfaction by cutting down on wait times and traffic.

Enhancing administrative personnel responsiveness and availability. To cut wait times and enhance service delivery, this can entail hiring more employees, offering customer service training, and putting in place more effective administrative procedures.

Concentrating on improving the emergency services' responsiveness, which includes cutting wait times and making sure staff members have the necessary training to properly handle patients' demands.

Putting on frequent training sessions for medical professionals on patient-centered care, empathy, and effective communication. Patients will place greater weight on the positive features of service quality as a result of this.

To enhance the sense of cleanliness and hygiene in the facilities, set up a regular cleaning plan and make sure there is enough staffing for cleaning services.

Creating focused outreach initiatives that adapt to the unique requirements and demands of various demographic groups, with a special emphasis on younger patients and those with lesser educational attainment who expressed lower levels of satisfaction.

Enhancing communication regarding PHC services, patient rights, and treatment schedules. Build trust and confidence in the level of treatment via open and honest communication.

Applying Lean Healthcare or Six Sigma methods could be recommended which can help improve the quality of services.

Collaborating with stakeholders and local health authorities to match improvement plans with more general health programs and regulations.

Implementing a longitudinal research design to evaluate the long-term effects of PHC service improvements on patient satisfaction. In doing so, patterns and the long-term effects of interventions will be easier to spot. Utilize the SERVQUAL approach to consistently gather data on patient satisfaction and service quality at various intervals. This methodology will facilitate the assessment of the efficacy of particular enhancements and pinpoint domains that require continuous focus. To acquire a deeper understanding of patients' and healthcare providers' experiences, expectations, and impressions of the services they receive, conduct in-depth interviews as part of qualitative research.

## References

- Adomah-Afari, A., & Buckman, G. (2024). Patient Satisfaction with Service Quality of a Private Health Facility in Accra, Ghana. *International Journal of Caring Sciences*, 17(1), 257.
- Ali, A., & Panezai, S. (2021). Assessing the quality of primary health care services at basic health units in quetta city, balochistan, pakistan. *Public Health Res*, 11(1), 111-2.
- Aljaberi, M. A., Juni, M. H., Al-Maqtari, R. A., Lye, M. S., Saeed, M. A., Al-Dubai, S. A. R., & Shahar, H. K. (2018). Relationships among perceived quality of healthcare services, satisfaction and behavioural intentions of international students in Kuala Lumpur, Malaysia: a cross-sectional study. *BMJ open*, 8(9), e021180.
- AlOmari, F. (2021). Measuring gaps in healthcare quality using SERVQUAL model: challenges and opportunities in developing countries. *Measuring Business Excellence*, 25(4), 407-420.
- Ampaw, E. M., Chai, J., Liang, B., Tsai, S. B., & Frempong, J. (2020). Assessment on health care service quality and patients' satisfaction in Ghana. *Kybernetes*, 49(12), 3047-3068.
- Andrade, L. A. F. D., Salazar, P. E. L., Leopoldino, K. D. M., & Montenegro, C. B. (2019). Primary health care quality assessment according to the level of satisfaction of elderly users. *Revista gaucha de enfermagem*, 40, e20180389.
- Bentum-Micah, G., Ma, Z., Wang, W., Atuahene, S. A., & Bondzie-Micah, V. (2020). Perceived service quality, a key to improved patient satisfaction and loyalty in healthcare delivery: the servqual dimension approach. *Journal of Health and Medical Sciences*, 3(2).
- Bermúdez-Hernández, J., Palacios-Moya, L., Valencia-Arias, A., & Brand-Piedrahita, L. (2021). A proposed model of user satisfaction with medical emergency

services by using the SERVQUAL model. *Journal of Pharmacy & Pharmacognosy Research*, 9(6), 859-869.

Bhattacharya, P., Mukhopadhyay, A., Saha, J., Samanta, B., Mondal, M., Bhattacharya, S., & Paul, S. (2023). Perception-satisfaction based quality assessment of tourism and hospitality services in the Himalayan region: An application of AHP-SERVQUAL approach on Sandakphu Trail, West Bengal, India. *International Journal of Geoheritage and Parks*, 11(2), 259-275.

Campos, D. F., Negromonte Filho, R. B., & Castro, F. N. (2017). Service quality in public health clinics: perceptions of users and health professionals. *International Journal of Health Care Quality Assurance*, 30(8), 680-692.

Carvalho, J. M., & Rodrigues, N. (2022). Perceived quality and users' satisfaction with public-private partnerships in health sector. *International Journal of Environmental Research and Public Health*, 19(13), 8188.

Chalhoub, H. A., Thukkaraman, C. N., Krishnan, J. I., & Abulaban, A. S. (2024). Patient Satisfaction with Primary Health Care Services in Qatar: A Quality Improvement Study in a Government Staff Clinic. *Saudi Journal of Health Systems Research*, 1-18.

Darmawan, D., Issalillah, F., Khayru, R. K., Herdiyana, A. R. A., Putra, A. R., Mardikaningsih, R., & Sinambela, E. A. (2022). BPJS Patients Satisfaction Analysis Towards Service Quality of Public Health Center in Surabaya. *Media Kesehatan Masyarakat Indonesia*, 18(4), 124-131.

Dimitrios Theofanidis, R. N. (2021). Patient Satisfaction and Quality of Care. *International Journal of Caring Sciences*, 14(2), 800.

Donabedian, A. (1988). The quality of care: how can it be assessed?. *Jama*, 260(12), 1743-1748.

Endeshaw, B. (2021). Healthcare service quality-measurement models: a review. *Journal of Health Research*, 35(2), 106-117.

- Erickson, S. M., Rockwern, B., Koltov, M., McLean, R. M., & Medical Practice and Quality Committee of the American College of Physicians\*. (2017). Putting patients first by reducing administrative tasks in health care: a position paper of the American College of Physicians. *Annals of internal medicine*, 166(9), 659-661.
- Ferrand, Y. B., Siemens, J., Weathers, D., Fredendall, L. D., Choi, Y., Pirralo, R. G., & Bitner, M. (2016). Patient satisfaction with healthcare services a critical review. *Quality Management Journal*, 23(4), 6-22.
- Gao, Q., Liu, M., Peng, L., Zhang, Y., Shi, Y., Teuwen, D. E., & Yi, H. (2022). Patient satisfaction and its health provider-related determinants in primary health facilities in rural China. *BMC Health Services Research*, 22(1), 946.
- Hommerich, C., & Kottmann, N. (2020, November). How to combine methods: Mixed methods designs. *In Studying Japan* (pp. 264-282). Nomos Verlagsgesellschaft mbH & Co. KG.
- Hone, T., Gurol-Urganci, I., Millett, C., Başara, B., Akdağ, R., & Atun, R. (2017). Effect of primary health care reforms in Turkey on health service utilization and user satisfaction. *Health policy and planning*, 32(1), 57-67.
- Howsawi, A. A., Althageel, M. F., Mohaideen, N. K., Khan, M. S., Alzahrani, A. S., Alkhadir, M. A., ... & Hawsawi, R. A. (2020). Application of the Kano model to determine quality attributes of patient's care at the primary healthcare centers of the Ministry of Health in Saudi Arabia, 2019. *Journal of Family and Community Medicine*, 27(3), 178-185.
- <https://www.merriam-webster.com/dictionary/>. (n.d.).
- Husain Akbar, F., & Tegar Jaya, M. (2017). Relationship between service quality on public health center and patient satisfaction. *Global Journal of Health Science*, 9(7), 96.

- Jisan, I. S. (2023). *Applying SERVQUAL model to measure online customer satisfaction in online healthcare services.*
- Jonkisz, A., Karniej, P., & Krasowska, D. (2021). SERVQUAL method as an “old new” tool for improving the quality of medical services: A literature review. *International journal of environmental research and public health*, 18(20), 10758.
- Karavida, A., Stamouli, M. A., & Balis, C. (2014). Patients' satisfaction evaluation with the health center of elis province. *In Integrating Information Technology and Management for Quality of Care* (pp. 283-286). IOS Press.
- Khamis, K., & Njau, B. (2014). Patients’ level of satisfaction on quality of health care at Mwananyamala hospital in Dar es Salaam, Tanzania. *BMC health services research*, 14, 1-8.
- Kurti, S., & Kalaja, R. (2024). Factors Affecting Patient Satisfaction With The Quality Of Primary Healthcareservices: A Cross-Sectional Study In Albania. *International Journal for Quality Research*, 18(1).
- Lacerda, A. B., Souza, A. S. D. S., Da Silva, G. K. L., Azevedo, E. H. M. D., & Melo, F. J. C. D. (2022). Basic Health Units services quality assessment through Kano and SERVQUAL models. *Benchmarking: An International Journal*, 29(9), 2858-2880.
- Lee, S. Y., & Kim, J. H. (2014). Effects of servicescape on perceived service quality, satisfaction and behavioral outcomes in public service facilities. *Journal of Asian architecture and building engineering*, 13(1), 125-131.
- Mečev, D., & Kardum Goleš, I. (2015). Primary healthcare service quality measurement: SERVQUAL scale. *Ekonomski vjesnik: Review of Contemporary Entrepreneurship, Business, and Economic Issues*, 28(1), 161-177.

- Mecev, D., Goles, I. K., & Kuran, L. M. (2015). Usage Of Servqual For Assessment Of Customers'satisfaction With Services Of Primary Healthcare Public Institutions In The City Of Sibenik. *Economic and Social Development: Book of Proceedings, 19*.
- Mrabet, S., Benachenhou, S. M., & Khalil, A. (2022). Measuring the effect of healthcare service quality dimensions on patient's satisfaction in the Algerian private sector.
- Noe, A. M. (2020). *Outpatient experiences, accessibility and satisfaction at Hlaing Tharyar General Hotal (Ma Aint Myat Noe, 2020)* (Doctoral dissertation, MERAL Portal).
- Parasuraman, A. Z. (1998). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing,, 64*(1), 12-40.
- Parmin, P., Suarayasa, K., & Wandira, B. A. (2020). Relationship between quality of service with patient loyalty at general polyclinic of kamonji public health center. *International Journal of Health and Medical Sciences, 3*(1), 86-91.
- Qabaja, M. (2023). The Effect of Service Quality on Patient Satisfaction in Hebron Government Hospitals in Palestine.
- Rahim, A. I. A., Ibrahim, M. I., Musa, K. I., Chua, S. L., & Yaacob, N. M. (2021, October). Patient satisfaction and hospital quality of care evaluation in malaysia using servqual and facebook. *In Healthcare (Vol. 9, No. 10, p. 1369)*. MDPI.
- Rauf, A., Muhammad, N., Mahmood, H., & Yen, Y. Y. (2024). The influence of healthcare service quality on patients' satisfaction in urban areas: The case of Pakistan. *Heliyon, 10*(18).
- Renggli, S., Mayumana, I., Mboya, D., Charles, C., Mshana, C., Kessy, F., ... & Lengeler, C. (2019). Towards improved health service quality in Tanzania:

appropriateness of an electronic tool to assess quality of primary healthcare. *BMC health services research*, 19, 1-16.

Renggli, S., Mayumana, I., Mboya, D., Charles, C., Mshana, C., Kessy, F., ... & Pfeiffer, C. (2019). Towards improved health service quality in Tanzania: contribution of a supportive supervision approach to increased quality of primary healthcare. *BMC health services research*, 19, 1-16.

Ross, D. S., & Venkatesh, R. (2015). An empirical study of the factors influencing quality of healthcare and its effects on patient satisfaction. *International Journal of Innovative Research in Science, Engineering and Technology*, 4(2), 54-59.

Sathyanarayana, P., Shenoy, V., & Gargesa, S. (2019). Service quality and patients satisfaction: Primary health care centers in rural Karnataka. *Journal of Xi'an University of Architecture & Technology*, 11(12), 543-471.

Setianingsih, L. E., Marini, I., & Hutagaol, E. K. (2023). Analysis of the Influence of Socio-Economic and Demographic Factors on Patients' Perception of Health Service Quality at Amanah Bunda Medika Cilnic in the Digital Era. *Jurnal eduhealth*, 14(02), 902-910.

Setyawan, F. E. B., Supriyanto, S., Tunjungsari, F., Hanifaty, W. O. N., & Lestari, R. (2019). Medical staff services quality to patients satisfaction based on SERVQUAL dimensions. *International Journal of Public Health Science (IJPHS)*, 8(1), 51-57.

Setyawan, F. E. B., Supriyanto, S., Ernawaty, E., & Lestari, R. (2020). Understanding patient satisfaction and loyalty in public and private primary health care. *Journal of public health research*, 9(2), jphr-2020.

Shouly, B. A. (2011). Quality Assessment of Primary Health Care Delivered to Children Under 5 Years Old in North West-Bank/Palestine (Doctoral dissertation).

- Stafrace, S. . (2016). A regional study into patient satisfaction: perceptions of key decision makers. (*Doctoral dissertation, Imperial College London*).
- Starfield, B. (1994). Is primary care essential? . *The Lancet.*, 344(8930), 1129-1133.
- Talukder, S. H., Akter, S., Farhana, D., Salahin, K. F., Khanam, S., Rahman, M. M., ... & Islam, S. M. S. (2022). Evaluation of the role of perceived quality and satisfaction of beneficiaries about the health care services and benefits of community clinics in Bangladesh. *International Journal of Public Health Research, 12*(2).
- Tawafuq. (2021). Patients' satisfaction with the quality of health services provided in private clinics (Doctoral dissertation, University of M'sila).
- Teshnizi, S. H., Aghamolaei, T., Kahnouji, K., Teshnizi, S. M. H., & Ghani, J. (2018). Assessing quality of health services with the SERVQUAL model in Iran. A systematic review and meta-analysis. *International Journal for Quality in Health Care, 30*(2), 82-89.
- Tripathi, S. N., & Siddiqui, M. H. (2020). Assessing the quality of healthcare services: A SERVQUAL approach. *International Journal of Healthcare Management.*
- Vera, J., & Trujillo, A. (2018). Assessing the effect of service quality over user satisfaction in public health institutions in Mexico. *Contaduría y administración, 63*(2), 0-0.
- Verma, P., Kumar, S., & Sharma, S. K. (2022). Evaluating the total quality and its role in measuring consumer satisfaction with e-healthcare services using the 5Qs model: a structure equation modeling approach. *Benchmarking: An International Journal, 29*(1), 22-46.
- Zaid, A. A., Arqawi, S. M., Mwais, R. M. A., Al Shobaki, M. J., & Abu-Naser, S. S. (2020). The impact of Total quality management and perceived service quality

on patient satisfaction and behavior intention in Palestinian healthcare organizations. *Technology Reports of Kansai University*, 62(03), 221-232.

Zun, A. B., Ibrahim, M. I., & Hamid, A. A. (2018). Level of satisfaction on service quality dimensions based on SERVQUAL model among patients attending 1 Malaysia clinic in Kota Bharu, Malaysia. *Oman medical journal*, 33(5), 416.

# Appendices

## Appendix 1. The Questionnaire in English

Part One: Demographic Data Please place an (X) mark next to the appropriate option for each of the following: Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female Age: ----- Clinic: ----- Educational Level: <input type="checkbox"/> High school or less <input type="checkbox"/> Diploma <input type="checkbox"/> Bachelor's degree <input type="checkbox"/> Master's degree or higher					
Part Two: Independent Variable: Quality of Services Based on Your experience with healthcare services in a clinic: please determine the degree of your agreement with each of the following elements by checking ( ✓ ) the appropriate number: Notes: 1- Fully disagree, 2- Disagree, 3- Neutral, 4- Agree and 5- Fully Agree.					
Elements	5	4	3	2	1
<b>First Dimension: Tangibility</b>					
The clinic's devices, equipment, and medical supplies are up-to-date.					
The institution/center/clinic that provided the service to me has modern technological equipment that helped in treatment and diagnosis.					
Primary care centers have various specialties and support services for providing services.					
Patient rooms, waiting areas, reception areas, doctors' offices, reception desks, accounting, and laboratory offices meet patient needs.					
I sense care and attention from the staff.					
The institution/center/clinics have comprehensive facilities.					
<b>Second Dimension: Reliability</b>					
The management fulfills its promises to patients regarding healthcare and treatment services.					
The management is committed to providing healthcare in a timely, quick, and accurate manner.					
The management responds to patients when handling their complaints.					
Patients trust the medical competencies in the institution.					
The institution has an electronic medical file or database that allows the patient to access their file or information when needed.					
<b>Third Dimension: Responsiveness</b>					
Patients are informed about their treatment schedules.					
Employees provide services to patients promptly.					
Employees are always willing to help patients.					
Despite the pressures of being busy providing services, they respond to patients' requests.					
<b>Fourth Dimension: Assurance</b>					
Patients trust the employees in the center.					
Patients feel reassured when receiving services, knowing they are in safe hands.					
Patients feel courteous treatment from healthcare staff—kindness and politeness.					
Employees possess competence, credibility, and reliability in performing their work.					
<b>Fifth Dimension: Empathy</b>					
The institution/center management gives patients attention, making it easy to file a complaint or communicate with the center's management if needed.					
Employees have the ability to care for patients.					
Employees have the ability to recognize patients' healthcare needs.					
The center/institution offers services according to working hours that meet patients' needs.					
The best possible service is provided to patients in the clinic.					
The institution's employees place the patient's interest above all else.					

Part Three: Dependent Variable: Satisfaction Level with Services					
Based on Your experience with healthcare services in a clinic: please determine the level of your Satisfaction with each of the following elements by checking ( ✓ ) the appropriate number. Notes: 1- Very Unsatisfied. 2- Unsatisfied. 3- Neutral. 4- Satisfied. 5- Very Satisfied.					
Elements	5	4	3	2	1
<b>First Dimension: Satisfaction with Administrative Services</b>					
Administrative staff is available 24 hours.					
There is a high level of responsiveness from the administrative staff in following up on patient-related issues.					
Patients feel the administrative staff is cooperative with them.					
The administrative staff adheres to regulations.					
The administrative staff deals with patients impartially, without favoritism.					
<b>Second Dimension: Satisfaction with Emergency Services</b>					
The patient is received well.					
The patient is promptly seen by doctors in the emergency department.					
There are high ethics in dealing with patients by the emergency department staff.					
Medical teams have high competency, capability, and professionalism in dealing with patients.					
<b>Third Dimension: Satisfaction with Cleaning Services</b>					
There is general satisfaction with cleanliness, including (beds, floors, and bathrooms).					
Cleaning and sterilization services are noticeably and sufficiently available.					
There is an adequate number of cleaning staff around the clock.					
Clinic rooms are clean.					
Rooms are cleaned regularly according to a specified and organized schedule (there is a checklist or a record behind the bathroom doors showing the cleaning staff has done their job).					
Cleaning and sterilization services are noticeably and sufficiently available.					

## Appendix 2. The Questionnaire in Arabic

<p>القسم الأول: البيانات الديموغرافية</p> <p>يرجى وضع علامة (X) بجانب الخيار المناسب لكل مما يلي:</p> <p>الجنس: <input type="checkbox"/> ذكر <input type="checkbox"/> أنثى</p> <p>العمر-----</p> <p>العيادة-----</p> <p>المستوى التعليمي: <input type="checkbox"/> ثانوية عامة أو أقل <input type="checkbox"/> دبلوم <input type="checkbox"/> بكالوريوس <input type="checkbox"/> ماجستير أو أعلى</p>					
<p>القسم الثاني: المتغير المستقل: جودة الخدمات</p> <p>بناءً على تجربتك مع خدمات الرعاية الصحية في العيادة: يرجى تحديد درجة موافقتك على كل من العناصر التالية من خلال وضع علامة (X) على الرقم المناسب: ملاحظة: 1- غير موافق جداً ، 2- غير موافق، 3- محايد، 4- أوافق و 5- أوافق جداً.</p>					
الرقم	الموضوع	غير موافق جداً	غير موافق	محايد	موافق جداً
المحور الأول: الملموسية					
1	أجهزة العيادة ومعدات ومستلزماتها الطبية حديثة				
2	تمتلك المؤسسة/المركز/العيادة التي قدمت الخدمة لي تجهيزات ومعدات تكنولوجية ساعدت في العلاج والتشخيص.				
3	يتوفر في مراكز الرعاية الأولية مختلف التخصصات والخدمات المساندة لتقديم الخدمات.				
4	قاعات المرضى وأماكن الانتظار والاستقبال ومكاتب الأطباء ومكاتب الاستقبال والمحاسبة والمختبر تتلائم مع احتياجات المريض				
5	ألمس اهتمام ورعاية من الموظفين				
6	تمتلك المؤسسة/المركز/العيادات مرافق متكاملة				
المحور الثاني: الاعتمادية					
7	تلتزم الإدارة بعودها للمرضى في مجال تقديم الخدمات الصحية والعلاجية والاستشفائية.				
8	تهتم إدارة المؤسسة بتقديم الرعاية الصحية في الوقت المناسب وبشكل سريع ودقيق.				
9	تتجاوب إدارة المؤسسة مع المرضى عند تقديم شكاويهم.				
10	يثق المرضى في الكفاءات الطبية في المؤسسة				

					يتوفر في المؤسسة ملف طبي الكتروني او قاعدة بيانات تمكن المريض من الوصول لملفه او معلوماته عند الحاجة لها.	11
المحور الثالث: الاستجابة						
					يتم إخبار المرضى عن أوقات تقديم العلاج لهم	12
					يقدم الموظفون الخدمات للمرضى بشكل فوري.	13
					يرغب الموظفون بمساعدة المرضى بشكل دائم ومستمر.	14
					رغم الضغوطات بانشغال الموظفين بتقديم الخدمات إلا أنهم يتجاوبون مع طلبات المرضى.	15
المحور الرابع: الموثوقية						
					يثق المرضى بالموظفين في المركز.	16
					يطمئن المرضى عند تلقي الخدمات أنهم في أيدي أمينة.	17
					يشعر المريض بحسن المعاملة للطواقم الصحية - لطف ولباقة.	18
					تتوفر لدى الموظفين الكفاءة والجدارة والمصداقية في أداء عملهم.	19
المحور الخامس: التعاطف						
					تعطي ادارة المؤسسة/المركز المرضى عناية من حيث سهولة التقدم بشكوى او التواصل مع ادارة المركز في حال الحاجة لها	20
					إن الموظفين لديهم القدرة على تقديم العناية للمرضى.	21
					يعرف الموظفون حاجات المرضى.	22
					يقدم المركز/ المؤسسة خدماته/تها في بنظام عمل (ساعات) تلبي احتياجات المرضى.	23
					يتم تقديم أفضل ما يمكن للمرضى في العيادة	24
					يضع موظفو المؤسسة مصلحة المريض فوق كل اعتبار	25
القسم الثالث: المتغير التابع: مستوى الرضا عن الخدمات بناءً على تجربتك مع خدمات الرعاية الصحية في العيادة: يرجى تحديد مستوى رضاك عن كل عنصر من العناصر التالية عن طريق وضع علامة (X) على الرقم المناسب. ملاحظة: 1- غير راضٍ جداً. 2- غير راضٍ. 3- محايد. 4- راضٍ. 5- راضٍ جداً.						
المتغير التابع: مستوى الرضا عن الخدمات						

الرقم	الموضوع	راضي جدا	راضي	محايد	غير راضي	غير راضي جدا
المحور الأول: الرضا عن الخدمات الإدارية						
26	يتوفر الطاقم الإداري على مدار 24 ساعة.					
27	توجد استجابة عالية من قبل الطاقم الإداري في متابعة القضايا المتعلقة بالمرضى.					
28	يشعر المرضى بتعاون الطاقم الإداري مع المرضى.					
29	يلتزم الطاقم الإداري بالقوانين.					
30	يتعامل الطاقم الإداري مع المرضى بعيداً عن المحسوبية.					
المحور الثاني: الرضا عن خدمات الطوارئ.						
31	يتم استقبال المريض بشكل جيد.					
32	يوجد سرعة في معاينة المريض من قبل الأطباء في قسم الطوارئ.					
33	هناك أخلاقيات عالية في التعامل من قبل طاقم قسم الطوارئ.					
34	لدى الطواقم الطبية الكفاءة والقدرة والمهنية العالية في التعامل مع المرضى.					
المحور الثالث: الرضا عن خدمات النظافة						
35	يوجد رضا عن النظافة بشكل عام بخصوص (نظافة الأسرة، الأرضيات، دورات المياه).					
36	تتواجد خدمات التنظيف والتطهير بشكل ملحوظ وكافٍ.					
37	يتواجد عدد كافٍ من عمال النظافة على مدار الساعة.					
38	غرف العيادات نظيفة.					
39	(يتواجد قائمة أو لائحة للتفقد خلف أبواب دورات المياه تثبت قيام موظفوا النظافة بعملهم)					
40	تتواجد خدمات التنظيف والتطهير بشكل ملحوظ وكافٍ.					

# قياس جودة الخدمات وأثرها على رضا المستفيدين من عيادات الرعاية الصحية الأولية في شمال غرب القدس باستخدام نموذج SERVQUAL

محمد نظير دار طه

أ.د. عطية مصلح

د. أشرف الميمي

د. شاهر عبيد

## ملخص

الخلفية النظرية: يركز النموذج المعروف باسم (SERVQUAL) بشكل كبير على الجودة الوظيفية من خلال تسليط الضوء على الإجراءات الدقيقة والتشخيص والكفاءة المهنية. ومن أجل تقديم الرعاية الصحية بشكل فعال وتحقيق أهداف الجودة الوظيفية، فمن الضروري تلبية توقعات المرضى. هدف الدراسة: تقييم جودة الخدمة ورضا المستخدمين التي تقدمها عيادات الرعاية الصحية الأولية في شمال غرب القدس، يقوم هذا البحث بتقييم هذه الجوانب من وجهة نظر العملاء باستخدام نموذج جودة الخدمة.

منهجية الدراسة: تم إجراء دراسة مقطعية على 382 مريض من عيادات الرعاية الصحية الأولية في شمال غرب القدس. تم إجراء الدراسة من 2 أكتوبر 2024 إلى 2 نوفمبر 2024. تم جمع البيانات من خلال استبيان ذاتي.

النتائج: كان عدم الرضا أعلى بما يتعلق باللموسية (67.5%)، في حين تلقت الموثوقية استجابات محايدة (52.9%). حصل التعاطف على أعلى نسبة اتفاق، وظل 78.3% من المرضى محايدين فيما يتعلق بالجودة الشاملة. وكان المرضى غير راضين عن الخدمات الإدارية وخدمات الطوارئ ولكنهم راضون عن خدمات التنظيف. أثرت اللموسة بشكل إيجابي على الرضا عن التنظيف ( $r = 0.476$ )، والخدمات الإدارية ( $r = 0.267$ )، والرضا العام ( $r = 0.449$ )، ولكن ليس خدمات الطوارئ. أثرت الموثوقية على الخدمات الإدارية ( $r = 0.196$ ) وخدمات التنظيف ( $r = 0.163$ ). الاستجابة أثرت سلباً على التنظيف ( $r = -0.137$ )، في حين لم تظهر ضمان أي آثار كبيرة. أدى التعاطف إلى تحسين الرضا عن خدمات الطوارئ ( $r = 0.165$ ) ولكنه أثر سلباً على المجالات الأخرى. الجودة الشاملة أثرت فقط على خدمات الطوارئ ( $r = 0.147$ ). حدد تحليل الانحدار التعاطف واللموسة كمتنبئين رئيسيين للرضا. كانت الفروق بين الجنسين ضئيلة، لكن الإناث أبلغن عن رضا إداري أعلى. قام المرضى الأصغر سناً (18-28 عاماً) بتقييم الخدمات على أنها أقل، بينما فضل

المرضى الأكبر سنًا التعاطف. وتباينت التقييمات للعيادات، حيث حصلت قطنة على أعلى التصنيفات وبيت دقو على أدنى تصنيف. يرتبط التعليم العالي برضا أفضل عبر الأبعاد. التوصيات: لتحسين رضا المرضى، قد تحتاج مراكز الرعاية الصحية الأولية إلى التركيز على ترقية المعدات، وتحسين ممارسات الإدارة، وضمان نظام تقديم رعاية صحية أكثر موثوقية واستجابة. ونظراً لمستويات الرضا المرتفعة في التعاطف، فإن الجهود المبذولة للحفاظ على هذه القوة وتعزيزها يمكن أن تساعد في تحقيق التوازن والتعويض عن العجز في مجالات أخرى. الكلمات المفتاحية : نموذج SERVQUAL؛ رضا المستخدمين؛ مراكز الرعاية الصحية الأولية