

Master of Science in Public Health



**Barriers towards utilization of Primary Health care services
and its association with satisfaction of patients visiting THQ
hospital, Kallar Syedan**

By

NOOR UR REHMAN

Al-Shifa School of Public Health, PIO,

Al-Shifa Trust Eye Hospital

Quaid-i-Azam University

Islamabad, Pakistan

(2023)

Barriers towards utilization of Primary Health care services and its association with satisfaction of patients visiting THQ hospital, Kallar Syedan

**NOOR UR REHMAN
(362900-PIO/MSPH-2021)**

Dissertation submitted in partial fulfilment of the requirement for the degree of:

Master of Science in Public Health (2023)

To

**Al-Shifa School of Public Health, PIO,
Al-Shifa Trust Eye Hospital
Quaid-i-Azam University
Islamabad**

Word Count

11,097

Declaration

In submitting this dissertation, I certify that I have read and understood the rules and Regulations of ASoPH and QAU regarding assessment procedures and offences and formally declare that all work contained within this document is my own apart from properly referenced quotations.

I understand that plagiarism is the use or presentation of any work by others, whether published or not, and can include the work of other candidates. I also understand that any quotation from the published or unpublished works of other persons, including other candidates, must be clearly identified as such by being placed inside quotation marks and a full reference to their source must be provided in proper form.

This dissertation is the result of an independent investigation. Where my work is indebted to others, I have made acknowledgments.

I declare that this work has not been accepted in substance for any other degree, nor is it currently being submitted in candidature for any other degree.

Ma'am Qandeel Tahir

Al-Shifa school of Public Health,
PIO, Al Shifa Trust Eye Hospital

Date: _____

Noor Ur Rehman

(362900-PIO/MSPH-2021)
MSPH (2021-23)

Date: _____

ABSTRACT

Introduction: Primary healthcare is essential in all the modern healthcare systems. It serves as the first point of contact for individuals seeking medical care, playing a basic role in preventing, diagnosing, and managing health conditions. However, barriers to primary health care utilization persist, leading to disparities in healthcare access and outcomes. Understanding these barriers and their impact on patient satisfaction is vital for improving healthcare delivery and achieving equitable healthcare access for all.

Objectives: This study aims to find the utilization of primary health care services in tehsil Kallar Syedan. To identify the barriers for utilizing primary health care services and to find association of satisfaction of patients in visiting primary health care centers with barriers to primary healthcare service utilization.

Methods: This cross-sectional study sampled 344 patients from THQ hospital of Tehsil Kallar Syedan. Questionnaire included demographic variables and questions on utilization of primary health care services, satisfaction with PHC visit and barriers towards utilization of PHC services using a yes or no response. Chi-square test was used to find association of demographic variables with outcome variable.

Results: The results sampled 50.6% of males. Majority of the respondents (71.8%) in our study were not utilizing PHC services. Almost half of the participants (49%) in the study were satisfied with their visit to PHC. The most reported barriers were organizational barriers (40.4%) and access barriers (34.3%). All the barriers had statistically significant association with the satisfaction of patients ($p < 0.05$).

Conclusion: The study concluded that the utilization of PHC services and satisfaction with PHC visit was low. Findings from this study will allow the policy makers to reduce the impact of barriers towards PHC service utilization. Provision of PHC services at PHC nearest to community's locality and promoting services that are being provided free of charge at these centers can aid in reducing the access barriers and organizational barriers.

Keywords: Primary health care, PHC utilization, patient satisfaction, barriers towards PHC services, Kallar Syedan.

ACKNOWLEDGMENTS

First and foremost, praises and thanks to Allah Almighty, for His showers of blessings throughout my educational journey and to complete this thesis successfully.

Words cannot express gratitude to my supervisor, Ma'am Qandeel Tahir, Alshifa School of Public Health Rawalpindi, for providing invaluable guidance and support. Your optimism, sincerity and motivation has deeply inspired me. I feel honored to have had a teacher like you. Thank you for helping me to express my creative side and come out of my shell. You have given me confidence that is priceless!

I am deeply thankful to my friends, my seniors and my family for their support during this process. Without their encouragement and motivation, I would not have been able to complete this project.

I would also regard the cooperation of staff of THQ hospital, Kallar Syedan. Their help made it possible to collect data from OPDs with ease.

Noor Ur Rehman

TABLE OF CONTENTS

Master of Science in Public Health.....	i
Declaration.....	iii
Abstract.....	iv
Acknowledgement.....	v
1 Chapter 1: Introduction:.....	1
1.1 Rationale of the Study:	5
1.2 Objective(s) / Research question:	5
2 Chapter 2: Literature Review	6
2.1 Global studies.....	6
2.2 Studies in Pakistan.....	8
2.3 Operational Definitions.....	10
3 Chapter 3: Material and Methods:	11
3.1 Study Design:	11
3.2 Study Setting:	11
3.3 Duration of Study:	11
3.4 Sample Size:	11
3.5 Sampling Technique:	11
3.6 Sample Selection:	11

3.6.1 Inclusion criteria	11
3.6.2 Exclusion criteria	11
3.7 Data Collection Procedure.....	12
3.8 Data Analysis Procedure.....	13
3.9 Ethical Consideration.....	13
4 Chapter 4: Results and Discussion.....	14
4.1 Descriptive Analysis.....	14
4.2 Sociodemographic characteristics.....	14
4.3 Utilization of primary health care facility.....	18
4.4 Satisfaction with primary health care visit.....	19
4.5 Barriers to primary health care services.....	19
4.6 Inferential analysis.....	22
4.7 Association of Utilization of Primary Healthcare with Demographic variables.....	22
4.8 Association of satisfaction with Primary Healthcare visit with Demographic variables.....	25
4.9 Association of overall barrier to the Utilization of Primary Healthcare with Demographic variables.....	27

4.10 Association of barriers to utilization of Primary Healthcare services with satisfaction with Primary Healthcare visit.....	29
5 Chapter 5: Discussion	31
5.1 Conclusion.....	34
5.2 Recommendation.....	37
5.3 Strengths of the study.....	36
5.4 Limitations of the study.....	36
References.....	34
ANNEXURE I	41
ANNEXURE II	40
ANNEXURE III	41
ANNEXURE IV	42
ANNEXURE V	43

List of Tables

Table 4.1 Sociodemographic characteristics of respondents.....	17
Table 4.2 Barriers to the utilization of Primary health care services.....	20
Table 4.3 Association of Utilization of Primary Healthcare with Demographic variables.....	23
Table 4.4 Association of Satisfaction with Primary Healthcare visit with Demographic variables.....	25
Table 4.5: Association of barriers with demographic variable.....	28
Table 4.6 Association of barriers with satisfaction of patients visiting Primary Healthcare Centers.....	30

List of Figures

Figure 4.1 Age of the respondents.....	14
Figure 4.2 Gender of the respondents.....	15
Figure 4.3 Education level of the respondents.....	15
Figure 4.4 Distance from PHC facility to home.....	15
Figure 4.5 Utilization of Primary health Care services.....	18
Figure 4.6 Satisfaction of patients with Primary Health Care services.....	19
Figure 4.7 Barrier scores towards utilization of primary health care services.....	19

List of Abbreviations

BHUs: Basic Health Units

ED: Emergency Departments

MoNHSR&A: Ministry of National Health Services Regulation and Coordination

OPD: Out Patient Department

PHC: Primary Healthcare Center

RHC: Rural Health Center

SDGs: Sustainable Developmental Goals

THQ: Tehsil Headquarter

UHC: Universal Health Coverage

WHO: World Health Organization

CHAPTER 1: INTRODUCTION

Primary healthcare is essential in all the modern healthcare systems. PHC addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental and social health and wellbeing (AlOmar et al., 2021). It provides basic health care to a diverse population in rural and urban areas. PHC is the first point of contact between the healthcare provider and patient. It should be efficient and effective health care to meet the priority for preventive and promotive functions and by encouraging people to stay healthy, prevent illness, to assist with the early detection of a health condition, curative action and rehabilitation (Syah et al., 2017).

Government of Pakistan had hoped to cover 184 million people or 83.6% of the national population through primary healthcare centers, whereas in reality people who access BHUs and RHCs are less than 5% of total population (Jafree et al., 2021). A number of reasons for this low prevalence of access to BHUs and RHCs have been identified. It includes poor quality of primary healthcare services (Majrooh et al., 2014), geographical inaccessibility for women living in remote areas (Zaidi et al., 2015) and preference for alternatives such as home remedies, private centers, quack services, religious and faith healers, homeopathy and herbal solutions (Callen et al., 2013). In Pakistan, almost 50% of the population lacks access to primary healthcare, and about 42% of people do not have health insurance. (*Access to Primary Health Care in Pakistan*, n.d.).

The 2030 Agenda for Sustainable Development has mainly focused on Universal Health Coverage (UHC) as the main target to achieve health specific and health related Sustainable Development Goals (SDGs) and targets. It also focuses on directing the changes to health systems needed to implement health reforms and the Sustainable Development Goals. (Ministry of National Health Services Regulation and Coordination, 2019)

Health care services are only effective when the community utilizes them. Utilization of primary healthcare services mainly depends on the level of knowledge and information, financial status and social norms and beliefs of a community. Other factors include social and demographic aspects, gender issues and awareness regarding the use of healthcare

services, governmental situation, and the healthcare organization. Utilization of the healthcare services and its effects on population are directly related to the health seeking behavior of the community (Hussain et al., 2019a). A healthcare organization is also a contributing factor for health care seeking behavior in the community. Availability and accessibility of primary health care facility including all the basic primary health care is important for timely utilization of primary health care services.

Primary health service providers (doctors, nurses and lady health workers) have identified that there are three major reasons why women are not seeking Primary health care. First is that majority of women did not consider it necessary, other two reasons are the non-availability of transport, and financial constraint. According to the opinion of service providers, as much as 90 % of women are not interested in PHC due to lack of awareness about its importance (Sultana & Shaikh, 2015). Patterns for taking timely decisions in seeking primary healthcare also influence the utilization of primary healthcare services. A study identified that spouses and mother in laws particularly influenced the decision to utilize primary health care facilities. (Riaz et al., 2015).

A lack of understanding of utilization patterns hinders improvements in PHC service delivery and it also significantly affects the health outcomes of a community (Panzai et al., 2020). It has been reported that Pakistan's PHC system is facing the problem of low utilization of PHC services at basic level public health care facilities (Panzai et al., 2017). Although Basic Health Units (BHUs) are available for the rural population of around 20,000-25000 people and yet the utilization of primary health care services are not consistent with the primary healthcare infrastructure.

Barriers towards access to primary health care services have been identified in a study. Women in rural areas are facing more access barriers as compared to male members of the community. These barriers include limited autonomy in household financial decision-making, disapproval of unassisted travel, long travel time, lack of prioritization of spending on women's health and inadequate presence of female health providers at health care centers (Habib et al., 2021).

Patient satisfaction is considered as an indicator for health care quality and is an established component commonly used in measuring healthcare services worldwide. A satisfied

patient is likely to develop a good relationship with the healthcare system, thereby enhancing patient compliance, continuity of care and eventually a better overall health outcome. Hence, a low satisfaction of Primary Healthcare Centers (PHCs) is problematic in its own, but it could also lead patients with non-urgent and primary conditions to seek medical assistance from Emergency Departments (EDs) rather than PHCs (Khattab et al., 2019). A study identified the dimensions, which could enhance the patient's satisfaction with primary health care services. These dimension included core services, customization, professional credibility, competence, communications, admissions, discharge, nursing care, food, housekeeping and technical services. Successful management of dimensions or features of a healthcare service quality is crucial in improving patient's satisfaction and perceptions (Javed & Ilyas, 2018).

In health care system of low-income countries like Pakistan, lack of education, scarcity of resources, finance and funding in the health sector has an immense effect on health indicators (Hussain et al., 2019b). Other factors include, direct and indirect cost of facilities, lack of awareness on sickness and health, and social and cultural beliefs are obstacles to the delivery of healthcare. These challenges, which are prominent in Pakistan health care organization, influence negatively the health seeking behavior of people. Uptake of private healthcare facilities, self-medication, involvement of traditional healers in the healthcare system, women's autonomy and superstitions are associated with utilization of primary healthcare seeking behavior (Anwar et al., 2012).

The health care sector is one of the most important sectors in a country as it influences other areas and has medical, social, political, moral, business, and financial implications and outcomes. Developed countries are not only continuously developing their health care sector but also generating revenues for their national economy by promoting health tourism. . The leaders and decision-makers of developing nations like Pakistan, however, frequently use the services of developed nations, often at the expense of taxes that are being paid by their own country mates, rather than improving the health care system in their own country. The consequences of not developing an efficient health sector are so detrimental for the health of community.

It is understandable that out-of-pocket health care costs are 66.5% in Pakistan, a developing nation where primary healthcare issues receive more focus from scholars than legislative attention. The global average for out of the pocket expenditure is 18.147%. (*Out-of-Pocket Expenditure (% of Current Health Expenditure) - Pakistan | Data*, n.d.). The public sector health care system of the nation is producing a higher number of dissatisfied patients as a result of the lack of health care policy making, health care policy implementation, monitoring, and evaluation, and the majority of Pakistani citizens believe that the country's health care sector is corrupt (Shabbir et al., 2016). Taking facts and figures into consideration, it is more crucial than ever to research and assess how poorly performing health systems in developing nations are as compared to those in developed nations, as it is a matter of life and death for the people of these countries (Javed et al., 2019).

A number of steps are being taken by the Ministry of NHR&C to improve the health of all Pakistanis, particularly women and children. Ministry of NHR&C aims to provide that everyone has access to affordable and basic healthcare services that are delivered by a system that is responsive and effective, which is also capable of achieving Sustainable Development Goals and fulfilling its other global responsibilities (Ministry of National Health Services Regulation and Coordination, 2019)

For universal health coverage (UHC) to be truly universal, a shift is needed from health systems designed around diseases and institutions towards health systems designed for people, with people. PHC requires governments at all levels to underscore the importance of action beyond the health sector in order to pursue a whole-of government approach to health, including health-in-all-policies, a strong focus on equity and interventions that encompass the entire life-course. (*Primary Health Care*, n.d.)

This means that countries need to determine priorities, assess gaps, establish baselines and targets, and track progress and performance across the operational framework levels to strengthen the three PHC components – integrated health services with an emphasis on primary care and public health functions; multisector policy and action; and empowered people and communities (WHO, 2022)

Rationale of the study:

This study highlights the importance of ensuring effective and accessible healthcare services for the population. The proposed study aims to address critical gaps in understanding how barriers towards primary healthcare services affect patient satisfaction, ultimately informing healthcare policy and improving healthcare delivery. The study's conclusion can contribute to improved public health outcomes by encouraging more individuals to seek and utilize primary healthcare services. This can lead to better disease management, healthier communities, and reduced healthcare costs in the long term.

Findings from this study can provide evidence-based insights to inform the development of targeted interventions aimed at reducing barriers to primary healthcare utilization. Policymakers can implement strategies to address identified barriers, such as improving transportation options, enhancing communication methods, or expanding clinic hours.

While numerous studies have explored patient satisfaction and barriers to healthcare access, focusing specifically on the association between barriers to primary healthcare utilization and patient satisfaction within the context of a THQ hospital is relatively unexplored. This study can help fill this research gap and provide context-specific insights.

Objectives:

1. To assess the utilization and satisfaction with primary health care services among patients visiting THQ hospital Kallar Syedan.
2. To identify the barriers towards utilizing primary health care services.
3. To determine association of barriers towards utilizing primary healthcare services with satisfaction of patients visiting primary health care center.

CHAPTER 2: LITERATURE REVIEW

Primary health care is the main vehicle for achieving Universal Health Coverage (UHC) and the Standard Development Goals (SDGs). Providing necessary and easily accessible health services to people and communities is the main goal of primary health care (PHC). It attempts to meet a variety of health issues, improve wellbeing, and avoid sickness and acts as the initial point of contact for people seeking medical assistance. PHC is considered as the foundation of an effective healthcare system and is essential to obtaining universal health coverage and enhancing health of population.

2.1 Global Studies:

A study was conducted in Nigeria on barriers to utilization of PHC services, it reported that respondents who did not utilize PHC services was due to poor quality of health services, unavailability of medical doctors, long patient waiting time and unavailability of drugs. Factors which contributed to better primary health care utilization were; affordability of health services, shorter hospital waiting time and satisfaction with PHC services during previous visit (Nwokoro et al., 2022).

Another study conducted in an African region, Mali identified barriers to PHC utilization in children under 5 years. The study concluded that the distance to primary health facility, household wealth and maternal education were consistently associated with better utilization outcomes (Treleaven et al., 2021)

Factors, which negatively influence the utilization of PHC, were reported in an Armenian study. These factors included adolescent's poor health, literacy and awareness of health services, lack of primary health care provider's professional competencies, and breaches of confidentiality. Study also reported the barriers such as lack of privacy and long waiting times also contributed to insufficient service utilization by adolescents in Armenia (Hayrumyan et al., 2020)

Similar results were reported by a study conducted in Saudi Arabia. According to the study, long waiting hours was a leading barrier, respondents had to wait for a long time before seeing the primary healthcare physician. Some of the participants in the study faced barriers towards receiving laboratory results due to long waiting hours. Difficulty to buy

medications from outside the pharmacies due to their unavailability in PHCs was the most frequent socioeconomic barrier, reported by the participants (AlOmar et al., 2021)

Another study was conducted in Saudi Arabia, which highlighted the levels of satisfaction among patients visiting Primary Healthcare Centers. The study identified differences between urban and rural respondents, the findings indicated that there were significant variations in relation to: education level, monthly income, medical investigations, distance, cleanliness and health prevention. Patients in rural areas were facing barriers related to the distance to reach PHCS, cleanliness of the PHCS, receiving health prevention and promotion services, which should serve to improve health outcomes (Alfaqeeh et al., 2017).

Availability of primary health care services is vital for utilization of primary health care services. A study performed in Iraq concluded that most of the people who participated in the study stated that they did not use and visit Primary Health Care Centers due to inadequate Primary Health Care services (Mahmood & Saleh, 2023a). Primary health care aims at providing and ensuring equitable access to care, enhance efficiency within healthcare systems and improve health service quality. Limited availability and affordability of the medications was reported as challenges to better utilizing PHCs study in Iraq (Al Janabi, 2023).

Community participation is one of the basic and essential principles of primary health care (PHC). A qualitative study was conducted in Iran, which highlighted the most important barriers to community participation in utilizing primary health care. The study identified that community participation is related to community trust, the organizational structure and the health profession's perception regarding the participatory programs. (Gholipour et al., 2023).

Chanda et al, conducted qualitative research in Bangladesh. Themes were developed using Framework Analysis. Five themes summarised the key barriers as, a limited knowledge and awareness in healthcare services, intrapersonal barriers such as fear, sociocultural barriers such as lack of family support, organisational barriers including inadequate medicine and environmental constraints including natural disasters. (Chanda, 2022).

2.2 Studies in Pakistan;

The utilization of PHC services among men was associated with age; education; income; distance; availability of doctor; availability of medicine; continuity of care; satisfaction; and chronic illness. For women, utilization was related with age; marital status; income; usual source of care; availability of doctor; continuity of care; satisfaction; chronic illness; and health status (Panzai et al., 2020).

Primary health care facilities are under-utilized due to inconsistency in the availability of medicines, poor quality of inputs and services and staff absenteeism (Panzai et al., 2020). Some other research studies have also reported low utilization of primary health care due to the shortage of staff, distance from health care facility, social status, cultural barriers, lack of transportation and level of education (Sultana & Shaikh, 2015).

Inequity in access to primary healthcare is mainly present (Hamid et al. 2015). Therefore, to achieve better health of individuals and the population, equity in access to PHC is essential. Some research studies have investigated the influence of factors related to accessibility, availability, affordability, acceptability, and accommodation on access to PHC services in Pakistan. In the case of accessibility, access to PHC services is affected by the inconvenient location of health care facilities, long distances between health care facilities and patient's homes and the lack or inadequate availability of transportation (Malik & Ashraf, 2016) (Arambepola et al., 2016).

In terms of availability, access to PHC services is influenced by the insufficient supply of medicines to PHC facilities, availability of female doctors, lack of human resources at health facilities, staff absenteeism and the poor infrastructure of the primary health care facilities (Panzai et al., 2017). Likewise, the affordability of primary health care has a strong influence on access to Primary Health Care services. Research studies have associated occupation of people, husband's employment and household income of women and non-affordability of drugs with accessing health care services. Some studies have also reported that people with low incomes have high utilisation of PHC services at basic health units (BHUs) (Malik & Ashraf, 2016).

Sociodemographic characteristics of the population are considered significant predictors of acceptability and utilization of Primary Health Care services. Various studies have shown that the socio-economic status of women, permission of the husband and mother-in-law and lack of health care knowledge are related to utilization of primary health care services (Arambepola et al., 2016). The unavailability of female staff also plays a significant role in under-utilisation of health facilities by women, because women in rural settings refrain from consulting male doctors. In the case of accommodation of care, various studies have reported that inconvenient facility working hours, the poor attitude and discriminatory behaviour of health facility staff (Ansari et al., 2015) and poor quality of care (Qureshi et al. 2016) each have a strong influence on access to primary care at public facilities (Panzai et al., 2017).

A study was conducted in tertiary hospital in Rawalpindi for identifying barriers of utilization of health services, the study concluded that inadequate utilization of health facilities at primary and secondary level results in overburdening of the tertiary health care facilities (Khan et al., 2022).

According to Javed et al. not many scientific studies have been done on the despondent situation of healthcare in Pakistan, where quality initiatives are relatively more visible in the manufacturing, education, and agricultural sectors than in the healthcare sector. By measuring patient satisfaction in both the public and private health care sectors of Pakistan, the perceived performance of Pakistan's public and private health care systems can be assessed. A study revealed that the patient satisfaction is most strongly related to empathy in public sector and to responsiveness in private sector (Javed & Ilyas, 2018).

The findings of another study revealed that geographical isolation, structural inequalities, poverty, and illiteracy restricts access of rural mothers to medical treatment and rehabilitative services (Ahmed et al., 2023).

A study identified five domains for patient satisfaction in primary health care. The first domain emphasises the importance of good 'communication' between the patient and medical staff, highlighting the influence of the physician's listening skills and comprehensibility. The second domain values 'relational conduct' via the interpersonal skills of the medical staff and how they address the patient in a respectful and courteous

manner. The third domain reflects the ‘technical skills’ of the clinic staff, and the available equipment in the healthcare institution. The professional level, knowledge and expertise of physicians play an important role in establishing patient trust and compliance with treatment. The fourth domain considers the ‘personal qualities’ and human nature of the hospital staff, emphasising their compassion and caring towards the patient. Finally, the fifth domain underlines the ‘availability/accessibility’ attributes of healthcare institutions by analysing the ease of obtaining appointments, waiting times and the availability of preferred doctors for accommodating patient wishes (Senitan et al., 2018).

2.3 Operational definitions:

- **Primary Health Care Services:**
Primary health care services include treatment from physician, availability of medicines and laboratory tests at PHC facility.
- **Utilization of PHC Services:**
Uptake of Primary health care services from a PHC in the last 6 months. Number of visits to the THQ hospital in last 6 months was referred as utilization of PHC services.
- **Barriers towards PHC services utilization:**
Factors which prevent people from taking PHC services when required. These factors include sociodemographic barriers, access to PHC barriers, patient-doctor relationship barrier and organizational barriers.
- **Patients Satisfaction:**
Satisfaction of patients with the services provided at the THQ hospital and with their visit to THQ hospital.

CHAPTER: 3 Material and Methods:

3.1 STUDY DESIGN:

Study design of this research was quantitative Cross-sectional study.

3.2 SETTING:

Primary health care facilities include BHU, RHC and THQ. Study was conducted in Tehsil Headquarter (THQ) hospital in Tehsil Kallar Syedan. There was limited availability of medical resources included services in BHU and RHC, so THQ was preferred for data collection to get maximum participants who were utilizing PHC services to get better results.

3.3 DURATION OF STUDY:

The duration of this study was 6 months starting from March 2023 to August 2023.

3.4 SAMPLE SIZE:

Sample size was calculated with the help of an online software OpenEpi. Prevalence for utilization of primary health care was 33.8% (Panzai et al., 2020). Confidence interval is taken as 95% and margin of error is 5%. By putting these values of prevalence, confidence interval and margin of error in OpenEpi, we calculated sample size to be **344**.

3.5 SAMPLING TECHNIQUE:

Sampling technique used in the study was systematic sampling. Study population was identified by obtaining sampling frame from THQ hospital. By applying the formula for systematic sampling technique, nth number was calculated and every nth patient was included in the study who was visiting the OPD of THQ hospital Kallar Syedan till the required sample size was achieved.

$$\begin{aligned}\text{Sampling Interval} &= N/n \\ &= 1500/344 \\ &= 4.2\end{aligned}$$

3.6 SAMPLE SELECTION:

3.6.1 Inclusion criteria:

- 1) Participants who were 18 years old and above.
- 2) Both male and female participants were included in the study.
- 3) Individuals who visited hospital during OPD timings.

4) Individuals who were willing to participate were included in the study.

3.6.2 Exclusion criteria:

- 1) Individuals with trauma and urgent care were excluded.
- 2) Post operated patients were also excluded from the study.

3.7 DATA COLLECTION PROCEDURE:

Data was collected through a validated structured questionnaire (AlOmar et al., 2021) with both open ended and closed ended questions. Some changes were made in the questionnaire according to our research setting by adding few questions to the demographic variables section. Two questions were eliminated from socioeconomic barriers in the section 2. Those questions were not applicable in the included primary healthcare facility. Questions were also translated into Urdu, and these questions were counter checked by subject specialist. The validity of questionnaire was checked before starting data collection by performing a pilot study. Pilot study was done on 10% of the sample size of study. Cronbach's alpha value for validity of questionnaire was 0.8. Barriers to primary healthcare service utilization was checked by questions with responses using Likert scale. Barriers were categorized into four types, i.e. socioeconomic barriers, access barriers, patient-doctor relationship and organizational barriers. Utilization of primary health care services was assessed by asking respondents about the number of visits to primary health care in the last 6 months. Satisfaction of patients with primary health care visit was assessed with the help of 10-point scale for satisfaction question. Questionnaire included following sections:

Section 1: demographic variables;

- Including age, gender, marital status, education, employment status, monthly income, number of family members, presence of disability, presence of primary health care center in neighborhood, number of hospital visits, overall evaluation of health and general satisfaction with primary healthcare visit.

Section 2: barriers in utilizing primary health care services (outcome variable)

1. Socioeconomic Barriers
2. Access Barriers
3. Patient-Doctor relationship
4. Organizational Barriers

3.8 DATA ANALYSIS PROCEDURE:

Data was analyzed by using statistical software SPSS Version-26. Continuous variables were transformed into categorical variables. Categorical data was presented in the form of percentages and frequencies. Responses of questions of outcome variable were recorded as 'Yes', 'No', and 'I don't know'. During data analysis, the reverse coding was performed on negatively framed questions. Utilization to primary healthcare was assessed by identifying the number of hospital visits in the last six months (Panzai et al., 2020). Mean of number of visits was taken as cutoff for utilization of health care services. Values that were less than mean value were categorized as low utilization of primary healthcare services and values that were equal to or more than mean value were categorized as high utilization of primary health care services.

Barriers to primary health care services were categorized into sociodemographic barriers, access barriers, patient-doctor relationship and organizational barriers and their association with demographic variables was assessed. All the four categories of barriers were also computed into one variable i.e. overall barrier, and association of overall barrier with utilization of primary health care services and satisfaction with visit to primary health care facility was assessed. Chi-square test was used for qualitative data to find association between outcome variables and independent variables.

3.9 Ethical consideration:

- 1) Study was conducted after getting an IRB approval.
- 2) Informed consent was obtained from participants.
- 3) Confidentiality of the participants was ensured.
- 4) Participants were informed of the risk benefit ratio.

CHAPTER 4: Results

4.1 Descriptive Analysis:

The descriptive analysis of study variables show the results in the form of frequency and percentages for all the categorical variables.

4.2 Sociodemographic characteristics:

This study was completed on 344 respondents, of which 50.6% were males. Age of the participants was categorized into three groups, first group included participants with age less than 30 years, age range for second group was 30-50 years and third group included participants who were above 50 years of age. The majority of the participants (58.4%) belonged to the age group ranging from 30-50 years.

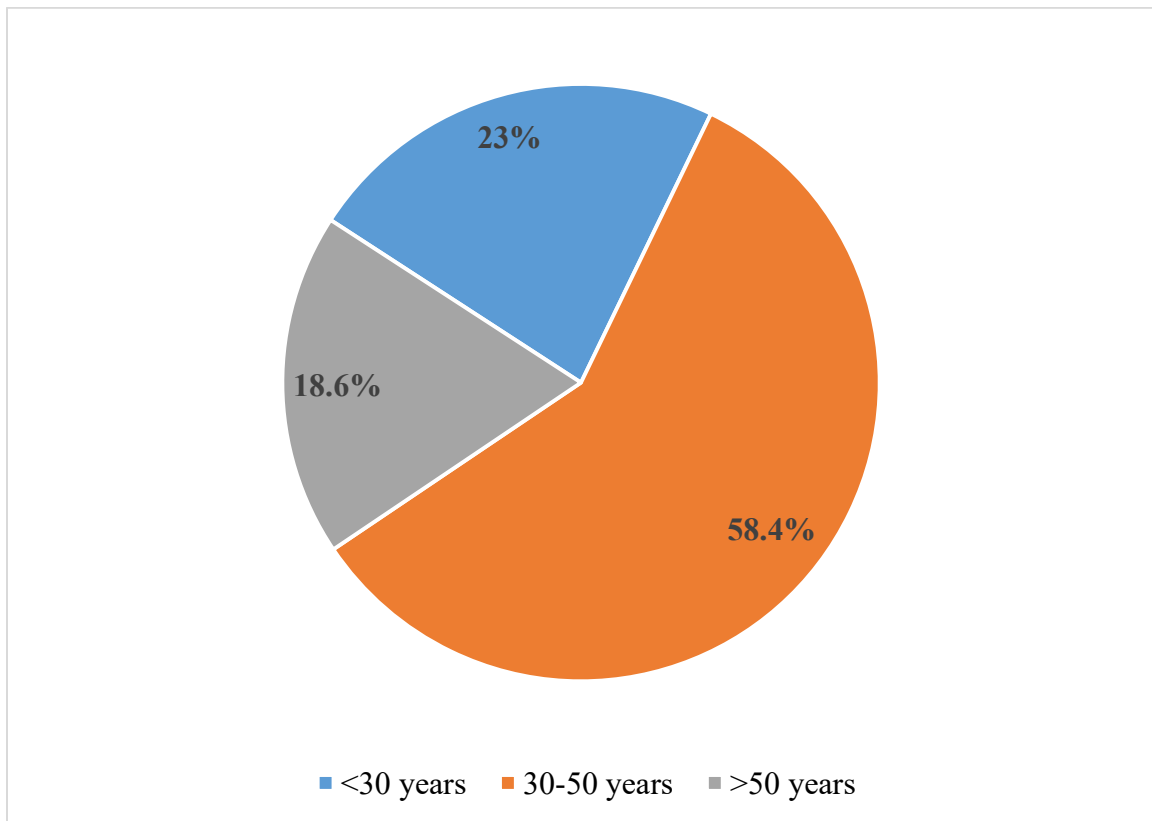


Fig: 4.1 Age of the respondents

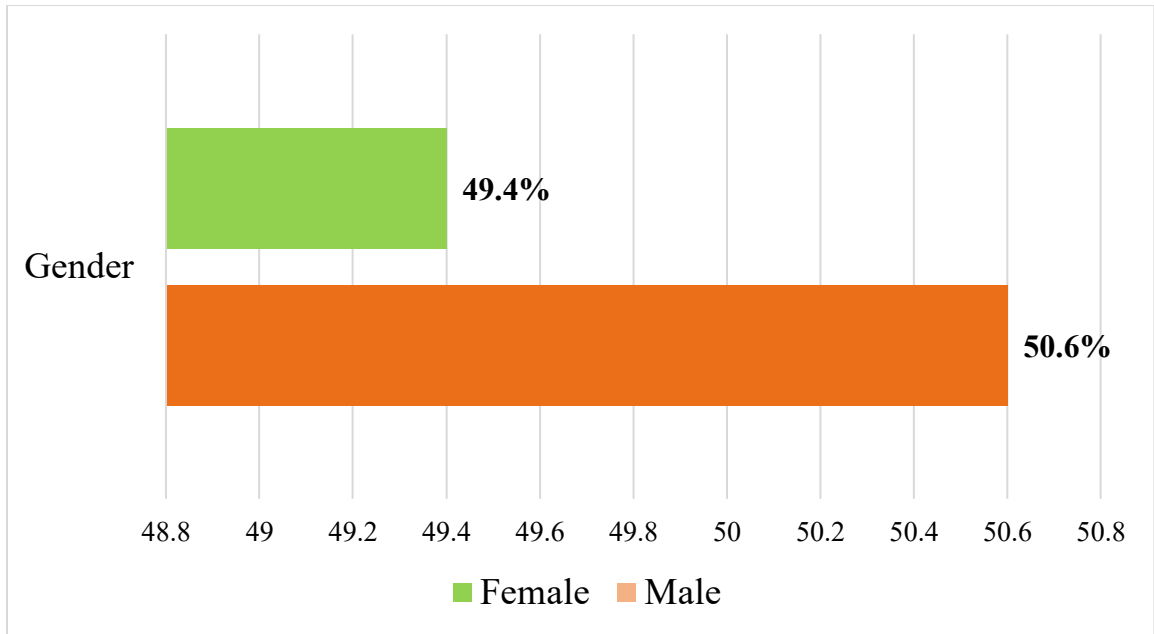


Fig: 4.2 Gender of the respondents

The data regarding education of participants shows that 18.6% of respondents were illiterate, 38.1% had attended high school and only 7% had higher education (education level of more than 10 years). The majority of the participants (74.4%) were married in this study.

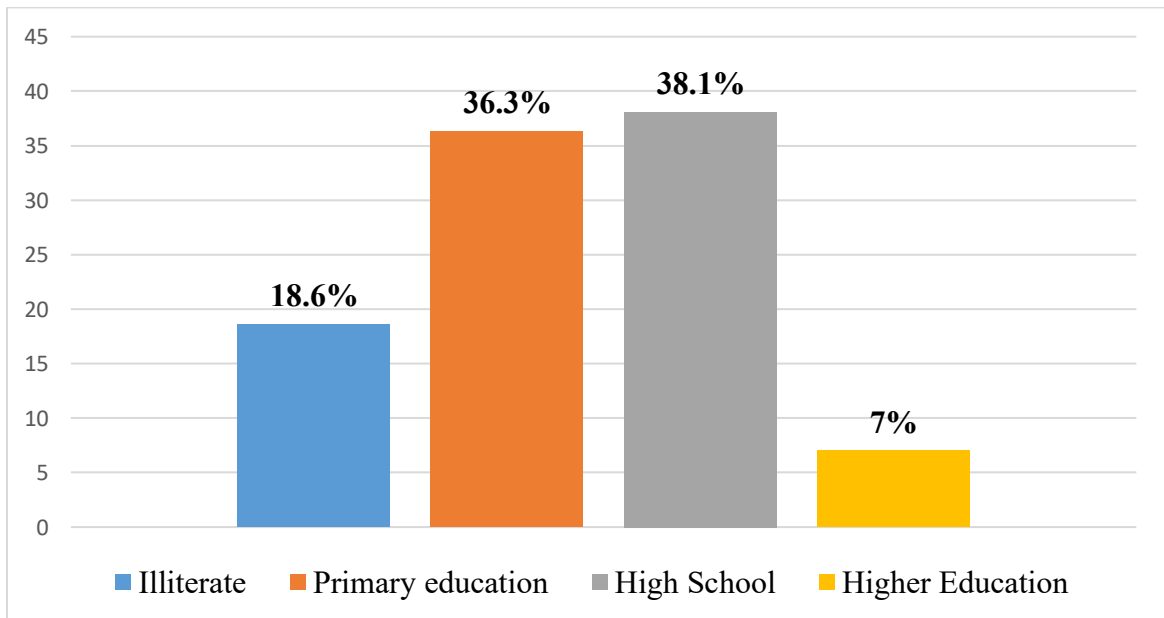


Fig 4.3 Education level

Primary Healthcare facility was available near to the residence for majority of the respondents (61.6%). Distance to the nearest Primary healthcare facility was less than 5km for 17.2%. Around 32% of respondents had to travel 5-10km of distance to reach nearest primary health care facility and for 14.2% of respondents, the travelling distance from home to the nearest primary health care facility was more than 10km.

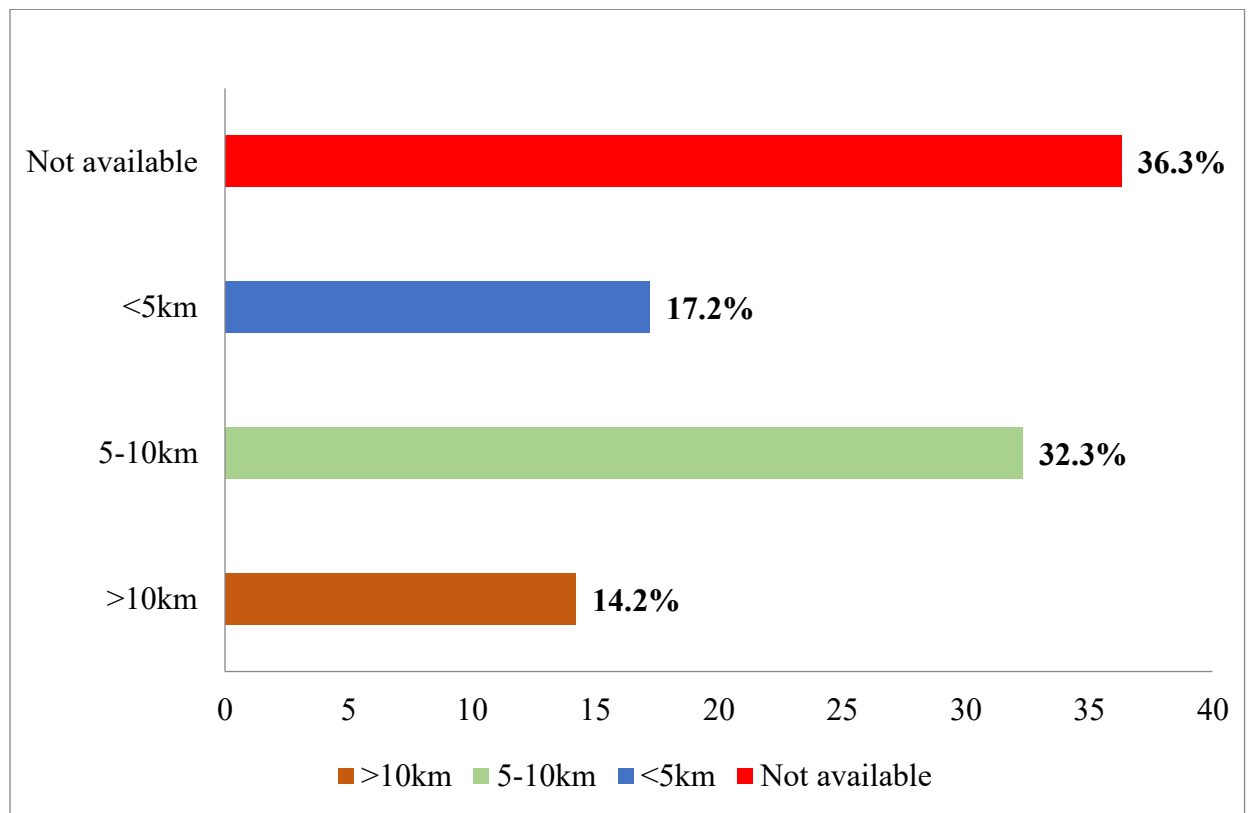


Fig 4.4 Distance from home to the nearest PHC facility

Majority of the participants (52.9%) had family members ranging from 4-7 members. Almost half of the respondents (48%) reported their health to be very good while 17.2% stated that their health is bad.

Table 4.1: Sociodemographic characteristics of respondents

Demographics	Frequency (n)	Percentage (%)
Marital status		
Unmarried	88	25.5
Married	256	74.4
Employment status		
Employed	131	38.1
Unemployed	213	61.9
Monthly income		
<20	121	35.2
20k-50k	119	34.6
51k-100k	103	29.9
>100k	1	0.3
Disability		
Yes	8	2.3
No	336	97.7
PHC facility in neighborhood:		
Yes	212	61.6
No	132	38.4
Evaluation of general health:		
Bad	59	17.2
Good	115	33.4
Very good	167	48.5
Excellent	3	0.9
Number of family members:		
<4	107	31.1
4-7	182	52.9
>7	55	16

Number hospital visits in last 6 months:		
0-2	247	71.8
>2	97	28.2

4.3 Utilization of Primary Healthcare Facility:

Utilization of primary health care services in our study was 28.2%. Primary health care services utilization was calculated by assessing the number of visits the respondents had in last 6 month to the nearest primary health care facility (Panzai et al., 2020). Number of visits to primary health care facility was categorized into low utilization and high utilization by taking median as cutoff.

Low utilization of primary health care services was categorized as respondents having 0-2 visits to nearest primary health care facility in the last 6 months. Participants who had visited primary health care facility more than 2 times in the last 6 months were categorized as having high utilization of primary health care services.

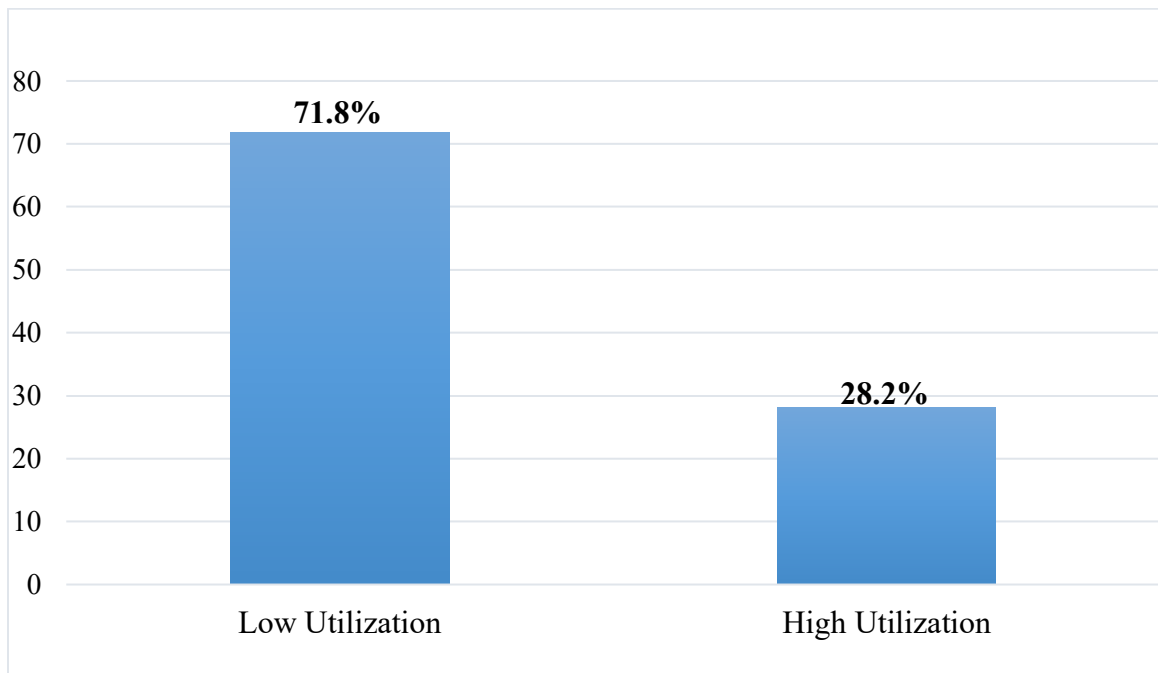


Fig 4.5: Utilization of Primary health care services

4.4 Satisfaction with Primary Healthcare visit:

Satisfaction level of all the participants who were visiting Primary health care facility (THQ hospital) was assessed by using a 10-point scale. The level of satisfaction of patients visiting the primary health care facility was categorized into low satisfaction and high satisfaction by taking median as cutoff. Respondents having scores less than median were categorized as having low satisfaction and it was 25% (n=86). The participants who had scores equal to and more than median were categorized into having high satisfaction level with primary health care services provided at primary health care facilities. Among all the respondents 75% (n=258) were highly satisfied with their visit to primary health care facility.

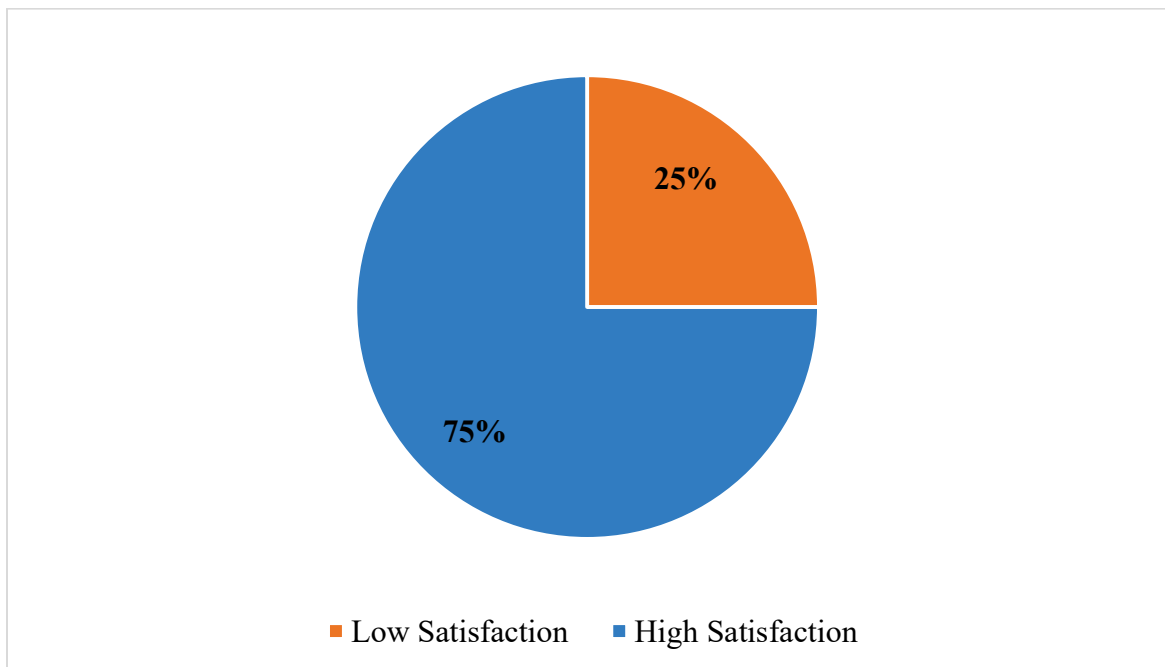


Fig 4.6: Satisfaction of patients with primary health care services

4.5 Barriers to primary healthcare services utilization:

Barriers to primary health care services utilization was categorized into four types, i.e. socioeconomic barriers, access barriers, patient-doctor relationship and organizational barriers. Socioeconomic barriers were faced by 27% of the respondents. Among access barriers, majority of the respondents (46.5) stated that primary health care facility was far from their home.

Patient-doctor relationship barriers showed significant results for physician being not able to give adequate time to the respondents (30.8%). Among all the respondents, 20% of the participants stated that the physician was not addressing their concerns and not explaining the management plan thoroughly.

Regarding the organizational barriers, more than half of the respondents (53.8%) were facing long waiting hours at primary health care facility to get treatment from the primary health care physician. Difficulty was faced by 36.2% of the respondents in taking the prescribed medicines from primary health care facility. Similarly, 27.3% of the respondents reported having the issue with time for taking and laboratory tests and its reports.

Table 4.2: Barriers to the utilization of Primary Health care services

Barriers	Yes n(%)	No n(%)
Socioeconomic Barriers		
You find it difficult to buy medicine that is not available at PHC	93(27)	251(73)
Access Barriers		
The PHC is far from home	160(46.5)	184(53.5)
I find it difficult to transport to the PHC	133(38.7)	211(61.3)
I am not aware of the nearest PHC	19(5.5)	325(94.5)
Patient-Doctor relationship Barriers		
My primary care physician is an active listener	298(86.6)	46(13.4)
My primary care physician is confident and trustworthy	312(90.7)	32(9.3)
My primary care physician gives me adequate time	238(69.2)	106(30.8)

My primary care physician addresses my concerns	273(79.4)	71(20.6)
My primary care physician explains the management plan thoroughly	275(79.7)	69(20.1)
My primary care physician is respectful and dignified	332(96.5)	12(3.5)
My primary care physician can convince me of the medical advice	298(86.6)	46(13.4)
Organizational Barriers		
I find it difficult to book an appointment at the PHC	32(9.3)	312(90.7)
I experience long waiting hours at the PHC	185(53.8)	159(46.2)
I find it difficult in taking the prescribed medications	126(36.6)	218(63.4)
I find it difficult to do lab tests at the PHC	94(27.3)	250(72.7)
Primary care physicians are reluctant to give me a referral	9(2.6)	335(97.4)
The PHC is not clean	1(0.3)	343(99.7)
The PHC does not offer preventive services	9(2.6)	335(97.4)
The PHC does not have some services	29(8.4)	315(91.6)

The overall barrier score was 36.9%. Majority of the respondents (40.4%) were facing organizational barriers. Socioeconomic barriers were faced by 27% of the respondents.

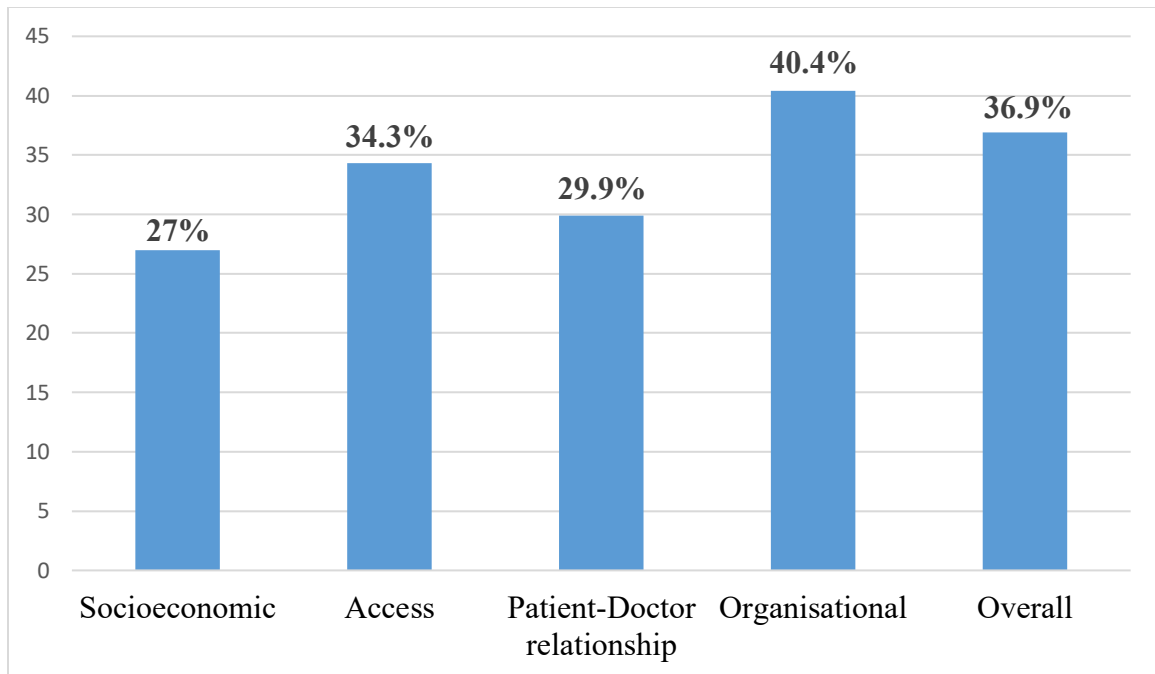


Fig 4.7: Barrier Scores towards utilization of PHC services

4.6 Inferential Analysis:

4.7 Association of Utilization of Primary Healthcare with Demographic variables:

Utilization of primary health care services was significantly associated with age. Respondents who belonged to age group 30-50 years were having high utilization of primary health care services.

Education level was significantly associated with utilization of primary health care services. Majority of the respondents (49.5%) who attended high school had higher utilization of primary health care services. Employment status was not significantly associated with utilization of primary health care services.

Monthly income showed significant association with utilization of primary health care services. Respondents who were having the monthly income of more than 50k were utilizing primary health care services more than the respondents who had monthly income of less than 50k.

There was high utilization of primary health care services by respondents who had primary healthcare center in their neighborhood. The overall association between utilization and primary healthcare center in neighborhood was found to be statistically significant.

Health status of the respondents was significantly associated with utilization of primary health care services. Majority of the respondents who utilized primary health care were having very good health.

Table 4.3: Association of Utilization of Primary Healthcare with Demographic variables

Sociodemographic Characteristics		Utilization of Primary healthcare		Chi-Square(df)	p-value
		Low n(%)	High n(%)		
Age (years)	< 30	67 (27.1)	12 (12.4)	17.8 (2)	0.000
	30-50	127 (51.4)	74 (76.3)		
	>50	53(21.5)	11(11.3)		
Gender	Male	126(51)	48 (49.5)	0.065 (1)	0.799
	Female	121 (49)	49(50.5)		
Marital status	Unmarried	82(33.2)	6(6.2)	26.69 (1)	0.000
	Married	165(66.8)	91(93.8)		
Education	Illiterate	47(19)	17(17.2)	10.46 (3)	0.015
	Primary	95(38.5)	30(30.9)		
	High school	83(33.6)	48(49.5)		

	Higher education	22(8.9)	2(2.1)		
Employment	Employed	91(36.8)	40(41.2)	0.571 (1)	0.450
	Unemployed	156(63.2)	57(58.8)		
Monthly income	<20k	99 (40)	22(22.7)	16.69 (2)	0.001
	20k-50k	87(35.2)	32(33)		
	>50k	61(24.7)	42(43.3)		
No. of family members	<4	83(33.6)	24(24.7)	6.85(2)	0.033
	4-7	132(53.4)	50(51.5)		
	>7	32(13)	23(23.7)		
PHC in neighbourhood	Yes	143(57.9)	69(71.1)	5.16 (1)	0.023
	No	104(42.1)	28(28.9)		
Distance from home to PHC	Not available	100(40.5)	25(25.8)	17.93(3)	0.000
	<5km	49(19.8)	10(10.3)		
	5km-10km	65(26.3)	46(47.4)		
	>10km	33(13.4)	16(16.5)		
Overall health	Bad	47(19)	12(12.4)	26.131 ^a (3)	0.000
	Good	98(39.7)	17(17.5)		
	Very good	99(40.1)	68(70.1)		
	Excellent	3(1.2)	0(0)		

4.8 Association of Satisfaction with Primary Healthcare visit with Demographic variables

Satisfaction of patients with primary health care services was associated with demographic variables of the study. It was found from the results of statistical analysis that age of the respondents, gender, marital status, education level and number of family members had no statistical significance with the satisfaction level of patients who were visiting primary health care facilities.

The association of employment status and monthly income were statistically significant with the satisfaction level of patients visiting primary health care facilities. Respondents who were unemployed and having monthly income of less than 20k were having high satisfaction with primary health care visit.

Health status of the respondents had statistically significant association with satisfaction of patients visiting primary health care facility. Individuals with very good health status were satisfied with their visit to primary health care facility.

Table 4.4: Association of Satisfaction with Primary Healthcare visit with Demographic variables

Sociodemographic Characteristics		Low satisfaction N(%)	High satisfaction N(%)	Chi-Square(df)	p-value
Age (years)	< 30	23(29.1)	56(70.9)	2.500 (2)	0.287
	30-50	44(21.9)	157(78.1)		
	>50	19(29.7)	45(70.3)		
Gender	Male	45(25.9)	129(74.1)	0.140(1)	0.709
	Female	41(24.1)	129(75.9)		

Marital status	Unmarried	23(26.1)	65(73.9)	0.081 (1)	0.775
	Married	63(24.6)	193(75.4)		
Education	Illiterate	16(25)	48(75)	1.614 (3)	0.656
	Primary	35(28)	90(72)		
	High school	31(23.7)	100(76.3)		
	Higher education	4(16.7)	20(83.3)		
Employment	Employed	25(19.1)	106(80.9)	3.949(1)	0.047
	Unemployed	61(28.6)	152(71.4)		
Monthly income	<20k	38(31.4)	83(68.6)	8.130 (2)	0.043
	20k-50k	32(26.9)	87(73.1)		
	>50k	16(15.5)	87(84.5)		
No. of family members	<4	29(27.1)	78(72.9)	3.242 (2)	0.198
	4-7	39(21.4)	143(78.6)		
	>7	18(32.7)	37(67.3)		
PHC in neighbourhood	Yes	55(25.9)	157(74.1)	0.262 (1)	0.609
	No	31(23.5)	101(76.5)		
Distance from home to PHC	Not available	30(24)	95(76)	2.017 (3)	0.569
	<5km	19(32.2)	40(67.8)		
	5km-10km	26(23.4)	85(76.6)		
	>10km	11(22.4)	38(77.6)		

Overall health	Bad	25(42.4)	34(57.6)	15.035 ^a (3)	0.002
	Good	31(27)	84(73)		
	Very good	29(17.4)	138(82.6)		
	Excellent	1(33.3)	2(66.7)		

4.9 Association of overall Barrier towards Primary Healthcare services utilization with Demographic variables

Barriers towards utilization of primary health care services was associated with demographic variables of the study. It was found from the results of statistical analysis that age of the respondents, gender, marital status, education level and number of family members had no statistical significance with the barriers towards utilization of primary health care services.

The association of employment status and monthly income were statistically significant with the barriers towards utilization of primary health care services. Respondents who were unemployed and having monthly income of less than 20k were facing more barriers towards utilization of primary health care services.

The availability of Primary health care facility in the neighborhood was significantly associated with barriers towards utilization of primary health care services. Distance of primary health care facility from home showed statistically significant results with the barriers towards utilization of primary health care services.

Respondents who were having good health were facing more barriers towards utilization of primary health care services than the respondents who had bad, very good and excellent health status. There was statistically significant relationship between health status of participant with the barriers towards utilization of primary health care services.

Table 4.5: Association of high overall Barrier towards Primary Healthcare services utilization with Demographic variables

Sociodemographic Characteristics		Low Overall barrier n(%)	High Overall barrier n(%)	Chi-Square(df)	p-value
Age (years)	< 30	49(62)	30(38)	0.635 (2)	0.728
	30-50	130(64.7)	71(35.3)		
	>50	38(59.4)	26(40.6)		
Gender	Male	114(65.5)	60 (34.5)	0.897 (1)	0.344
	Female	103(60.6)	67(39.4)		
Marital status	Unmarried	55(62.5)	33(37.5)	0.017 (1)	0.896
	Married	162(63.3)	94(36.7)		
Education	Illiterate	38(59.4)	26(40.6)	7.513 (3)	0.057
	Primary	70(56)	55(44)		
	High school	90(68.7)	41(31.3)		
	Higher education	19(79.2)	5(20.8)		
Employment	Employed	100(76.3)	31(23.7)	15.96 (1)	0.000
	Unemployed	117(54.9)	96(45.1)		
Monthly income	<20k	61(50.4)	60(49.6)	13.992 (2)	0.003
	20k-50k	80(67.2)	39(32.8)		
	>50k	75(72.8)	28(27.2)		

No. of family members	<4	64(59.8)	43(40.2)	1.962 (2)	0.375
	4-7	121(66.5)	61(33.5)		
	>7	32(58.2)	23(41.8)		
PHC in neighbourhood	Yes	147(69.3)	65(30.7)	9.291 (1)	0.002
	No	70(53)	62(47)		
Distance from home to PHC	Not available	66(52.8)	59(47.2)	9.802 (3)	0.020
	<5km	42(71.2)	17(28.8)		
	5km-10km	78(70.3)	33(29.7)		
	>10km	31(63.3)	18(36.7)		
Overall health	Bad	27(45.8)	32(54.2)	18.351 ^a (3)	0.000
	Good	66(57.4)	49(42.6)		
	Very good	123(73.7)	44(26.3)		
	Excellent	1(33.3)	2(66.7)		

4.10 Association of barriers with satisfaction of patients visiting Primary Healthcare Centers

Socioeconomic barriers showed statistically significant results with the high satisfaction with primary health care visit. Respondents who were facing more socioeconomic barriers were having less satisfaction with primary health care center visit. Similar results were found by the association of access barriers, patient-doctor relationship barriers, organizational barriers and overall barriers with the high satisfaction with primary health care visit. Respondents who were having more overall barriers were having less satisfaction with primary health care facility visit while respondents facing less overall barriers were having more satisfaction with visit to primary health care center.

Table 4.6: Association of barriers with satisfaction of patients visiting Primary Healthcare Centers

Barriers		Low satisfaction with visits to PHC N(%)	High satisfaction with visits to PHC N(%)	p-value
Socioeconomic barriers	High	39(41.9)	54(58.1)	0.000
	Low	47(18.7)	204(81.3)	
Access barriers	High	39(33.1)	79 (66.9)	0.013
	Low	47(20.8)	179 (79.2)	
Patient-Doctor relationship barriers	High	55(53.4)	48 (46.6)	0.000
	Low	31(12.9)	210 (87.1)	
Organizational barriers	High	61(43.9)	78(56.1)	0.000
	Low	25(12.2)	180 (87.8)	
Overall Barriers	High	60(47.2)	67(52.8)	0.000
	Low	26(12)	191 (88)	

CHAPTER: 5 DISCUSSION

The current study assessed the patient's satisfaction and their barriers to visit primary health care centers among a sample that visited the OPD in Tehsil Headquarter hospital in Tehsil Kallar Syedan.

The utilization of primary health care services in the last 6 months was 28.2% in our study and it was 46.2% in a previous study conducted in Nigeria (Nwokoro et al., 2022). Education level was significantly associated with utilization of primary health care services. Majority of the respondents (49.5%) who attended high school had higher utilization of primary health care services. These results are consistent with another study, which was conducted on utilization of primary health care services that also showed statistically significant association of education with utilization of primary health care services (Panezai et al., 2020).

Availability of nearest primary health care center was less than 5km for 17.2% of the respondents in our study. In a previous study, 69.2% of the respondents had nearest primary health care center which was at a distance of less than 5km (Hussain et al., 2019a). Majority of the respondents in our study reported that the nearest primary health care center was 5-10km away from the place of their residence.

Majority of the respondents (71.8%) were not utilizing primary health care services in the last 6 months. This was consistent with the fact stated by some of the respondents regarding non-availability of doctor at the nearest health care facility. Primary health care center was not available or was not functional for 38.4% of the respondents. Majority of the participants in our study (86.6%) and in a previous study (89.5%) stated that the doctor listened to them carefully. However, in the current study, 30.8% of the respondents reported that doctor did not give enough time while 11.4% of the respondents in a previous study somewhat agreed that the doctor did not give them enough time to discuss (Alfaqeeh et al., 2017).

Majority of the respondents (75%) in the current study had satisfaction with primary health care visit whereas 81.7% of the respondents had high level of satisfaction with the services provided by PHC centers in a previous study (Mohamed et al., 2015). Other studies

conducted on the same topic concluded that the level of satisfaction with primary health care services was 13.2% (Albahrani et al., 2022), 28.3% (AlOmar et al., 2021) and 31.4% (Mahmood & Saleh, 2023b).

In our study, employment and monthly income were significantly associated with satisfaction with primary health care visit. A study was conducted in Saudi Arabia which stated that level of education had significant association with the satisfaction of patients visiting primary health care centers (Mohamed et al., 2015). In Lebanon, 60.23% of the patients reported satisfied or very satisfied (36.43%) with the services provided at the PHCs (Hemadeh et al., 2019).

The association of employment status and monthly income were statistically significant with the satisfaction level of patients visiting primary health care facilities. Respondents who were unemployed and were having monthly income of less than 20k were having high satisfaction with primary health care visit. Health status of the respondents had statistically significant association with satisfaction of patients visiting primary health care facility. Individuals with very good health status were satisfied with their visit to primary health care facility.

In the current study, satisfaction of patients with their visit to primary health care center was significantly associated with the barriers toward utilization of primary health care services. Patient-Doctor relationship barriers, access to primary health care center barriers and organizational barriers showed significant results with satisfaction of patients with their visit to primary health care center. These results are consistent with the results of another study where patient-provider communication, waiting time and perceived provider competency constituted strong predictors for patient satisfaction with PHC services (Hemadeh et al., 2019).

Barriers towards utilization of primary health care services was associated with demographic variables of the study. It was found from the results of statistical analysis that age of the respondents, gender, marital status, education level and number of family members had no statistical significance with the barriers towards utilization of primary health care services.

The association of employment status and monthly income were statistically significant with the barriers towards utilization of primary health care services. Respondents who were unemployed and having monthly income of less than 20k were facing more barriers towards utilization of primary health care services.

The availability of Primary health care facility in the neighborhood was significantly associated with barriers towards utilization of primary health care services. Distance of primary health care facility from home showed statistically significant results with the barriers towards utilization of primary health care services.

Majority of respondents (73%) in a study conducted in Karachi reported the main reason for not availing the nearest government facility was poor quality of care, poor quality of clinical and support services. The study highlighted that majority of the patients bypass primary level health care centers for higher level centers due to lack of satisfaction with the healthcare services provided at the primary health care centers which are nearest to their homes and non-availability of resources (Khan et al., 2022).

Our study highlighted that the respondents who were having good health were facing more barriers towards utilization of primary health care services than the respondents who had bad status of health, very good health status and excellent health status. There was statistically significant relationship between health statuses of participant with the barriers towards utilization of primary health care services.

In our study, 34.3% respondents faced access barriers to utilization of primary health care services. Primary health care center was far from home for 46.5% of the respondents, which depicts the reason for the low utilization of primary health care services. Accessibility of the transportation, geographical access to healthcare facility and travelling time to healthcare facility effect the health care seeking and use of health care facilities (AlOmar et al., 2021) (Hussain et al., 2019b).

This study reported that organizational barriers were the most common barriers toward visiting PHCs, which is similar to a study conducted on barriers to primary health care (AlOmar et al., 2021). Organizational barriers included cleanliness of primary health care center, lack of preventive services and difficulty in obtaining referrals. However, long

waiting hours to both see the physician and obtain lab results were the highly reported in our study and in other studies (AlOmar et al., 2021) (Nwokoro et al., 2022).

5.1 Conclusion

The study carried out at THQ Hospital in Kallar Syedan highlights the barriers that were faced by patients when accessing primary healthcare services and how these barriers affect patient satisfaction. The results show that even though only 28% of respondents used the primary healthcare facility, majority of them (75%) expressed high level of satisfaction with their visit to PHC.

The study found numerous significant barriers that affect both the utilization of healthcare services and patient satisfaction. Over a quarter of respondents (27%) reported facing socioeconomic barriers, highlighting the need of tackling financial barriers that prevent people from receiving basic medical treatment. Accessibility barriers were prevalent, with 46.5% of respondents saying that traveling to the primary healthcare center from their residences was difficult. This emphasizes the necessity of expanding geographical accessibility of healthcare services, particularly for people who live in distant places.

Nearly one third of respondents (30.8%) reported difficulties with patient-physician relationships, which may indicate a lack of trust or understanding between patients and healthcare professionals. Organizational barriers affected more than half of the respondents (53.8%). This demonstrates how important it is to upgrade the administrative and structural features of the healthcare facilities to produce a more streamlined and patient-friendly environment.

The results were statistically significant for association of demographic variables with utilization of primary health care services. Patient satisfaction was significantly related to employment status, monthly income, and general health. Overall barriers score was 36.9% and there was statistically significant association of all the barriers with satisfaction of patients visiting THQ hospital. ($p < 0.05$)

5.2 Recommendations:

- Healthcare professionals should be given frequent communication training sessions, to enhance relationships between patients and doctors for empathy and trust-building.
- Community awareness programs should be introduced to inform people about the importance of routine primary healthcare visits and the resources that are available.
- There should be feedback response system to collect data and assess patient satisfaction to pinpoint areas that need to be improved.
- Check and balance of primary healthcare services and resources from supply side and from demand side, so that continued medical services can be provided timely.
- Hospital based monitoring and evaluation of administrative procedures to find inefficiencies that lead to organizational barriers and reduce patient's waiting time.
- Healthcare department should actively respond to the shortage of medical services and maintain supply of up-to-date medical technologies and services.
- Government can work with NGOs to help low-income patients financially.
- There should be collaboration between healthcare professionals, administrators, lawmakers, and community leaders to collaboratively overcome barriers and enhance healthcare services.

5.3 Strengths of the study:

While numerous studies have explored patient satisfaction and barriers to healthcare access, focusing specifically on the association between barriers to primary healthcare utilization and patient satisfaction within the context of a THQ hospital is relatively unexplored. This study can help fill this research gap and provide context-specific insights.

5.4 Limitations of the study:

This study was conducted in a short period of 6 months.

Study was conducted in one primary health care facility.

Results could be better by taking other primary health care facilities.

Limited budget can also be taken as the limitation of the study.

References:

- Ahmed, F., Malik, N. I., Zia, S., Akbar, A. S., Li, X., Shahid, M., & Tang, K. (2023). Rural mothers' beliefs and practices about diagnosis, treatment, and management of children health problems: A qualitative study in marginalized Southern Pakistan. *Frontiers in Public Health, 10*. <https://doi.org/10.3389/fpubh.2022.1001668>
- Al Janabi, T. (2023). Barriers to the Utilization of Primary Health Centers (PHCs) in Iraq. *Epidemiologia, 4*(2), 121–133. <https://doi.org/10.3390/EPIDEMIOLOGIA4020013/S1>
- Albahrani, S., Albidy, H., Alomar, N., Almotreb, L., Alkhofi, A., Alsaleh, Z., Alessa, J., Alhabrati, A., & Alarbash, A. (2022). Patient Satisfaction With Primary Healthcare Services in Al-Ahsa, Saudi Arabia. *Cureus, 14*(11). <https://doi.org/10.7759/CUREUS.31478>
- Alfaqeeh, G., Cook, E. J., Randhawa, G., & Ali, N. (2017). Access and utilisation of primary health care services comparing urban and rural areas of Riyadh Providence, Kingdom of Saudi Arabia. *BMC Health Services Research, 17*(1), 1–13. <https://doi.org/10.1186/S12913-017-1983-Z/TABLES/4>
- AlOmar, R. S., AlShamlan, N. A., AlAmer, N. A., AlThumairi, A. A., Almir, B. M., Aldawood, H. A., Bukhamsin, T. H., Alqahtani, H. A., & Al Shammari, M. A. (2021). Perceived Barriers to Primary Care Services Utilization and its Associations with Overall Satisfaction of Patients in Saudi Arabia: A Cross-Sectional Questionnaire-Based Study. *Journal of Primary Care and Community Health, 12*. https://doi.org/10.1177/21501327211014065/ASSET/IMAGES/LARGE/10.1177_21501327211014065-FIG2.JPEG
- Ansari, M. S., Manzoor, R., Siddiqui, N., & Ahmed, A. M. (2015). Access to comprehensive emergency obstetric and newborn care facilities in three rural districts of Sindh province, Pakistan. *Health Research Policy and Systems, 13*(1). <https://doi.org/10.1186/S12961-015-0042-7>
- Anwar, M., Green, J., & Norris, P. (2012). Health-seeking behaviour in Pakistan: a narrative review of the existing literature. *Public Health, 126*(6), 507–517. <https://doi.org/10.1016/J.PUHE.2012.02.006>
- Arambepola, C., Rajapaksa, L. C., Attygalle, D., & Moonasinghe, L. (2016). Relationship of family formation characteristics with unsafe abortion: is it confounded by women's socio-economic status? - A case-control study from Sri Lanka. *Reproductive Health, 13*(1). <https://doi.org/10.1186/S12978-016-0173-5>
- Access to Primary Health Care in Pakistan*. (n.d.). Retrieved July 16, 2023, from <https://mmi.edu.pk/blog/access-to-primary-health-care-in-pakistan>
- Callen, M., Gulzar, S., Hasanain, A., Khan, A. R., Khan, Y., & Zia Mehmood, M. (2013). Improving Public Health Delivery in Punjab, Pakistan: Issues and Opportunities. *THE LAHORE JOURNAL OF ECONOMICS, 18*(Special Edition), 249–269. <https://doi.org/10.35536/LJE.2013.V18.ISP.A11>

- Chanda, S. K. (2022). *Needs, Experiences, Barriers and Facilitators to Primary and Maternal Healthcare Accessibility and Utilisation among Women in Rural Bangladesh: A Mixed Methods Study*.
- Gholipour, K., Shokri, A., Yarahmadi, A. A., Tabrizi, J. S., Iezadi, S., Naghibi, D., & Bidarpoor, F. (2023). Barriers to community participation in primary health care of district health: a qualitative study. *BMC Primary Care*, *24*(1), 1–12. <https://doi.org/10.1186/S12875-023-02062-0/FIGURES/1>
- Habib, S. S., Jamal, W. Z., Zaidi, S. M. A., Siddiqui, J. U. R., Khan, H. M., Creswell, J., Batra, S., & Versfeld, A. (2021). Barriers to Access of Healthcare Services for Rural Women—Applying Gender Lens on TB in a Rural District of Sindh, Pakistan. *International Journal of Environmental Research and Public Health*, *18*(19). <https://doi.org/10.3390/IJERPH181910102>
- Hayrumyan, V., Grigoryan, Z., Sargsyan, Z., Sahakyan, S., Aslanyan, L., & Harutyunyan, A. (2020). Barriers to utilization of adolescent friendly health services in primary healthcare facilities in Armenia: a qualitative study. *International Journal of Public Health*, *65*(8), 1247–1255. <https://doi.org/10.1007/S00038-020-01499-9/METRICS>
- Hemadeh, R., Hammoud, R., Kdouh, O., Jaber, T., & Ammar, L. (2019). Patient satisfaction with primary healthcare services in Lebanon. *The International Journal of Health Planning and Management*, *34*(1), e423–e435. <https://doi.org/10.1002/HPM.2659>
- Hussain, R., Rashidian, A., Hafeez, A., & Mirzaee, N. (2019a). Factors Influencing Healthcare Seeking Behaviour At Primary Healthcare Level, in Pakistan. *Journal of Ayub Medical College*, *31*(2), 201–206.
- Hussain, R., Rashidian, A., Hafeez, A., & Mirzaee, N. (2019b). FACTORS INFLUENCING HEALTHCARE SEEKING BEHAVIOUR AT PRIMARY HEALTHCARE LEVEL, IN PAKISTAN. *Journal of Ayub Medical College Abbottabad*, *31*(2), 201–206. <http://www.demo.ayubmed.edu.pk/index.php/jamc/article/view/4933>
- Jafree, S. R., Mahmood, Q. K., Momina, A. U., Fischer, F., & Barlow, J. (2021). Protocol: Protocol for a systematic review of barriers, facilitators and outcomes in primary healthcare services for women in Pakistan. *BMJ Open*, *11*(3). <https://doi.org/10.1136/BMJOPEN-2020-043715>
- Javed, S. A., & Ilyas, F. (2018). Service quality and satisfaction in healthcare sector of Pakistan—the patients’ expectations. *International Journal of Health Care Quality Assurance*, *31*(6), 489–501. <https://doi.org/10.1108/IJHCQA-08-2016-0110>
- Javed, S. A., Liu, S., Mahmoudi, A., & Nawaz, M. (2019). Patients’ satisfaction and public and private sectors’ health care service quality in Pakistan: Application of grey decision analysis approaches. *The International Journal of Health Planning and Management*, *34*(1), e168–e182. <https://doi.org/10.1002/HPM.2629>
- Khan, J., Mahmood, H., Shaheen, Y., Diba, F., Zulfiqar, S., & Riaz, M. (2022). *T. 34*,

21–24.

- Khattab, E., Sabbagh, A., Algerian, N., Binsalleeh, H., Almulhim, M., Alqahtani, A., & Alsalamah, M. (2019). Emergency medicine in Saudi Arabia: a century of progress and a bright vision for the future. *International Journal of Emergency Medicine*, *12*(1), 16. <https://doi.org/10.1186/S12245-019-0232-0>
- Mahmood, K. A., & Saleh, A. M. (2023a). Barriers and facilitators influencing access to and utilization of primary healthcare services in Kurdistan-region, Iraq: a cross-sectional study. *Annals of Medicine and Surgery* (2012), *85*(7), 3409–3417. <https://doi.org/10.1097/MS9.0000000000000957>
- Mahmood, K. A., & Saleh, A. M. (2023b). Barriers and facilitators influencing access to and utilization of primary healthcare services in Kurdistan-region, Iraq: a cross-sectional study. *Annals of Medicine and Surgery*, *85*(7), 3409. <https://doi.org/10.1097/MS9.0000000000000957>
- Majrooh, M. A., Hasnain, S., Akram, J., Siddiqui, A., & Memon, Z. A. (2014). Coverage and quality of antenatal care provided at primary health care facilities in the “Punjab” province of “Pakistan.” *PloS One*, *9*(11). <https://doi.org/10.1371/JOURNAL.PONE.0113390>
- Malik, S. M., & Ashraf, N. (2016). Equity in the use of public services for mother and newborn child health care in Pakistan: A utilization incidence analysis. *International Journal for Equity in Health*, *15*(1). <https://doi.org/10.1186/S12939-016-0405-X>
- Ministry of National Health Services Regulation and Coordination. (2019). *Review of essential health services in pakistan based on disease control priorities-3*. April, 62.
- Mohamed, E. Y., Sami, W., Alotaibi, A., Alfarag, A., Almutairi, A., & Alanzi, F. (2015). Patients’ Satisfaction with Primary Health Care Centers’ Services, Majmaah, Kingdom of Saudi of Saudi Arabia. *International Journal of Health Sciences*, *9*(2), 163. <https://doi.org/10.12816/0024113>
- Nwokoro, U. U., Ugwa, O. M., Ekenna, A. C., Obi, I. F., Onwuliri, C. D., & Agunwa, C. (2022). Determinants of primary healthcare services utilisation in an under-resourced rural community in Enugu State, Nigeria: a cross-sectional study. *The Pan African Medical Journal*, *42*. <https://doi.org/10.11604/PAMJ.2022.42.209.33317>
- Out-of-pocket expenditure (% of current health expenditure) - Pakistan | Data*. (n.d.). Retrieved July 27, 2023, from <https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?locations=PK>
- Panezai, S., Ahmad, M., Ahmad, M., Saqib, S. E., & Assistant, C. A. (2020). A GENDER-BASED ASSESSMENT OF UTILIZATION OF PRIMARY HEALTH CARE SERVICES AND ASSOCIATED FACTORS IN PAKISTAN “Civil Society Organizations and Climate Change Policy Formulation in Bangladesh” View project Conflicts in Shan State: Past-Present-Future Challenging Issues Forwarding to Border Development View project A GENDER-BASED ASSESSMENT OF UTILIZATION OF PRIMARY HEALTH CARE SERVICES AND ASSOCIATED FACTORS IN PAKISTAN. *International Journal of Sciences and Research*, *76*(1),

82. <https://doi.org/10.21506/j.ponte.2020.1.7>

- Panezai, S., Ahmad, M. M., & Saqib, S. E. (2017). Factors affecting access to primary health care services in Pakistan: a gender-based analysis. *Http://Dx.Doi.Org/10.1080/09614524.2017.1344188*, 27(6), 813–827. <https://doi.org/10.1080/09614524.2017.1344188>
- Primary health care*. (n.d.). Retrieved July 19, 2023, from <https://www.who.int/news-room/fact-sheets/detail/primary-health-care>
- Riaz, A., Zaidi, S., & Khowaja, A. R. (2015). Perceived barriers to utilizing maternal and neonatal health services in contracted-out versus government-managed health facilities in the rural districts of Pakistan. *International Journal of Health Policy and Management*, 4(5), 279–284. <https://doi.org/10.15171/IJHPM.2015.50>
- Senitan, M., Alhaiti, A. H., & Gillespie, J. (2018). Patient satisfaction and experience of primary care in Saudi Arabia: A systematic review. In *International Journal for Quality in Health Care* (Vol. 30, Issue 10, pp. 751–759). Oxford University Press. <https://doi.org/10.1093/intqhc/mzy104>
- Shabbir, A., Malik, S. A., & Malik, S. A. (2016). Measuring patients' healthcare service quality perceptions, satisfaction, and loyalty in public and private sector hospitals in Pakistan. *International Journal of Quality and Reliability Management*, 33(5), 538–557. <https://doi.org/10.1108/IJQRM-06-2014-0074/FULL/XML>
- Sultana, N., & Shaikh, B. T. (2015). Low utilization of postnatal care: Searching the window of opportunity to save mothers and newborns lives in Islamabad capital territory, Pakistan. *BMC Research Notes*, 8(1), 1–5. <https://doi.org/10.1186/S13104-015-1646-2/FIGURES/3>
- Syah, N. A., Andalas, U., Claramita, M., Mada, U. G., Kusnanto, H., & Mada, U. G. (2017). (PRIMASYS). November. <https://doi.org/10.13140/RG.2.2.31496.26889>
- Treleaven, E., Whidden, C., Cole, F., Kayentao, K., Traoré, M. B., Diakité, D., Sidibé, S., Lin, T. K., Boettiger, D., Cissouma, S., Sanogo, V., Padian, N., Johnson, A., & Liu, J. (2021). Relationship between symptoms, barriers to care and healthcare utilisation among children under five in rural Mali. *Tropical Medicine & International Health*, 26(8), 943–952. <https://doi.org/10.1111/TMI.13592>
- WHO. (2022). *Primary health care_measurement framework and indicators*. <https://www.who.int/publications/i/item/9789240044210>
- Zaidi, S., Riaz, A., Rabbani, F., Azam, S. I., Imran, S. N., Pradhan, N. A., & Khan, G. N. (2015). Can contracted out health facilities improve access, equity, and quality of maternal and newborn health services? Evidence from Pakistan. *Health Research Policy and Systems*, 13 Suppl 1(Suppl 1). <https://doi.org/10.1186/S12961-015-0041-8>

ANNEXURE I
QUESTIONNAIRE

1: Age of respondents _____ years

2: Gender 1) Male 2) Female 3) Others

3: Marital status 1) Unmarried 2) Married 3) Others

4: Education level 1) Illiterate 2) primary school 3) high school 4) higher

5: Employment status 1) Employed 2) Unemployed

6: Monthly income

1) less than 20k 2)20-50k 3)51k-100k 4) more than 100k

7: No of family members _____

8: Do you have any disabilities? 1) Yes 2) No

9: Do you have a primary care center in your neighborhood? 1) Yes 2) No

If you answer is yes, what the distance from your home to the primary health care center?

1) Less than 5km 2) 5-10km 3) More than 10

10: No. of hospital visits in last 6-months? _____

11: In general, how do you evaluate your overall health?

1) Bad 2) Good 3) Very Good 4) Excellent

12: Overall satisfaction level with hospital visit? (On a scale of 0-10 with zero being lowest and 10-highest satisfaction level) _____

Section 2: Barriers to Primary Healthcare Services

Barrier	Items	YES	NO	I don't know
Socioeconomic barriers	You find it difficult to buy medicine that is not available at PHC			
Access barriers	The PHC is far from home			
	I find it difficult to transport to the PHC			
	I am not aware of the nearest PHC			
	My primary care physician is an active listener			

Barrier	Items	YES	NO	I don't know
Patient-doctor relationship	My primary care physician is confident and trustworthy			
	My primary care physician gives me adequate time			
	My primary care physician addresses my concerns			
	My primary care physician explains the management plan thoroughly			
	My primary care physician is respectful and dignified			
	My primary care physician can convince me of the medical advice			
Organizational barriers	I find it difficult to book an appointment at the PHC			
	I experience long waiting hours at the PHC			
	I find it difficult in taking the prescribed medications			
	I find it difficult to do lab tests at the PHC			
	Primary care physicians are reluctant to give me a referral			
	The PHC is not clean			
	The PHC does not offer preventive services			
	The PHC does not have some services			

Questionnaire

- ① عمر _____ سال
- ② جنس _____
- ③ ازدواجی حیثیت : _____
- ④ تعلیمی معیار _____
- ⑤ ماہانہ آمدنی _____
- ⑥ فیملی ممبران کی تعداد _____
- ⑦ کیا آپ کو کوئی معذوری ہے؟ _____
- ⑧ کیا آپ کے محلے میں بنیادی دیکھ بھال کا کوئی مرکز ہے؟ _____
- ⑨ اگر ہے تو کتنے فاصلے پر ہے؟ _____
- ⑩ آپ اپنی مجموعی صحت کا اندازہ کیسے لگاتے ہیں۔ _____
- ⑪ آپ بنیادی مرکز صحت سے کتنا مطمئن ہیں۔ _____
- (0-10 تک کے پیمانے پر کتنا مطمئن ہیں)

(B) سماجی رکاوٹیں:

(11) آپ کو ایسی دوا خریدنے میں مشکل پیش آتی ہے جو بنیادی مرکز صحت میں دستیاب نہیں
رسائی کی رکاوٹیں:

- (12) بنیادی مرکز صحت آپ کے گھر سے دور ہے۔
 (13) مجھے ہسپتال جانے کے لئے گاڑی کے ملنے میں دشواری ہوتی ہے۔
 (14) میں قریبی بنیادی مرکز صحت سے واقف نہیں ہوں۔

ڈاکٹر اور مریض کا تعلق:

- (15) میرا ڈاکٹر میری بیماری سے متعلق سوالات کا جواب دیتا ہے۔
 (16) میرا ڈاکٹر پر اعتماد اور قابل اعتماد ہے۔
 (17) میرا ڈاکٹر مجھے مناسب وقت دیتا ہے۔
 (18) میرا ڈاکٹر میرے خدشات کو دور کرتا ہے۔
 (19) میرا ڈاکٹر میرے علاج کی اچھی وضاحت کرتا ہے۔
 (20) میرا ڈاکٹر قابل احترام اور باوقار ہے۔
 (21) میرا ڈاکٹر مجھے طبی مشورے پر قائل کر سکتا ہے۔

تنظیمی رکاوٹیں:

- (22) مجھے ہسپتال میں ملاقات کا وقت پہلے سے نیک کرنا مشکل لگتا ہے۔
 (23) میں ہسپتال میں طویل انتظار کا تجربہ رکھتا ہوں۔
 (24) مجھے جو بیز کردہ دوا میں لینے میں مشکل ہوتی ہے۔
 (25) مجھے ہسپتال میں لیباٹری ٹیسٹ کروانا مشکل لگتا ہے۔
 (26) میرا ڈاکٹر مجھے دوسرے ہسپتال ریفرنس سے گریز کرتا ہے۔
 (27) بنیادی مرکز صحت صاف نہیں ہے۔
 (28) بنیادی مرکز صحت احتیاطی خدمات پیش نہیں کرتا۔
 (29) بنیادی مرکز صحت کے پاس کچھ خدمات میسر نہیں ہیں۔

ANNEXURE II

CONSENT FORM

My name is Noor-Ur-Rehman and I'm student of Masters in Public Health at Al-Shifa School of Public Health. I am conducting research on **Barriers towards utilization of primary healthcare services and its association with satisfaction of patients visiting THQ hospital, Kallar Sayedan.**

This study aims at investigating the association of overall satisfaction of patients with primary healthcare services. The results of this study will help in reducing barriers for utilizing primary healthcare services in patients. Your responses will be treated as confidential and for research purposes only. You are therefore requested to append your signature as a sign of acceptance to participate in the study.

Sign: _____

Date: _____



**AL-SHIFA SCHOOL OF PUBLIC HEALTH
PAKISTAN INSTITUTE OF OPHTHALMOLOGY
AL-SHIFA TRUST, RAWALPINDI**

MSPH-IRB/15-21
27th Mar, 2023

TO WHOM IT MAY CONCERN

This is to certify that **Noor-Ur-Rehman** D/O **Raja Khaliq Ur Rehman** is a student of Master of Science in Public Health (MSPH) final semester at Al-Shifa School of Public Health, PIO, Al-Shifa Trust Rawalpindi. He/she has to conduct a research project as part of curriculum & compulsory requirement for the award of degree by the Quaid-i-Azam University, Islamabad. His/her research topic, which has already been approved by the Institutional Review Board (IRB), is “**Barriers towards primary healthcare services utilization and association with satisfaction among patients visiting THQ hospitals Kallar Sayedan**”.

Please provide his/her necessary help and support in completion of the research project. Thank you.

Sincerely,

Dr. Ayesha Babar Kawish
Head

Al-Shifa School of Public Health, PIO
Al-Shifa Trust, Rawalpindi

ANNEXURE IV

Timeline and proposed budget Gantt Chart:

Activities	March 2023	April 2023	May 20223	June 2023	July 2023	August 2023
Literature search						
Synopsis writing and IRB approval						
Pilot testing						
Data collection						
Data analysis						
Write-up						
Thesis defense						

ANNEXURE V

BUDGET

Budget item	Transport	Stationery and internet	Printing	Publishing
Pilot testing	500 Rs/-	5000 Rs/-	5000 Rs/-	-
Data collection	10,000 Rs/-	7,000 Rs/-	-	-
Thesis writeup	1,000 Rs/-	5,000 Rs/-	8,000 Rs/-	8,000 Rs/-
Total Expenditure	16,000 Rs/-	17,000 Rs/-	13,000 Rs/-	8,000 Rs/-
Grand total	54,000 Rs/-			