Assessment of patient satisfaction utilizing Public Health-Care Services at district hospitals of Kashmir Valley: An explorative study

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Abstract: *Global healthcare systems aim to provide equitable and accessible care to all, but challenges persist, including urban-centric services, curative focus, and limited access. Understanding healthcare dynamics, especially in nursing, is crucial for improving service delivery and assessing quality. This research in Kashmir, North India, addresses these gaps by assessing patient satisfaction utilizing Public Health-Care Services (PHCS) at district hospitals (DH) of Kashmir Valley. A non-experimental, exploratory research design was used to assess the satisfaction of 900 patients using the public health care services in selected district hospital in Kashmir valley. A consecutive sampling technique was used to select three hospital and patients. Structured patient satisfaction tool was developed based on a literature review and adherence to the Indian Public Health Standards (IPHS) of 2012 to collect relevant data from patients and the internal consistency reliability measured using Cronbach's alpha was 0.85. The study analyzed patient satisfaction across three district hospitals in Kashmir from the year 2023 to 2024. Initially the researcher assessed the percentage of availability of public health care services as per IPHS-2012 guidelines in three district hospitals which showed that Pulwama DH met 100% availability of PHCS standard fully, while Ganderbal DH met 75% and Bandipora DH met 50%. With regard to the age of patients, the majority of the patients 61.00%, 56.00%, and 53.00% were in the age group of 21-40 years with mean age 36.31, 36.20, and 40.05 and with regard to gender, there was maximum patients were females 50.67 %, 55.33%, and 54.00% in Ganderbal, Bandipora, and Pulwama respectively. Majority of the patients had moderate satisfaction 87.44%. Only 9.44% patients had high satisfaction levels. The scores range from a minimum of 24 to a maximum of 120. Domain wise patient satisfaction from three district hospital of Kashmir showed highest mean SD of 13.87±2.39 for doctor response, domain Nurse Response showed 10.32±1.629 and the lowest mean score of 6.64±1.184 was for domain health technicians. The item wise analysis showed highest satisfaction for competence and professionalism of doctors 67.3% followed by performance of staff nurses 64.9%. The lowest satisfaction 42.4% was noted for cleanliness and hygiene of the hospital. Significant associations were observed between patient satisfaction and demographic factors; residence ($\chi^2 = 11.749$, $p = 0.003$), occupation ($\chi^2 = 58.000$, $p < 0.001$), and income ($\chi^2 = 52.346$, $p < 0.001$). Conclusion: The study concludes that these findings underscore the need for targeted interventions to enhance public health services and address specific areas for improvement, ultimately promoting equitable and accessible healthcare in Kashmir.*

Keywords: Public health care services, utilization, patient satisfaction

1. BACKGROUND OF THE STUDY

Universal Health Coverage (UHC) is a global health priority aimed at ensuring that all individuals and communities receive the health services they need without suffering financial hardship. UHC means that all people have access to the full range of quality health services they need, when and where they need them, without financial hardship. It

covers the full continuum of essential health services, from health promotion to prevention, treatment, rehabilitation and palliative care. Various global organizations, including the World Health Organization (WHO), the World Bank, and numerous non-governmental organizations (NGOs), are working towards achieving UHC. The Sustainable Development Goals (SDGs), particularly Goal 3, also emphasize the importance of UHC in promoting health and well-being for all. The World Health Organization (WHO) defines health as a state of complete physical, mental, and emotional well-being, not the absence of disease or infirmity. The WHO Health Systems Framework emphasis the crucial part in supporting global health systems and achieving Sustainable Development Goals, particularly in quality improvement. It aims to enhance overall health in a responsive, cost-effective, and affordable manner compared to other health-related measures with special conditions or restrictions. The framework applies to primary, secondary, and tertiary medical facilities, including teaching hospitals. Previous evaluations have primarily concentrated on the delivery of fundamental services, the accessibility of medical resources, and the usage rates of health services in affluent nations rather than in low-income and middle-income nations. Figure 1.1 is the world map which shows countries with universal health care sources. The map clearly shows that India still has not achieved the universal health care. Public health services in other countries are typically structured around various models of universal health coverage (UHC). These models aim to ensure that all citizens have access to necessary health services without facing financial hardship.
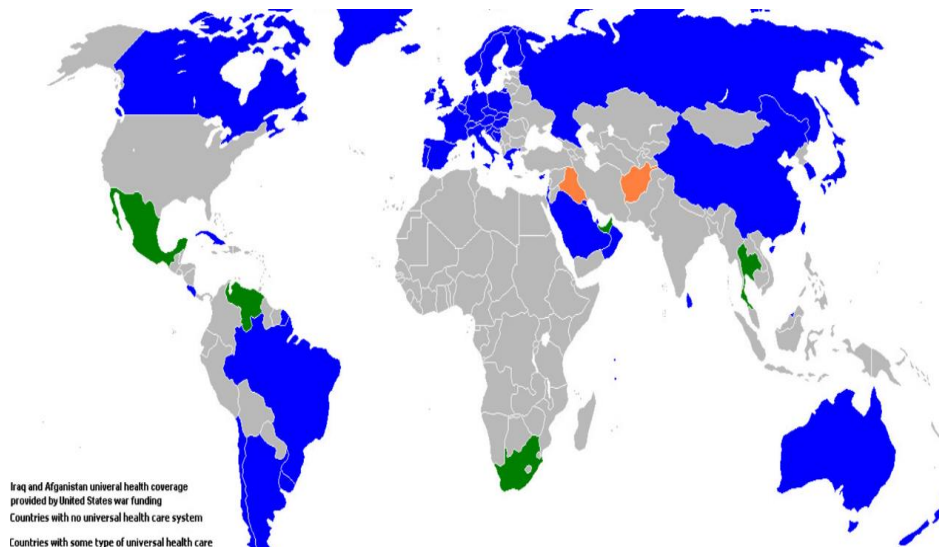

FIGURE 1: Countries with universal health coverage

Health for All" in India is an ambitious yet achievable goal. With concerted efforts from the government, private sector, and civil society, significant progress can be made towards providing universal health coverage and ensuring that all Indians have access to quality healthcare services. In certain regions of the nation, medical tourism is becoming a reality. The nation's economy is expanding, and the quality of life for its citizens is rising [i] Health is a significant concern in every country, and all these health centers play a vital role in providing treatment, prevention, and health support to communities in their respective regions. Public health, private health, and family health services are the three main areas of health services in the country. Patient satisfaction is widely regarded as a key performance indicator of healthcare quality. This concept encompasses three primary domains: the provision of essential medical care, the treatments patients and their families seek, and the behaviours and activities of healthcare providers [ii-3] Patient satisfaction is a multidimensional construct influenced by technical, infrastructural, functional, environmental, and interpersonal components of healthcare services.[iii] Given the collaborative nature of healthcare, where services are jointly produced by providers and patients, evaluating patient satisfaction is vital in addition to assessing the practices of healthcare providers.[iv] Research on patient satisfaction allows healthcare organizations to incorporate patient perspectives into service delivery, aiding in the identification of service gaps and facilitating improvements to ensure

quality care.[v] Such assessments also support better resource allocation, the professional development of healthcare staff, and the more effective management of services.[vi] Additionally, a satisfied patient is more likely to continue using the healthcare service, comply with treatment and follow-up recommendations, and ultimately achieve better health outcomes while also recommending the service to others. Factors influencing patient satisfaction can be categorized into provider-related and patient-related factors. Provider-related factors, including competence, interpersonal skills, and facility characteristics (such as infrastructure, type, and service level), have been strongly linked to patient satisfaction. Patient-related characteristics—such as gender, age, race, socioeconomic status, health status, and expectations—tend to be less influential.[vii] In recent years, studies on patients' satisfaction have increased in low middle-income countries. In India, patients' satisfaction has been studied either for specific services (e.g., medical or surgical) or type of care (e.g., outpatient or inpatient) or level of services (primary, secondary, or tertiary).[viii] Fewer studies, however, have comprehensively assessed both outpatient and inpatient satisfaction at regional care public health facilities. Understanding patient experiences has proven useful for evaluating healthcare quality, yet there is no universally accepted definition of "patient satisfaction."[ix] Measuring patient experience provides insights into patient perceptions and highlights areas for improvement, helping to ensure equity in healthcare access and availability.[x] Patient satisfaction is measured through patient experiences with the healthcare system, which allows researchers, industry professionals, and policymakers to identify problems and outline areas for improvement to ensure equity in access and the availability of care services.[xi] The main aim of measuring patient experience and satisfaction is to understand how the patient feels about being treated, learn about his/her perceptions of the quality of care and any related constructs, and to highlight areas of practice that could be improved to achieve better health outcomes and patient loyalty. District hospitals in the public sector serve as secondary referral centers for specialized services, making patient satisfaction assessments crucial for enhancing the quality of healthcare at this level. Against this backdrop, present study was conducted among outpatients and inpatients in selected hospitals across Kashmir with the objectives of assessing patient satisfaction regarding healthcare services and identifying factors associated with satisfaction among patients visiting district hospitals in Kashmir.

2. MATERIALS AND METHODS

This study employed an analytical approach to explore, describe, and analyze healthcare services across three major districts in the Kashmir Valley. A non-experimental, exploratory design was used, involving both inpatient and outpatient populations attending the selected district hospitals in North, South, and Central Kashmir. Permissions were obtained from the respective Medical Superintendents of the selected hospitals before data collection. Ethical permission was obtained from IEC IUST. Kashmir, located in northern India, hosts nine district from which one hospital conveniently selected. These hospitals serve an average of 2,000-3,000 patients daily, catering to a range of minor and major health conditions. The study used consecutive sampling to recruit participants, resulting in a sample size of 900 patients calculated based on a prevalence rate of 50%, with adjustments to account for non-responses. Patients who attended the outpatient or inpatient departments and who could understand Urdu, English, or Kashmiri were included, while those with serious ailments, unwilling participants, transgender individuals, and especially abled respondents were excluded. Data was collected using a structured tool adapted from review of literature and similar tool was used by Abidova et al., covering 31 satisfaction items, categorized into accessibility, facilities, privacy, staff response, and staffing levels, with responses rated on a three-point Likert scale. A pilot study was conducted from September 2021 to February 2022 at District Hospital Budgam, with administrative permissions obtained from the Directorate of Health Services Kashmir. The data were analyzed using descriptive statistics (frequency, percentage, mean, SD) and inferential statistics (chi-square, Kruskal-Wallis test), with a p-value of less than 0.05 considered significant. Data normality was assessed using the Shapiro-Wilk test, and non-parametric tests were applied when data did not meet normality assumptions. Additionally, ANOVA was used for inter-group comparisons, and categorical data were analyzed using the chi-square or Fisher's exact test. The results were visually represented in tables and graphs to facilitate comprehension, focusing on statistically and clinically meaningful insights into patient satisfaction across the district hospitals.

3. RESULTS

TABLE 1. Frequency Percentage Distribution of Selected Demographic Variables of Patients Attending Three District Hospitals in Kashmir

Demographic Information		Bandipora f(%) n-300	Pulwama f(%) n-300	Ganderbal f(%) n-300
Age Group (Years)	≤20 Years	41 (13.67)	22 (7.33)	18 (6)
	21-40 Years	168 (56)	159 (53)	183 (61)
	41-60 Years	72 (24)	97 (32.33)	84 (28)
	≥61 Years	19 (6.33)	22 (7.33)	15 (5)
	Mean±SD	36.20±15.14	40.05±13.45	36.31±12.76
	Median	33.00	38.00	33.00
Gender	Male	134 (44.67)	138 (46)	148 (49.33)
	Female	166 (55.33)	162 (54)	152 (50.67)
Marital status	Married	161 (53.67)	213 (71)	176 (58.67)
	Unmarried	115 (38.33)	79 (26.33)	106 (35.33)
	Separated	4 (1.33)	2 (0.67)	4 (1.33)
	Widow	15 (5)	4 (1.33)	9 (3)
	Divorced	5 (1.67)	2 (0.67)	5 (1.67)
Residence	Urban(nearby)	108 (36)	89 (29.67)	82 (27.33)
	Rural(far flung)	192 (64)	211 (70.33)	218 (72.67)
Education Status	Illiterate	18 (6)	21 (7)	26 (8.67)
	Middle School	54 (18)	59 (19.67)	98 (32.67)
	Hr. Sec	68 (22.67)	73 (24.33)	60 (20)
	Graduate	100 (33.33)	108 (36)	76 (25.33)
	Post Graduate	55 (18.33)	36 (12)	39 (13)
	Doctorate and above	5 (1.67)	3 (1)	1 (0.33)
Occupation	Govt. Employee	75 (25)	45 (15)	53 (17.67)
	Private Employee	45 (15)	60 (20)	47 (15.67)
	Businesses	38 (12.67)	45 (15)	24 (8)
	Farmer	8 (2.67)	9 (3)	18 (6)
	Others skilled	134 (44.67)	141 (47)	158 (52.67)
Income Per Month (INR)	No Income	123 (41)	106 (35.33)	151 (50.33)
	≤20000	47 (15.67)	91 (30.33)	88 (29.33)
	21000-40000	77 (25.67)	75 (25%)	49 (16.33)
	≥41000	53 (17.67)	28 (9.33%)	12 (4)
	Mean SD	21506.67 ±24524.17	18166.67 ±19949.62	10543.33 ±13953.09
	Median	15000.00	15000.00	10000.00

Data presented in table 1 depicts the Frequency and percentage distribution of selected variables of Patients attending three district hospitals in Kashmir i.e. age, gender, marital status, residence, educational status, occupation, and income per month. With regard to the age of patients, the majority of the patients 61.00%, 56.00%, and 53.00% were in the age group of 21-40 years with mean age 36.31, 36.20, and 40.05 in Ganderbal DH, Bandipora DH, and Pulwama DH respectively, as regards to gender, there was a predominance of females in the study, as maximum of the patients were females 50.67 %, 55.33%, and 54.00% in Ganderbal DH, Bandipora DH and Pulwama DH, respectively. With regard to marital status, majority of the patients were 58.67%, 53.67%, and 71.00% in Ganderbal, Bandipora, and Pulwama respectively were married. Residence wise, the majority of the patients were living in rural areas 72.67%, 64.00%, and 70.33% in Ganderbal DH Bandipora DH and Pulwama DH respectively. As per occupation, the majority of the patients had occupation as others such as daily wage labourer, 52.67%, 44.67%, and 47.00% in Ganderbal DH Bandipora DH and Pulwama DH respectively. The mean income the patients received every month was Rs 10543.33, Rs 21506.67, and Rs 18166.67 in Ganderbal DH, Bandipora DH and Pulwama DH respectively. The majority of the patients in Ganderbal DH 32.67% had education up to middle school, whereas in Bandipora DH and Pulwama DH had completed graduation 33.33% and 36.00% respectively.

TABLE 2: Overall Frequency & Percentage distribution of Patient Satisfaction of major three selected district hospitals of Kashmir N=900

Patients satisfaction	Ganderbal (n=300) F (%)	Bandipora (n=300) F (%)	Pulwama (n-300) F (%)	Overall s Satisfaction score f (%)
Poor Satisfaction (Less Than 50% (<60))	0 (0)	53(17.7)	6(2.0)	28(3.11)
Moderate Satisfaction (51-75% (60-90))	288(96.0)	235(78.3)	257(85.7)	787(87.44)
Good Satisfaction More Than (75% (> 90))	12(4.0)	12(4.0)	37(12.3)	85(9.44)

Maximum =120   minimum=24

Data in table 2 reveals the patient satisfaction scores that majority of participants, 87.44% (787 individuals), fall into the moderate satisfaction category, with scores ranging from 57 to 88. The participants with 9.44% (85 individuals), have high satisfaction levels, scoring between 89 and 120. The participants with, 3.11% (28 individuals), falls into the poor satisfaction category, with scores between 24 and 56. The scores range from a minimum of 24 to a maximum 120.

TABLE 3: Range, Mean, Median and Standard Deviation of patient satisfaction scores from three district hospital

Variable	Group	Range	Mean± SD	Median
Patient satisfaction	Ganderbal (n=300)	66-109	80.21±5.64	80.00
	Bandipora (n=300)	44-97	71.25±11.72	69.50
	Pulwama (n-300)	50-103	78.43±9.36	78.00

Minimum score = 24   Maximum score = 120

The table 3 shows Range, Mean, Median and Standard Deviation of patient satisfaction scores from three district hospital. In Ganderbal DH the patient satisfaction scores range from 66 to 109, with a mean of 80.21 ±5.64 and a median of 80. In Bandipora, the scores range from 44 to 97, with a lower mean of 71.25 ±11.72 and a median of 69.5, shows variability in patient satisfaction. Pulwama shows a score range of 50 to 103, with a mean of 78.43 ±9.36 and a median of 78, infer moderate satisfaction levels similar to Ganderbal DH. The minimum and maximum possible scores range from 24 to 120 across all districts. The data concludes that the differences in the mean and standard deviations imply that patients in Ganderbal are generally more satisfied, whereas Bandipora may have more challenges in meeting patient expectations, as showed by the wider range and lower mean. Overall, the variability indicates disparities in the quality of care or patient experiences across these hospitals.

TABLE 4: Domain wise Range, Mean, Standard Deviation and Median of patient satisfaction scores from three district hospital of Kashmir   N-900

Patient Satisfaction Domain wise	Range	Mean	S.D.	Median
Accessibility	6-20	12.77	2.326	13
Facilities and physical conditions	4-15	9.25	2.013	9
Privacy	3-15	9.73	1.789	10
Nurse response	6-15	10.32	1.629	11
Doctors' response	5-20	13.87	2.394	15
Health technicians	3-10	6.64	1.184	7
Lack of any type of staff	7-23	14.01	2.584	14
Overall	44-109	76.6	9.984	78

Minimum score = 24   Maximum score = 120

Findings revealed in table 4 patient satisfaction variables in health care services with regard to Accessibility. The mean score is 12.77 SD = 2.33 with a median of 13, exhibits high level of satisfaction. The scores range from 6 to 20, with a broad range of 14. In Facilities and Physical Conditions domain the mean score is 9.25 SD = 2.01, recommends moderate satisfaction with facilities and conditions. Scores span from 4 to 15, with a range of 11. In the Privacy domain the mean score of 9.73 SD = 1.79 recommends moderate satisfaction, with scores ranging between 3 and 15, resulting in a range of 12. In the Nurse Response domain Patients shows with a mean score of 10.32 (SD = 1.63), recommends good satisfaction. Scores vary from 6 to 15, showing a range of 9. In the Doctors Response domain, the highest mean score of 13.87 SD = 2.39 reveals high satisfaction. The range is from 5 to 20.In Health Technicians domain the mean score is 6.64 SD = 1.18 showing lower satisfaction compared to other areas, with scores ranging from 3 to 10, covering a range of 7.In the Lack of Any Type of Staff domain the mean score of 14.01 SD = 2.58 infer high dissatisfaction with the lack of staff, with scores from 7 to 23, representing a range of 16.In Overall Satisfaction the overall mean satisfaction score is 76.60 SD = 9.98, with a median of 78, revealed high level of overall satisfaction. Scores range from 44 to 109, with a range of 65.
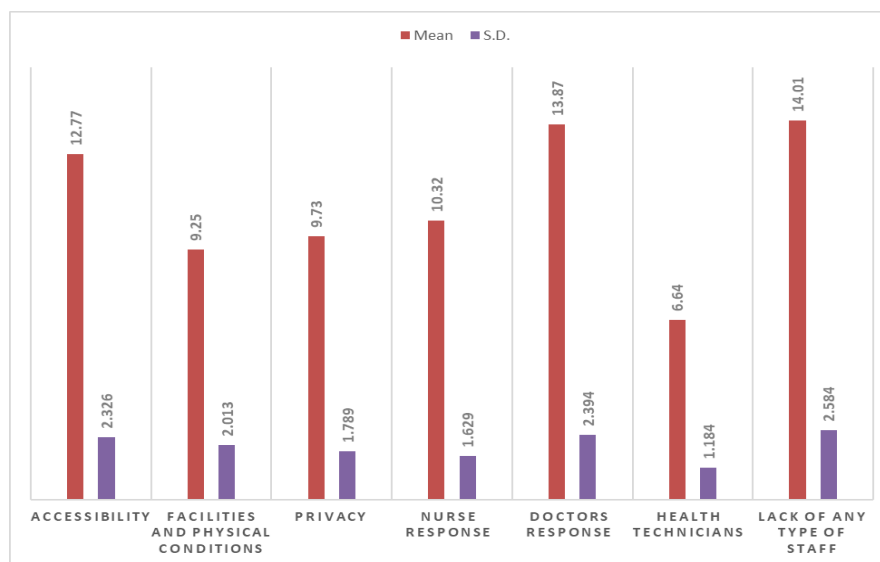

FIGURE 2: Barograph showing Mean and SD of patient satisfaction of three district hospitals of Kashmir

TABLE 5: Kruskal-Wallis test showing domain wise mean rank of patient satisfaction from three selected district hospitals.
N=900

Patient Satisfaction Domain	District Hospital	Mean Rank	Kruskal-Wallis H	df	p' value
Accessibility	Ganderbal (n=300)	307.39			
	Bandipora (n=300)	581.05	170.652	2	0.001*
	Pulwama (n-300)	463.07			
Facilities and physical conditions	Ganderbal (n=300)	347.49			
	Bandipora (n=300)	535.36	82.757	2	0.001*
	Pulwama (n-300)	468.66			
Nurse response	Ganderbal (n=300)	367.9			
	Bandipora (n=300)	544.97	74.412	2	0.001*
	Pulwama (n-300)	438.63			
Doctors response	Ganderbal (n=300)	275.16			
	Bandipora (n=300)	591.34	244.563	2	0.001*
	Pulwama (n-300)	485			
Health Technician	Ganderbal (n=300)	388.82			
	Bandipora (n=300)	454.64	34.155	2	0.001*
	Pulwama (n-300)	508.04			
Lack of any staff	Ganderbal (n=300)	491.78			
	Bandipora (n=300)	356.38	60.391	2	0.001*
	Pulwama (n-300)	503.34			

Data in table 5 presents the results of a Kruskal-Wallis test comparing patient satisfaction across three district hospitals Ganderbal, Bandipora, Pulwama based on different domains. In the Accessibility domain, Bandipora DH had the highest mean rank 581.05 followed by Pulwama 463.07 and Ganderbal 307.39 with a significant Kruskal-Wallis H value of 170.652 p=0.001. For Facilities and Physical Conditions, Bandipora DH infer highest mean rank 535.36, followed by Pulwama 468.66 and Ganderbal DH 347.49, with a significant H value of 82.757 p=0. 001.In the Nurse Response domain, Bandipora DH 544.97 showed highest mean rank, followed by Pulwama 438.63 and Ganderbal DH 367.9 with a significant H value of 74.412 p=0.001. For Doctors' Response domain Bandipora DH showed the highest mean rank (591.34), followed by Pulwama 485 and Ganderbal DH 275.16, with the largest H value of 244.563 p=0.001, findings highlighted substantial difference in patient satisfaction. In the Health Technician domain, Pulwama DH inferred highest mean rank 508.04 followed by Bandipora DH 454.64 and Ganderbal DH 388.82, with a significant H value of 34.155 p=0.001. Conversely, in the Lack of Any Staff domain Pulwama DH 503.34 and Ganderbal DH 491.78 ranked higher than Bandipora 356.38 with a significant H value of 60.391 p=0.001 These results concluded significant differences in patient satisfaction across all domains between the three hospitals, with Bandipora DH generally showing higher satisfaction levels in most domains, except for "Lack of Any Staff," where Pulwama DH and Ganderbal DH ranked higher.

TABLE 6: Item-Wise Analysis of Patient's Satisfaction attending major three selected district hospitals of Kashmir N-900

Sr No	Items	Very dissatisfied (%)	Dissatisfied (%)	Neutral (%)	Satisfied (%)	Very satisfied (%)
1	Is the hospital location feasible?	1.9	21	47	22.6	7.6
2	Are the different departments distant to each other	2.2	23.2	47	25.8	1.8
3	Equipment and specialist staff to conduct tests, blood tests available?	0.7	15.4	30.4	51.2	2.2
4	Hospital is overall accessible and available within the radius of your city/village?	0.4	10	56.8	30.8	2
5	The condition, comfort, and convenience of the facilities where tests were carried out is good.	0.3	16.9	54.4	26.9	1.4
6	Are the equipment's functional?	1.6	14.1	27.3	54.1	2.9
7	Is the hospital clean and hygienic?	12.8	29.6	33.9	21.9	1.9
8	The privacy was protected and maintained	0.3	20.3	57.6	20.6	1.2

Sr No	Items	Very dissatisfied (%)	Dissatisfied (%)	Neutral (%)	Satisfied (%)	Very satisfied (%)
9	The staff at the registration counter is friendly and helpful	4.9	17.1	34.8	41.7	1.6
10	The overall performance of the staff was good	0.4	5.7	36.3	55.2	2.3
11	Staff nurses were friendly and helpful	0.3	9.8	59.3	27.9	2.7
12	Staff nurses were competent and professional	0.1	11.9	33	51.6	3.4
13	Overall performance of the staff nurses	0.3	5.1	29.7	61.6	3.3
14	Doctors were helpful and friendly	0.20%	4.2	57.9	34	3.7
15	Doctors were competent and professional	0.3	12.9	19.6	63.6	3.7
16	Doctor explain the health problem during the examination	3.7	15	19.2	60.6	1.6
17	Doctor explain the prescribed medications	1.9	8.2	28.2	59.6	2.1
18	Health technicians were friendly, helpful & competent	0.1	7	54.7	36.2	2
19	The quality of the services provided with tests is good	0.3	14	41.3	42.6	1.8
20	There is any need for any type of staff (Doctors, Nurses, Technical, Administrative staff, Auxiliary Staff)	0.8	47.4	32.3	16.8	2.7
21	The departments, in terms of number of people (users/patients) were busy	2.6	40.7	39.2	15.4	2.1
22	Waiting time to be seen by a doctor is good	5.1	29	51	14.1	0.8
23	Waiting time to be called back by the doctor after the conducting lab tests is more	2.4	27.9	49.9	19.4	0.3
24	Waiting time from when the patient was informed about discharge until the patient left the hospital?	2.9	27	47.2	22.6	0.3

Results in table 6 represents range of satisfaction levels across various aspects of hospital services. The highest satisfaction was observed with the competence and professionalism of doctors 67.3% satisfied or very satisfied and the overall performance of staff nurses 64.9% satisfied or very satisfied. Conversely, the lowest satisfaction was recorded in the cleanliness and hygiene of the hospital, where 42.4% of respondents expressed dissatisfaction or strong dissatisfaction. Additionally, a strong need for additional staff was evident, with 48.2% of respondents dissatisfied with the current staffing levels. Neutral responses dominated in areas such as hospital location feasibility 47.0% and accessibility 56.8% highlighting ambivalence in these domains. The findings recommend a need for improvements in specific areas, particularly staffing and cleanliness, while competence and professionalism, especially among doctors and nurses, were positively evaluated.
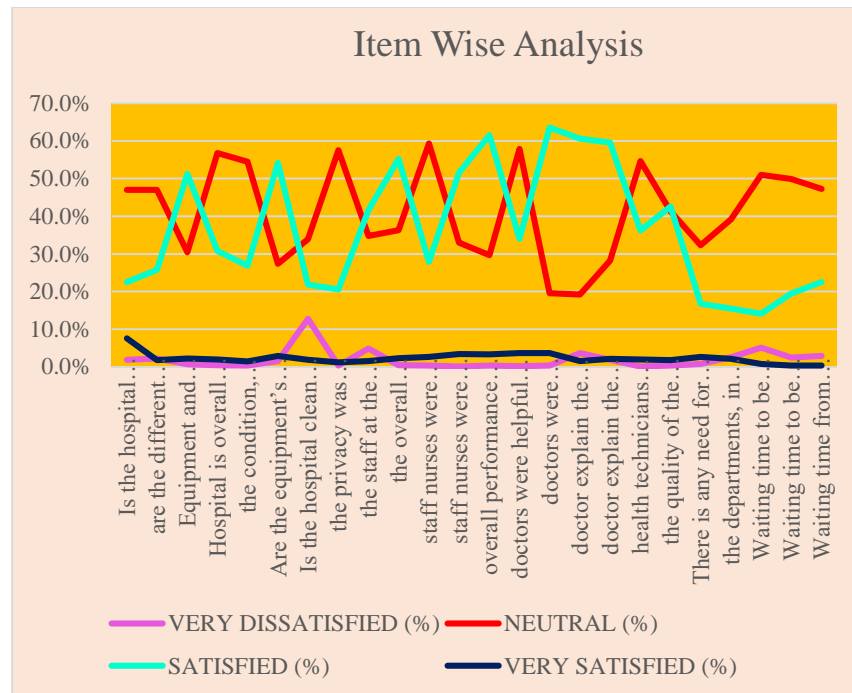
FIGURE 3: Item wise analysis of level of Patient Satisfaction

4. DISCUSSION

Global healthcare systems aim to provide equitable and accessible care to all, but challenges persist, including urban-centric services, curative focus, and limited access. Understanding healthcare dynamics, especially in nursing, is crucial for improving service delivery and assessing quality. In current study the Quantitative non-experimental design explored the selected District Hospitals of Kashmir in terms of availability and utilization of the public Health care services. The objective of the study is to explore the patient satisfaction services rendered by district hospital. The discussions of the findings are presented in accordance with the analysis organized under the following heading.

- Demographic variables of patients
- Assessment of satisfaction of patients.
  Association of patient's satisfaction with selected variables in three district hospitals

Demographic variables of patients: In the present study, frequency, Percentage, mean and SD distribution of Patient's satisfaction in three District hospitals. With regard to the age of patients, the majority of the patients 61.00%, 56.00%, and 53.00% were in the age group of 21-40 years with mean age 36.31, 36.20, and 40.05 in Ganderbal DH Bandipora DH, and Pulwama DH respectively. Similar study was conducted by **Poojar, Basavaraj et al** and Alina Abidova showed patients attending OPD had demographic profiles of age groups distributed as 21–40 years at 38.3%, and 41+ years at 40.2%.[xii]

As per to gender, there was a predominance of females in the study, as maximum of the patients were females 50.67 %, 55.33%, and 54.00% in Ganderbal DH, Bandipora DH and Pulwama DH, respectively**. A study conducted by Ali FMH,regarding** Gender distribution is relatively balanced, with males comprising 52.5% and females 47.5% of the respondents.[xiii]Whereas for Gender the study by **Poojar, Basavaraj et al** was contradicting as the male were 53.4% male and 46.6% were female patients.[xii]

With regard to marital status, majority of the patients were 58.67%, 53.67%, and 71.00% in Ganderbal DH, Bandipora DH and Pulwama DH respectively were married.

In line of Hailu**, H. A., Desale, A., etal** study the majority of respondents were married 73.2%, while 26.8% are single.[xiv] As per Residence wise, the majority of the patients were living in rural areas 72.67%, 64.00%, and 70.33%

in Ganderbal, Bandipora, and Pulwama respectively. On the contrary, the study conducted by **Poojar, Basavaraj et al** showed that the patient's residence 69.6% lived in urban, and 30.4% are rural.[xii] Another study by **Hailu, H. A., Desale, A., etal** regarding residence, a larger proportion of respondents come from urban areas 59.4% while 40.6% reside in rural areas.[15]

As per occupation, the majority of the patients had occupation as others such as daily wage labourer, 52.67%, 44.67%, and 47.00% in Ganderbal DH Bandipora DH and Pulwama DH respectively. In comparison the study is consistent with **Poojar, Basavaraj etal** Occupation varied showing 15% employed and professionals, 59.5% farmers, homemakers, and semiskilled workers, and 25.5% unemployed, retired, students, and unskilled worker.[xii]

The majority of the patients in Ganderbal DH 32.67% had education up to middle school, whereas in Bandipora DH and Pulwama DH had completed graduation 33.33% and 36.00% respectively. On contrary study by **Ali FMH, et al 2015,** conducted study about Employment status shows that 62.0% are employed, and within this group, 48.0% are professionals, 24.3% are clerks or service workers, and 27.2% fall into other occupations.[14] whereas in study by **Poojar, Basavaraj et al** also showed patients attending OPD Education-wise, 39.3% were illiterate, while 60.7% were literate.[xii]

The mean income the patients received every month was Rs 10543.33, Rs 21506.67, and Rs 18166.67 in Ganderbal DH Bandipora DH and Pulwama DH respectively the mean income the patients received every month was Rs 10543.33, Rs 21506.67, and Rs 18166.67 in Ganderbal DH, Bandipora DH and Pulwama DH, respectively.).In line with **Poojar, Basavaraj et al** showed ,household income distribution indicates that 63.8% did not disclose, 31.6% have an income of less than 10,000 INR, and 4.6% have an income of 10,000 INR[xii] .Another study conducted **by Ali FMH, et al 2015,** by In terms of income, a significant majority (80.1%) are classified as non-poor, with 19.9% being poor.[14]

Ii. Assessment of satisfaction of patients:
In the present study with regard to hospital Location Feasibility and distance between the departments, the majority of respondents feel neutral (47.0%) about the feasibility of the hospital's location, while 30.2% are satisfied or very satisfied, and 22.9% are dissatisfied or very dissatisfied and large portion of respondents (47.0%) feel neutral about the distance between departments, with 27.6% expressing satisfaction, and 25.4% expressing dissatisfaction or strong dissatisfaction.

The study is in consistent with **Ali FMH, et al.** the mean score for the location of the hospital and emergency department within the city was 8.20 (SD = 1.96). Orientation within the emergency department had a mean of 7.44 SD = 2.05, and the distance between different areas of the emergency department had a mean of 7.46 SD = 1.92. The availability of equipment and specialist staff to conduct tests, such as blood tests, had a mean score of 7.32 SD = 2.19. Overall, accessibility and availability were rated with a mean score of 7.49 SD = 2.08. The correlations with satisfaction and perceived quality were 0.65 and 0.63, respectively.[14]

In the present study with regard to availability of equipment and specialist staff, majority 53.4% are satisfied or very satisfied with the availability of equipment and specialist staff, while 30.4% remain neutral, and only 16.1% are dissatisfied. **In lines with Dr. Saba Amin** conducted a similar study titled "Patient Satisfaction in Hospitals in Kashmir, India" and reported that patients were satisfied with their healthcare services. Medical equipment. Patients who like to participate in the decision-making process report greater satisfaction when given detailed information. Encouraging patient engagement and participation can improve health outcomes and satisfaction, and training physicians in this approach has been advocated.[xv]

In current study with regard to accessibility of the Hospital, most respondents 56.8% are neutral about the hospital's accessibility, while 32.8% are satisfied or very satisfied, and 10.4% are dissatisfied or very dissatisfied. As per **Ranjeeta Kumari, MZ Idris, Vidya Bhushan**, et al 2019 accessibility was difficult for 42% of patients, with long waiting times. Satisfaction with outpatient department duration and signboard presence was low.[xvi]

In present findings with regard to condition, comfort, and convenience of facilities, over half of the respondents 54.4% are neutral about the condition, comfort, and convenience of the facilities, with 28.3% satisfied or very satisfied, and 17.2% dissatisfied or very dissatisfied. In line with **Gitobu, C. M., Gichangi, P. B., & Mwanda, W. O.** comparing satisfaction across different types of health facilities, urban-based health facilities had slightly higher satisfaction

levels 54.6% compared to rural-based facilities (54.3%). Tier 4 health facilities generally had the highest satisfaction rates, particularly for the availability of staff in the delivery room (84.6%) and in the wards (80.3%). Overall satisfaction was highest in Tier 4 facilities at 65.11%, while other facilities ranged around 54.3% to 54.6% [xvii]

In the study of **Ali FMH, et al.** findings Satisfaction with healthcare services is generally high, with 71.2% satisfied or very satisfied with the provision of healthcare services, and 70.4% with the management of these services. However, dissatisfaction rates are 17.3% and 19.3%, respectively [14]

A similar study conducted by **Ranjeeta Kumari, MZ Idris, Vidya Bhushan**, et al. on Patient Satisfaction in Government Allopathic Health Facilities of Lucknow District, India. where they found mixed levels of patient satisfaction in government allopathic health facilities.[17] In our study with regard to Functionality of Equipment, majority of respondents 57.0% are satisfied or very satisfied with the functionality of the equipment, while 27.3% remain neutral, and 15.7% are dissatisfied or very dissatisfied.[17] As per Privacy Protection, most respondents 57.6% feel neutral about privacy protection, with 21.8% satisfied or very satisfied, and 20.6% dissatisfied or very dissatisfied. This data indicates that while the majority of users are satisfied with healthcare services, there are significant areas, such as privacy, where satisfaction could be improved. As per findings of current study Cleanliness and Hygiene of the Hospital, respondents are mostly dissatisfied with the hospital's cleanliness and hygiene, with 42.4% expressing dissatisfaction or strong dissatisfaction, while 33.9% are neutral, and only 23.8% are satisfied or very satisfied. Similar study **by Gitobu, C. M., Gichangi, P. B., & Mwanda, W.** Where it was found the satisfaction was highest for the availability of supplies, with 63.4% of users satisfied, while the lowest satisfaction was reported for privacy in the wards, with only 39.6% of users satisfied. Cleanliness in the health facilities also had a relatively lower satisfaction rate at 40.5%.[18] The study conducted by **Hailu, H. A., Desale, A., etal**, where regression analysis revealed that several factors positively influenced satisfaction.[15] Among VB mothers, satisfaction was higher when they had positive interactions with care providers, were able to maintain privacy, and were free from the fear of childbirth.[xiv] A study by **verma et al** the satisfaction varied across cleanliness, amenities, and medicine availability, with notable reliance on government hospitals. Efforts to improve access to medicines through initiatives like "Jan Aashaadha" were noted, highlighting the need for addressing multifaceted aspects of patient satisfaction to enhance healthcare delivery quality.[xviii]

A study conducted by **Gitobu, C. M., Gichangi, P. B., & Mwanda, W. O.,** the majority of users are satisfied with healthcare services, there are significant areas, such as privacy and cleanliness, where satisfaction could be improved. The higher satisfaction levels in Tier 4 facilities suggest that more resources or better management might contribute to better user experiences in these settings.[Error! Bookmark not defined.]

In present study with regard to Friendliness of Registration Counter Staff; Satisfaction levels are mixed, with 43.3% satisfied or very satisfied with the registration counter staff's friendliness, 34.8% neutral, and 22.0% dissatisfied or very dissatisfied. The study is consistent with **Alina Abidova, M. Phil; Pedro Alcântara da Silva, PhD; Sérgio Moreira** the friendliness of the staff at the registration counter had a mean score of 7.22 (SD = 2.22), while their competence and professionalism scored 7.40 SD = 2.15. The overall performance of the staff was rated with a mean score of 7.46 SD = 2.13 with correlations of 0.54 and 0.51 with satisfaction and perceived quality, respectively.[20] In the present study, 57.5% of respondents are satisfied or very satisfied with the overall performance of the staff, while 36.3% are neutral, and 6.1% are dissatisfied. For friendliness, 59.3% feel neutral, 30.6% are satisfied or very satisfied, and 10.1% are dissatisfied. Regarding staff competence and professionalism, 55.0% are satisfied, 33.0% are neutral, and 12.0% are dissatisfied. The majority (64.9%) are satisfied with the overall performance of staff nurses, with 29.7% neutral, and 5.4% dissatisfied. In terms of doctors, 57.9% are neutral about their helpfulness and friendliness, 37.7% are satisfied, and 4.4% are dissatisfied. A majority (67.3%) are satisfied with doctors' competence and professionalism, while 19.6% are neutral, and 13.2% are dissatisfied. Regarding the need for additional staff, 48.2% are dissatisfied with current staff levels, 32.3% are neutral, and 19.5% are satisfied. As for department busyness, 43.3% feel departments are too busy, 39.2% are neutral, and 17.5% are satisfied.[xix] A study conducted by **Ranjeeta Kumari, MZ Idris, Vidya Bhushan**, et al. doctor-patient communication satisfaction exceeded 60%, but examination and consultation satisfaction varied across facility levels. Faith in doctors was a primary motivator for visiting tertiary and secondary facilities. In our study with regard to Explanation of Health Problems by Doctors, majority 62.2% are satisfied or very satisfied with how doctors explain health problems during examinations, while 19.2% remain neutral, and 18.7% are dissatisfied or very dissatisfied.[17]**Anita Karaca and Zehra Durna**, showed Patients reporting high levels of satisfaction with their doctors, noting their courteous and attentive behavior towards patients. Moreover, the

health facility was described as clean and adequately ventilated. As a result, the majority of patients expressed their willingness to revisit the hospital.[xx]

In present study with regard to Explanation of Prescribed Medications by Doctors, Over half (61.7%) are satisfied or very satisfied with how doctors explain prescribed medications, while 28.2% remain neutral, and 10.1% are dissatisfied or very dissatisfied while **as per Verma et al.** interactions with doctors were generally satisfactory. Concerns were raised about consultation time and doctor availability in IPD.[xviii] In our study with regard to Friendliness, Helpfulness, and Competence of Health Technicians, majority 56.2% are satisfied or very satisfied with the friendliness, helpfulness, and competence of health technicians, while 54.7% are neutral, and only 7.1% are dissatisfied or very dissatisfied. The study is in consistent with **Alino, Abidova 2019**, the friendliness and helpfulness of the health technicians scored 7.52 (SD = 2.04), while their competence and professionalism scored 7.77 (SD = 1.99). The overall quality of the services provided with examinations or tests was rated with a mean score of 7.72 (SD = 1.94), with correlations of 0.58 and 0.59 with satisfaction and perceived quality, respectively. [20]

In current findings with regard to Quality of Services Provided with Tests, Opinions are divided, with 44.4% satisfied or very satisfied with the quality of services provided with tests, while 41.3% remain neutral, and 14.3% are dissatisfied or very dissatisfied. Respondents generally expressed dissatisfaction with the waiting time to see a doctor, with 34.1% dissatisfied or very dissatisfied, 51.0% feeling neutral, and only 14.9% satisfied or very satisfied. Similarly, when it comes to the waiting time after lab tests, 30.3% of respondents were dissatisfied or very dissatisfied, 49.9% were neutral, and 19.7% were satisfied or very satisfied. Regarding the waiting time for discharge, 29.9% of respondents were dissatisfied or very dissatisfied, 47.2% were neutral, and 22.9% were satisfied or very satisfied. Similar study by **Alino, Abidova** the perceived quality of healthcare was rated with a mean score of 7.65 SD = 2.10 highlighting the importance of various factors influencing patient satisfaction in emergency medicine. [20]

A study by Eubank BH, Lafave MR, Mohtadi NG, Sheps DM, and Wiley 2019, the analysis of healthcare quality measures across accessibility, acceptability, efficiency, and appropriateness shows high reliability. In accessibility, the "Date of injury" and "Days waiting for consultation" have ICCs of 0.83 and 0.84, respectively, while the "Date of visit" and "Date of surgery" demonstrate near-perfect to perfect reliability with ICCs of 0.99 and 1.0. Patient satisfaction in the acceptability domain is highly reliable, with ICCs of 0.85 and 0.83. Efficiency measures vary in reliability, with ICCs ranging from 0.60 to 0.86. Appropriateness of waiting times shows exceptional reliability, with an ICC of 0.93. These findings highlight the strong consistency in healthcare quality reporting measures.[xxi]

In the present study, the mean satisfaction scores across various dimensions are as follows: Accessibility with 12.77 SD = 2.33, Facilities and Physical Conditions 9.25 SD = 2.01, Privacy 9.73 SD = 1.79, Nurse Response 10.32 SD = 1.63, Doctors' Response 13.87 SD = 2.39, Health Technicians 6.64 SD = 1.18, and Lack of Staff 14.01 SD = 2.58 indicating varying levels of satisfaction. The overall mean satisfaction score is 76.60 SD = 9.98, reflecting a generally high level of satisfaction. With regard to Overall: The overall mean satisfaction score is 76.60 SD = 9.98, with a median of 78, demonstrating a generally high level of overall satisfaction. Scores range from 44 to 109, with a range of 65.

A study is consistent with Eubank BH, Lafave MR, Mohtadi NG, Sheps DM, Wiley, assessed study on various aspects revealing that accessibility and availability were generally well-rated, with a mean score of 7.49 SD = 2.08, and strong correlations with both satisfaction 0.65 and perceived quality 0.63. The location of the hospital and emergency department within the city had the highest mean score at 8.20 SD = 1.96, while the availability of equipment and specialist staff scored slightly lower at 7.32 SD = 2.19. Facilities and physical conditions of the emergency department were rated moderately, with an overall mean score of 6.48 SD = 2.13. Specific areas such as the cleanliness and hygiene of the facilities and the age and operation of equipment scored higher at 6.72 SD = 2.37 and 6.81 SD = 2.06 respectively. However, the comfort and convenience of the waiting room were rated lower at 5.07 SD = 2.43. These factors had correlations of 0.63 and 0.60 with satisfaction and perceived quality. Lastly, [xxii]privacy within the departments was rated with a mean score of 7.27 SD = 2.41, with correlations of 0.45 and 0.46 with satisfaction and perceived quality, respectively.[xxi]

5. SUMMARY

This study investigated patient satisfaction with healthcare services in three district hospitals in Kashmir: Ganderbal, Bandipora, and Pulwama. Demographic analysis showed that the majority of patients were within the 21-40 age range, predominantly female, married, and residing in rural areas. Occupationally, most were daily wage labourers, with varying levels of educational attainment. Monthly income also varied significantly, with Ganderbal DH having the lowest mean income. Overall, accessibility, equipment availability, and the competence of health staff were well-rated, though areas like privacy, cleanliness, and waiting times received mixed reviews. Additionally, patient satisfaction with specific staff interactions, including doctors' and nurses' responsiveness, was relatively high. However, dissatisfaction was noted concerning the availability of sufficient staff, waiting times, and certain facility conditions.

6. CONCLUSION

The study concluded that while patients expressed overall satisfaction with healthcare services, significant areas require improvement, particularly in staff availability, privacy, and hospital hygiene. These findings underscore the need for tailored interventions to enhance satisfaction levels, focusing on facility improvements, staff-patient interactions, and addressing workforce shortages.

Limitations:
1. Limited Geographical Scope: This study was confined to three district hospitals in Kashmir, which limits the generalizability of findings to other regions.
2. Sample Diversity: The predominance of rural, female, and lower-income patients could skew results and may not represent the broader population adequately.
3. Cross-Sectional Design: This approach limits the ability to determine causal relationships between patient satisfaction and healthcare quality.
4. Self-Reported Data: Patient satisfaction was assessed through self-reported measures, which can introduce bias based on personal perceptions and expectations.

Nursing Implications:
1. Enhanced Patient Engagement: Nurses can play a key role in involving patients in decision-making processes, which has been shown to improve satisfaction.
2. Improved Communication: Training nurses to provide clear information on procedures and care plans can help manage expectations and improve satisfaction.
3. Focus on Privacy and Hygiene: Nurses can advocate for and implement measures to enhance patient privacy and ensure adherence to cleanliness standards.
4. Staff Training: Continuous professional development for nurses on patient-centered care techniques could improve service quality and patient experience.

Recommendations:
1. Increase Staffing: Address staffing shortages to enhance patient care quality and reduce department busyness, which directly affects patient satisfaction.
2. Facility Upgrades: Invest in improved cleanliness, facility conditions, and privacy measures to increase comfort and patient satisfaction.
3. Implement Patient Feedback Systems: Regular patient feedback collection can provide insights into specific areas requiring improvement, allowing for targeted interventions.
4. Ongoing Staff Training: Regular training sessions for healthcare providers, focusing on communication skills, patient interaction, and privacy protection, could lead to better patient experiences.
5. Community Health Outreach: Given the rural predominance of patients, community outreach programs can be established to educate patients on available services and how to access them effectively.

This study highlights the importance of addressing both infrastructural and personnel-related factors to improve healthcare service satisfaction in district hospitals.

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