

Perspective

Patient Satisfaction Survey Amongst Patients Attending Urology Outpatient Services of Mahatma Gandhi Medical College and Research Institute- A Tertiary Care Hospital in South India

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Abstract

In recent years, health care providers perceive performance and quality of healthcare beyond providing excellent clinical care alone. Health care providers consider and embrace patient experience as an important indicator.

Objectives of the study

- To identify the key areas which our Patients have to go through during their outpatient visit to Urology Department,
- To summarize the findings as perceived by the patients,
- To identify important aspects that may be missing from and may enhance existing services and
- To promote patient experience that is applicable and practical for quality improvement efforts.

Our findings identified several key areas in the hospital where the patients experience can be improved. The patient experience reflects occurrences and events that happen independently and collectively across the continuum of care. Patient's experience given in the feedback was taken to provide individualized care and improving overall service to meet their needs. The deficient areas in the service were addressed by regular orientation and reinforcing sessions by senior management faculty.

Keywords: Billing Section; Laboratory Services; Medical Records Department; Patient Experience; Patient Satisfaction; Pharmacy; Radiology Services; Urology Outpatient Department

Introduction

“The most effective, efficient treatment or program is of limited use if it does not fulfil the needs of an individual or group receiving service.” -Avedis Donabedian [1].

Patient satisfaction is a highly desirable outcome of clinical care in the hospital and is considered by many to be an important

measure of healthcare Quality. The Beryl Institute's current definition for patient experience – “the sum of all interactions, shaped by an organization's culture, that influence patient perceptions, across the continuum of care” [2]. Hospitals have always been in the business of providing patient care. However, with the inception of Value-Based Purchasing, the measurement of successful patient care delivery has been redefined.

The move from fee-for-service to pay for-performance also means that reimbursements are tied to the quality of care that is delivered. Hospitals that provide a higher quality of care than their

peers will receive reimbursement incentives, and hospitals that provide a lower quality of care will be penalized. The concept of quality health care is not complete without a rigorous discussion of patient satisfaction.

A good physician/patient relationship is a crucial element of a successful practice. The fact that patients do not complain does not necessarily mean they are satisfied with the care they are receiving. Patient satisfaction with hospital services is one of the most important indicators of effectiveness and quality of hospital services. "Satisfied" patients have been found to be more adherent to treatment plans, more likely to continue using health services, remain loyal to their physicians, and recommend services to others. Practices have three general goals when they interact with patients: to provide quality health care, to make that care accessible, and to treat patients with courtesy and respect.

Patient satisfaction surveys can provide valuable data for evaluating the current status, awareness of quality and quantity of process improvement programs and quality improvement to health care providers and policy makers [3-5]. Patient satisfaction is a cognitive response that is influenced by various factors. Evaluating patient satisfaction by determining factors affecting satisfaction and understanding expectations and needs of patients and eliminating dissatisfaction causes can enhance service provision level [6-8].

According to the 2001 Institute of Medicine report, "Crossing the Quality Chasm," provision of patient Centered care is a key element of a high-quality healthcare system. Access to quality health care is a fundamental right of every individual. Equity and Equality in providing quality health care has become a social goal. Health Care services have become more "Patient Centered" compared to what it was few decades ago- "Physician centered"- Donabedian's declaration [1].

Research Gap

Due to intangibility in nature, service quality is difficult to measure and defining the parameter to evaluate the quality of services delivered to the customer was the major issue in the beginning. The first health service quality model explored that patients' perception about the health services is influenced by 'gaps' and it is also known as 'gap' model.

- **Front desk** is about the reputation of the institution and easy registration, satisfaction of front desk people in delivering the health care services.
- **General facilities and Basic amenities** is about the stretchers facility, lift serves, lights and fans maintenance, cleanliness and parking facilities.
- **Pharmacy service** is about the pharmacy staff's courteousness and giving adequate explanation about medication & dosage, payments options and time taken for purchasing medication.

- **Billing services** is about the payments options available at the hospital cash counter, the staff at billing counter were helpful and waiting time for billing services.
- **Nursing services** is about availability of staff nurses in the ward during the period, satisfaction of staff nurse services.
- **Medical services** are about knowledge, skills and expertise of the doctors involved in best treatment and the ability to create trust and confidence among the patients arriving at the institution for treatment.
- **Cleanliness** is about the Hospital area, waiting area and examination rooms cleaned properly and bed sheet on the examination couch is neat and clean and the toilets were kept clean.
- **Overall Satisfaction** is about the treatment received by the patients and their experience going through all the processes and services of the hospital.

This research aims to study the patients' perception on the services provided by MGMCRI hospital in Pondicherry. There is no comprehensive study available for evaluating the quality of a hospital with respect of patient's satisfaction survey. Hence, the present study attempts to fill this gap. Quality is measured based on 8 main factors namely Front desk, Basic amenities, Pharmacy services, billing services, Nursing services, Medical services, Cleanliness and the overall satisfaction of the patients.

Research Methodology: This study employed a survey research design and used a self-developed questionnaire to collect data. To ensure content validity of the questionnaire, items on the questionnaire were based on the theoretical perspectives and results from literature review as well as in-depth interviews with patients.

Research Method: This was a descriptive research study.

Data: Nature, Sources and Collection Method This study used primary data. The primary data include the perception of patients towards healthy hospital quality factors at MGMCRI, Pondicherry. The data were collected using structured questionnaires.

Sample and Sampling Method: Using convenient sampling method, 300 patients were selected from MGMCRI belonging to 3 neighbouring places namely, Pondicherry, and Cuddalore and Villupuram regions to collect data on healthy hospital quality indicators.

Instrument of Data Collection

The research was designed to examine the perceptions of patients on the healthy hospital quality of MGMCRI based on 8 factors. A questionnaire was developed using modified service instrument to measure the quality of healthcare services delivered to the volunteers attending Urology services in the Hospital.

Each aspect of service was discussed in detail with the colleagues and then questions were framed. The questions were vetted by Experts. The questionnaire includes eight service quality factors. The volunteers of the study were patients availing services from MGMCRI A total of 400 questionnaires were distributed to the samples and 300 filled in questionnaires were received from the samples. A very good response rate of 75% was identified. The respondents included out patients attending urology OPD, MGMCRI, Pondicherry.

Using 5-point Likert scale (Strongly agree -5, Agree -4, Neutral -3, Disagree -2 and Strongly Disagree -1), questionnaire was developed and administered to the respondents to know the hospital services satisfaction. The questionnaire was designed to have eight factors of healthy hospital quality with 28 variables (Annexure I).

The Eight factors of healthy hospital quality include:

- i. Front Desk (FRD)** is about the reputation of the institution and easy registration, satisfaction of front desk people in delivering the health care services.
- ii. General Facilities and Basic Amenities (GBA)** is about the stretchers facility, lift serves, lights and fans maintenance, and cleanliness and parking facilities.
- iii. Pharmacy Service (PHS)** is the pharmacy staff's courteousness, providing adequate explanation about medications and dosages, payment options and time taken for purchasing medication.
- iv. Billing Services (BIS)** is about the payments options available at the hospital cash counter, the helpfulness of the staff at billing counter and the waiting time for billing services.
- v. Nursing Services (NUS)** is about availability of staff nurses in the ward during the period, satisfaction of services provided by the staff nurse.
- vi. Medical Services (MES)** is about knowledge, skills and expertise of the doctors involved in the best treatment, and the ability to create trust and confidence among the patients arriving at the institution for treatment.
- vii. Cleanliness (CLE)** is about the rooms and wards being cleaned properly, the bed sheet's degree of neatness and cleanliness, and whether the toilets were cleaned properly and periodically.
- viii. Overall Satisfaction (OS)** is about the treatment received by the patients and attachment towards the hospital.

Period of the Study: This study was conducted for a period of two months between 1st May 2017 to 30th June 2017.

Need for the Study

In the recent times, Pondicherry has witnessed boom in the hospitals and medical colleges and the promoters started developing large health care provisions in Pondicherry and its neighbouring districts. Yet affordable hospital services are not readily available to the growing population in the outskirts of Pondicherry. Under this circumstance, understanding the patients' perceptions on healthcare services at MGMCRI in Pondicherry and their satisfaction with the various factors of Quality health services in the hospital is important. This would help MGMCRI to develop and improve the quality services provided to the patients coming to the hospital.

Statement of the Problem

Pondicherry is a microcosm of India (multi-cultural, multi-lingual etc.) and can be viewed as miniature India. As majority of the population is in the middle-income group, the cost of getting an advanced treatment is a very high and tough task nowadays due to affordability factors. The quality of life for most people is likely to be determined by the quality of the treatments received from the hospitals. The problem identified here is whether quality treatment is being given to the patients of MGMCRI.

Objectives of the Study

Following are the objectives of the study

- To find the perception of patients towards the services provided at Urology department in MGMCRI.
- To find whether the patients are satisfied with MGMCRI Hospital.

This section analyses the patients' perceptions on quality health services of MGMCRI in Pondicherry using various factors and variables. Socio-economic characteristics of patients were used for assessing the Quality of health services at MGMCRI hospital.

Factors Description

Front Desk (FRD) and Medical Records Department (MRD)

- Waiting time in the registration counter
- The efficiency of the registration counter is good
- Getting care for illness/injury as soon it is possible
- Friendliness and courtesy of the registration counter
- General Facility
- Ambience of the sitting area is good
- OPD friendliness/courtesy

- Reasonable time

Pharmacy Services (PHS)

- Willingness to listen
- Taking time to answer the question
- amount of time spent with you is reasonable
- Explaining things in a way you could understand is good
- The thoroughness of the examination was excellent
- Instruction regarding medication
- Advice given to you on ways to stay healthy is useful

Billing Services (BIS)

- Cash counter was suitable
- Staff at billing counter were helpful
- Waiting time for billing service was bearable

Nursing Services (NUS)

- Availability of staff nurses
- Nursing service satisfaction
- Helpful and courteous

Medical Services (MES)

- Our needs are attended to at the earliest
- Doctors are always ready and willing to pay attention to our needs
- Doctor explained well about disease and problems and need of further therapy. Medical/surgical
- Aware of the doctor who treated me.

Cleanliness (CLE)

- OPD waiting Area were cleaned properly
- Laboratory and Radiology waiting areas were neat and clean
- Rest rooms are properly cleaned then and there

Overall Satisfaction (OS)

- Will you recommend this hospital to your friend and family?

Statistical Tools

The composition of the volunteers based on gender, age, type of patient (old or new) and recommendation have been presented graphically using pie charts. Line plots have been used to plot for each quality dimension against the mean responses of patients categorized by gender, age, type of patient and recommendation. Further, the responses obtained from the patients are distributed across demographic factors w.r.t quality dimensions using cross tabulations appended with multiple bar diagrams.

To compare the mean responses (scores) obtained across quality dimensions in relating to demographic profiles, the statistical techniques like one-way Analysis of Variance (ANOVA) is imparted for age and independent samples t- test for recommendation, gender and type of patient.

All the results are compared at 0.05 level of significance and the entire analysis has been carried out using IBM SPSS 19.0 version and graphs are depicted using MS Excel 2010. The report is segmented as follows: starting with demographic profile, next to it is the cross tabulations with above mentioned graphs and ending with comparative analysis. The summary is presented at the end of all outcomes.

Statistical Report

The composition of the patients based on gender, age, type of patient (old or new) and recommendation have been presented graphically using pie charts. Line plots have been used to plot for each quality dimension against the mean responses of patients categorized by gender, age, type of patient and recommendation. Further, the responses obtained from the patients are distributed across demographic factors w.r.t quality dimensions using cross tabulations appended with multiple bar diagrams.

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Demographic Profiles

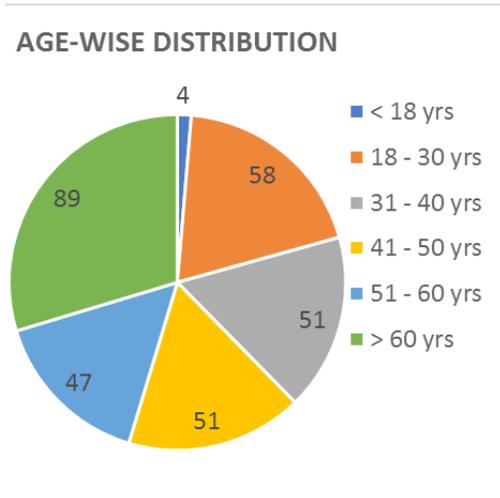


Chart 1: Pie chart showing age-wise distribution of the volunteers.

Age-wise Distribution

The pie chart shows the composition of the volunteers based on age group. It is observed that:

- 89 (29.67%) are aged above 60 years,
- 58 (19.33%) were aged between 18-30 years,
- 51 (17%) were aged between 31-40 years,
- 51 (17%) were aged between 41-50 years,
- 47 (15.67%) patients belonged to the age group of 51-60 years and
- 4 (1.33%) were aged below 18.

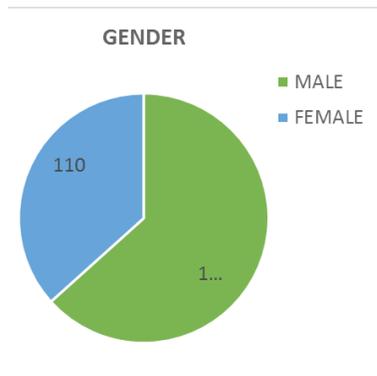


Chart 2: Pie chart showing gender-wise distribution of the volunteers.

Gender-wise Distribution

A larger proportion of the patients who visited the hospital were males i.e., 190 (63.33%) whereas only 110 (36.67%) were female patients.

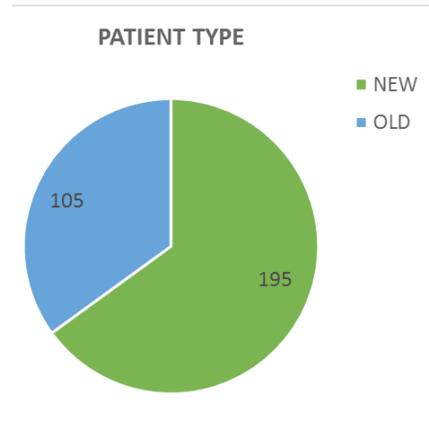


Chart 3: Pie chart showing distribution of volunteers based on patient type (New or Old).

Patient Type Distribution

This pie chart shows that 195 (65%) volunteers under study were new patients, i.e., they have visited the hospital for the first time. The other 105 (35%) of them have visited previously.

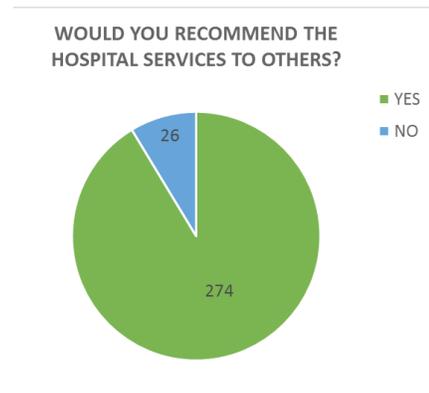


Chart 4: Pie chart showing volunteers feedback on recommending the hospital services to others.

Feedback On Recommending the Hospital Services to Others

This pie chart gives the composition of patients depending on their recommendation of hospital to others. An appreciable percentage of people (91.33%) have positively responded that they would recommend this hospital. Only a small portion of them 8.67% have said that they would not recommend the hospital to others

Cross tabulations

The following tables show the cross tabulation of the responses of the patients based on the demographic factors like age, gender, recommendation and type for the question if the service is wonderful.

The total number of patients in the study are 300. The dispersion of patients is observed to be as, out of 300, 64(21.3%) patients disagreed with the statement that service is wonderful, 197(65.7%), i.e. more than half of them neither agreed nor disagreed and a small proportion i.e., 39(13%) of the patients agreed that the services were wonderful (Table 1).

			Patient		Total
			Old	New	
Our Service is wonderful	Disagree	No. of Volunteers	16 (25%)	48 (75%)	64 (100%)
		% within old/new/total	15.20%	24.60%	21.30%
	Neither agree nor disagree	No. of Volunteers	82 (41.6%)	115 (58.4%)	197 (100%)
		% within old/new/total	78.10%	59.00%	65.70%
	Agree	No. of Volunteers	7 (17.9%)	32 (82.1%)	39 (100%)
		% within old/new/total	6.70%	16.40%	13.00%
Total		No. of Volunteers	105	195	300

Table 1: Our Service is wonderful * Patient Cross tabulation based on new/old patient.

In (Table 1) among the 300 volunteers, 105 (35%) were old and 195 (65%) are new. Among the new patients, 115 (59%) neither agreed nor disagreed that the service is wonderful. 48 (24.6%) of the new patients disagreed and 32 (16.4%) agreed that the service is wonderful. Similarly, among 105 old patients, 16 (15.2%) disagreed, about of 82 (78.1%) patients neither agreed nor disagreed and only 7 (6.7%) old patients agreed that the service is wonderful.

			Sex		Total
			Male	Female	
With Our Service is wonderful	Disagree	No. of volunteers	41 (64.1%)	23 (35.9%)	64 (100%)
		% within Male/Female/Total	21.60%	20.90%	21.30%
	Neither agree nor disagree	No. of volunteers	123 (62.4%)	74 (37.6%)	197 (100%)
		% within Male/Female/Total	64.70%	67.30%	65.70%
	Agree	No. of volunteers	26 (66.7%)	13 (33.3%)	39 (100%)
		% within Male/Female/Total	13.70%	11.80%	13.00%
Total		No. of volunteers	190 (63.3%)	110 (36.7%)	300 (100%)

Table 2: Cross tabulation of 'Our Service is wonderful' based on sex of the volunteer.

In (Table 2) it was observed that out of 300 volunteers, 190 (63.3%) were male and 110 (36.7%) were female. Among male volunteers, 123 (64.7%) neither agreed nor disagreed that the service is wonderful. 41 (21.6%) of them disagreed and 26 (13.7%) agreed that the service is wonderful. Similarly, among 110 female patients, 23 (20.9%) disagreed, 74 (67.3%) neither agreed nor disagreed and only 13 (11.8%) agreed that the service was wonderful.

			Would you recommend the services to others?		Total
			Yes	No	
Our Service is wonderful	Disagree	No. of volunteers	57 (89.1%)	7 (10.9%)	64 (100%)
		% within those who would recommend/not recommend	20.80%	26.90%	21.30%
	Neither agree nor disagree	No. of volunteers	178 (90.4%)	19 (9.6%)	197 (100%)
		% within those who would recommend/not recommend	65.00%	73.10%	65.70%
Agree	No. of volunteers	39 (100%)	0 (0%)	39 (100%)	
	% within those who would recommend/not recommend	14.20%	0.00%	13.00%	
Total		No. of volunteers	274	26	300

Table 3: Cross tabulation of ‘Our Service is wonderful’ based on whether volunteers would recommend the services to others.

In (Table 3) the responses of the patients are tabulated against the recommendation. It is observed that out of 300, majority of them, i.e., 274(91.3%) said they would recommend the hospital to others and only 26(8.7%) would not recommend the hospital.

Further, among the patients who would recommend, 178(65%), neither agreed nor disagreed that the service is wonderful. 57(20.8%) of them disagreed and 39(14.2%) agreed that the service is wonderful.

Similarly, among patients who would not recommend, 19 patients accounting to 73.9% neither agreed nor disagreed and only 26.9%, i.e. 7 disagreed and none of them (0%) agreed that the service is wonderful.

			Age group (years)						Total
			<18	18-30	31-40	41-50	51-60	>60	
Our service is wonderful	Disagree	No. of Volunteers	0 (0%)	11 (17.20%)	13 (20.30%)	14 (21.90%)	12 (18.80%)	14 (21.90%)	64 (100%)
		% who disagree within Age groups	0.00%	19.00%	25.50%	27.50%	25.50%	15.70%	21.30%
	Neither agree nor disagree	No. of Volunteers	4 (2.00%)	42 (21.30%)	34 (17.30%)	30 (15.20%)	29 (14.70%)	58 (29.40%)	197 (100%)
		% who neither agree nor disagree within Age groups	100.00%	72.40%	66.70%	58.80%	61.70%	65.20%	65.70%
	Agree	No. of Volunteers	0 (0%)	5 (12.80%)	4 (10.30%)	7 (17.90%)	6 (15.40%)	17 (43.60%)	39 (100%)
		% who agree within Age groups	0.00%	8.60%	7.80%	13.70%	12.80%	19.10%	13.00%
Total		No. of Volunteers	4	58	51	51	47	89	300

Table 4: Cross tabulation of our ‘Service is wonderful’ based on age group of volunteers.

In (Table 4) the responses of the volunteers regarding ‘Our services are wonderful’ are tabulated against the various age groups. It is observed that:

- 4(1.3%) out of 300 patients were below 18 years,
- 58(19.3%) were in the age group 18-30 years,
- 51(17%) were between 31-40 years,
- 51(17%) were between 41-50 years,
- 47(15.7%) were between 51-60 years and
- 89(29.7%) were above 60 years.

Among the age group below 18, all 4 of them neither agreed nor disagreed that the service is wonderful.

Among 58 patients in 18-30 age group, 11 (19%) disagreed, 42 (72.4%) neither agreed nor disagreed and only 8.6%, i.e. 5 patients agreed that the service is wonderful.

Among 51 patients in 31-40 age group, 13 (25.5%) disagreed, 34 (66.7%) neither agreed nor disagreed and only 7.8%, i.e. 4 agreed that the service is wonderful.

Among 51 patients in 41-50 age group, 14 (27.5%) disagreed, 30 (58.8%) neither agreed nor disagreed and only 13.7%, i.e. 7 agreed that the service is wonderful.

Among 47 patients in 51-60 age group, 12 (25.5%) disagreed, 29 (61.7%) neither agreed nor disagreed and only 12.8%, i.e. 6 agreed that the service is wonderful.

Among 89 patients in 31-40 age group, 14 (15.7%) disagreed, 58 (65.2%) neither agreed nor disagreed and only 19.1%, i.e. 17 agreed that the service is wonderful.

			Patient		Total
			Old	New	
The quality of your medical care is excellent.	Neither agree nor disagree	No. of volunteers	49 (40.8%)	71 (59.2%)	120 (100%)
		% who neither agree nor disagree within old/new	46.7%	36.4%	40.0%
	Agree	No. of volunteers	56 (31.1%)	124 (68.9%)	180 (100%)
		% who agree within old/new	53.3%	63.6%	60.0%
Total		No. of volunteers	105 (35%)	195 (65%)	300 (100%)

Table 5: Cross tabulation of ‘The quality of your medical care is excellent’ based the volunteers being old or new patients.

In (Table 5) the responses of the volunteers are tabulated against the type of patient (old or new). It is observed that:

- Out of 300 patients, 105(35%) are old and 195(65%) are new.
- Among the new patients, 71(36.4%) neither agreed nor disagreed that the quality of medical care is excellent. 124 (63.6%) agreed that the of medical care is excellent.
- Among 105 old patients, 49(46.7%) neither agreed nor disagreed and 53.3%, i.e. 56 old patients agreed that the quality of medical care is excellent.

			Sex		Total
			Male	Female	
The quality of your medical care is excellent.	Neither agree nor disagree	No. of volunteers	81 (67.5%)	39 (32.5%)	120 (100%)
		% within Sex	42.6%	35.5%	40.0%
	Agree	No. of volunteers	109 (60.6%)	71 (39.4%)	180 (100%)
		% within Sex	57.4%	64.5%	60.0%
Total		No. of volunteers	190 (63.3%)	110 (36.7%)	300 (100%)

Table 6: Cross tabulation of ‘The quality of your medical care is excellent’ based the volunteers being old or new patients.

In (Table 6) responses of the volunteers are tabulated against their sex. It is observed that:

- Out of 300 patients, 190 (63.3%) are male and 110(36.7%) are female.
- Among the male patients, 81 (42.6%), neither agreed nor disagreed that the quality of medical care is excellent. 109 (57.4%) of them agreed that the quality of medical care is excellent.
- Among 110 female patients, 39 (40%) neither agreed nor disagreed and a proportion of 71 patients accounting to 60% agreed that the quality of medical care is excellent.

			Would you recommend the services to others?		Total
			Yes	No	
The quality of your medical care is excellent	Neither agree nor disagree	No. of volunteers	101 (84.2%)	19 (15.8%)	120 (100%)
		% within would you recommend the services to others?	36.9%	73.1%	40.0%
	Agree	No. of volunteers	173 (96.1%)	7 (3.9%)	180 (100%)
		% within would you recommend the services to others?	63.1%	26.9%	60.0%
Total		No. of volunteers	274 (91.3%)	26 (8.7%)	300 (100%)

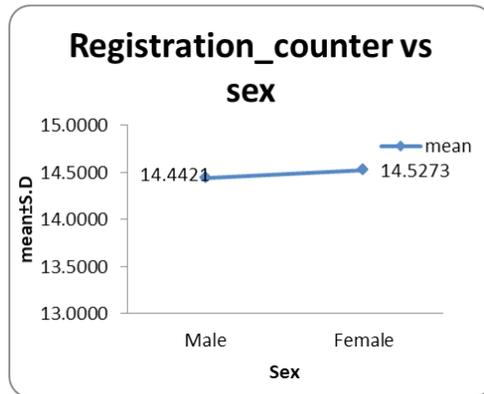
Table 7: Cross tabulation of ‘The quality of your medical care is excellent’ on whether the volunteers would recommend the services to others.

In (Table 7) Cross tabulation of ‘The quality of your medical care is excellent’ on whether the volunteers would recommend the services to others. Out of 120 volunteers who neither agreed nor disagreed that the quality of medical care is excellent, 101 (84.2%) responded that they would recommend the services to others while 19 (15.8%) of 120 said that they would not recommend the services to others. Out of 180 volunteers who neither agreed that the quality of medical care is excellent, 173 (96.1%) responded that they would recommend the services to others while 7 (3.9%) of 180 said that they would not recommend the services to others.

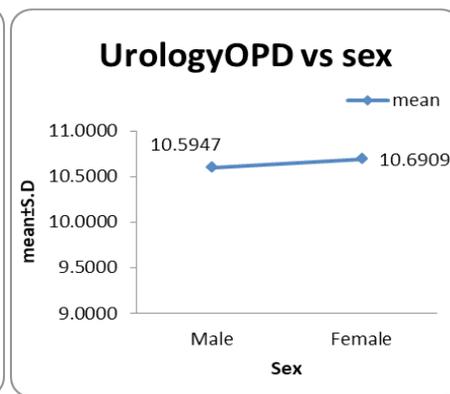
Line Plots

The following graphs are the line plots of the various quality dimensions such as the registration counter, Urology OPD, Visit with the doctor, Laboratory services, Imaging Services, Pharmacy services, overall facility services, overall satisfaction with respect to the demographic factors like age, gender, type of patient and recommendation.

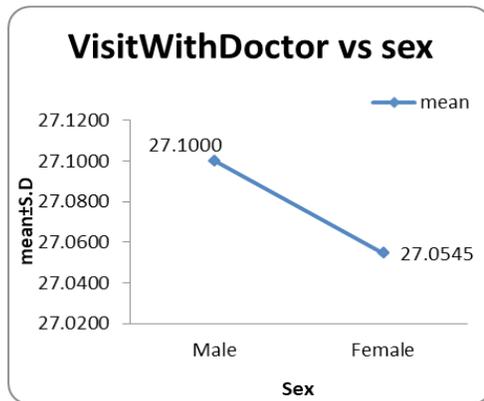
The line plots that follow are obtained by plotting the mean scores of genders versus all the quality dimensions of a healthy hospital individually. The mean scores of both the categories (male and female) are showed in the plot. For instant, the mean score of the ratings given by males for the service offered at the registration counter is 14.44 and females is 14.52. It is observed that there is no significant difference in the mean scores, thus it can be reported that both males and females are equally satisfied with the services of the registration counter. Similar interpretations can be drawn from the other line plots as well.



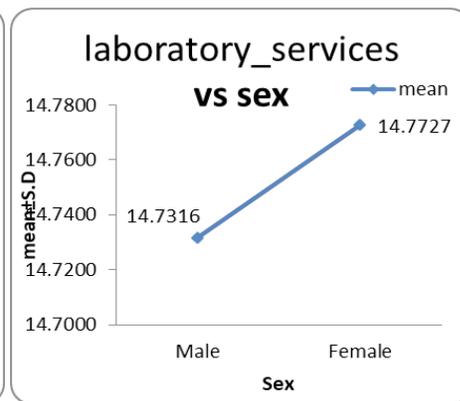
Plot 1



Plot 2

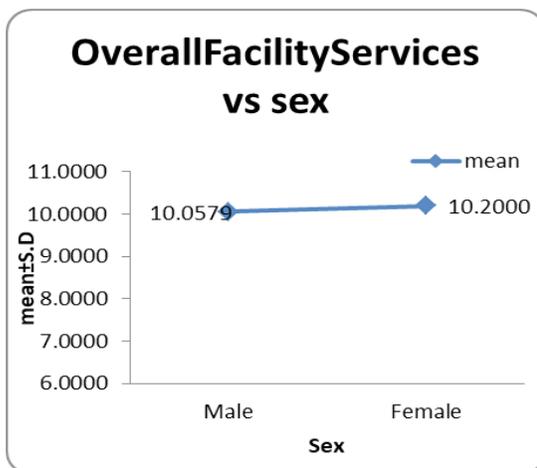


Plot 3

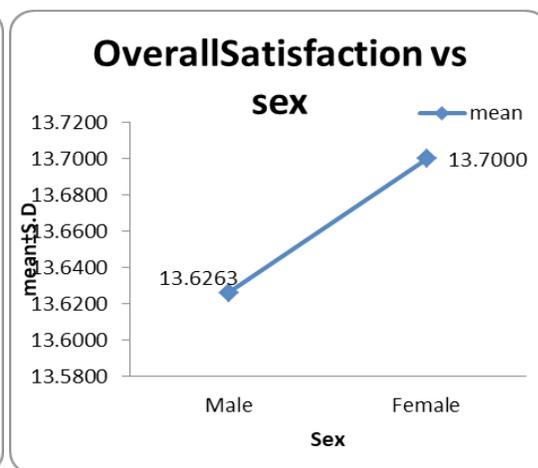


Plot 4

Plot 1-4: The quality dimensions against gender of the patient.

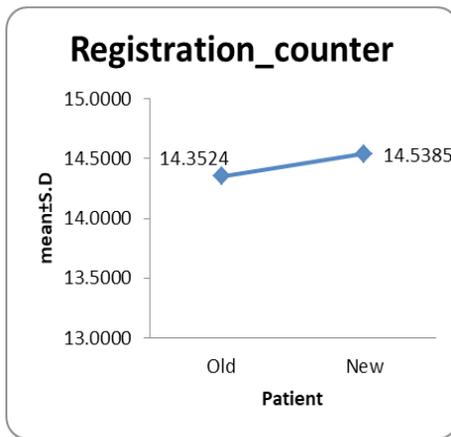


Plot 5

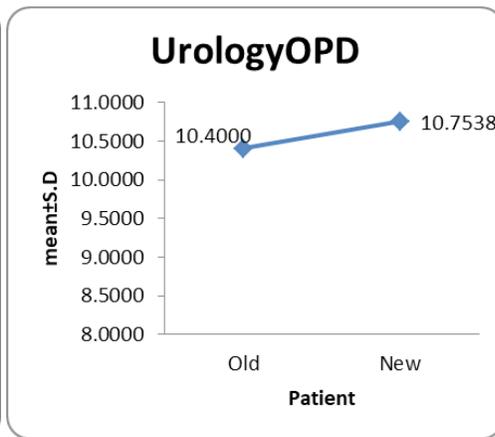


Plot 6

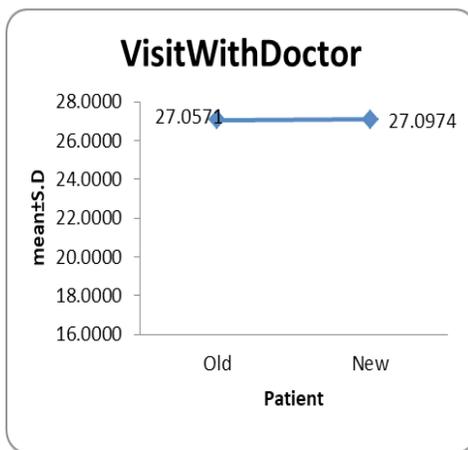
Plot 5, 6: Line plots showing the quality dimensions against sex of the patient.



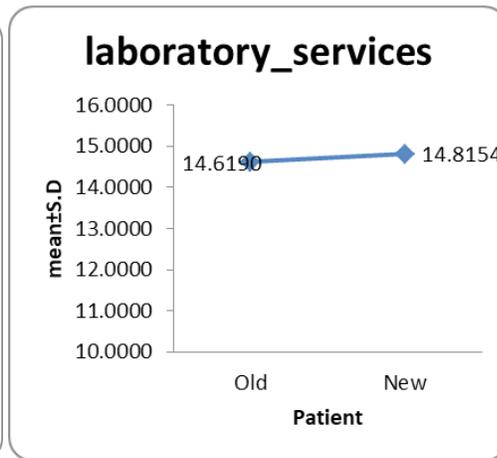
Plot 7



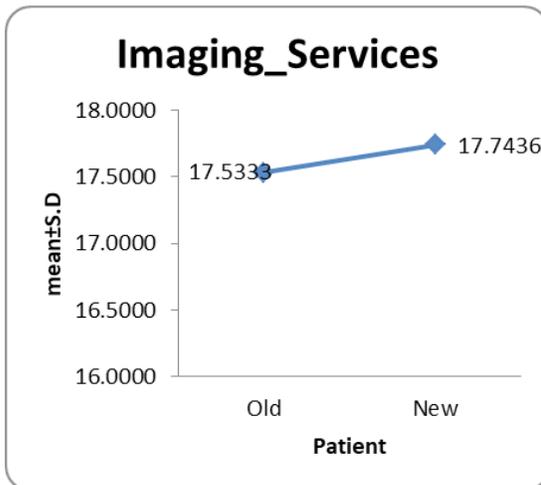
Plot 8



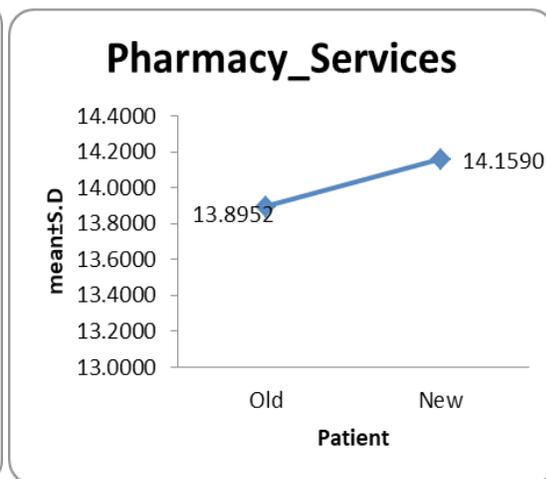
Plot 9



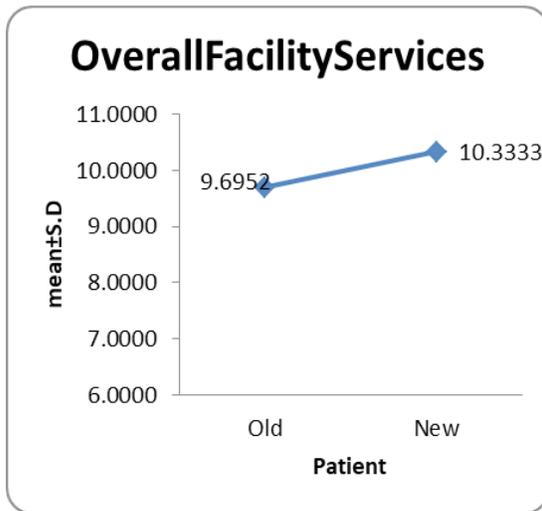
Plot 10



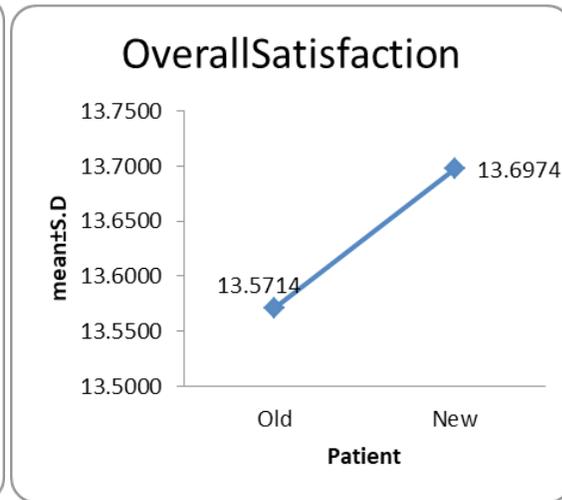
Plot 11



Plot 12

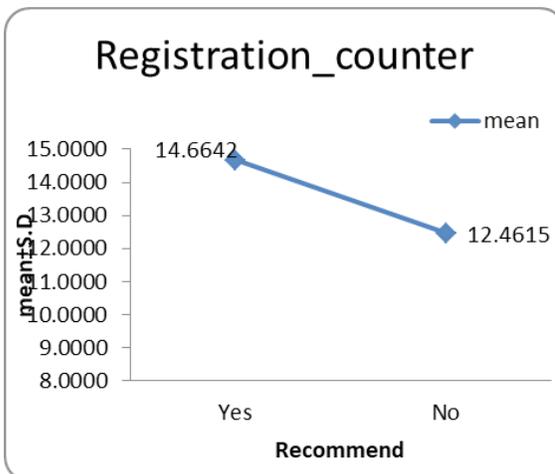


Plot 13

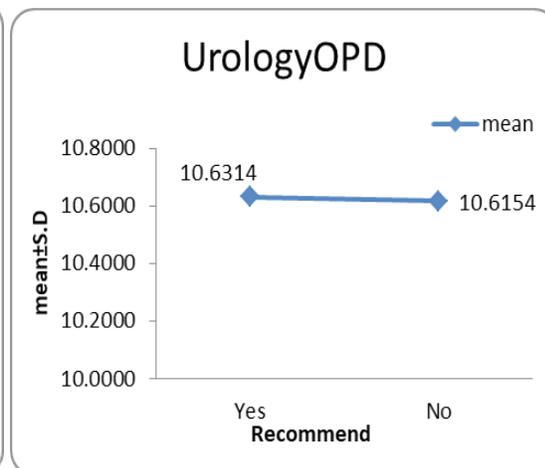


Plot 14

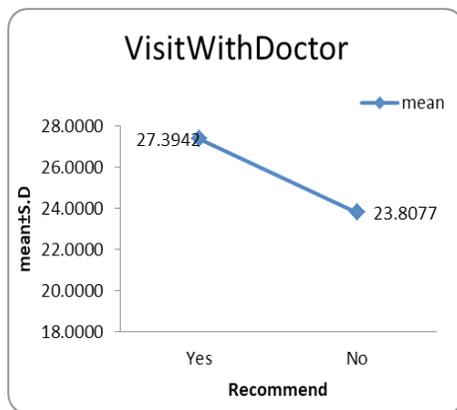
Plot 7-14: Line plots showing the quality dimensions against type of the patient



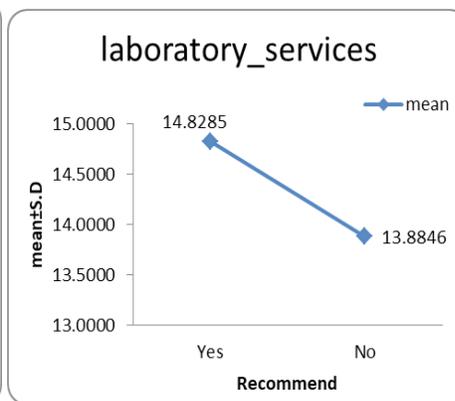
Plot 15



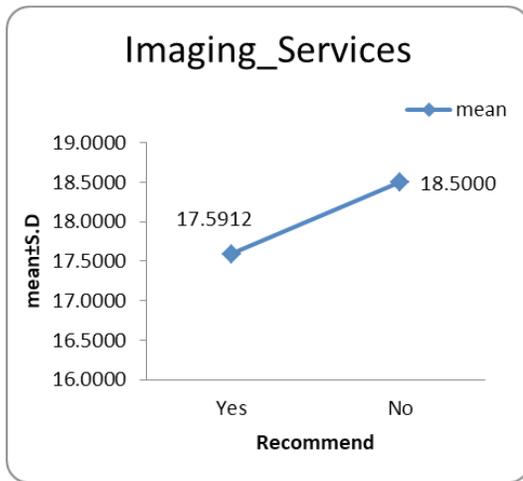
Plot 16



Plot 17



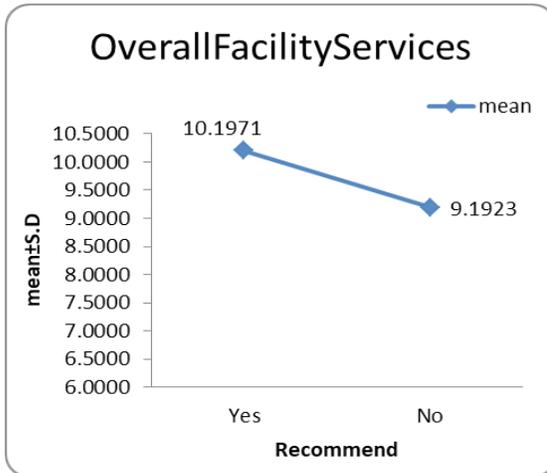
Plot 18



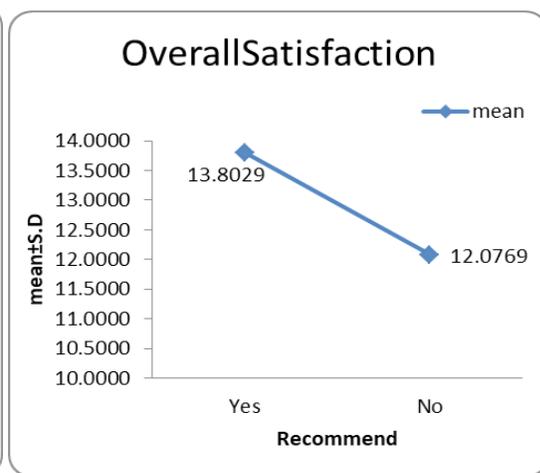
Plot 19



Plot 20

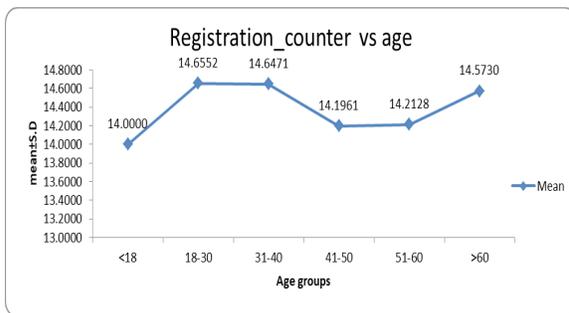


Plot 21

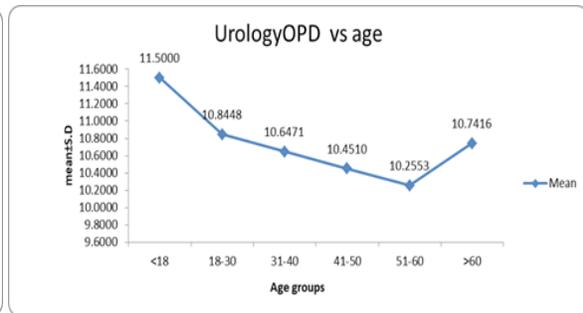


Plot 22

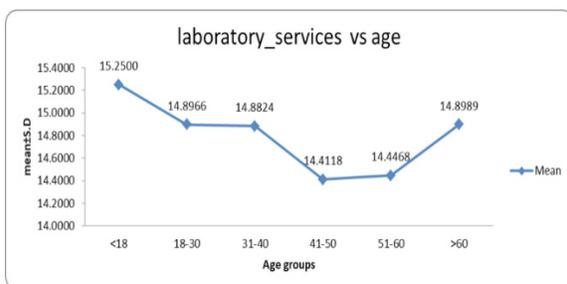
Plot 15-22: Line plots showing the mean scores of the recommendation against various quality dimensions



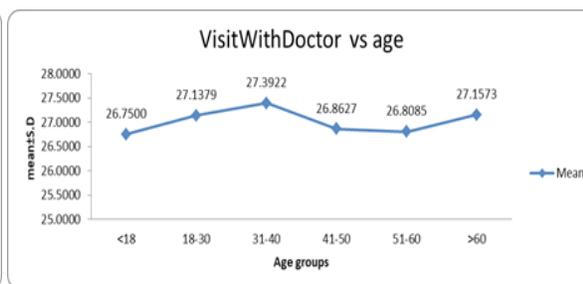
Plot 23



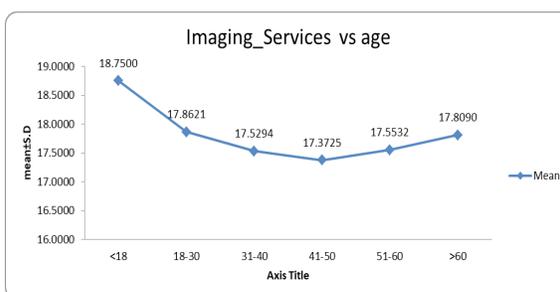
Plot 24



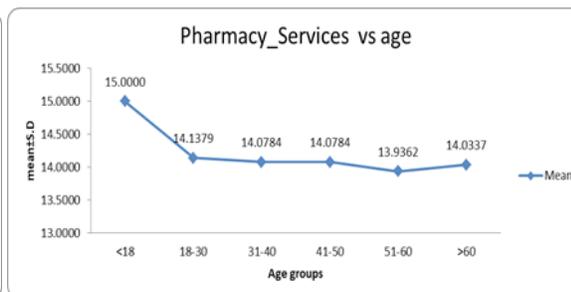
Plot 25



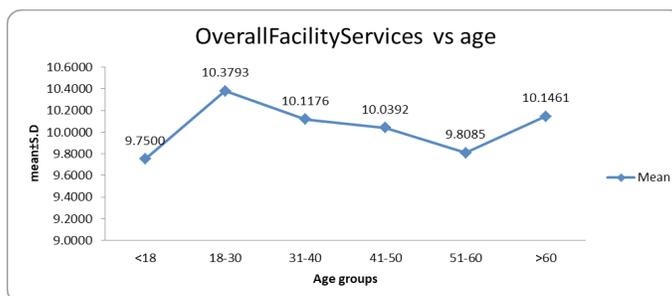
Plot 26



Plot 27



Plot 28



Plot 29

Plot 23-29: Line plots obtained by plotting the mean scores of different age groups against the quality dimensions.

Age Group (years)	Summary	Registration counter	Urology OPD	Visit With Doctor	Lab services	Imaging Services	Pharmacy Services	Overall Facility Services	Overall Satisfaction
<18	Mean	14	11.5	26.75	15.25	18.75	15	9.75	13.5
	S.D	2.309	0.577	2.5	0.957	0.957	1.414	0.5	1
18-30	Mean	14.655	10.844	27.137	14.896	17.862	14.137	10.379	13.775
	S.D	1.701	1.321	1.605	1.165	1.968	1.382	1.565	1.155
31-40	Mean	14.647	10.647	27.392	14.882	17.529	14.078	10.117	13.549
	S.D	1.694	1.453	1.184	1.275	1.983	1.547	1.491	1.119
41-50	Mean	14.196	10.451	26.862	14.411	17.372	14.078	10.039	13.509
	S.D	1.887	1.578	1.673	1.388	1.917	1.440	1.684	1.238
51-60	Mean	14.212	10.255	26.808	14.446	17.553	13.936	9.808	13.574
	S.D	1.875	1.594	1.740	1.441	1.908	1.389	1.483	1.137

>60	Mean	14.573	10.741	27.157	14.898	17.809	14.033	10.146	13.764
	S.D	1.789	1.426	1.580	1.288	1.894	1.318	1.548	1.118
F-value		0.767	1.413	0.96	1.797	0.794	0.476	0.781	0.599
p-value		0.574 ^{NS}	0.220 ^{NS}	0.443 ^{NS}	0.113 ^{NS}	0.555 ^{NS}	0.794 ^{NS}	0.564 ^{NS}	0.701 ^{NS}

Table 8: Shows the results of all the quality dimensions compared across different age groups using One-way ANOVA.

In the above table all the quality dimensions are compared across different age groups using One-way analysis of variance and the results so obtained are reported. From the p-values it is evident that the mean scores (responses) are uniformly distributed across various age groups among all the quality dimensions. With this, even though the patients belong to different age groups, their responses or perceptions are identical in all quality dimensions. For instance, consider the dimension of registration counter, wherein the mean scores were observed to be around 14 with a minute variation in the decimals resulting an insignificant outcome. A similar kind of scenario is witnessed in the rest of the quality dimensions. The line plots were depicted using the mean values and this is visualized for each quality dimension.

Dimensions	Sex	N	Mean	Std. Deviation	t-test
					(p-value)
Registration counter	Male	190	14.4421	1.80368	0.396
	Female	110	14.5273	1.775	(0.692 ^{NS})
Urology OPD	Male	190	10.5947	1.45441	0.547
	Female	110	10.6909	1.48846	(0.585 ^{NS})
Visit with doctor	Male	190	27.1	1.57208	0.24
	Female	110	27.0545	1.60181	(0.811 ^{NS})
Laboratory services	Male	190	14.7316	1.31999	0.261
	Female	110	14.7727	1.3039	(0.794 ^{NS})
Imaging Services	Male	190	17.6	1.86814	0.829
	Female	110	17.7909	2.00959	(0.408 ^{NS})
Pharmacy Services	Male	190	14.0158	1.42345	0.828
	Female	110	14.1545	1.35583	(0.408 ^{NS})
Overall Facility Services	Male	190	10.0579	1.54022	0.766
	Female	110	10.2	1.56099	(0.444 ^{NS})
Overall Satisfaction	Male	190	13.6263	1.11855	0.537
	Female	110	13.7	1.19287	(0.592 ^{NS})

Table 9: Shows the results of analysis of all the quality dimensions against the sex of the volunteer.

Conclusions

Eliciting feedback from patients and engaging them in the care received by them is the highlight of this study. The study addresses various aspects of the services and care experienced by the patients and those services which need improvement, and to monitor performance about meeting patient Satisfaction as part of ensuring good delivery of health care. Regular and systematic assessment as part of performance monitoring in health care settings would markedly improve patient satisfaction towards health care. Effective measurement of patient experience can be used to compare the experiences delivered by different services and for the health care committees to monitor health care delivery.

The deficient areas were looked in to. Regular orientation sessions were administered to Personnel of the respective departments on how to interact with patients. They were regularly assessed by Video monitoring and constructive feedback were given. Feedback will be taken again from different set of patients to assess the impact of interventions done to the respective departments and individualized assessment of improvement in the attitude of the personnel will also be assessed.

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