PATIENTS SATISFACTION IN NANGARHAR PUBLIC AND PRIVATE TEACHING HOSPITALS: AN OBSERVATIONAL CROSS-SECTIONAL STUDY

Lal Mohammad Rohani[1], Sadaqat Momand[2], Waheed Ullah Hafiz[*3], Ahmad Jan Gharwal[4]

[1]Lecturer Para-clinic Department, Faculty of Medicine, Bayazid, Rokhan Institute of Higher Education, Kabul, Afghanistan
[2]E.N.T Specialist, Nangarhar University Teaching Hospital, Nangarhar, Afghanistan
[*3]Lecturer, Basic Science Department, Faculty of Medicine, Bayazid Rokhan Institute of Higher Education, Kabul, Afghanistan
[4]Physician, Misaq Curative Hospital, Kabul, Afghanistan

[1]imrohani2023@gmail.com, [2]momandsadaqat@gmail.com, [*3]hafizwaheedullah@gmail.com, [4]gharwalahmad2023@gmail.com

Abstract

Back ground: *Patient satisfaction is the assessment of patient consent after receiving health care. Or the patient's satisfaction is the assessment of the contentment of health care Receiver in the middle of health caring.*

Methodology: *We conducted an observational study with cross sectional approach from Dec 2023 to Jan 2024 in four teaching hospitals i.e. Nangarhar University teaching hospital(NUTH), Spinghar Momand Teaching Hospital(SMTH), Roshan Teaching Hospital(RTH) and Aryana Danishmal Teaching Hospital(ADTH) across Jalal Abad City. A Cluster sampling method used to assess patient satisfaction in overall 322 OPD patients by standard PSQ-18 questionnaire conveniently.*

Results: *Total of 322 patients (255 from public 77 from private) were cluster based interviewed according to the number of theirs last year OPD visits. Overall satisfaction among 322 participants were [88.07 %(4.40±0.12)]. We observed variation across seven dimensions. The overall satisfaction in NUTH was [89% (4.45±0.74)]. The highest rate of satisfaction was about Interpersonal manner [94.2 %(4.71±0.67)] and the least satisfaction was about Accessibility & convenience [81.8 %(4.09±0.8)]. At SMTH the overall satisfaction was [87.2% (4.36±0.6)]. The highest rate of satisfaction was about Time spent with doctor [96.6 %(4.83±0.46)] and the least satisfaction was about General satisfaction [81.2 %(4.06±0.7)]. In RTH overall satisfaction was [80.54 %(4.02±0.74)]. The highest rate of satisfaction was about Time spent with doctor [94 %(4.7±0.94)] and the lowest rate of satisfaction was about Financial aspect [54 %(2.7 ±1.03)] and Accessibility and convenience [77.4 %(3.87±0.84)].*

Conclusion: *We determined that patient satisfaction varied significantly across several dimensions in four hospitals (one public and three private). Patients expressed the least satisfaction in accessibility and convenience, General*

satisfaction, and financial aspect while showing high satisfaction in interpersonal interactions, and time spent white physician.

Targeted initiatives aimed at enhancing the aspects of patient satisfaction in areas with low satisfaction levels are necessary. Regularly perform analogous investigations at diverse tiers of healthcare facilities nationwide to obtain a comprehensive understanding of patient satisfaction across different levels.

INTRODUCTION

Five publications provided one or more definitions of patient satisfaction, with the earliest definition dating back to 1975 and the most recent term from 2001.Four out of five definitions characterize patient satisfaction as a response to, or result of, an interaction between patients and healthcare professionals ((Findik, 2010) **; Larrabee, 2003; Mrayyan, 2006; Suhonen et al., 2012).** In these definitions, patient satisfaction is an evaluation conducted after care. The fifth identifies patient satisfaction as an indicator of the existing relationship between healthcare providers and consumers **(Rios-Risquez.M.I., 2016)** .It is an assessment conducted during the care process, rather than a post-care evaluation of satisfaction or outcomes. **(Goodrich, 2023)** Patient satisfaction has long been seen as a pivotal aspect in assessing health outcomes and the quality of healthcare, since it acts as a significant indicator of healthcare service quality. Prior research indicated that content patients were more inclined to form favorable relationships with the healthcare system, so enhancing adherence and continuity of care, ultimately leading to improved health outcomes. Patient satisfaction is seen as a crucial metric for evaluating the efficacy of health care, as it can predict both adherence and use. The global restructuring of healthcare systems has concentrated on methods to enhance patient satisfaction. **(Alhajri, 2023)**

Previous research has demonstrated that patient satisfaction with healthcare services is a primary factor influencing healthcare outcomes and service quality. Patient satisfaction is essential since it highlights the strengths and flaws of healthcare, so facilitating the enhancement of treatment quality and future planning.

Identifying specific characteristics of patient satisfaction also facilitates the establishment of a framework aimed at enhancing healthcare quality. (Alhajri, 2023)

Numerous published research underscore the significance of patient-related and socioeconomic factors in shaping patient satisfaction with healthcare services. Mummalaneni and Gopalakrishna (Mummalaneni V, 1995) state that socio-demographic characteristics such as age, gender, occupation, job status, education, and income influence patients' satisfaction with healthcare. Furthermore, **Gordo** (Gordo **LR., 2006)** examines data from the German Socio-Economic Panel and identifies a significant correlation between long-term unemployment and patient satisfaction, while noting a negligible correlation between short-term unemployment and patient satisfaction, contingent upon gender. **(Popescu L, et al, 2007)**investigate the correlation between health status and health expenditures, as well as healthcare provisions (hospital beds and physicians per capita), and identify a significant relationship between self-reported health status and health expenditures and services.

The participant's education level was recognised as a significant predictor of patient satisfaction in a study conducted in Oman **(Alkaabi S, et al, 2019)**

A study revealed considerable difference in satisfaction levels with health services provided by Saudi Arabian primary health centres, influenced by age, gender, chronic health conditions, and work status. **(Alughaiman, A., et al, 2018).**

A new survey from Saudi Arabia indicates that employed, highly educated, younger male patients demonstrated elevated satisfaction levels with hospital treatments as measured by the PSQ-18 patient satisfaction scale. Mapping the degree of satisfaction concerning various clinical and sociodemographic factors and examining their influence on patients' satisfaction metrics including general satisfaction, technical quality, inter

personal manner, communication, financial aspects, time spent with the doctor, and accessibility will facilitate the identification of specific areas requiring enhancement. A cross-sectional study was done to assess the satisfaction levels of general patients regarding the healthcare services offered at tertiary care facilities in Riyadh, Saudi Arabia.

Furthermore, it sought to examine the critical components of the patient satisfaction scale for prompt intervention and to ascertain the determinants of patient satisfaction. **(Aljarallah, 2023)**

Consumer satisfaction is becoming increasingly significant in quality of care changes and healthcare delivery across the United States and Europe. Nonetheless, consumer satisfaction surveys have difficulties due to the absence of a globally recognised definition or metric. Overall satisfaction with health services in European Union countries was good in all

but five nations, with over half of respondents indicating they were "very satisfied" or "fairly satisfied" with the services offered. **(Mohamed, 2015)** Fomba et al. discovered a significant level of satisfaction at community health care centres within the Bamako area, despite the subpar quality of services. A research in Thi-Qar, Iraq revealed that nearly fifty percent of respondents expressed dissatisfaction with the healthcare services provided. This high proportion of dissatisfaction correlated with low educational attainment, unemployment, male gender, and single marital status. A survey conducted in primary health care centres in Qatar revealed that overall satisfaction in the Gulf region was comparatively low. **(Mohamed, 2015)**

While various studies have examined patient satisfaction levels in different countries, there is, to our knowledge, a paucity of research investigating satisfaction levels in Afghanistan. The migration of numerous patients to neighbouring countries for treatment indicates low patient satisfaction and necessitates more study, since it results in the diversion of substantial financial resources and reflects poorly on the Afghan medical industry. The objective of this study is to evaluate patient satisfaction at teaching hospitals in the eastern areas of Afghanistan (Nangarhar, Jalalabad city), hence highlighting critical issues within our medical

community and addressing them accordingly. To enhance patient happiness and restore our medical reputation.

The objectives of this research were to:
(1) Assess patient satisfaction levels in the outpatient department of public and private teaching hospitals,
(2) Compare patient satisfaction levels between public and private hospitals,
(3) Evaluate various modifying factors and determinants of patient satisfaction.

Literature review
The term hospital derives from a Latin word that signifies both "guest" and "host," embodying the essence of warmth and hospitality fundamental to the hospital experience. The concept of patient happiness aligns with the advancements of the contemporary era. Diverse methods have been employed for definition. Patient contentment. It is characterised as the degree of an individual's experience in relation to their expectations. A valuable metric for assessing a health professional's effectiveness is the level of patient satisfaction over their treatment or demeanour. The contemporary world has acknowledged and executed the principles of customer care and customer happiness. This has also become evident in the medical field (Jan, 2020). Patient satisfaction is acknowledged as a critical metric of quality for healthcare services delivered by hospitals. **(Jan. A & Ishtiaq, 2017)**

The significance of patient happiness in contemporary medicine cannot be overstated. It is a prospective instrument that can consistently provide insight into the performance of a hospital and healthcare personnel, either directly or indirectly (Jan, 2020).

A comparative cross-sectional study was conducted in public and private teaching hospitals in Islamabad from September 2014 to July 2015. Patients at public and private teaching hospitals in Islamabad were randomly surveyed to evaluate their satisfaction utilising the SERVQUAL tool. The Z-test was employed for significance, while the Spearman test assessed the correlation between patient satisfaction and age, education level, number of admissions, waiting time for a significant doctor post-admission, and duration of hospital stay. The chi-square test was utilised to examine the relationship between patient

satisfaction and type of admission, marital status, and gender. The results indicated that a total of 240 patients participated in the trial. Patient satisfaction levels in the private sector exceeded those in public sector hospitals (p < 0.001). Patient satisfaction levels in public and private institutions exhibited no substantial variation. In general, married individuals exhibited greater satisfaction (p < 0.001). A diminished link was observed between satisfaction and the frequency of patient admissions, educational attainment, total admissions, and duration of hospitalisation; however, no significant association was identified with age, gender, or admission type. No link was identified between satisfaction and waiting time for a physician upon admission (Jan. A & Ishtiaq, 2017)

A cross-sectional study utilising a questionnaire was conducted by Ali, S. M. et al in Pakistan during November and December 2017, involving 572 patients undergoing therapy registered with Primary Health Care Providers in the PPM project. In a selection of 75 districts, 19 were randomly selected, yielding a study population comprising 53% (n = 301) males and 47% (n = 271) females, with a mean age of 38 years (SD, ±18). Nearly half of the participants were illiterate (51%, n = 289), and 64% (n = 365) were non-earning family members. In practice, the majority of participants consult private providers (71%, n = 407), comprising private hospitals/clinics (44%) and traditional practitioners (27%; n = 153); 55% of participants choose their current physician due to the clinic's closeness to their residence. Among the participants, 82% (n = 469) expressed satisfaction with tuberculosis care services, while 85% (n = 488) indicated they would recommend this clinic to others. (Ali, 2019)

A cross-sectional survey involving 102 patients was conducted using the Patient Satisfaction Questionnaire-18. Systematic random sampling was employed to obtain samples. Results: Overall satisfaction was 73.1%, with a mean score of 3.655. The highest satisfaction was observed in general satisfaction, while the lowest was in the time spent with doctors. (Chakraborty, et al, 2016)

This was a descriptive cross-sectional study including 470 participants recruited by convenience sampling. The data was collected by face-to-face interviews use a semi-structured questionnaire. Both descriptive and inferential statistics (chi-square test and independent t-test) were employed for data analysis. The study findings indicated that over two-thirds of participants (86.0%) expressed satisfaction with the hospital services, and patient satisfaction levels were not correlated with the study variables. Among the five domains, patients expressed satisfaction with the quality of medical care, accessibility of services, and nursing care, while they were dissatisfied with hospital policies and amenities. Patients expressed satisfaction with most aspects across five domains; however, they also indicated dissatisfaction with certain elements, including the explanation of procedures and the manner of health advice delivery by nurses, the cleanliness of beds, toilets, and water facilities, the payment system, and the timing of inpatient visits (Adhikari, M., et al, 2021)

This study was an analytical observational investigation utilizing a cross-sectional methodology. This study was performed in ten hospitals located in Central Sulawesi. There were 1,070 samples, comprising 107 patients from each facility. Patient satisfaction was assessed using the Community Satisfaction Index (CSI) Questionnaire, consisting of 38 closed-ended questions. Results: The mean total satisfaction level was 75.99 (11.28), categorizing it as B for service quality and "Good" for service performance. The peak satisfaction level was in competences, attaining 78.25 (13.48), while the lowest was in Handling Complaints, Suggestions, and Feedback, at 73.90 (14.01). The satisfaction level in all categories was classified as category B for service quality and "Good" for service performance. (Mutiarasari, D., et al, 2021)

A cross-sectional study was conducted at the outpatient department of Bhaktapur Hospital in Nepal. They employed a systematic random sample strategy to recruit people for the study. A validated Patient Satisfaction Questionnaire III (PSQ-III), created by the RAND Corporation, was employed, incorporating numerous contextual socio-demographic factors. Calculated the mean score and satisfaction percentages across seven dimensions of patient satisfaction. They employed a multi-ordinal logistic regression to ascertain the relationship between several facets of patient satisfaction and the socio-demographic features of the patients. Outcomes: In a cohort of 204 patients, we noted

significant variability in patient satisfaction across seven parameters. Approximately 39% of patients expressed satisfaction with general contentment, 92% in terms of interpersonal interactions, and 45% concerning accessibility and convenience. Sociodemographic variables, including age (AOR: 6.42; CI: 1.30–35.05), gender (AOR: 2.81; CI: 1.41–5.74), and ethnicity (AOR: 0.26; CI: 0.08–0.77), were correlated with overall patient satisfaction. Additional sociodemographic characteristics, including education, occupation, and religion, were correlated with most measures of patient satisfaction (p<0.05). Age emerged as the most significant indicator of patient satisfaction across five of the seven criteria. (**Adhikari, M., et al, 2021**)

The study was a cross-sectional, facility-based investigation. The sample consisted of 370 patients chosen through stratified and systematic sampling at both the health center and patient levels. The data were gathered using a validated questionnaire and analyzed with SPSS software. The patients' satisfaction level was 82%. Satisfaction was attributed to the cleanliness of the facilities and the technical competencies of the staff, accounting for 33.1% and 24.2%, respectively. The research indicated that the predominant cause of discontent was the inappropriate architecture (29%). A notable correlation was identified between patients' satisfaction with primary healthcare center services and the respondents' educational attainment. (**Alhajri, 2023**)

Methodology

An observational cross-sectional study conducted to evaluate patient satisfaction levels in public and private teaching hospitals in Jalalabad city. The data was collected from 1/11/ 2023 to 25/12/ 2023.

Population under investigation: The population for this study comprised all patients visiting the four teaching hospitals (NTH, Roshan, Spinghar, Aryana).

Sample size:

using the standard sample size calculator with the 0.05 margin of error and confidence level of 95% and 66690 patients are the population of two months OPD patients of public and private teaching hospitals are estimated. The sample size calculation was 322 patients by using standard sample size

calculator. A total of 330 questionnaires. 8 extra questionnaire was filled for some incomplete data collection or missed questionnaire.

Sample technique:

The cluster sampling technique was employed to choose the study participants. Initially, we segmented our comprehensive inquiry into four sections based on the previous year's total outpatient department (OPD) statistics of these hospitals. Two hundred fifty-five questionnaires were distributed to Nangarhar Teaching Hospital, fifty-four to Spinghar Private Teaching Hospital, ten to Roshan Teaching Hospital, and three to Aryana Teaching Hospital. Subsequently, we conducted interviews with patients from each department utilizing cluster sampling. The number of questionnaires selected for each department was based on the number of outpatient department visits in 2021.

Inclusion criteria:

All patients from Outpatient Departments (OPD) are included.

Criteria for exclusion:

Patients with intellectual disabilities and emergency cases will be excluded from the trial.

Data collection instruments:

patients was questioned in person following the correct acquisition of consent. Participation in this study was entirely voluntary. The participant was approached at hospitals during their outpatient department visits from 8:00 AM to 2:00 PM. The research utilizes a standardized questionnaire (PSQ-18).comprising 18 items categorized into seven aspects: overall satisfaction (2 items), interpersonal manner (2 items), technical quality (4 items), financial aspect (2 items), time spent with the doctor (2 items), and accessibility and convenience (4 items).Each question in the PSQ-III utilizes a 5-point Likert scale, encompassing the responses: "strongly disagree," "disagree," "neutral," "agree," and "strongly agree." All items are rated on a scale from one to five, with higher scores indicating greater satisfaction with healthcare. Following the scoring of each item within the respective scales, the results will be averaged to get seven subscale scores. All items were evaluated in a manner that the scoring system

accurately reflects satisfaction with health facilities. Upon achieving the maximum scale score, the mean and percentage of satisfaction will be computed. Questionnaires were accessible at no cost in the public domain. Interviews were administered in the Pashto language. Each interview lasted approximately 3 to 7 minutes.

Quantitative analysis

Upon the completion of data collection. Data entry, verification, and analysis were conducted using Microsoft Excel. The sociodemographic features of the respondents were delineated using frequencies and percentages. We computed the mean and standard deviation for the Likert scale of each item in the PSQ-18. Subsequently, we computed the frequencies and percentages of satisfied, neutral, and unsatisfied patients. In accordance with the directives of the Patient Satisfaction Questionnaire (PSQ-18), we categorized satisfaction for each item as follows:

I. Responses of 'Strongly agree' or 'Agree' indicate satisfaction for Items: 1, 2, 3, 5, 6, 8, 11, 15, and 18.

II. 'Strongly disagree' or 'Disagree' equates to satisfaction for items: 4, 7, 9, 10, 12, 13, 14, 16, and 17.

Section III. The scoring system for all items spans from 1 (highly dissatisfied) to 5 (extremely satisfied).

The mean score for each item was computed such that a higher score indicates a greater level of satisfaction for all items in the PSQ-18. To get the overall score in each domain, we computed the average of the scores for specified questions in accordance with PSQ-III guidelines, as detailed below.

I. Overall satisfaction: Item 3 and Item 17

II. Technical Quality: Items 2, 4, 6, and 14

III. Interpersonal Conduct: Items 10 and 11

IV. Communication: Item 1 and Item 13

V. Financial Considerations: Items 5 and 7

VI. Duration of Consultation with Physician: Item 12 + 15

VII. Accessibility and Convenience: Items 8, 9, 16, and 18

Result

Socio-demographic characteristic

The sociodemographic features of all 322 participants across four hospitals. Presented in Table3 and Figure1.

The minimum age was 0.01 years, the maximum age was 80 years, and the mean age of all 322 patients was 23 ± 21.46 years. A total of 149 (46.27%) female and 173 (53.72%) male patients were enrolled. A total of 227 patients (70.49%) were illiterate, 286 participants (88.81%) were unemployed, and 159 individuals (49.37%) were in a poor economic condition. Overall satisfaction was measured at 88.07% (4.40±0.12). This was seen as a favorable satisfaction rating. Socio-demographic characteristics of each hospital listed below. Patient satisfaction across seven dimensions, as illustrated in table() and figure(), indicates that patients expressed more satisfaction in the dimension of interpersonal manner [93.22% (4.661±0.68)]. Duration of consultation with physician [92.73% (4.63±0.80)] and least happy in the aspects of accessibility and convenience [81.97% (4.01±0.78)], financial aspect [84.65% (4.23±1)], and overall satisfaction [86.89% (4.34±0.75)].

Table 3: Socio demographic presentation of Participants according to f-%

VALUE		F	Percentage %
Literacy	Literate	227	70.49 %
	Illiterate	95	29.5%
Economic state	Good	39	12.11%
	Medium	124	38.5%
	Poor	159	49.37%
Job	Employment	36	11.18%
	N employment	286	88.81%
Gender	Male	173	53.72%
	Female	149	46.27%

Table 4: Mean, Standard Deviation, Percentage of Overall level of Satisfaction

Value	GS	TQ	IPM	COM	FA	TSD	ACC&CON	Average
MEAN	4.34472	4.419255	4.661491	4.43323	4.232919	4.636646	4.098602484	4.403838
SD	0.756562	0.611165	0.68836	0.659969	1.000827	0.800093	0.781766255	0.1273
max mean	5	5	5	5	5	5	5	5
Percentage	86.89441	88.38509	93.22981	88.6646	84.65839	92.73292	81.97204969	88.07675

Graphical presentation of Over all Level of satisfaction
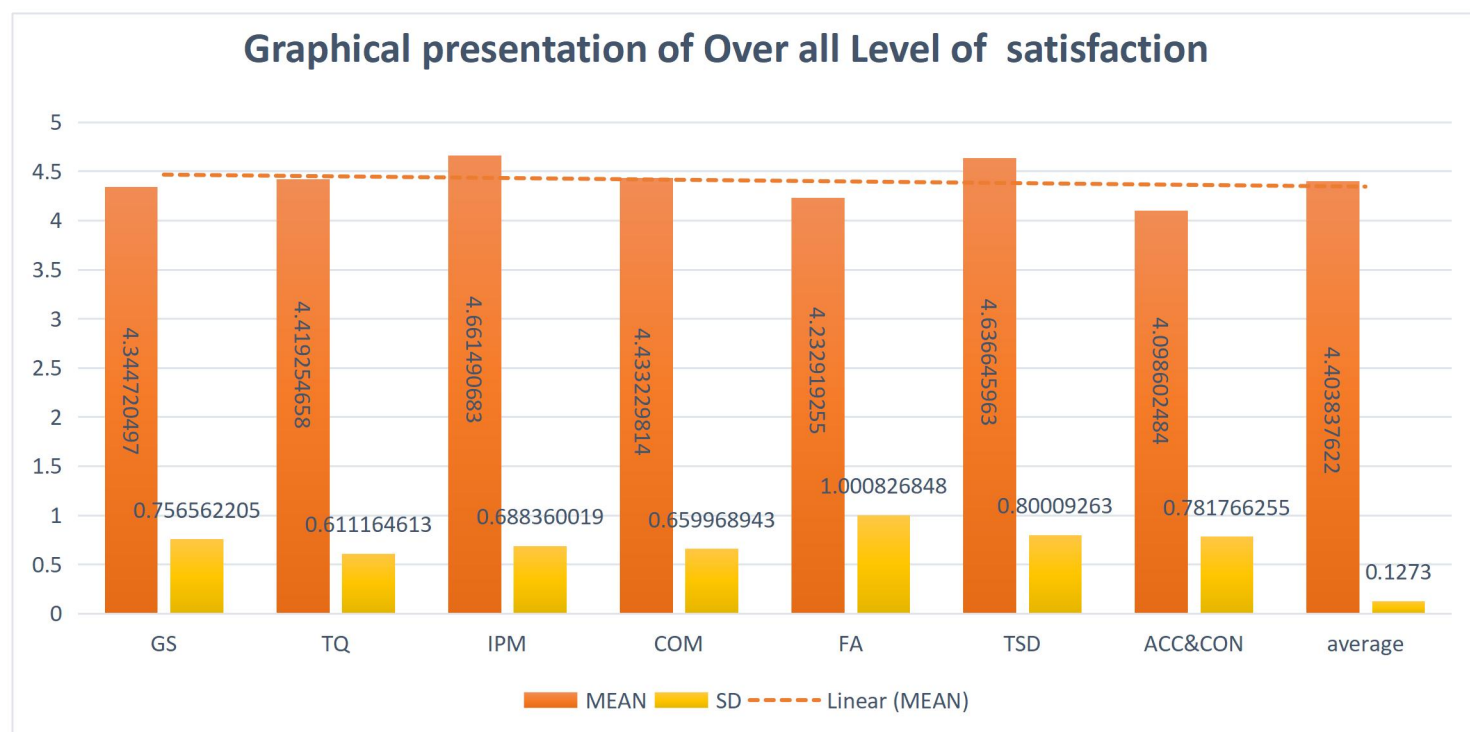
The satisfaction levels and socio-demographic characteristics for each hospital are detailed in Table 5. The mean ages were as follows: 1 = (23.74 ± 21.41), 2 = (18.28 ± 20.68), 3 = (34.94 ± 23.22), 4 = (6.44 ± 8.31). In NUTH, SMTH, RTH, and ADTH, correspondingly. Over half of the respondents (53.93%, 55.55%, 60%) were male in NUTH, SMTH, and RTH, respectively. The majority of patients were single, including 55.11% at NUTH and 66.66% at SMTH. Approximately 50.78% of the patients indicated that they travelled fewer than 30 minutes by car to reach the NUT Hospital. Among the patients, 53.29% from SMTH and 70% from RTH travelled more than 30 minutes by car to reach the hospital. The majority of respondents were illiterate: 68.51% in NUTH, 79.62% in SMTH, 70% in RTH, and 66.66% in ADTH. The majority of participants were unemployed, comprising 89.37%, 85.19%, and 90% in NUTH, SMTH, and RTH, respectively. The economic condition of patients at NUTH was low, with a prevalence of 53.34%. The participant's economic condition was moderate in SMTH (50%), whereas it was favorable in RTH. Patients in reappointment at NUTH, SMTH, and RTH were 51.58%, 66.66%, and 50%, respectively.

variable	NUTH		SMTH		RCTH		ADTH	
	ƒ	%	ƒ	%	ƒ	%	ƒ	%
Age								
>18	123	48.42	31	57.4	8	80	0	0
= <18	132	51.57	23	42.6	2	20	3	100
Job								
Employment	27	10.62	8	14.81	1	10	0	0
No employment	228	89.37	46	85.19	9	90	3	100
Literacy								
Literate	80	31.49	11	20.37	3	30	1	33.34
Illiterate	175	68.51	43	79.62	7	70	2	66.66
Economic state								
Good	26	10.23	6	11.11	5	50	2	66.66
Median	93	36.61	29	53.7	1	10	1	33.34
Poor	136	53.54	19	35.18	4	40	0	0
Marital status								
Single	140	55.11	36	66.66	3	30	3	100
Married	109	42.91	18	33.34	7	70	0	0
Widow	6	2.3	0	0	0	0	0	0
SEX								
MALE	137	53.93	30	55.55	6	60	0	0
FEMALE	118	46.07	24	44.45	4	40	3	100
Distance from hospital								
<30min	129	50.78	25	46.29	3	30	3	100
>30min	126	49.22	29	53.29	7	70	0	0
Appoinmente								
First app	123	48.42	18	33.34	5	50	2	66.66
Reapp	132	51.58	36	66.66	5	50	1	33.34

Table 5: Socio-Demographic Overview in Each Hospital

F = frequency; % = proportion

Patient satisfaction on seven dimensions at each hospital

Table 6 and Figure 2 summaries and graphically depict participant satisfaction across seven dimensions for each item of the PSQ-18 at NUTH.

In the realm of general happiness, around 88.2% of participants expressed contentment, asserting that the medical care they have received is nearly flawless. In the domain of Technical Quality, 89.4% of participants expressed satisfaction, indicating that their physicians were meticulous in their assessments and treatments. Moreover, in an interpersonal context, the majority (94.2%) of patients indicated that their physician interacted with them in a highly nice and courteous manner. In the Communication sector, 88.8% of participants expressed satisfaction, indicating that clinicians effectively communicate the rationale behind medical tests. Ninety percent of patients expressed satisfaction regarding their financial obligation, indicating they did not have to spend above what they could afford for their medical care. Furthermore, regarding the dimension of time spent with the doctor, almost 91.6% of patients expressed satisfaction, indicating that their doctors typically devoted ample time to them. In the dimension of accessibility and convenience, approximately 81.8% of participants expressed satisfaction. A significant number of patients (94.2%) reported pleasure in the dimension of Interpersonal manner of patient satisfaction. The factor of Accessibility & Convenience exhibited the lowest satisfaction rating at 81.8%.

Table 6: Satisfaction in Seven Dimension of NUTH

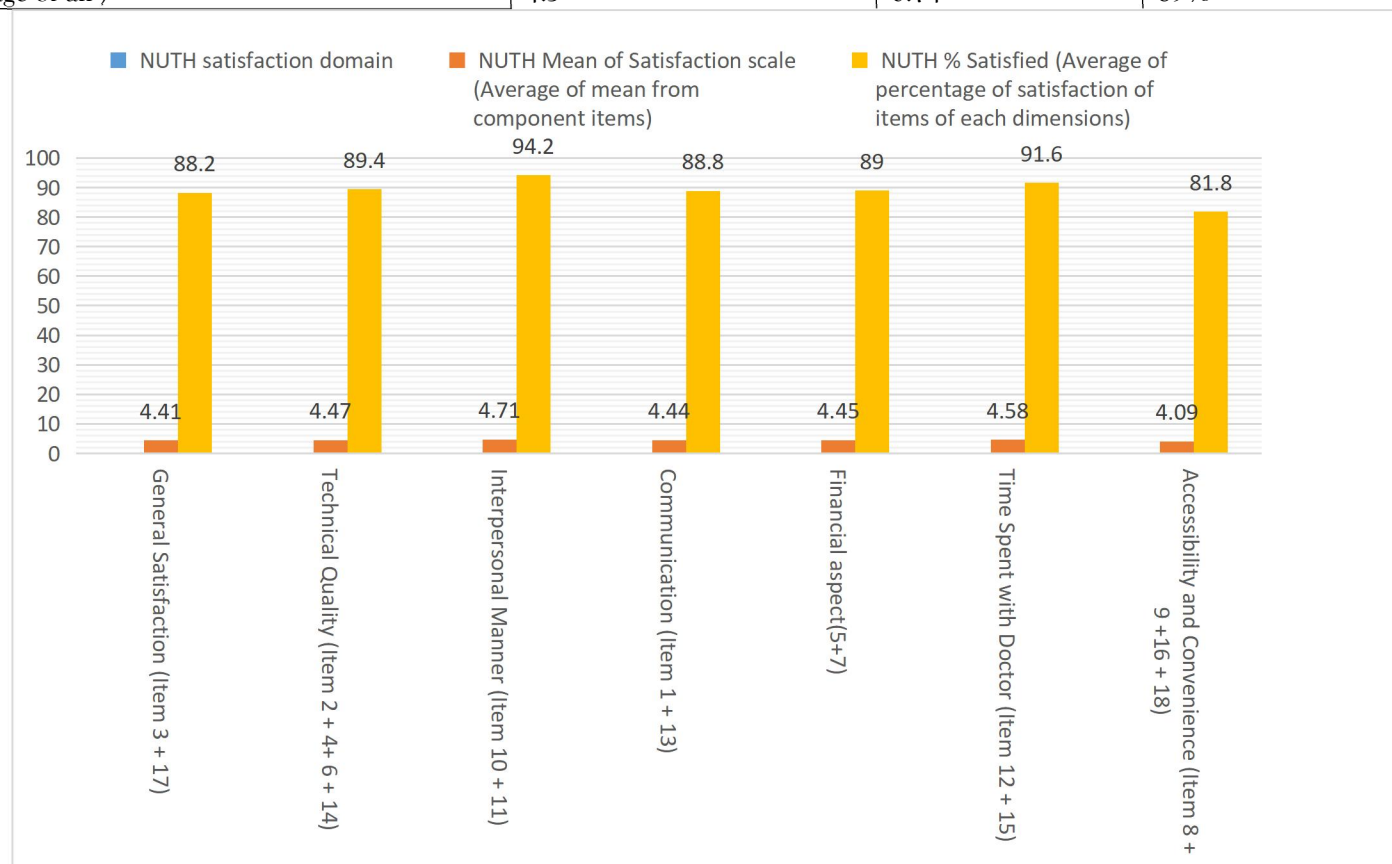| Satisfaction in seven dimension in NUTH			
satisfaction domain	Mean of Satisfaction scale (Average of mean from component items)	SD of each domain	% Satisfied (Average of percentage of satisfaction of items of each dimensions)
General Satisfaction (Item 3 + 17)	4.41	0.74	88.2
Technical Quality (Item 2 + 4+ 6 + 14)	4.47	0.6	89.4
Interpersonal Manner (Item 10 + 11)	4.71	0.67	94.2
Communication (Item 1 + 13)	4.44	0.68	88.8
Financial aspect(5+7)	4.45	0.87	89
Time Spent with Doctor (Item 12 + 15)	4.58	0.84	91.6
Accessibility and Convenience (Item 8 + 9 +16 + 18)	4.09	0.8	81.8
total(Average of all)	4.5	0.74	89%

Figure 2: Graphical presentation of Satisfaction in seven Dimension of NUTH

Table 7 and Figure 3 summarise and graphically illustrate the satisfaction levels of participants across seven dimensions for each question of the PSQ-18 of SMTH. In the realm of overall happiness, around 81.2% of participants expressed contentment, indicating that the medical care they have received is nearly flawless. Concerning the aspects of the Technical Quality area, the majority (84.6%) of participants expressed satisfaction, indicating that their physicians meticulously assessed all elements throughout treatment and examination. Moreover, over 88.4% of patients reported that their physician interacted with them in a notably friendly and courteous manner. In the Communication sector, approximately 87.2% of participants expressed satisfaction and indicated that physicians effectively

explained the rationale for medical tests. In the financial dimension, almost 90.2% expressed satisfaction and indicated their ability to afford the medical care received. Furthermore, regarding the dimension of time spent with the doctor, almost 96.6% of patients expressed satisfaction, indicating that their physicians typically devoted ample time to their consultations. In the dimension of accessibility and convenience, approximately 82.2% of participants expressed satisfaction. A large number of patients (96.6%) reported pleasure in the domain of interpersonal interactions. The facet of General Satisfaction exhibited the lowest level of satisfaction at 81.2%. The overall satisfaction rate was 87.2.

Table 7:Satisfaction in seven dimension of SMTH

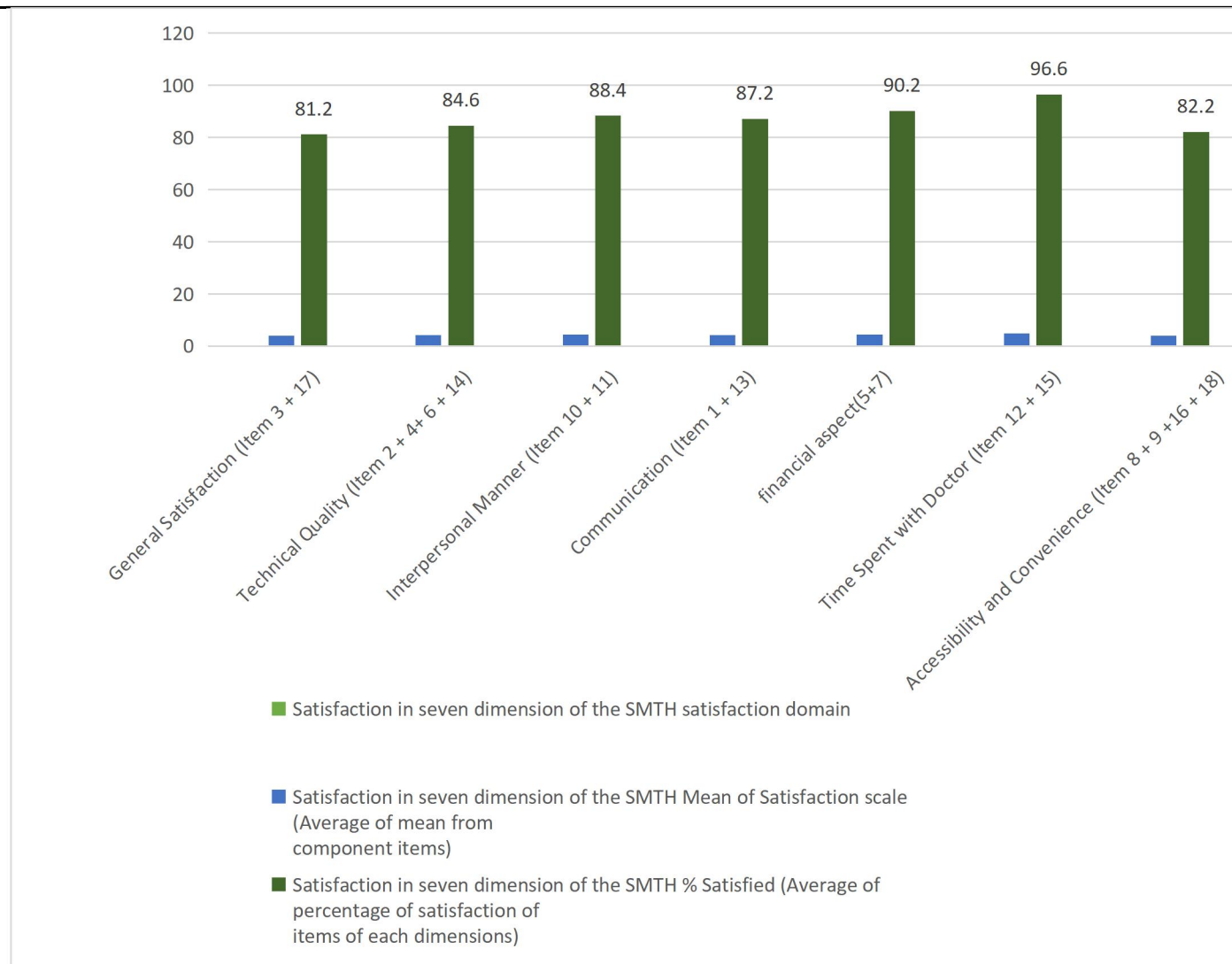| Satisfaction in seven dimension of the SMTH			
satisfaction domain	Mean of Satisfaction scale (Average of mean from component items)	SD of each domain	% Satisfied (Average of percentage of satisfaction of items of each dimensions)
General Satisfaction (Item 3 + 17)	4.06	0.7	81.2
Technical Quality (Item 2 + 4+ 6 + 14)	4.23	0.61	84.6
Interpersonal Manner (Item 10 + 11)	4.42	0.73	88.4
Communication (Item 1 + 13)	4.36	0.6	87.2
financial aspect(5+7)	4.51	0.96	90.2
Time Spent with Doctor (Item 12 + 15)	4.83	0.46	96.6
Accessibility and Convenience (Item 8 + 9 +16 + 18)	4.11	0.68	82.2
total(Average of all)	4.36	0.6	87.2

Figure 3: Satisfaction Across Seven Dimensions of SMTH

Table 8 and Figure 4 encapsulate and visually depict patient satisfaction across seven dimensions for each item of the PSQ-18 of RTH. In the realm of overall happiness, approximately 78% of participants expressed contentment, indicating that the medical care they have received is nearly flawless. Concerning the subject of Technical Quality, around 82.4% of participants expressed satisfaction, indicating that their physicians were meticulous in their examinations and treatments. Additionally, in the realm of interpersonal conduct, approximately 90% of patients indicated that their physician interacted with them in a notably friendly and courteous manner. In the Communication sector, approximately 88% of participants expressed satisfaction, indicating that clinicians effectively communicate the rationale behind medical tests. In the financial factor, 54% of participants reported that they were unable to afford additional medical care. Furthermore, on the dimension of time spent with the doctor, 94% of patients expressed satisfaction, indicating that their physicians often devoted ample time to them. In the dimension of accessibility and convenience, approximately 77.4% of participants expressed satisfaction. The overall satisfaction rate was 80.54%. A significant percentage of patient satisfaction (94.2%) was noted in the component concerning the time spent with the doctor. The lowest level of satisfaction recorded was 54%.

Table 8:Satisfaction in seven dimension of RTH

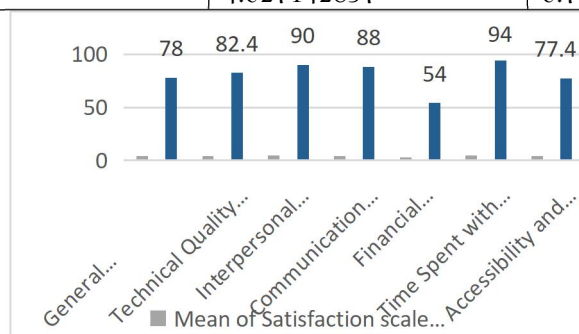| Satisfaction in seven dimension of the RTH			
satisfaction domain	Mean of Satisfaction scale (Average of mean from component items)	SD of each domain	% Satisfied (Average of percentage of satisfaction of items of each dimensions)
General Satisfaction (Item 3 + 17)	3.9	0.87	78
Technical Quality (Item 2 + 4+ 6 + 14)	4.12	0.63	82.4
Interpersonal Manner (Item 10 + 11)	4.5	0.57	90
Communication (Item 1 + 13)	4.4	0.31	88
Financial Aspect(5+7)	2.7	1.03	54
Time Spent with Doctor (Item 12 + 15)	4.7	0.94	94
Accessibility and Convenience (Item 8 + 9 +16 + 18)	3.87	0.84	77.4
total(Average of all)	4.027142857	0.741429	80.54285714

Figure 4: Satisfaction Across Seven Dimensions of RTH

Discussion

The contemporary era has transformed society due to the proliferation of several information modalities and media organizations, resulting in heightened awareness. The emergence of the internet has resulted in a new trend wherein patients utilize the aforementioned modalities and possess prior information of their condition. The convergence of these factors, together with the 21ed-century phenomenon of consumerism, has captivated the healthcare business. Although the majority of our study participants were in a disadvantaged economic condition, with limited access to social media and inadequate global connectivity, these factors may have influenced our study results. The significance of aligning with patients' expectations has substantially expanded, leading to the concept of patient satisfaction.

Our research focused on evaluating the many factors of patient satisfaction levels. We chose a standardized PSQ18, which comprises seven dimensions. Our research was performed in four teaching hospitals around Jalalabad city. We employed the cluster sampling method. Consequently, we allocated our sample size based on the number of outpatient department visits from the previous year. Table 9 indicates that Aryana Danishmal Teaching Hospital accommodates a limited patient volume compared to the other hospitals; hence, we excluded it from our comparative analysis with the other three institutions.

Table 9: Aggregate OPD Visits of 2021 Across Four Hospitals

HOSPITALS	Total annual OPD	%	PSQ-18
NUTH	315629	79.11	255
SMTH	69059	17.31	54
RTH	11160	2.79	10
ADTH	3096	0.77	3
Total	398944	99.98	322

We used a standardized questionnaire, PSQ-18, which comprises seven dimensions as previously described. Variations were seen across multiple dimensions in each of the three hospitals, as illustrated in Tables 6, 7, and 8, and Figures 3, 4, and 5.

Table 10: Comprehensive Satisfaction Levels in Each Hospital

Hospitals	Average of mean from dimension	Average of SD of each dimension	Over all satisfactions On %
Nangarhar university teaching hospitals	4.5	0.74	89%
Spinghar momand teaching hospitals	4.36	0.6	87.20%
Roshan Teaching Hospitals	4.02	0.741	80.54%

The data illustrates that the highest satisfaction rate at NUTH pertains to interpersonal manner, recorded at 94.2% (4.71±0.67), while the lowest rate concerns accessibility and convenience, at 81.8% (4.09±0.8SD). The total satisfaction rating is 89%, with a mean value of 4.5.Patient satisfaction exhibited minimal variation across the seven parameters in our investigation. The poor satisfaction score with accessibility and convenience is attributed to a greater number of individuals disagreeing or strongly disagreeing with item 8. I have easy access to the required medical specialist. Primarily influenced by the scarcity of requisite medical training specialists and the associated issues Challenges in securing prompt medical appointments include a deficiency of certain facilities or medical amenities and an inadequate sanitation system. Lake of potable water and hygienic toilets.

Which had the similarity whit the survey which recently conducted in West Bengal, analogous to our own, revealed that the highest level of satisfaction was in General Satisfaction at 76.28%, while the lowest was in Accessibility and Convenience at 69.71%. The overall satisfaction rate was 73.1%, with a mean value of 3.655. (Chakraborty, et al, 2016)

In SMTH, the highest satisfaction rate pertained to the dimension of Time spent with the doctor, at 96.6% (4.83±0.46 SD), while the lowest satisfaction rate was associated with the dimension of general satisfaction. Overall satisfaction was 87.2% (4.36±0.6 SD), while the satisfaction rate was 81.2% (4.06±0.7 SD). There is no extensive variation among the seven dimensions. The overall satisfaction of patients was quite low, mostly influenced by item 17 of the PSQ-18, which states, "I am dissatisfied with certain aspects of the medical care I receive." This unhappiness may stem from the lack of certain facilities or luxuries outside medical services, including access to drinking water, provision of sanitary bathrooms, limited waiting areas, mandatory medical interventions, and elevated medication costs claimed by patients. May have diminished overall satisfaction.

A similar cross-sectional study was undertaken at Bakhtpur Hospital in Nepal, which revealing significant diversity across several dimensions, with 92% of patients expressing satisfaction with interpersonal interactions. 39% expressed satisfaction with the overall dimensions of satisfaction. (Adhikari, M., et al, 2021). Their assessment identified the lack of amenities beyond medical services and the confidentiality surrounding certain non-medical amenities as factors contributing to low satisfaction levels.

At Roshan Teaching Hospital (RTH), the highest satisfaction rate was related to the time spent with the doctor, at 94% (4.7±0.94 SD), while the lowest satisfaction rate pertained to the financial aspect, at 54% (2.7±1.03 SD), with patients indicating that

they must pay more for healthcare than they can afford. Overall satisfaction was 80.55% (4.02±0.74), exhibiting considerable variation across seven dimensions. The factors contributing to the low overall satisfaction rate include the high cost of medical treatment, dissatisfaction stemming from inaccurate diagnostic tests, and a lack of certain medical amenities. Patients reported uncertainty regarding their ability to get medical care without incurring expenses. And compensating for additional medical care they obtain from their resources. Table (8) figure (4)

A study conducted in Australia employed a comparable patient satisfaction questionnaire to that utilized in our research; however, it did not reveal as extensive heterogeneity across seven variables. The financial element exhibited the highest happiness percentage at 87.4%, whilst the dimension of accessibility and convenience recorded the lowest satisfaction level at 72.9% in their analysis. (Ifediora,C. O., et al, 2017) In our analysis, total satisfaction across all dimensions was likely higher than in other nations, despite those countries having more facilities than the hospitals in our study. The underlying reason may be low expectations, as previously noted; a significant number of our participants were illiterate, and illiteracy can lead to diminished expectations, ultimately resulting in heightened contentment. Patients with a greater degree of education may possess a superior grasp of the limitations of the public health system. Receiving anticipated or superior care may have elevated their satisfaction compared to patients with a lower level of education. Consistent with our findings, a study involving mental patients in Qatar indicated greater pleasure among educated individuals. (Bener, A., et al, 2013).Nevertheless, a study conducted in Iran. (Jaferi Kelarijani, S. E.,et al, 2014). It was revealed that educated patients exhibited lower satisfaction, potentially due to their elevated expectations. Another factor may be the shared cultural background and strong belief in Allah Almighty, which fosters gratitude and results in a high degree of satisfaction among all participants and medical staff, who belong to the same ethnic group (Muslims). A study conducted in the United States revealed that patients who saw religion as a significant aspect of

their lives displayed elevated levels of patient satisfaction. (Benjamins M. R., 2006)

Limitation
The study was conducted solely in Jalal Abad city, thereby limiting the generalizability of its conclusions to the entire country. Nonetheless, our findings may be relevant to regional and tertiary hospitals. In Afghanistan, these hospitals offer comparable services. As presented in our research hospitals. Additionally, convenience sampling was utilized. The investigation was constrained by a brief time span and insufficient staff and resources. Furthermore, we could not establish a cut-off score that would allow us to classify a patient as satisfied.

Secondly, there may be several correlates of patient satisfaction that were excluded from our questionnaire due to resource limitations; for instance, the severity of the patient's disease status influences their satisfaction. Owing to the technological complexities involved in measuring sickness severity, we did not evaluate the patients' disease state and severity.

Third, due to certain restrictions, we exclude gynecology and obstetrics.

In our study, we utilize the phrase 'patient satisfaction' in relation to the PSQ-18; nonetheless, the assertions or items within the PSQ-18 pertain more closely to patients' evaluations and experiences. Consequently, we advise practitioners to examine the results derived from each individual item rather than those based on the average score of the seven dimensions. Notwithstanding these limitations, the results of this study serve as a valuable resource for the Afghan government to develop strategies and initiatives aimed at enhancing patient satisfaction.

Conclusion
We determined that patient satisfaction varied significantly across several dimensions in four hospitals (one public and three private). Patient satisfaction in these hospitals was generally favorable across various measurement domains. At NUTH, patients expressed the least satisfaction in accessibility and convenience, while showing high satisfaction in interpersonal interactions. For SMTH, patients reported low satisfaction in accessibility and convenience, as well as general satisfaction, but were

highly satisfied with the time spent with doctors. In RTH, patients were highly satisfied with the time spent with doctors, yet expressed low satisfaction in general satisfaction, financial aspects, and accessibility and convenience. Targeted initiatives aimed at enhancing the aspects of patient satisfaction in areas with low satisfaction levels are necessary. Regularly perform analogous investigations at diverse tiers of healthcare facilities nationwide to obtain a comprehensive understanding of patient satisfaction across different levels.

REFERENCES

Goodrich, G. W., & Lazenby, J. M. (2023). Elements of patient satisfaction: An integrative review. Nursing open, 10(3), 1258–1269. https://doi.org/10.1002/nop2.1437

Larrabee, J., Ostrow, C., Withrow, M., Janney, M., Hobbs, G., & Burant, C. (2004). Predictors of patient satisfaction with inpatient hospital nursing care. Research in Nursing & Health, 27(4), 254– 268. https://doi.org/10.1002/nur.20021

Findik, U. Y., Unsar, S., & Sut, N. (2010). Patient satisfaction with nursing care and its relationship with patient characteris- tics. Nursing & Health Sciences, 12(2), 162– 169. https://doi. org/10.1111/j.1442-2018.2009.00511.x

Suhonen, R., Papastavrou, E., Efstathiou, G., Tsangari, H., Jarosova, D., Leino- Kilpi, H., Patiraki, E., Karlou, C., Balogh, Z., & Merkouris, A. (2012). Patient satisfaction as an outcome of individualised nurs- ing care. Scandinavian Journal of Caring Sciences, 26(2), 372– 380. https://doi.org/10.1111/j.1471-6712.2011.00943.x

Mrayyan, M. T. (2006). Jordanian nurses' job satisfaction, patients' satis- faction and quality of nursing care. International Nursing Review, 53(3), 224– 230. https://doi.org/10.1111/j.1466-7657.2006.00439.x

Ríos- Risquez, M. I., & García- Izquierdo, M. (2016). Patient satisfaction, stress and burnout in nursing personnel in emergency departments: A cross- sectional study. International Journal of Nursing Studies, 59, 60– 67. https://doi.org/10.1016/j.ijnur stu.2016.02.008

Alhajri, S. M., Aljehani, N. M., El Dalatony, M. M., Alsuwayt, S. S., Alhumaidany, T. M., & Aldossary, M. S. (2023). Patients' Satisfaction With the Quality of Services at Primary Healthcare Centers in Saudi Arabia. Cureus, 15(9), e45066. https://doi.org/10.7759/cureus.45066

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), 163–170.

Fomba S, Yang Y, Zhou H, Liu Q, Xiao PM. Patient's utilization and perception of the quality of curative care in community health centers of the fifth commune of Bamako. Indian J Community Med, 2010; 35(2):256-261

Adhikari, M., Paudel, N. R., Mishra, S. R., Shrestha, A., & Upadhyaya, D. P. (2021). Patient satisfaction and its socio-demographic correlates in a tertiary public hospital in Nepal: a cross-sectional study. BMC health services research, 21(1), 135. https://doi.org/10.1186/s12913-021-06155-3

Aljarallah, N. A., Almuqbil, M., Alshehri, S., Khormi, A. M. S., AlReshaidan, R. M., Alomran, F. H., Fawzan Alomar, N., Alshahrani, F. F., Alshammari, M. S., Alsanie, W. F., Alhomrani, M., Alamri, A. S., & Asdaq, S. M. B. (2023). Satisfaction of patients with health care services in tertiary care facilities of Riyadh, Saudi Arabia: A cross-sectional approach. Frontiers in public health, 10, 1077147. https://doi.org/10.3389/fpubh.2022.1077147

Mummalaneni V, Gopalakrishna P. Mediators vs. moderators of patient satisfaction. J Health Care Mark. (1995) 15:16–22.

Gordo LR. Effects of short- and long-term unemployment on health satisfaction: evidence from German data. Appl Econ.

(2006)   38:2335–50.   doi: 1080/00036840500427692

Popescu L, Rat C, Rebeleanu A. Self-assessed health status and satisfaction with health care services in the new member states of the European Union. Studia UBBSociologia.(2007)52:125–50.Availableonlineat:https://ideas.repec.org/p/irs/ iriswp/2007-14.html

Alkaabi S, Al-Balushi N, Al-Alawi M, Mirza H, Al-Huseini S, Al- Balushi M, et al. Level and determinants of patient satisfaction with psychiatric out-patient services, Muscat, Oman. Int J Ment Health. (2019) 48:80–94. doi: 10.1080/00207411.2019.1585226)

Ifediora, C. O., & Rogers, G. D. (2017). Levels and predictors of patient satisfaction with doctor home-visit services in Australia. Family practice,   34(1),   63–70. https://doi.org/10.1093/fampra/cmw092

Jafari Kelarijani, S. E., Jamshidi, R., Heidarian, A. R., & Khorshidi, M. (2014). Evaluation of factors influencing patient satisfaction in social security hospitals in Mazandaran province, North of Iran. Caspian journal of internal medicine, 5(4), 232–234.

Benjamins M. R. (2006). Does religion influence patient satisfaction?. American journal of health   behavior,   30(1),   85–91. https://doi.org/10.5555/ajhb.2006.30.1.85

Bener, A., & Ghuloum, S. (2013). Gender difference on patients' satisfaction and expectation towards mental health care. Nigerian journal of clinical practice, 16(3), 285–291.   https://doi.org/10.4103/1119-3077.113448

Al Zabadi, H., Shraim, R., Sawalha, R., & Alkaiyat, A. (2023). Outpatient's satisfaction and perceptions toward pharmaceutical services in public and private hospitals in Palestine: a cross-sectional   study.   Journal   of pharmaceutical policy and practice, 16(1), 108.   https://doi.org/10.1186/s40545-023-00608-2

Begum, F., Said, J., Hossain, S. Z., & Ali, M. A. (2022). Patient satisfaction level and its determinants after admission in public and private tertiary care hospitals in Bangladesh. Frontiers in health services, 2, 952221. https://doi.org/10.3389/frhs.2022.952221

Park, Y. S., Hwang, T. J., Cho, G. J., Kim, S. K., Park, S. K., Kim, J. Y., Baek, H. J., Kim, Y. J., Lee, H. J., Shin, J. S., Nam, C. M., Sun, J., & Yoo, K. Y. (2021). Patients' and parents' satisfaction with, and preference for, haemophilia A treatments: a cross-sectional, multicentre,   observational   study. Haemophilia : the official journal of the World Federation of Hemophilia, 27(4), 563–573.

https://doi.org/10.1111/hae.14304

Aljughaiman, A., Alshammari, A., Althumairi, A., Alshammari, A., Almasoud, N., & Nazir, M. A. (2018). Patient Satisfaction with Orthodontic Treatment Received in Public and Private Hospitals in Dammam, Saudi Arabia. Open access Macedonian journal of medical   sciences,   6(8),   1492–1497. https://doi.org/10.3889/oamjms.2018.301

Mutiarasari, D., Demak, I. P. K., Bangkele, E. Y., Nur, R., & Setyawati, T. (2021). Patient satisfaction: Public vs. private hospital in Central Sulawesi, Indonesia. Gaceta sanitaria, 35   Suppl   2,   S186–S190. https://doi.org/10.1016/j.gaceta.2021.07.012

Chari, F., Jelastopulu, E., Sapountzi-Krepia, D., Konstantakopoulou, O., Galanis, P., & Charalambous, G. (2016). Patient satisfaction in public and private hospitals in Cyprus. International Journal of Caring Sciences, 9(3), 781

Sharma, S. K., & Kamra, P. K. (2013). Patient satisfaction with nursing care in public and private hospitals. Nursing & Midwifery Research Journal, 9(3), 130-141

Chakraborty, Sasthi Narayan; Bhattacherjee, Sharmistha1; Rahaman, Md Abdur. A cross-sectional study on patient satisfaction in an Urban Health Care Centre of Siliguri Municipal Corporation, Darjeeling, West Bengal. Medical Journal of Dr. D.Y. Patil University 9(3):p 325-330, May–Jun 2016. | DOI: 10.4103/0975-2870.182502