

ASSESSMENT OF PATIENT SATISFACTION WITH HEALTHCARE SERVICES IN OUTPATIENT DEPARTMENT (OPD) AT DISTRICT HEAD QUARTER HOSPITAL PARACHINAR DISTRICT KURRAM

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ABSTRACT

Background:

Patient satisfaction is a key indicator of healthcare quality and reflects patients' experiences and perceptions of healthcare services. The Outpatient Department (OPD) serves as the primary point of contact between patients and healthcare providers and plays a crucial role in shaping overall healthcare experiences. In public-sector hospitals, factors such as waiting time, communication, staff behavior, and availability of medicines significantly influence patient satisfaction. Regular assessment of patient satisfaction is therefore essential for identifying service gaps and improving healthcare quality.

Objective:

To assess the level of patient satisfaction with healthcare services provided in the Outpatient Department (OPD) of DHQ Hospital Parachinar, District Kurram.

Materials and Methods:

A hospital-based cross-sectional study was conducted in the OPD of DHQ Hospital Parachinar, District Kurram, from December 2025 to March 2026. A total of 132 patients were selected using a non-probability convenience sampling technique. Data were collected through a structured questionnaire assessing socio-demographic characteristics, waiting time, consultation quality, doctor-patient communication, staff behavior, availability of medicines, and overall satisfaction. Patients aged 18 years and above who provided informed consent were included. Data were analyzed using SPSS version 22 and presented as frequencies and percentages.

Results:

Among the 132 participants, males and females were equally represented (50.0% each). Most respondents belonged to rural areas (78.03%) and were illiterate (57.58%). More than half of the participants (54.55%) waited less than 30 minutes before consultation, while 63.64% were satisfied with the waiting time. Satisfaction with doctor communication, consultation, and staff behavior was generally high. However, 82.58% of respondents reported that prescribed medicines were not available

in the hospital pharmacy and all patients purchased medicines from outside. Overall, 56.06% of participants were satisfied with OPD services, and 96.21% stated that they would recommend DHQ Hospital Parachinar to others.

Conclusion:

Patient satisfaction with OPD services at DHQ Hospital Parachinar was generally satisfactory, particularly regarding doctor communication and staff cooperation. However, medicine availability, hospital cleanliness, and service efficiency remain important areas for improvement. Continuous monitoring of patient satisfaction and targeted quality improvement measures are recommended to strengthen patient-centered healthcare services and enhance healthcare delivery at the district level.

Keywords: Patient Satisfaction, Outpatient Department, Healthcare Quality, Service Delivery, DHQ Hospital, District Kurram, Pakistan.

1. INTRODUCTION

Patient satisfaction is an important indicator of healthcare quality and reflects the extent to which healthcare services meet patients' expectations, needs, and preferences (1). Modern healthcare systems increasingly recognize that quality assessment should not rely solely on clinical outcomes but should also incorporate patient experiences and perceptions of care (2). According to Donabedian's framework, healthcare quality can be evaluated through structure, process, and outcome measures, with patient satisfaction representing a key outcome indicator of healthcare performance (3). Studies have shown that patient satisfaction is influenced by both technical competence and interpersonal aspects of care, including communication, respect, and responsiveness of healthcare providers (4).

The concept of patient-centered care has gained global recognition as a fundamental principle of healthcare delivery. This approach emphasizes respect for patient values, dignity, confidentiality, and active participation in healthcare decisions (5). The World Health Organization (WHO) highlights patient responsiveness and satisfaction as essential components of quality healthcare systems (6). Consequently, patient satisfaction surveys have become valuable tools for monitoring healthcare quality and identifying areas requiring improvement (7).

Evidence from international studies suggests that patient satisfaction is strongly associated with treatment adherence, continuity of care, healthcare utilization, and improved health outcomes (8,9). Patients who report positive healthcare experiences are more likely to follow

medical advice and maintain long-term relationships with healthcare providers. Conversely, dissatisfaction may reduce trust in healthcare institutions and discourage future healthcare-seeking behavior (10).

Several factors influence patient satisfaction in outpatient settings, including waiting time, provider attitude, communication skills, availability of medicines, and the physical environment of healthcare facilities (11). Effective communication between healthcare providers and patients has consistently been identified as one of the strongest determinants of satisfaction (12). In many developing countries, overcrowding, long waiting periods, and limited resources remain significant barriers to positive patient experiences (13,14). Nevertheless, respectful staff behavior and clear communication can substantially improve patient perceptions even in resource-constrained settings (15,16).

The Outpatient Department (OPD) serves as the primary entry point into healthcare services and is often the first interaction between patients and healthcare providers (17). Due to the high volume of patients attending OPDs, maintaining service quality and efficiency remains a challenge (18). Long waiting times, inadequate consultation duration, and insufficient explanation of medical conditions have been reported as major causes of patient dissatisfaction in outpatient settings worldwide (19).

In Pakistan, public hospitals play a vital role in providing healthcare services to a large proportion of the population (23). Despite ongoing efforts to improve healthcare quality, public healthcare facilities frequently face challenges such as

overcrowding, workforce shortages, and limited infrastructure (24,25). Studies conducted in Pakistani hospitals have reported varying levels of patient satisfaction, with affordability and accessibility often viewed positively, while communication gaps and prolonged waiting times contribute to dissatisfaction (26–28).

District Headquarter (DHQ) hospitals are important secondary-level healthcare facilities that provide essential healthcare services to district populations (29,30). Assessing patient satisfaction within these hospitals is essential for evaluating healthcare quality and identifying service gaps (31). In Khyber Pakhtunkhwa, public healthcare facilities continue to face challenges related to infrastructure limitations and increasing patient load (32,33). Regular assessment of patient satisfaction can provide valuable evidence for healthcare planning and quality improvement initiatives (34).

DHQ Hospital Parachinar serves as the major public healthcare facility in District Kurram, providing outpatient services to both urban and rural populations (35,36). However, limited evidence exists regarding patient satisfaction with OPD services in this setting (37). Given the unique geographical and healthcare challenges of the region, understanding patient perceptions of healthcare services is essential for improving service delivery (38,39). Therefore, this study aims to assess the level of patient satisfaction with healthcare services provided in the outpatient department of DHQ Hospital Parachinar and generate evidence to support quality improvement and patient-centered healthcare planning (40–42).

3 MATERIALS AND METHODS

3.1 Study Design

A hospital-based descriptive cross-sectional study will be conducted to assess patient satisfaction with healthcare services provided in the outpatient department (OPD) of DHQ Hospital Parachinar, District Kurram.

3.2 Study Setting

The study will be conducted at the OPD of DHQ Hospital Parachinar, a major public-sector healthcare facility serving both urban and rural populations of District Kurram. The OPD

provides a wide range of medical services and receives a large number of patients daily.

3.3 Study Duration

The study will be conducted over a period of four months, from December 2025 to March 2026.

3.4 Sample Size

The sample size will be calculated using the Raosoft Sample Size Calculator with a 95% confidence level, 5% margin of error, 50% response distribution, and an estimated population of 200 OPD patients during the study period. The calculated sample size is 132 participants.

3.5 Sampling Technique

A non-probability convenience sampling technique will be employed.

Inclusion Criteria

- Patients aged 18 years and above.
- Patients attending the OPD during the study period.
- Patients willing to participate and provide informed consent.
- Patients able to communicate and respond to the questionnaire.

Exclusion Criteria

- Patients below 18 years of age.
- Patients unwilling to participate.
- Critically ill or emergency patients.
- Patients unable to communicate effectively.

3.6 Data Collection Procedure

Data will be collected using a structured and pretested questionnaire designed to assess various dimensions of patient satisfaction, including registration services, waiting time, healthcare provider communication, staff behavior, service quality, and overall satisfaction. Eligible patients will be approached after their consultation, informed about the purpose of the study, and invited to participate. Written informed consent will be obtained before data collection. Completed questionnaires will be checked for completeness and accuracy.

3.7 Data Analysis

Data will be entered and analyzed using Statistical Package for Social Sciences (SPSS) version 22. Descriptive statistics, including frequencies, percentages, means, and standard deviations, will be used to summarize the study findings. Results will be presented in tables and figures where appropriate.

3.8 Ethical Considerations

Ethical approval will be obtained from the Institutional Review Board (IRB)/Ethical Review Committee (ERC) of the concerned institution before commencement of the study. Administrative permission will be sought from the Medical Superintendent of DHQ Hospital Parachinar. Participation will be voluntary, and written informed consent will be obtained from all participants. Confidentiality and anonymity will

be strictly maintained, and no personal identifiers will be recorded. Participants will have the right to withdraw from the study at any stage without any effect on their medical care. The study will be conducted in accordance with the principles of the Declaration of Helsinki and relevant national ethical guidelines.

4. RESULTS

A total of 132 participants attending the outpatient department (OPD) of DHQ Hospital Parachinar were included in the study. The collected data were analyzed and presented in the form of frequencies and percentages. The findings are organized into socio-demographic characteristics, waiting time and consultation-related factors, doctor and staff communication, hospital facilities, and overall patient satisfaction.

Table 1: Socio-demographic characteristics of participants (n = 132)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	66	50.0
	Female	66	50.0
Age (years)	18-25 years	30	22.73
	26-35 years	30	22.73
	36-45 years	27	20.45
	46-55 years	17	12.88
	56-65 years	15	11.36
	Above 65 years	13	9.85
Education Level	Illiterate	76	57.58
	Primary	14	10.61
	Secondary	30	22.73
	Higher	12	9.09
Occupation	Housewife	58	43.94
	Businessman	5	3.79
	Student	19	14.39
	Government Employee	12	9.09
	Laborer	7	5.30
	Other	31	23.48
Residence	Rural	103	78.03
	Urban	29	21.97

The socio-demographic profile showed an equal distribution of male and female participants (50.0% each). Participants aged 18–25 years and 26–35 years constituted the largest groups (22.73% each). More than half of the respondents were illiterate (57.58%), while housewives represented the

largest occupational category (43.94%). The majority of participants belonged to rural areas (78.03%), indicating that DHQ Hospital Parachinar predominantly serves the rural population of District Kurram.

Table 2: Waiting time and consultation-related characteristics of participants

Variable	Category	Frequency (n)	Percentage (%)
Waiting time before seeing the doctor	Less than 30 Minutes	72	54.55
	30–60 minutes	24	18.18
	1–2 hours	23	17.42
	More than 2 hours	13	9.85
Satisfaction with waiting time	Very satisfied	5	3.79
	Satisfied	84	63.64
	Neutral	26	19.70
	Dissatisfied	17	12.88
Main reason for waiting time	High patient load	55	41.67
	Poor organization	18	13.64
	Insufficient staff	8	6.06
	Other	51	38.64
	Consultation time	Less than 5 minutes	34
	5–10 minutes	60	45.45
	10–15 minutes	19	14.39
	Approximately 15 Minutes	19	14.39

More than half of the participants (54.55%) reported waiting less than 30 minutes before consultation, and 63.64% expressed satisfaction with the waiting time. High patient load was identified as the most common reason for delays

(41.67%). Regarding consultation duration, nearly half of the respondents (45.45%) reported spending 5–10 minutes with the physician, suggesting a relatively efficient OPD service despite a considerable patient burden.

Table 3: Patient satisfaction regarding doctor communication

Variable	Category	Frequency (n)	Percentage (%)
Doctor's communication	Very satisfied	29	21.97
	Satisfied	92	69.70
	Neutral	9	6.82
	Dissatisfied	2	1.52
Doctor listened carefully	Very satisfied	50	37.88
	Satisfied	64	48.48
	Neutral	14	10.61
	Dissatisfied	4	3.03

Variable	Category	Frequency (n)	Percentage (%)
Doctor explained disease and treatment clearly	Very satisfied	39	29.55
	Satisfied	76	57.58
	Neutral	14	10.61
	Dissatisfied	3	2.27
Felt comfortable asking questions	Very satisfied	18	13.64
	Satisfied	100	75.76
	Neutral	12	9.09
	Dissatisfied	2	1.52

Doctor-patient communication was highly rated by respondents. Overall, 69.70% were satisfied with the communication skills of doctors, while 48.48% reported that doctors listened carefully to their concerns. More than half (57.58%) believed

that their disease and treatment were explained clearly, and 75.76% felt comfortable asking questions during the consultation. These findings indicate a positive perception of physician interaction and communication within the OPD.

Table 4: Patient satisfaction regarding nursing and hospital staff

Variable	Category	Frequency (n)	Percentage (%)
Courtesy and behavior of nursing staff	Very satisfied	20	15.15
	Satisfied	72	54.55
	Neutral	28	21.21
	Dissatisfied	12	9.09
Communication skills of nurses	Very satisfied	34	25.76
	Satisfied	62	46.97
	Neutral	27	20.45
	Dissatisfied	9	6.82
Nursing care received	Very satisfied	25	18.94
	Satisfied	74	56.06
	Neutral	28	21.21
	Dissatisfied	5	3.79
Hospital staff were helpful and cooperative	Very satisfied	28	21.21
	Satisfied	70	53.03
	Neutral	24	18.18
	Dissatisfied	10	7.58

Participants generally expressed favorable opinions regarding nursing and support staff. More than half were satisfied with the courtesy and behavior of nurses (54.55%), communication skills (46.97%), and nursing care received

(56.06%). Similarly, 53.03% of respondents were satisfied with the helpfulness and cooperation of hospital staff. These findings suggest that nursing and support services contribute positively to the overall patient experience.

Table 5: Hospital facilities and medicine availability

Variable	Category	Frequency (n)	Percentage (%)
Availability of prescribed medicines in hospital pharmacy	Fully available	2	1.52
	Partially available	20	15.15
	Not available	109	82.58
	Out of stock	1	0.76
Purchased medicines from outside	Yes	132	100.0
Cleanliness of the hospital	Very satisfied	6	4.55
	Satisfied	37	28.03
	Neutral	56	42.42
	Dissatisfied	32	24.24
	Very dissatisfied	1	0.76
Toilets were clean and functional	Very satisfied	7	5.30
	Satisfied	32	24.24
	Neutral	59	44.70
	Dissatisfied	33	25.00
	Very dissatisfied	1	0.76

Hospital facilities emerged as an area requiring improvement. A substantial majority of participants (82.58%) reported that prescribed medicines were not available in the hospital pharmacy, and all respondents purchased medicines from outside the hospital. Opinions

regarding hospital cleanliness and toilet facilities were largely neutral, with 42.42% and 44.70% respectively reporting neither satisfaction nor dissatisfaction. These findings highlight challenges related to medicine availability and facility maintenance.

Table 6: Overall patient satisfaction and areas requiring improvement

Variable	Category	Frequency (n)	Percentage (%)
Overall satisfaction with OPD services	Very satisfied	11	8.33
	Satisfied	74	56.06
	Neutral	41	31.06
	Dissatisfied	6	4.55
Would recommend DHQ Hospital Parachinar to others	Yes	127	96.21
	No	5	3.79
Most important area needing improvement	Medicines	51	38.64
	Cleanliness	29	21.97
	Staff Behavior	23	17.42
	Waiting Time	21	15.91
	Doctor Communications	8	6.06

Overall, more than half of the participants (56.06%) were satisfied with the OPD services provided by DHQ Hospital Parachinar, while only 4.55% expressed dissatisfaction. An overwhelming majority (96.21%) indicated that they would recommend the hospital to others, reflecting general confidence in the services provided.

However, respondents identified medicine availability (38.64%), cleanliness (21.97%), staff behavior (17.42%), and waiting time (15.91%) as key areas requiring improvement. These findings suggest that although overall patient satisfaction was favorable, targeted interventions are needed to address resource and service delivery gaps.

Satisfaction Study Figures

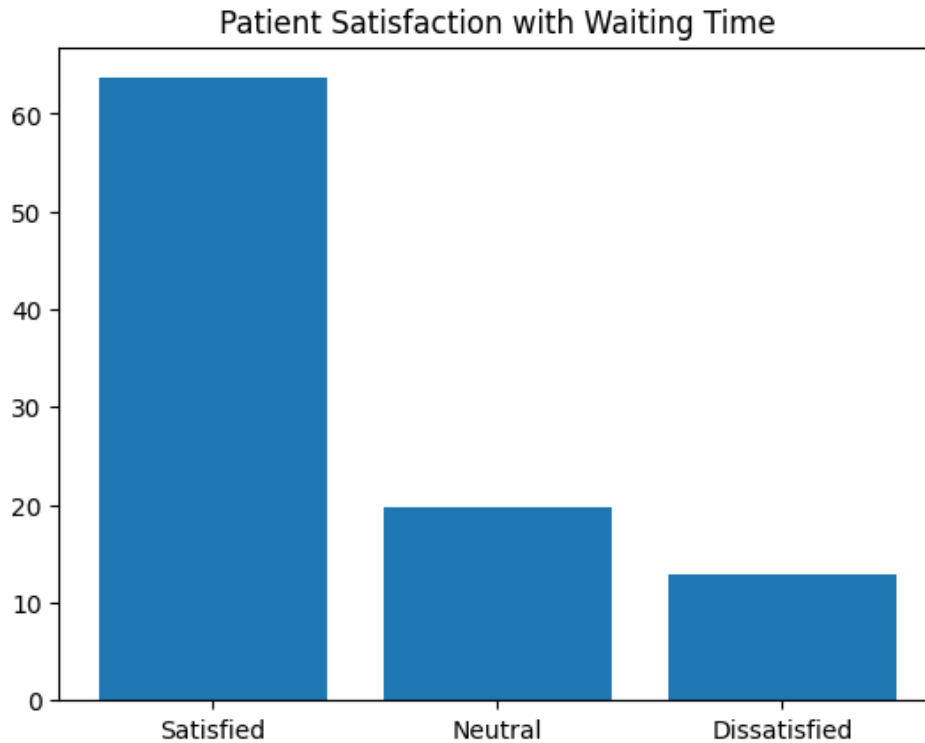


Figure 1. Patient Satisfaction with Waiting Time

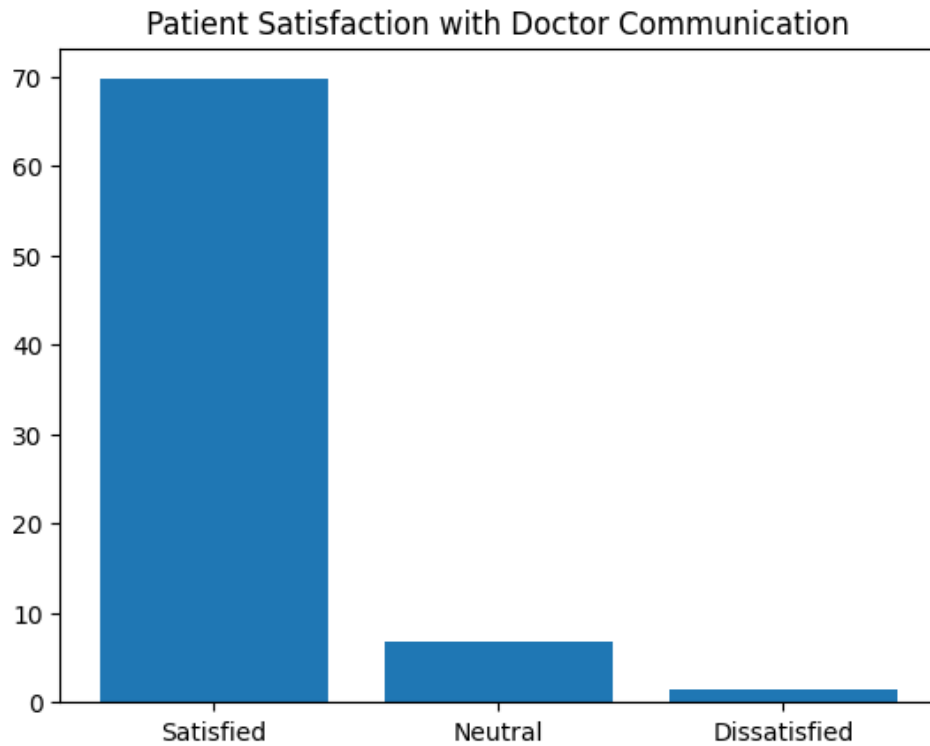


Figure 2. Patient Satisfaction with Doctor Communication

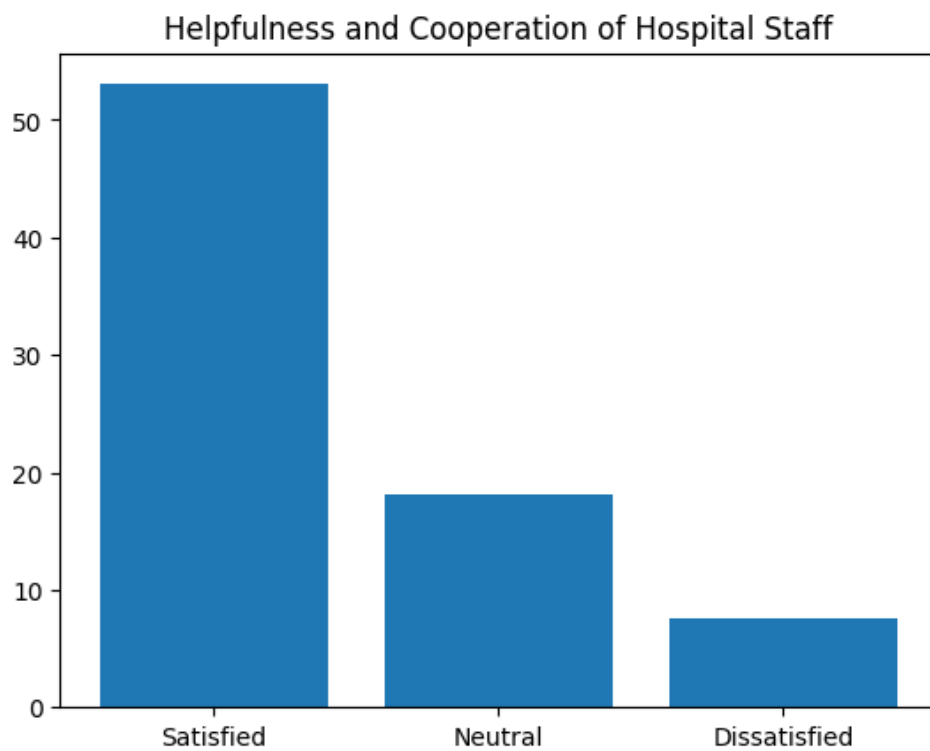


Figure 3. Helpfulness and Cooperation of Hospital Staff

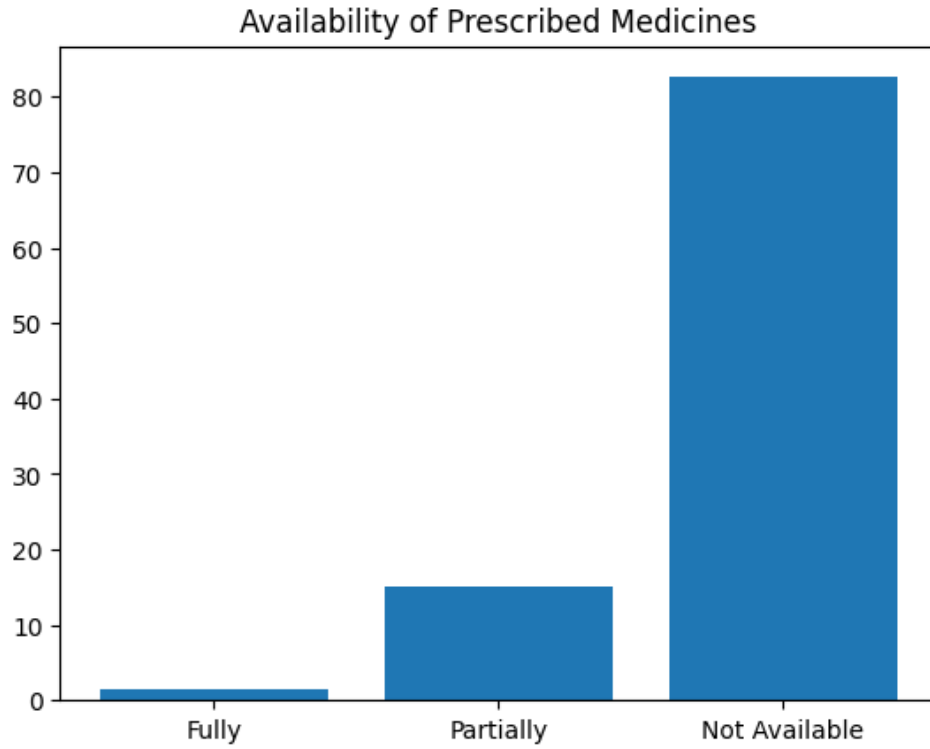


Figure 4. Availability of Prescribed Medicines

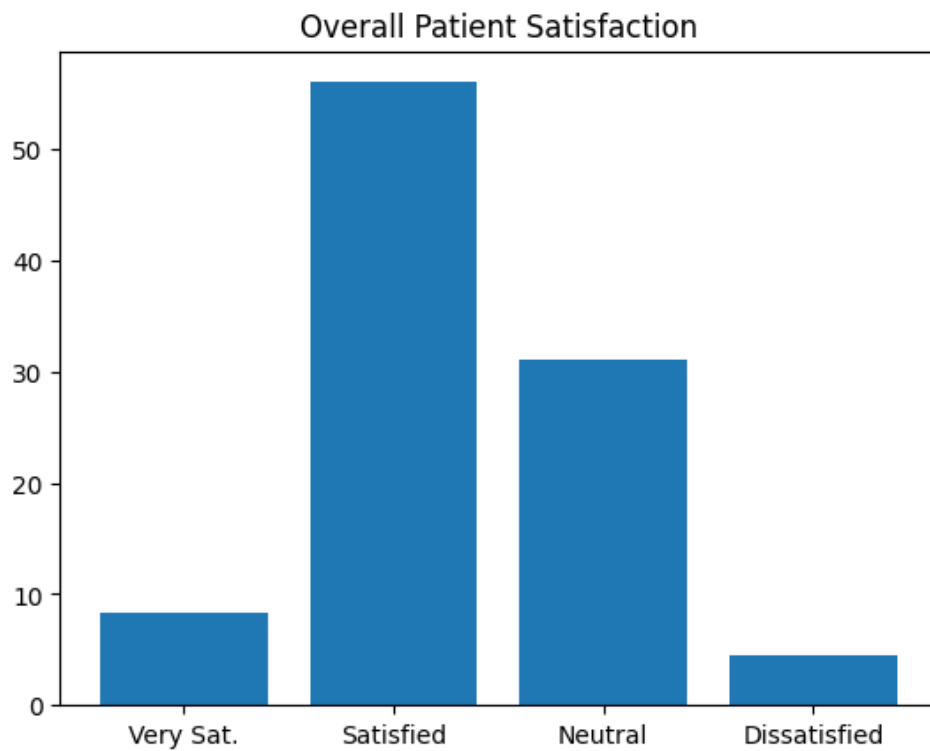


Figure 5. Overall Patient Satisfaction with OPD Services

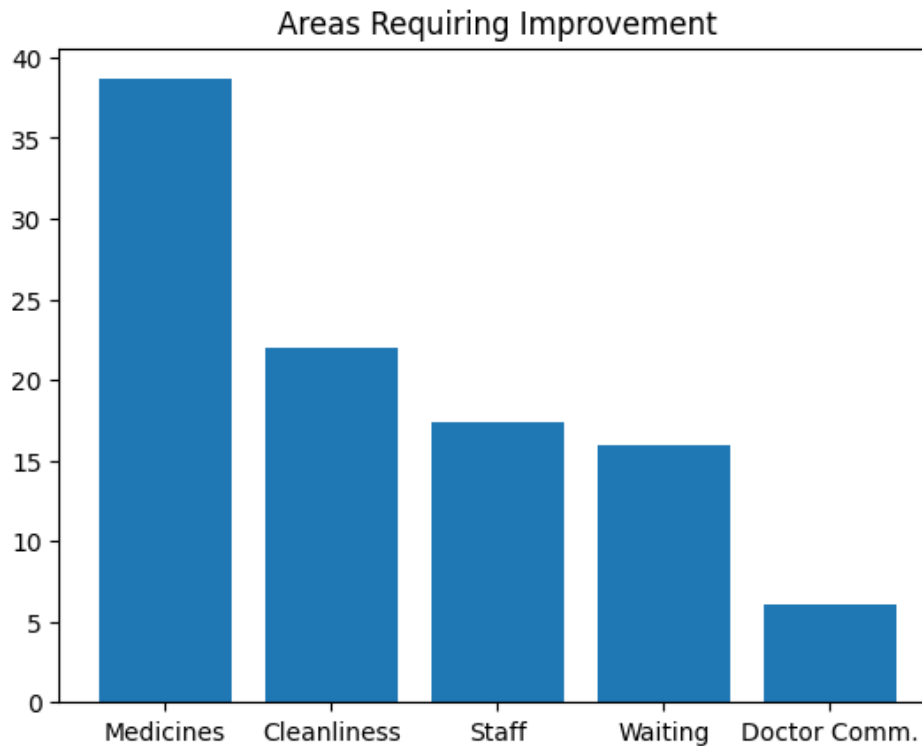


Figure 6. Areas Requiring Improvement in OPD Services

5. DISCUSSION

The present study was conducted to assess patient satisfaction with healthcare services provided in the outpatient department (OPD) of DHQ Hospital Parachinar, District Kurram. A total of 132 patients participated in the study. Patient satisfaction is recognized as an important indicator of healthcare quality because it reflects patients' perceptions regarding service delivery, communication, accessibility, and overall healthcare experiences (10,11). The findings of the present study provide valuable insights into the strengths and challenges of OPD services and may contribute to future quality improvement initiatives.

The socio-demographic profile of the participants revealed an equal distribution of males and females, indicating that OPD services are utilized equally by both genders. The majority of respondents belonged to the younger and middle-aged population, particularly between 18 and 35 years of age. Similar patterns have been reported in studies conducted in public healthcare facilities where younger adults were found to be the most frequent users of outpatient services (17,18).

Furthermore, more than half of the respondents were illiterate and the majority belonged to rural areas. These findings are comparable to previous studies conducted in Pakistan, which reported that public healthcare facilities primarily serve populations with lower educational attainment and those residing in rural communities (23,31). Waiting time is considered one of the most influential determinants of patient satisfaction in outpatient departments. In the present study, more than half of the participants reported waiting less than 30 minutes before seeing a doctor, and most respondents expressed satisfaction with the waiting time. Similar findings have been reported by Ali et al. (32), who observed that shorter waiting times were associated with higher patient satisfaction in public hospitals of Khyber Pakhtunkhwa. However, a considerable proportion of respondents in the current study reported longer waiting times, primarily due to high patient load. Previous studies have similarly identified overcrowding, insufficient staffing, and poor patient flow management as major

contributors to prolonged waiting times and reduced patient satisfaction (13,18,19).

Consultation time is another important factor affecting patient perceptions of healthcare quality. In the present study, most participants reported consultation durations ranging between 5 and 10 minutes. Although this consultation duration may appear relatively short, it is consistent with findings reported in public healthcare facilities of developing countries where physicians must attend to large numbers of patients daily (20,21). Despite the limited consultation duration, participants generally expressed satisfaction with their interactions with healthcare providers, suggesting that the quality of communication may have a greater influence on satisfaction than consultation length alone.

Doctor-patient communication emerged as one of the strongest positive aspects of healthcare services in the present study. The majority of respondents reported that doctors listened carefully, explained diseases and treatment plans clearly, and encouraged patients to ask questions. These findings are consistent with those reported by Jenkinson et al. (4) and Qidwai et al. (26), who found that effective communication significantly improved patient satisfaction and trust in healthcare providers. Similarly, Hall et al. (9) reported that patients who perceive healthcare providers as attentive and communicative are more likely to adhere to treatment recommendations and maintain continuity of care. Effective communication remains a fundamental component of patient-centered healthcare and is closely linked with improved healthcare outcomes (5,8).

The behavior and communication skills of nursing and support staff were also positively perceived by participants. More than half of the respondents expressed satisfaction with nursing care, staff courtesy, and helpfulness. These findings are in agreement with studies conducted by Alrubaiee and Alkaa'ida (15) and Manzoor et al. (16), which demonstrated that respectful staff behavior and positive interpersonal interactions significantly contribute to patient satisfaction. Healthcare workers who display empathy, cooperation, and professionalism can positively influence patients'

overall perceptions of healthcare quality, even in resource-limited settings.

Despite the positive findings regarding communication and staff behavior, significant concerns were identified regarding the availability of medicines. More than four-fifths of participants reported that prescribed medicines were not available in the hospital pharmacy, and all respondents had to purchase medicines from outside pharmacies. This finding is consistent with reports from public healthcare facilities in Pakistan, where shortages of essential medicines remain a common challenge (25,27). According to Hussain et al. (27), medicine availability is one of the strongest predictors of patient satisfaction in public hospitals. The lack of essential medicines increases out-of-pocket expenditures and may limit access to timely treatment, particularly among economically disadvantaged populations.

Hospital cleanliness and sanitation were also evaluated as important components of healthcare quality. In the present study, many respondents expressed neutral opinions regarding hospital cleanliness, while a substantial proportion reported dissatisfaction with the cleanliness and functionality of toilet facilities. Similar findings have been reported in studies assessing healthcare quality in developing countries, where inadequate infrastructure and poor sanitation were associated with lower levels of patient satisfaction (14,21). A clean healthcare environment is essential not only for patient comfort but also for infection prevention and quality healthcare delivery.

Overall satisfaction with OPD services was generally favorable. More than half of the respondents reported being satisfied with the services provided, and an overwhelming majority stated that they would recommend DHQ Hospital Parachinar to others. These findings are comparable to those reported by Ahmad et al. (37) and Khan and Ali (28), who found moderate to high levels of patient satisfaction in district and tertiary-level hospitals in Pakistan. The willingness of patients to recommend the hospital reflects a positive perception of healthcare services and trust in the institution.

When participants were asked to identify areas requiring improvement, the most frequently reported concern was medicine availability,

followed by cleanliness, staff behavior, waiting time, and doctor communication. Similar priorities have been reported in previous studies conducted in Pakistan and other developing countries, where medicine shortages and infrastructure limitations were identified as major barriers to patient satisfaction (21,25,27,32). Addressing these challenges through improved resource allocation, infrastructure development, and continuous quality improvement programs may substantially enhance patient experiences and healthcare outcomes.

Overall, the findings of the present study are consistent with existing literature demonstrating that patient satisfaction is a multidimensional concept influenced by communication, staff behavior, waiting time, availability of medicines, and healthcare infrastructure (11,16,21). Strengthening these components through effective healthcare management and patient-centered approaches may contribute to improved healthcare quality and greater patient satisfaction at DHQ Hospital Parachinar.

6. CONCLUSION

The present study assessed patient satisfaction with healthcare services provided in the outpatient department (OPD) of DHQ Hospital Parachinar, District Kurram. The findings demonstrated that the overall level of patient satisfaction was generally positive, with most respondents expressing satisfaction regarding doctor communication, attentiveness during consultation, nursing care, and staff cooperation. These findings highlight the importance of effective interpersonal communication and respectful patient-centered care in shaping positive healthcare experiences. However, the study also identified important challenges, particularly the unavailability of prescribed medicines in the hospital pharmacy, concerns regarding hospital cleanliness and sanitation, and delays associated with high patient load. Despite these limitations, the majority of patients reported confidence in the services provided and expressed willingness to recommend the hospital to others. Therefore, improving medicine availability, hospital infrastructure, sanitation facilities, and operational efficiency can further enhance patient satisfaction and

strengthen the quality of healthcare services at DHQ Hospital Parachinar.

7. RECOMMENDATIONS

Based on the findings of the present study, several recommendations are proposed to improve patient satisfaction and service quality in the outpatient department of DHQ Hospital Parachinar. The hospital administration should ensure a continuous supply of essential medicines in the hospital pharmacy to reduce patients' dependence on outside pharmacies and minimize out-of-pocket expenditures. Measures should also be implemented to improve hospital cleanliness, sanitation standards, and maintenance of toilet and waiting facilities. Patient flow management systems should be strengthened to reduce waiting times and improve service efficiency, particularly during periods of high patient attendance. Continuous professional training programs should be organized for doctors, nurses, and support staff to maintain effective communication skills, professionalism, and patient-centered care practices. Furthermore, regular patient satisfaction surveys and feedback mechanisms should be institutionalized to monitor service quality and identify areas requiring improvement. Additional support from government and health authorities is also recommended to strengthen staffing, infrastructure, medicine procurement systems, and overall healthcare resources at the district hospital level.

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