

**PATIENT SATISFACTION IN RADIOLOGY DEPARTMENT IN C.K BIRLA
HOSPITAL, JAIPUR**

Dissertation Submitted to



The IIHMR University, Jaipur

for the partial fulfilment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

by

Dr. Akshika Sharma

Under the Supervision and Guidance of

Dr. Kajal Sitlani

2022

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DECLARATION BY STUDENT

I hereby declare that this dissertation titled **Patient satisfaction in radiology department in C.K Birla hospital, Jaipur** is the bonafide record of my original research work. I declare that it has not been submitted to any other university or institution for the award of any degree or diploma. Information derived from the published or unpublished work of others has been duly acknowledged in the text.

Dr. Akshika Sharma

Date: June 2022

CERTIFICATE

This is to certify that Dr. Akshika Sharma in partial fulfillment of the requirements for the award of the degree of **MBA Hospital and Health Management** from the IIHMR University, Jaipur has successfully completed her internship at C.K Birla hospital, Jaipur during **March 24, 2022 to June 21, 2022.**

Place:

Preceptor/Head of the Organization
Name
of the organization

Date:

CERTIFICATE

This is to certify that dissertation titled is a record of the research work undertaken by **Dr. Akshika Sharma** in partial fulfillment of the requirements for the award of the degree of **MBA Hospital and Health Management** from the **IIHMR University, Jaipur** under my guidance and supervision and her approach to the research study has been sincere, scientific, and analytical.

Faculty Guide

IIHMR University, Jaipur

Date

School Dean

IIHMR University, Jaipur

Date

ACKNOWLEDGMENT

This internship at C.K Birla hospital was a wonderful opportunity. It gave me the exposure which was needed for my career. It was a great learning chance; it has helped me to understand the working of hospital. It is an honor to work with such a wonderful people of C.K Birla hospital.

I sincerely thank my organizational mentor Dr. Suhasani Jain **Medical Superintendent of C.K. Birla Hospital** for guiding me in every step with this report.

I would also like to thank to my guide Mr. Naveen Jindal **Senior Manager** for constant support and supervision without which it would not have been possible to complete this internship.

I would like to extend my heartfelt gratitude to my IIHMR mentor Dr. Kajal Sitlani.

Hereby I present my report with highest respect and humility.

Dr. Akshika Sharma

ABSTRACT

Introduction

C.K Birla Hospitals - RBH is the renowned 230 bedded multi-speciality hospital in Jaipur. It provides both inpatient and outpatient services with complete medical care to its patient. It works majorly on 3 principles – Patient - centric approach, ethical approach, clinical excellence. This hospital consists of 24 departments which are specialized in their respective area. They have experienced doctors with and highly trained medical professionals. Their mission is to provide best medical service to all the section of society. Patient care is the integral part of the hospital. Therefore, they pay special attention to patient satisfaction in all departments individually.

Methodology

To assess the patient satisfaction a cross sectional study was done in which a self-administered questionnaire was circulated to the OPD patient who visit radiology department for any test. For the ease in understanding, survey form was created in 2 languages Hindi and English. A google form was also created with exact same questions for patients who wanted to fill afterwards. Data analysis was done in month of May. Convenience sampling was used to collect data. The sample size was 100.

Data analysis was done by giving handouts and then filling that information in google form Results were analysed through pie charts. Likert scale was used for most question as a ranking system – Very Unsatisfied, Unsatisfied, Neutral, Satisfied, Very Unsatisfied. Questions about waiting time and No. of visit were also included in questionnaire.

Key words – Satisfaction, Survey, Feedback, Radiology

Table of Contents

Content	Page No.
Abstract	7
Acknowledgement	6
Introduction	10
Background	14
Objectives	14
Literature review	15, 16
Methodology	17
Result	18 – 27
Discussion	28
Conclusion	28
Reference	29
Annexures	30 – 31

Table	Description	Page Number
1.	Literature review	15 – 16
2.	Percentage distribution of number of patients attending different radiology exam.	18
3.	Percentage distribution of satisfaction with respect to Doctor Patient Interaction	19
4.	Univariate analysis of responses	20
5.	Crosstabulation analysis between gender and age group	21
6.	Cross tabulation between scan appointment performed on time and type of radiology examination patient attended	22
7.	Cross tabulation waiting time and radiology scan	23
8.	Cross tabulation between Radiology examination and how likely patient would recommend hospital to their family and friends	24
9.	Cross tabulation between Number of visits and likelihood of recommendation	25

CHAPTER 1

INTRODUCTION

About C.K Birla hospital – RBH, Jaipur

RBH is one of the branches of C.K Birla hospitals in Jaipur, Rajasthan. It was launched in 2016. Dr. Simardeep Singh Gill is the Chief executive officer of C.K Birla hospitals. RBH works on 3 principles in which first one is that they always put patient first, every department has the experienced doctors and trained medical professionals to help and guide patients. Their patient centric approach keeps them different from the crowd. Integrating the latest technology with experienced medical professional for efficient and time saving result with best outcomes.

Services offered in Outpatient department are

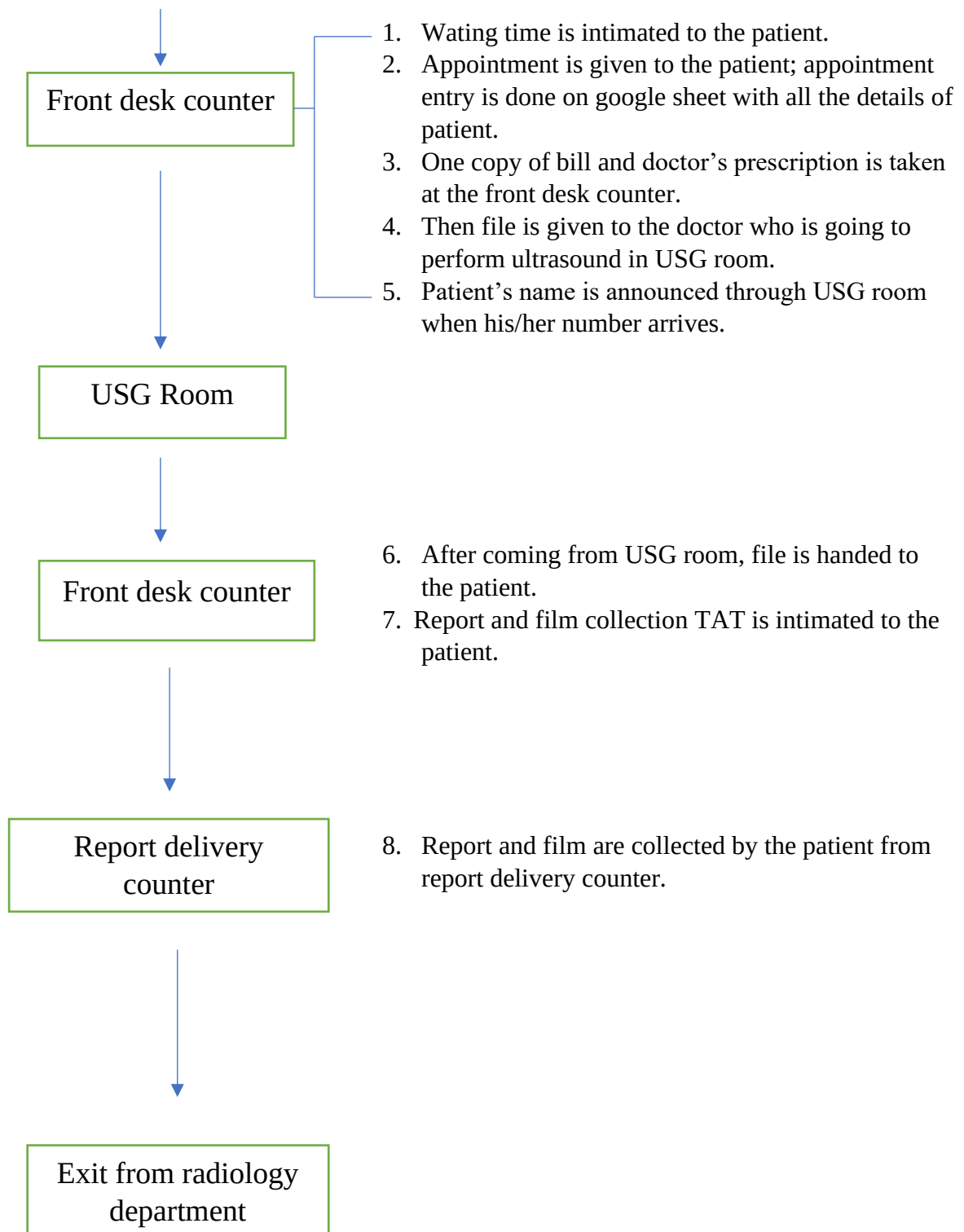
1. Neurosciences
2. Gastrosiences
3. Renal science
4. Cardiology
5. Orthopedics & Joint replacement
6. Radiology and more

Services offered in radiology department are

1. Ct scan
2. MRI scan
3. X-Ray
4. Mammography
5. Bone densitometry test
6. Ultrasound

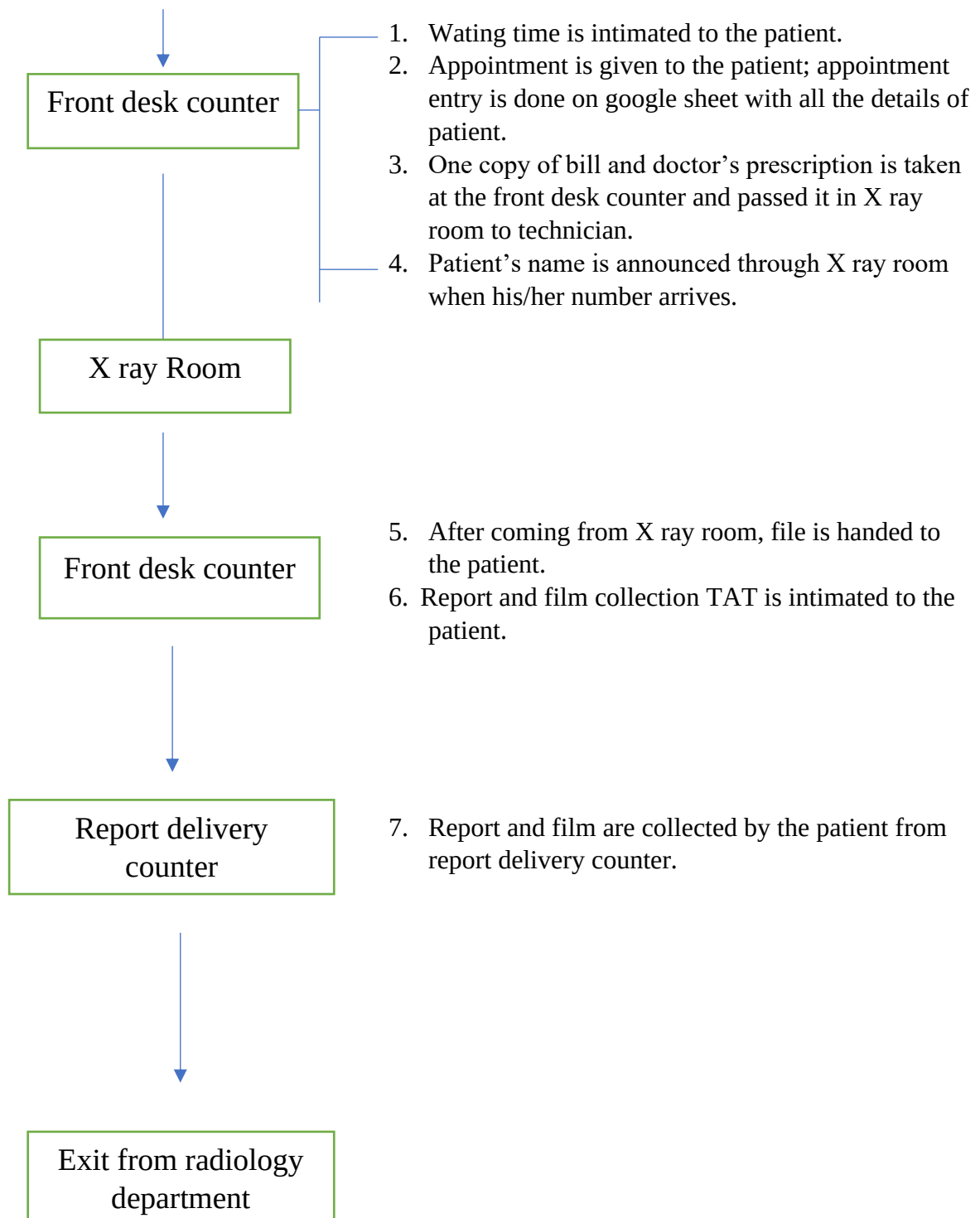
Standard operating procedure of Ultrasound

Patient's Arrival with billing of a test



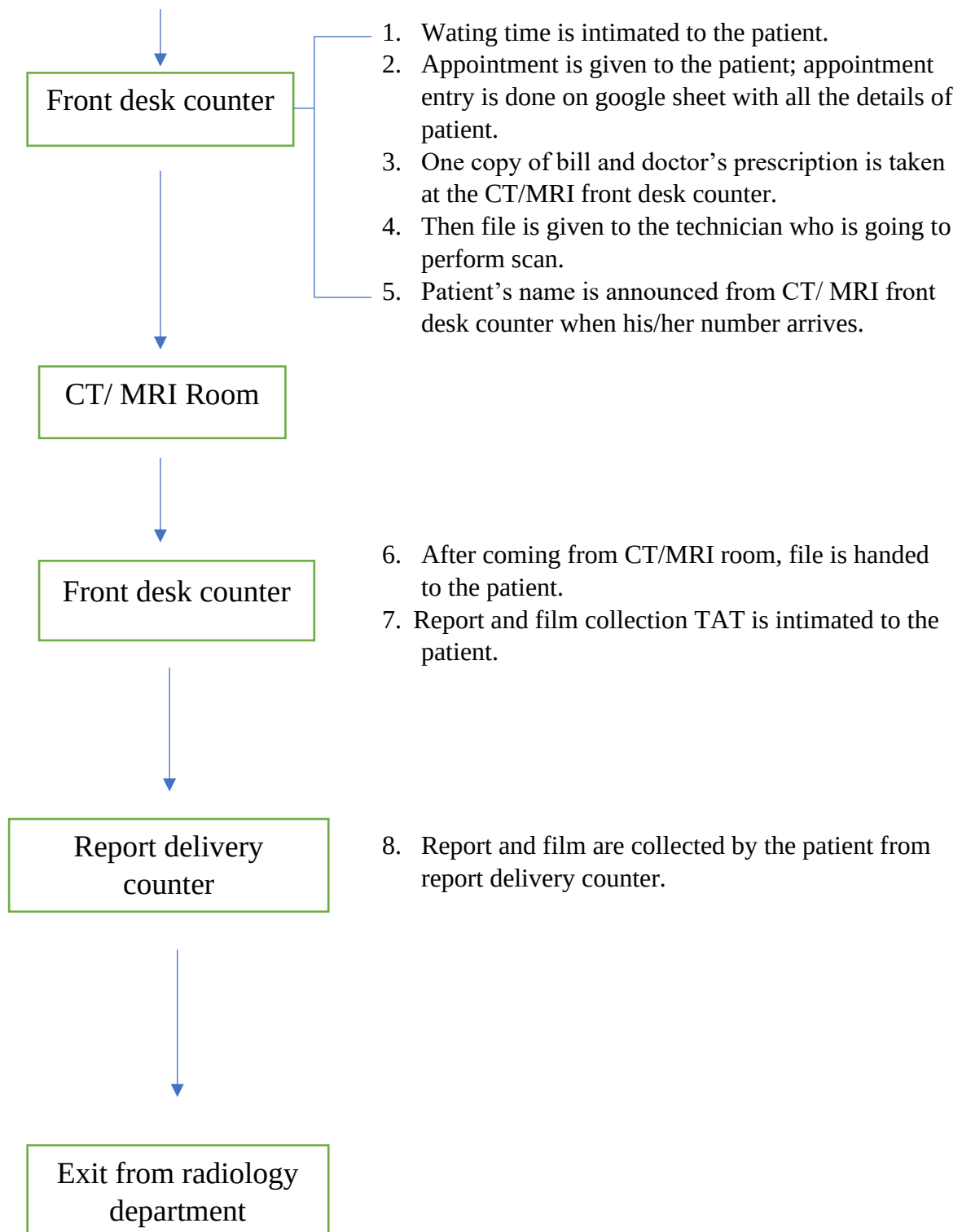
Standard operating procedure of X-ray

Patient's Arrival with billing of a test



Standard operating procedure of MRI/CT

Patient's Arrival with billing of a test



BACKGROUND

Patient satisfaction is widely used metrics in hospitals. It is very important tool to assess the quality of hospital and healthcare facility. There are many factors which are influenced by patient satisfaction like malpractices in hospital or any healthcare facility, patient retention and clinical outcomes. It has an important effect in delivering the high-quality healthcare efficiently and in timely manner. Hospital or healthcare facility should be patient centred to make the hospital successful and for patient retention.

RBH uses PSAT (Patient safety assessment tool) to analyse the patient satisfaction and his/her experience in hospital. A scanner is available on every counter from which patient can fill feedback form. Every complaint or feedback or suggestion is analysed by respective department coordinators. Besides that, a patient experience team is available, which take rounds on the floor to register any complaint of the patient and resolve any issue then and there only.

BROAD OBJECTIVE

To assess the patient satisfaction level in radiology department C.K Birla hospital, Jaipur.

SPECIFIC OBJECTIVE

1. To determine the elements that influence patient satisfaction.
2. To assess the issues that OPD patients experience.
3. To assess patient satisfaction with radiology department OPD services in terms of doctor-patient interaction, registration desk, waiting area, and overall health facilities.

CHAPTER 2

LITERATURE REVIEW

A review of literature was done with the help of PubMed and Google scholar to get an understanding on the current state of the subject. Not many studies have been done on this subject on the Indian context.

Table 1

Name of Author	Title of study	Salient features
Teshome Mulisa, Fasil Tessema & Hailu Merga	Patients' satisfaction towards radiological service and associated factors in Hawassa University Teaching and referral hospital, Southern Ethiopia	Sample size – 321 Sample technique – stratified sample technique Study location – Southern Ethiopia Finding of the study: - Majority of patients who took the part in survey were all satisfied with the service provided by the hospital. - Satisfaction level of patient was influenced by the waiting time of procedure, education level, occupation of respondent.
Wafaa Yousif Abdel Wahed1, Shaimaa Elsayed Mabrook1	Assessment of patient satisfaction at Radiological Department of Fayoum University Hospitals	Sample size – 306 Sample technique - cross-sectional study Study location - Fayoum city, Egypt Finding of the study: - Patients who are younger, and lower education and outpatients are much satisfied. - Old age patients, and those who have higher education are less satisfied.
Ogbonnia Godfrey Ochonma, Charles Ugwoke Eze, Soludo Bartholomew Eze & Augustine Obi Okaro	Patients' reaction to the ethical conduct of radiographers and staff services as predictors of radiological experience satisfaction	Sample size - 300 Sample technique - cross-sectional descriptive study Study location - Enugu metropolis, Southeast Nigeria Finding of the study: - Radiology technicians did not meet the criteria of ethical conduct by properly filling out consent form. - Also did not performed well as in telling the patient what to expect in examination. - Although they did well in some areas like courtesy, maintaining professional boundaries with patients.

Silvia Ondategui-Parra¹, Sukru M. Erturk² and Pablo R. Ros²	Survey of the Use of Quality Indicators in Academic Radiology Departments	Sample size - 132 Sample technique - cross-sectional study Study location - United States Finding of the study: • The use of customer satisfaction indicator is not a standardized process. • It is also not fully established for academic radiology department.
Tonio Schoenfelder, Joerg Klewer, Joachim Kugler	Determinants of patient satisfaction: a study among 39 hospitals in an in-patient setting in Germany	Sample size - 8428 Sample technique - random sampling Study location – Germany Finding of the study: • Finding showed that there are 10 determinants of patient satisfaction. • Some of them are kindness of nursing staff, result of overall treatment from the hospital. • Variable related to patient's perception of care is important when it comes to assessing patient satisfaction.
Gregory D. Kennedy, MD, PhD,¹ Sarah E. Tevis, MD,¹ and K. Craig Kent, MD	Is There a Relationship Between Patient Satisfaction and Favorable Outcomes?	Sample size - 171 hospitals Sample technique - Study location – USA Finding of the study: • Some variables significantly affect patient satisfaction like large hospital, low mortality, high level of surgical volume. • Low mortality rate in any hospital is directly associated with high patient's satisfaction level of that hospital.
J. Margo Brooks-Carthon PhD, RN, Ann Kutney-Lee PhD, RN, Douglas M. Sloane PhD, Jeannie P. Cimiotti DNSc, RN, Linda H. Aiken PhD	Quality of Care and Patient Satisfaction in Hospitals With High Concentrations of Black Patients	Sample technique - Cross-sectional secondary analysis Study location - Florida, Pennsylvania, New Jersey, and California Finding of the study: • Patients who are treated with high concentration of black people they were less likely satisfied with the care provided by the hospital.

CHAPTER 3

METHODOLOGY

To assess the satisfaction level of OPD patients in radiology department a self-administered questionnaire was used for study propose. Total 17 questions were incorporated in survey form. A feedback / complaint question was also added at the end to understand the frequency of nature of complaint, so that we can resolve them. Suggestions has also helped in making the system better and improving the process. It was a primary research so primary data was used.

Handouts were given at three places. First at the time of report collection. Second when patient's scan has been done, he comes out of the scan room and ask for report collection time from the front desk counter or CT/MRI counter.

The sample size for this study was 121 patients. Questions related to waiting time, behaviour of staff, cleanliness, age group, gender etc were used in questionnaire.

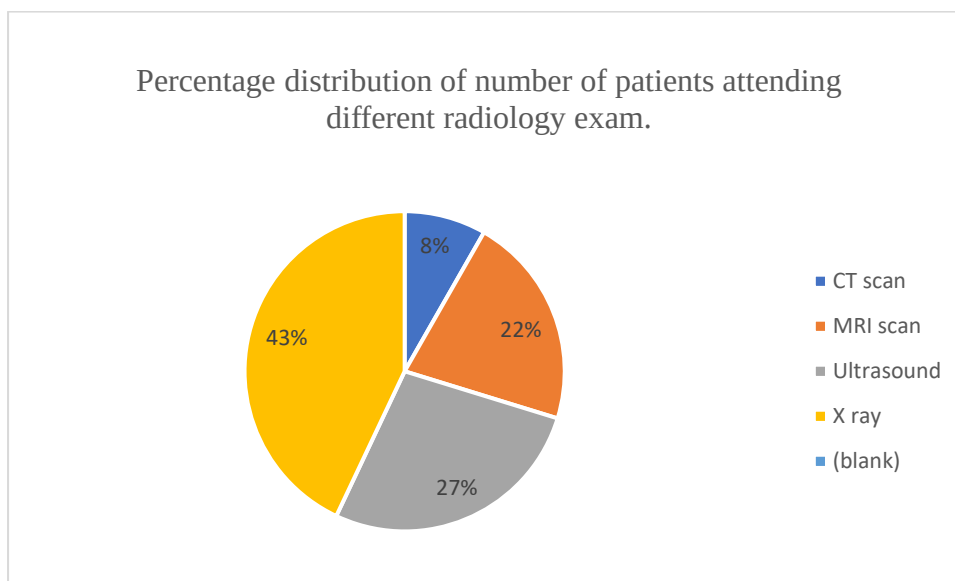
Data was transferred in excel sheet and analysed in the form of pie charts, vertical bar charts and in percentage form.

CHAPTER 4

RESULT

Table 2 - Percentage distribution of number of patients attending different radiology exam.

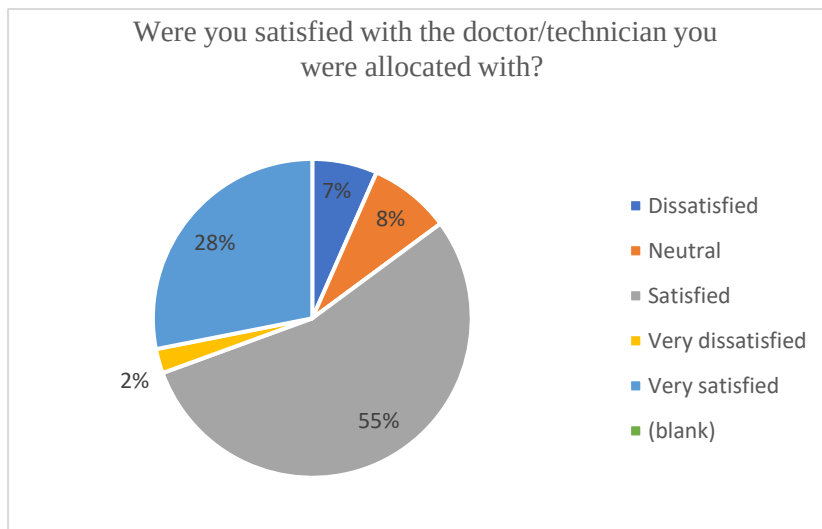
Radiology scan	No of patients
X ray	43%
Ultrasound	27%
MRI	22%
CT	8%



After doing analysis from above table it is shown that majority of patients came in radiology were for X ray scan, which constituted 43% of respondents, after that 27% of patients were of ultrasound. Patients for CT scan were 8% and MRI scan was 22%.

Table 3- Percentage distribution of satisfaction with respect to Doctor Patient Interaction

Responses	Percentage distribution of patients
Very satisfied	28
Satisfied	55
Neutral	8
Dissatisfied	7
Very dissatisfied	2



Majority (55%) of patients were satisfied with the allocated doctor/technician, 28% of patients were very satisfied, while 8% of patients were neutral about that. On the other hand, 7% were dissatisfied, and 2% were very dissatisfied with their allocated doctor.

Table 4

<i>Univariate analysis of responses</i>			
Variable	Responses	n =122	%
Age group	18-30	30	25
	31-65	58	48
	66 and over	20	16
	under 18 years	13	11
Gender	Female	47	39
	Male	74	61
How satisfied were you with the waiting time for the provided X-ray/CT/MRI/USG scan appointment	Dissatisfied	11	9
	Neutral	12	10
	Satisfied	70	58
	Very dissatisfied	4	3
	Very satisfied	24	20
How satisfied were you with the convenience of the provided X-ray/ CT/MRI/USG scan appointment?	Neutral	13	11
	Satisfied	68	56
	Unsatisfied	8	7
	Very satisfied	28	23
	Very unsatisfied	4	3
How satisfied were you with the radiology department reception staff, were they friendly?	Neutral	10	8
	Satisfied	68	56
	Unsatisfied	4	3
	Very satisfied	37	31
	Very unsatisfied	2	2
How likely you would recommend us to your family and friends?	Likely	43	36
	Neutral	7	6
	Unlikely	6	5
	Very likely	61	50
	Very Unlikely	4	3

It is observed from the above table that majority of patients are males that is 61% on the other hand females are 39% of the total. Highest responses that is 48% are from 31-65 age group. Lowest number of responses fall under the category of under 18 age group. 58% of patients were satisfied with the waiting time provided for the X ray/ Ultrasound/ Ct/ MRI scan appointment. 31% patients were very satisfied with the waiting time. Whereas only 9% responses fall under dissatisfied category and 3 % were very dissatisfied. Whereas 10% of responses were neutral.

With respect to waiting time 58% of respondents were satisfied with the appointment time given to them. 20% were very satisfied on the other hand 9% were dissatisfied and only 3% were very dissatisfied with the waiting time. Whereas 10% were neutral.

56% of patients were satisfied with the reception staff of radiology department. 31% of respondents were very satisfied. Whereas 8% were neutral and 3% were unsatisfied with the behaviour of the staff and 2% were very unsatisfied.

Analysis of how likely patient is going to recommend us to their family and friends. It is shown that 36% were likely and 50% were very likely going to recommend us to their family and friends. 6% were neutral about it whereas 8% of respondents are not going to recommend us to their family and friends.

Table 5

Crosstabulation analysis between gender and age group						
Age group		18-30	31-65	66 and over	under 18 years	Total
Gender	Female	15	21	7	4	47
	Male	15	37	13	9	74
Total		30	58	20	13	121

Bivariate analysis was done. Table 4 shows the analysis between gender and age group. Out of 47, majority of females were from 31-65 age group. 15 were from 18-30 age group whereas only 4 were under 18 years of age group.

Out of 74 males, majority of males were also from 31-65 age group. 15 were from 18-30 age group whereas only 9 were under 18 years of age group.

Table 6 - Cross tabulation between scan appointment performed on time and type of radiology examination patient attended

			Xray	USG	Ct	MRI	Total
Was your X-ray/ CT/MRI/USG scan appointment performed on time?	No - Minor delay	% of Total	6.6%	6.6%	2.5%	2.5%	18.2%
	No- Major delay	% of Total	2.5%	1.7%	0.0%	6.6%	10.7%
	Yes - No issues	% of Total	33.9%	19.0%	5.8%	12.4%	71.1%
Total		Count	43.0%	27.3%	8.3%	21.5%	100.0%

After performing cross tabulation between number of respondents whose scan was performed on time and number of radiology examination patient attended.

It was found that total 71.1% of patients had no issues with the scan appointment time. Their scan was performed on time and they were satisfied. Out of 71.1% majority of respondents were from X ray that is 33.9%. Whereas 19% were of USG patients who has no issues, followed by 5.8% in CT and 12.4% in MRI.

18.2% of respondents had minor delay in their appointment time for the scan. Majority of minor delays were in X ray and USG that is 6.6% in both, followed by CT and MRI scans 2.5% in both.

On the other hand, 10.7% patients had major delay. Majority of delays were of MRI scans that is 6.6% followed by X ray and USG 2.5% and 1.7% respectively. Whereas in CT scan there was not any major delay.

Table 7- Cross tabulation waiting time and radiology scan

			How satisfied were you with the waiting time for the provided X-ray/CT/MRI/USG scan appointment					Total
			Dissatisfied	Neutral	Satisfied	Very dissatisfied	Very satisfied	
What type of radiology examination did you attend for today?	X ray	% of Total	2.5%	4.1%	28.1%	0.8%	7.4%	43.0%
	USG	% of Total	0.8%	3.3%	16.5%	0.0%	6.6%	27.3%
	CT	% of Total	0.0%	1.7%	4.1%	0.0%	2.5%	8.3%
	MRI	% of Total	5.8%	0.8%	9.1%	2.5%	3.3%	21.5%
Total		Count	9.1%	9.9%	57.9%	3.3%	19.8%	100%

Analysis of satisfaction with the waiting time of a scan. Majority of patients were for X ray.

Out of 43% of X-ray patients 28.1% were satisfied with the waiting time, 7.4% were very satisfied and 4.1% were neutral about it. On the other hand, 2.5% were dissatisfied and 0.8% were very dissatisfied with the waiting time in X ray.

USG total percentage of patients were 27.3%. Majority (16.5%) were satisfied with waiting time appointed for USG. 6.6% were very satisfied whereas 3.3% are neutral about it. On the other hand, 0.8% were dissatisfied with the waiting time for USG.

For CT scan 2.5% were very satisfied and 4.1% were satisfied, 1.7% were neutral about it. No one was dissatisfied with the waiting time appointed for CT scan.

MRI has the majority of dissatisfied patients (5.8%) whereas 9.1% were satisfied and 3.3% were very satisfied whereas 0.8% were neutral about it.

Table 8 - Cross tabulation between Radiology examination and how likely patient would recommend hospital to their family and friends

% of Total

		Q.16. How likely you would recommend us to your family and friends?					Total
		Likely	Neutral	Unlikely	Very likely	Very Unlikely	
Q.3. What type of radiology examination did you attend for today?	Xray	17.4%	3.3%	0%	21.5%	0.8%	43.0%
	USG	8.3%	1.7%	0.8%	16.5%	0%	27.3%
	CT	3.3%	0%	0%	5.0%	0%	8.3%
	MRI	6.6%	0.8%	4.1%	7.4%	2.5%	21.5%
Total		35.5%	5.8%	5.0%	50.4%	3.3%	100.0%

Analysis of likeliness of patient recommending C.K Birla to their family and friends of every radiological exam. Majority (43%) of people recommending radiology services to their family and friends falls under the category of X ray. 17.4% people are likely and 21.5% very likely going to recommend hospital to their family and friends whereas 3.3% are neutral about the hospital services. On the other hand, 0.8% are unlikely going to recommend.

Patients who came for MRI scan are majority of people who are not going to recommend us to their family and friends that is 6.6% where as 6.6% are likely and 7.4% are very likely going to recommend to their family and friends and 0.8% patients are neutral about that.

In USG 16.5% are very likely and 8.3% are likely going to recommend and 1.7% patients are neutral about that. On the other hand, 0.8% are unlikely going to recommend us to others.

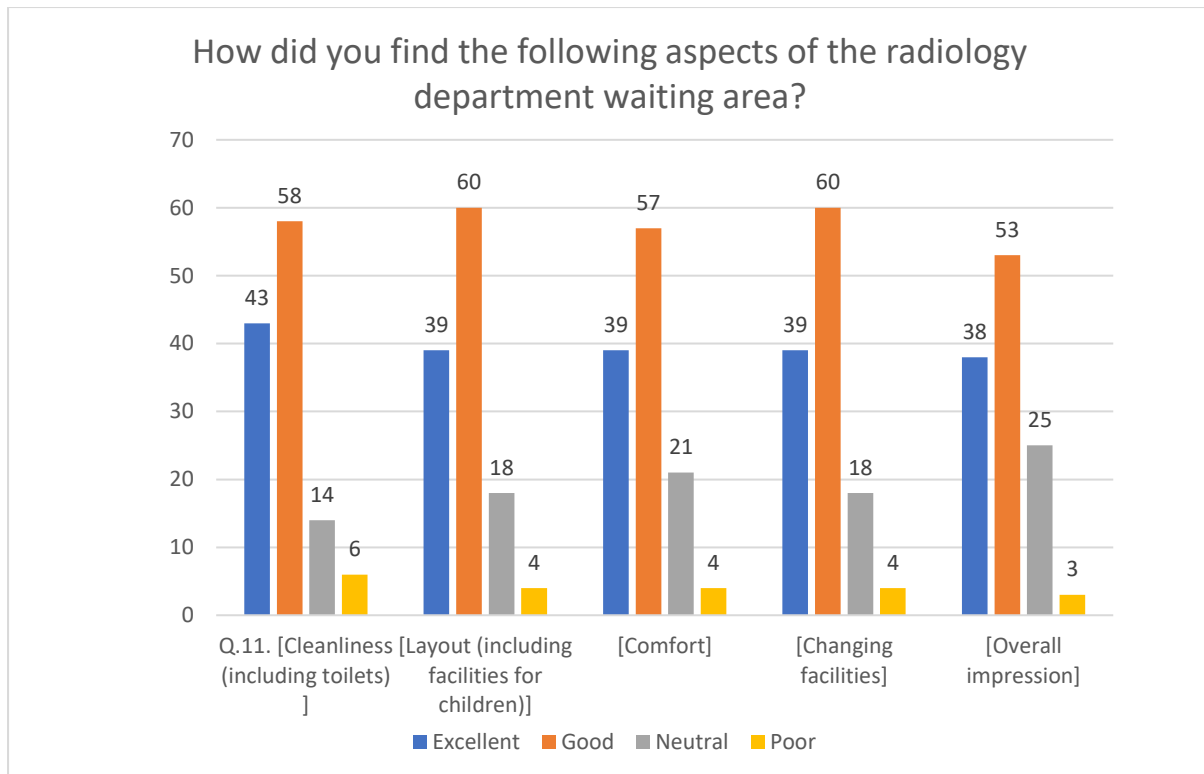
In CT 3.3% are likely and 5% are very likely going to recommend.

Table 9- Cross tabulation between Number of visits and likelihood of recommendation

			How likely you would recommend us to your family and friends?					Total
			Likely	Neutral	Unlikely	Very likely	Very Unlikely	
Is this your first visit?	No	% of Total	20.7%	0.8%	1.7%	22.3%	0.0%	45.5%
	Yes	% of Total	14.9%	5.0%	3.3%	28.1%	3.3%	54.5%
Total		Count	35.5%	5.8%	5.0%	50.4%	3.3%	100.0%

After performing cross tabulation, it is been shown that patients who have visited the hospital first time are less likely going to recommend the hospital to their family friends. They constitute 6.6% of total patients, whereas 5% of respondents are neutral about that. 14.9% and 28.1% of patients who have visited the hospital first time are going to recommend to others.

Majority of patients who are going to recommend hospital to their family and friends are the one who have visited the hospital before, and it is not their first visit to the hospital. They constitute 43%. 0.8% of patients feel neutral about recommending this hospital to their friends. Whereas 1.7% patients are not going to recommend this hospital to others.



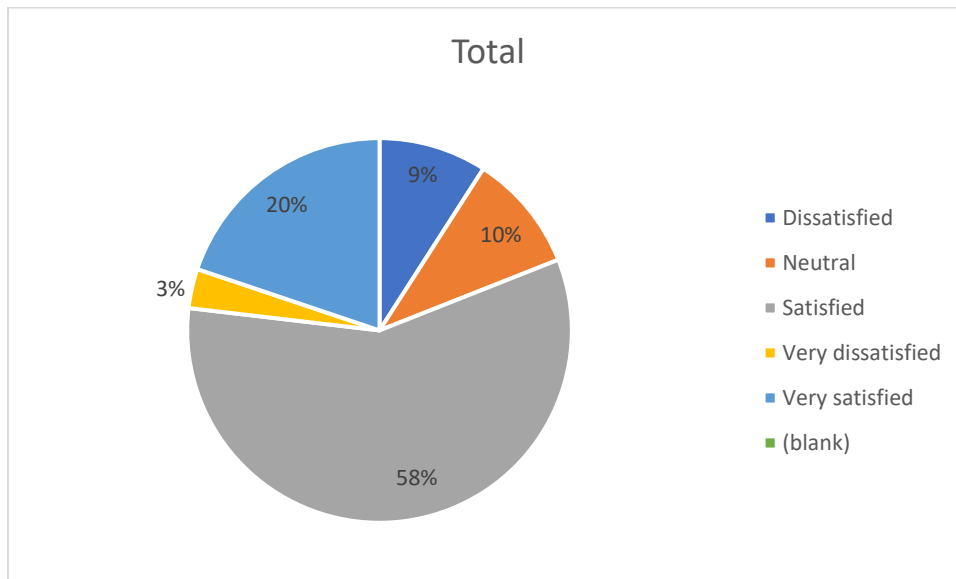
Majority of patients gave good rating in all 5 aspects. Whereas 43 patients gave excellent rating, 14 patients found it neutral, and 6 patients felt it was poor with respect to cleanliness, 60 patients gave good rating, 39 patients gave excellent, 18 patients felt neutral about it whereas 4 patients gave poor rating with respect to layout.

With respect to comfort 57 patients gave good rating, 39 patients gave excellent, 21 patients were neutral about it, whereas 4 patients gave poor.

60 patients gave good rating, 39 patients gave excellent, while 25 patients were neutral about it, whereas 4 patients gave poor rating.

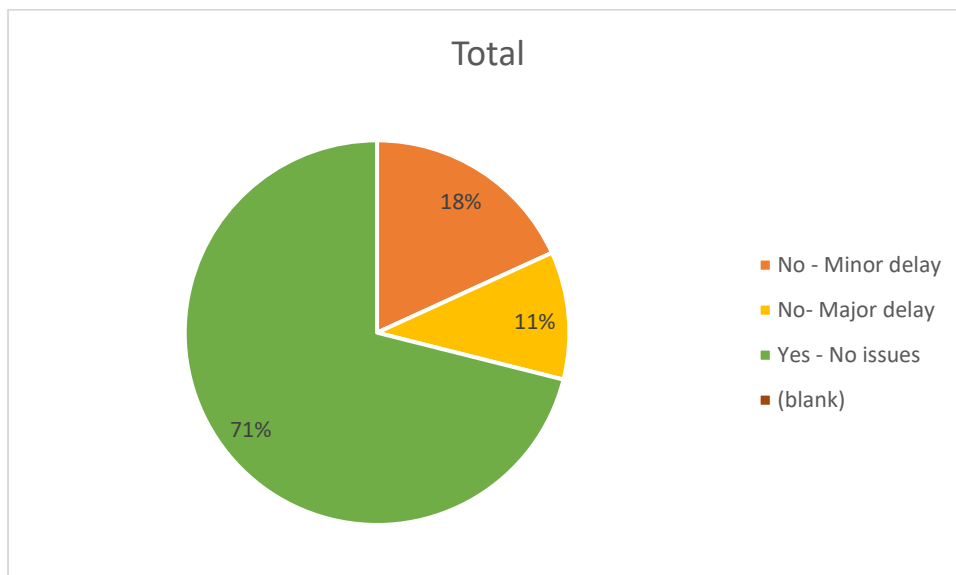
Overall impression was good for 53 patients, excellent for 38 patients, neutral for 25 patients, poor for 3 patients.

How satisfied were you with the waiting time for the provided X-ray/CT/MRI/USG scan appointment?



The above pie chart shows that majority (58%) of patients were satisfied with the appointment time given to them. While 20% were very satisfied, 10% were neutral about that. On the other hand, 9% were dissatisfied and 3% of patients were very dissatisfied.

Number of patients whose scan performed on appointment time given to them



Majority (71%) of patient's scan was performed on given time, there was no delay at all. Whereas 18% of patient had to face a minor delay and their scan was not performed on the appointment time given to them. 11% of patients faced major delay.

Discussion

It is found from the survey that majority of patients were satisfied with the services provided by the radiology department of C.K Birla hospital – RBH, Jaipur. The aspects that were covered in survey were waiting time, doctor patient interaction, staff behaviour, cleanliness, convenience of finding the department, convenience of taking an appointment. These all have been ranked as good or excellent by majority of OPD patients. But still 12% of patients were not satisfied with the waiting time and 11% of patients had to face major delay and their scan was not performed on time. So, there is a need of improvement with respect to waiting time. In doctor patient interaction majority (83%) of patients were satisfied but still 9% of patients were not satisfied with the interaction they had with their doctor. The issues that OPD patients face is long waiting hours for the procedure then again waiting time for report collection, doctor patient interaction should be pleasing for every patient. After assessing the data, it was found out there were some percentage of patients who were not satisfied with the allocated doctor. All these elements influence patient satisfaction in any healthcare facility. The sample size of the survey was 121 and the purpose of the research was to assess the satisfaction level of OPD patients coming to radiology department in C.K Birla hospital, Jaipur.

Conclusion

After completing the survey and analysis it can be concluded that satisfaction level of patients of radiology department is high. Majority of patients were satisfied with the services provided in radiology department. Although there were some gaps which needs improvement like waiting time. Some feedback and suggestions were also there about reducing waiting time. By incorporating those feedback into the workflow can fill those gaps. Recommendation of hospital by patient is very important aspect as it shows patient retention. Majority of patients were likely to recommend the hospital to their family and friends. Patient satisfaction is very important metric used to measure the quality of hospital or any healthcare facility. It is also important for giving timely healthcare services, patient-centered services in the hospital.

References

1. Prakash, B. (2010). Patient satisfaction. *Journal Of Cutaneous And Aesthetic Surgery*, 3(3), 151. <https://doi.org/10.4103/0974-2077.74491>
2. Mulisa, T., Tessema, F., & Merga, H. (2017). Patients' satisfaction towards radiological service and associated factors in Hawassa University Teaching and referral hospital, Southern Ethiopia. *BMC Health Services Research*, 17(1). <https://doi.org/10.1186/s12913-017-2384-z>
3. Wahed, W., & Mabrook, S. (2017). Assessment of patient satisfaction at Radiological Department of Fayoum University Hospitals. *International Journal Of Medicine In Developing Countries*, 126-131. <https://doi.org/10.24911/ijmdc.1.3.2>
4. Ochonma, O., Eze, C., Eze, S., & Okaro, A. (2015). Patients' reaction to the ethical conduct of radiographers and staff services as predictors of radiological experience satisfaction: a cross-sectional study. *BMC Medical Ethics*, 16(1). <https://doi.org/10.1186/s12910-015-0062-4>
5. Ondategui-Parra, S., Erturk, S., & Ros, P. (2006). Survey of the Use of Quality Indicators in Academic Radiology Departments. *American Journal Of Roentgenology*, 187(5), W451-W455. <https://doi.org/10.2214/ajr.05.1064>
6. Schoenfelder, T., Klewer, J., & Kugler, J. (2011). Determinants of patient satisfaction: a study among 39 hospitals in an in-patient setting in Germany. *International Journal For Quality In Health Care*, 23(5), 503-509. <https://doi.org/10.1093/intqhc/mzr038>
7. Tevis, S., Kennedy, G., & Kent, K. (2015). Is There a Relationship Between Patient Satisfaction and Favorable Surgical Outcomes?. *Advances In Surgery*, 49(1), 221-233. <https://doi.org/10.1016/j.yasu.2015.03.006>
8. Brooks-Carthon, J., Kutney-Lee, A., Sloane, D., Cimiotti, J., & Aiken, L. (2011). Quality of Care and Patient Satisfaction in Hospitals With High Concentrations of Black Patients. *Journal Of Nursing Scholarship*, no-no. <https://doi.org/10.1111/j.1547-5069.2011.01403.x>

Annexure

Patient satisfaction in radiology department of C.K Birla hospital, Jaipur

Q.1. Are you...? (Gender)

1. Female 2. Male

Q.2. What age group are you?

- 1) Under 18 years 2) 18-30 3) 31-65 4) 66 and over

Q.3. What type of radiology examination did you attend for today?

- 1) X ray 2) Ultrasound 3) Ct Scan 4) MRI

Q.4. Is this your first visit?

- 1) Yes 2) No

Q.5. Were you satisfied with the doctor/technician you were allocated with?

- 1) Very satisfied 2.) Satisfied 3) Neutral 4) Unsatisfied 5) Very Unsatisfied

Q.6. How satisfied were you with the waiting time for the provided X-ray/CT/MRI/USG scan appointment?

- 1) Very satisfied 2.) Satisfied 3) Neutral 4) Unsatisfied 5) Very Unsatisfied

Q.7. How satisfied were you with the convenience of the provided X-ray/CT/MRI/USG scan appointment?

- 1) Very satisfied 2.) Satisfied 3) Neutral 4) Unsatisfied 5) Very Unsatisfied

Q.8. How satisfied were you with the directions provided for finding the radiology department (information letter, website, signs in hospital)?

- 1) Very satisfied 2.) Satisfied 3) Neutral 4) Unsatisfied 5) Very Unsatisfied

Q.9. How satisfied were you with the radiology department reception staff were they friendly?

- 1) Very satisfied 2.) Satisfied 3) Neutral 4) Unsatisfied 5) Very Unsatisfied

Q.10. Was the radiology staff helpful?

- 1) Very satisfied 2.) Satisfied 3) Neutral 4) Unsatisfied 5) Very Unsatisfied

Q.11. How did you find the following aspects of the radiology department waiting area?

	Excellent	Good	Neutral	Poor
Cleanliness (including toilets)				
Layout (including facilities for children)				

Comfort				
Changing facilities				
Overall impression				

Q.12. Was your X-ray/ CT/MRI/USG scan appointment performed on time?

- 1) Yes – No issues 2) No – Minor delay 3) No – Major delay

Q.13. Did the member of staff involved in your X-ray/ CT/MRI/USG scan introduce themselves clearly?

- 1) Yes 2) No

Q.14. Did the radiology member of staff take time to answer your questions?

- 1) Yes – Full and clear explanation 2) Yes – To some extent 3) No

Q.15. Did the radiology staff gave you clear explanation as how and at what time you will receive your scan report?

- 1) Yes – Full and clear explanation 2) Yes – To some extent 3) No

Q.16. How likely you would recommend us to your family and friends?

- 1) Very likely 2) Likely 3) Neutral 4) Unlikely 5) Very unlikely

Q.17. Any suggestion or feedback you would like to give?

