STUDY TO IDENTIFY BOTTLENECK AND INEFFICIENCIES ALONG PATIENT PATHWAY TO IMPROVE PATIENT WAITING TIME AT VASAN EYE CARE HOSPITAL

Internship Training
at
Vasan Eye Care Hospital, Gurgaon

By
Aditi Yadav

Under the guidance of
Dr. Barun Kanjilal

MBA Hospital & Health Management
2013–15

Institute of Health Management Research
Jaipur
2015

Internship Training

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Year 2013-2015

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr Aditi Yadav** student of MBA Hospital and Health Management from IIHMR University, Jaipur has undergone dissertation/internship training at Vasan Eye Care hospital, Gurgaon from 16th February to 10th May.

The Candidate has successfully carried out the study designated to her during dissertation/internship training and her approach to the study has been sincere, scientific and analytical.

The dissertation/internship is in fulfillment of the course requirements.

I wish her all success in all his future endeavors.

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vasan eye care
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The certificate is awarded to

Dr. Aditi Yadav

In recognition of having successfully completed her
Internship in the department of

Operations

and has successfully completed her Project on

"Streamlining the process in eye care opd by identifying the bottlenecks"

from 16 feb 2015 to 10 may 2015

at Vasan Eye Care Hospitals, Gurgaon

He/She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning

We wish him/her all the best for future endeavors

Mr Devender Chahal
Centre Head
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INSTITUTE OF HEALTH MANAGEMENT RESEARCH
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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "Study to identify bottlenecks and inefficiencies along patient pathway to improve patient waiting time at Vasan Eye care Hospital" submitted by Dr.Aditi Yadav, Enrollment No.1407 under the supervision of Prof. Barun Kanjilal for award of MBA Hospital and Health Management of the university carried out during the period from 16 February, 2015 to 10th May, 2015. Embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Aditi

Signature

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LIST OF CONTENTS

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Dr. Aditi Yadav
MBA Health and Hosital- 18th Batch
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LIST OF FIGURES AND TABLES

LIST OF ACRONYMS

IOL-Intraocular Lens
MLOP - Mid Level Ophthalmic Personnel
PHACO- Cataract surgery
PMT- Post mydriatic test
MRI - Magnetic Resonance Imaging
NABL - National Accreditation Board for Testing and Calibration Laboratories
OCT - Optical Coherence Tomography
OPD - Out Patient Department
OT - Operation Theatre
PCR - Posterior Capsular Rent
PDT - Photodynamic Therapy
PRP - Pan Retinal Photocoagulation
PUK - Peripheral Ulcerative Keratitis
QA - Quality Assurance
QC - Quality Control
MRD- Medical Record Department
ROP - Retinopathy of Prematurity
SOP - Standard Operating Procedure
SOPM - Standard Operating Procedure Manual
SR - Suture Removal
SS - Stainless Steel
TTT - Transpupillary Thermotherapy
UBM - Ultrasound Scanning (B-Scan and UBM)

PART: A

DISSERTATION

A study to identify bottlenecks and inefficiencies along patient pathway to improve patient waiting time at Vasan Eye care Hospital

1. INTRODUCTION

- Vasan Healthcare Group (established in 1947) - the healthcare company having its business across different domains –

- Eye Care Hospitals: with 170+ hospitals pan India and abroad,
- Vasan Dental Care: large Dental Care Network with 30+ hospitals
- Vasan Medical Hall: a network of 50 pharmacy outlets across Tamil Nadu
- Vasan Medical Centers: 7 specialty labs & day care diagnostics centres

1.2 Vasan Eye Care

- Vasan Eye Care network has been handling 6 million patients every year. It has over 170 eye care hospitals in India
- With more than 750 Ophthalmologists and over 7500 service staff, Vasan Eye Care is now the world's largest eye care network. Vasan has been certified as the "World's Largest Eye Care provider with the maximum number of stand-alone surgical centres" in 2011 by Frost & Sullivan
- On an average 30,000 patients walk in every day, so far over 20 million patients have been treated at Vasan Eye Care hospitals across the country and over 5 million procedures have been completed

2. PROBLEM STATEMENT

A key aspect of the patient's encounter at a hospital is how long he or she has to wait. As wait time increases, patient satisfaction drops. Vasan Eye Care needed visibility on the challenges faced by both clients and staff at the eye care hospital (based in Gurgaon). Hospital is facing downtimes to improve the patient experience by eliminating waiting in hospital and bolstering data to target bottlenecks.
One of the key challenge was:

Excessive waiting time during the various stages of process faced by patients resulting in large number of unsatisfied customers

3. RESEARCH QUESTION

- What are the key bottlenecks/ inefficiencies that are impacting the overall process of outpatient at vasan eye care hospital?
- How can the existing bottlenecks/ inefficiencies be removed from the system?

.

4. AIM

To identify bottlenecks and inefficiencies along patient pathway to improve patient waiting time at vasan eye care hospital.

5. OBJECTIVES: The study was undertaken

5.1 To know the bottlenecks in the OPD department
5.2 Measure the turnaround time of patient
5.3 To provide recommendations for reducing wait time and inefficiencies along patient pathway.

6. RESEARCH METHODOLOGY

Study Design

6.1 Type of study: It is a Observational study completed in two months duration.
6.2 Location of study: Vasan Eye Care Hospital, Gurgaon
6.3 Study subjects: Patients, patient care staff and other support staff of Out Patient Department.
6.4 Sampling process- Convenience sampling
6.5 Sample Size- 250 patients

6.6 Data (information) to be collected:

- **Primary data** collected in the form of observations, standard format/checklist for Turnaround time and informal interviews with patients and employees and patient Feedback form.
- **Secondary data** including Health object records of out-patients, data on medical records etc.

6.7 Data collection tools: Qualitative (interviews, observations) and quantitative (Hospital records)

7. EHICAL CONSIDERATIONS

1 Rights of the Respondents and informed consent was ensured.

2. Rights of the Institution where the study is conducted was ensured.

3. Scientific Honesty was maintained.

4. We did not be exploring sensitive issues before a good relationship was established.

5. The privacy & confidentiality of data obtained was ensured.

8. Key Terminologies Used

Key aspect covered during research was the Turn-Around-Time***** for the main activities –

8.1Refraction- It is an eye exam that measures a person prescription for eye glasses or contact lenses.

8.2 Dilation-It is an important part of a comprehensive eye exam because it enables your eye care professional to view the inside of the eye. Drops placed in each eye widen the pupil, which is the opening in the center of the iris (the colored part of the eye). Once dilated, each eye is examined using a special magnifying lens that provides a clear view of important tissues at the back of the eye.

8.3 Turnaround Time - Turnaround time may simply deal with the total time it takes for a process from the start till the end to provide the required output to patient.

8.4 Consultation- A meeting with an expert such as medical doctor, in order to seek advice
.

8.5 Counseling- Advice and support that is given to people to help them deal with problems, make important decisions, etc.

8.6 Physical Movement- It is a last step of the process when patient finally leaves the hospital after completion of treatment/process.

8.7 Bottleneck literally refers to the top narrow part of a bottle. It refers to a phenomenon where the performance or capacity of an entire system is limited by a single or small number of components or resources.

9. Findings

As seen in figure 9.1 , From the data collection tool i.e. questionnaire only 5 questions were taken relevant for the study which shows that maximum number of patients were dissatisfied from the services provided that affects brand image and decrease footfall.

Figure 9.1 Survey result of patient feedback form

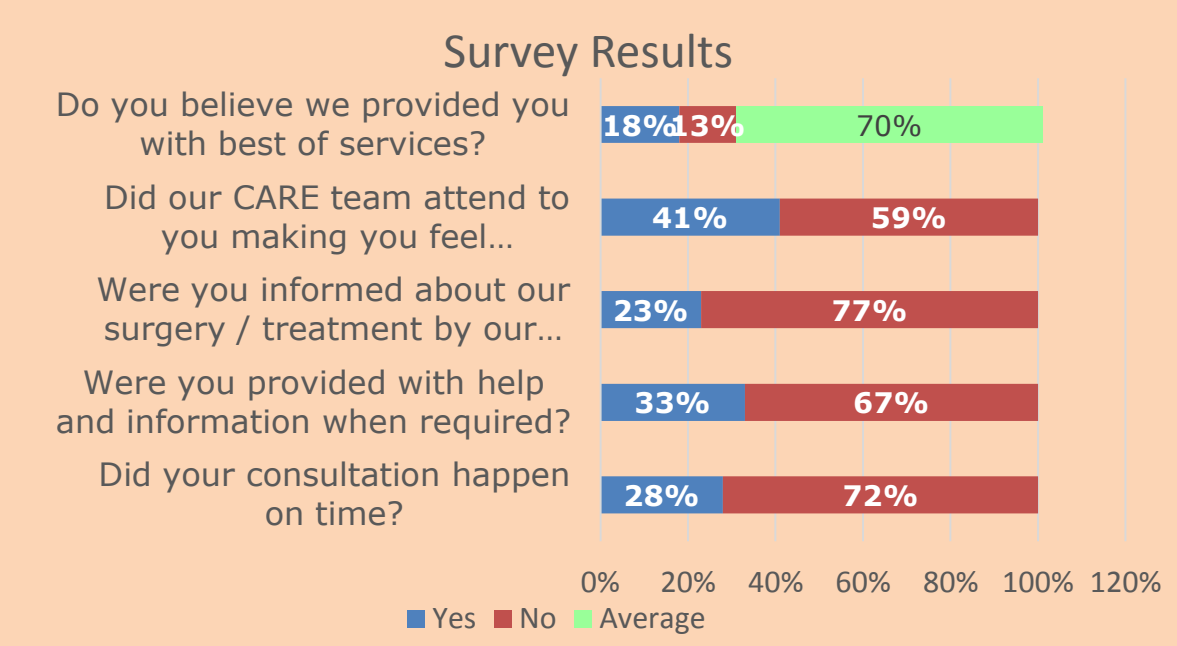
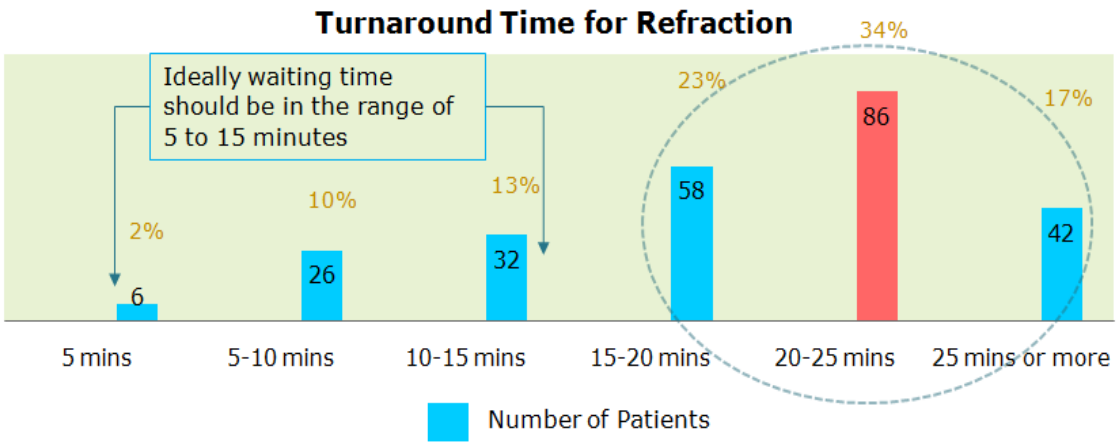


Figure 9.2 Turnaround Time for Refraction



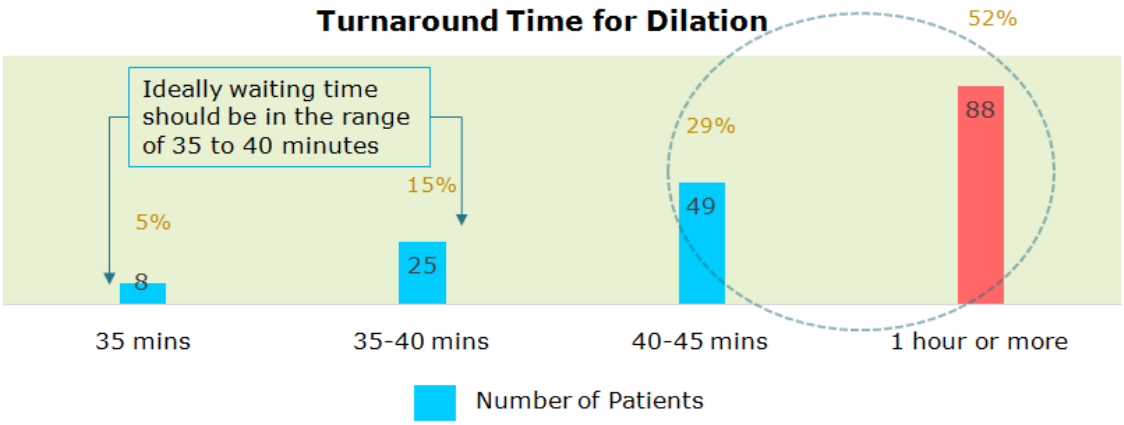
Key Output

As seen in figure 9.2 out of total number of patients (250), almost 75% patients are waiting for more than average time of 15 minutes

Key Issues (for high TAT of Refraction)

Shortage of optometrist and chamber for examination.
In case of PMT (Post myderial test) patients, files are not available on time as MRD is not maintained. Lack of training

Figure 9.3 Turnaround Time for Dilation



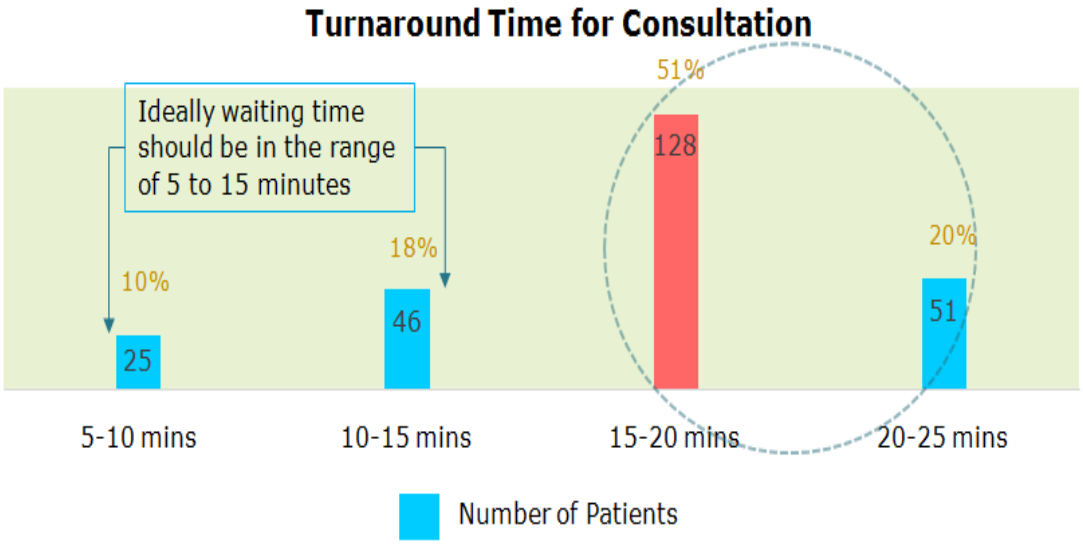
Key Output

As seen in figure 9.3 Out of total number of patients dilated (170), almost 81% patients are waiting for more than average time of 35-40 minutes

Key Issues (for high TAT of Dilation)

Lack of clinical attendants i.e. maximum time only one assistant is handling everything. Patients are not seen on time and not given proper instructions required for dilation that delays the process.

Figure 9.4 Turnaround time for Consultation



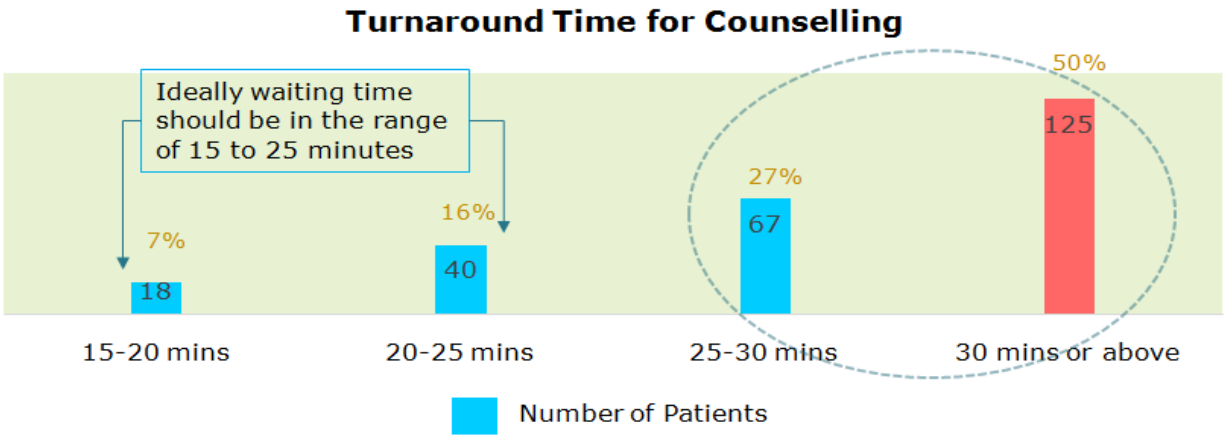
Key Output

As seen in figure 9.4 ideal time for consultation per patient is 5-15 minutes according to hospital norms but around 51% cases were seen more than the ideal time.

Key Issues (for high TAT of Consultation)

Shortage of doctor and chamber for examination. Doctor takes more time to counsel surgery cases so as to convert them for surgery as there is no counselor in center .Instruments not available on time at the time of minor procedures. Mismanagement of patient files by OPD assistant

Figure 9.5 Turnaround time for Counselling



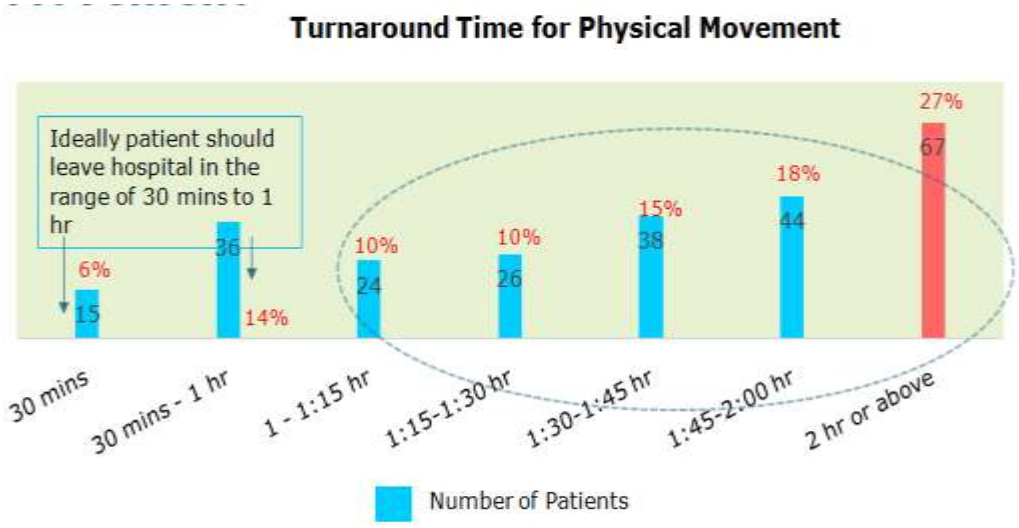
Key Output

As seen in figure 9.5 ideal time for counseling according to hospital norms is 15-25 mines per patient but maximum patients i.e. 77% are counseled 30 minutes and above

Key Issues (for high TAT of Counselling)

Long waiting queue outside the counseling chamber. Counseling is done by process executive as counselor is not there. Not aware about the updated packages and corporate tie ups. Lack of communication skills.

Figure 9.6 Turnaround time for Physical Movement



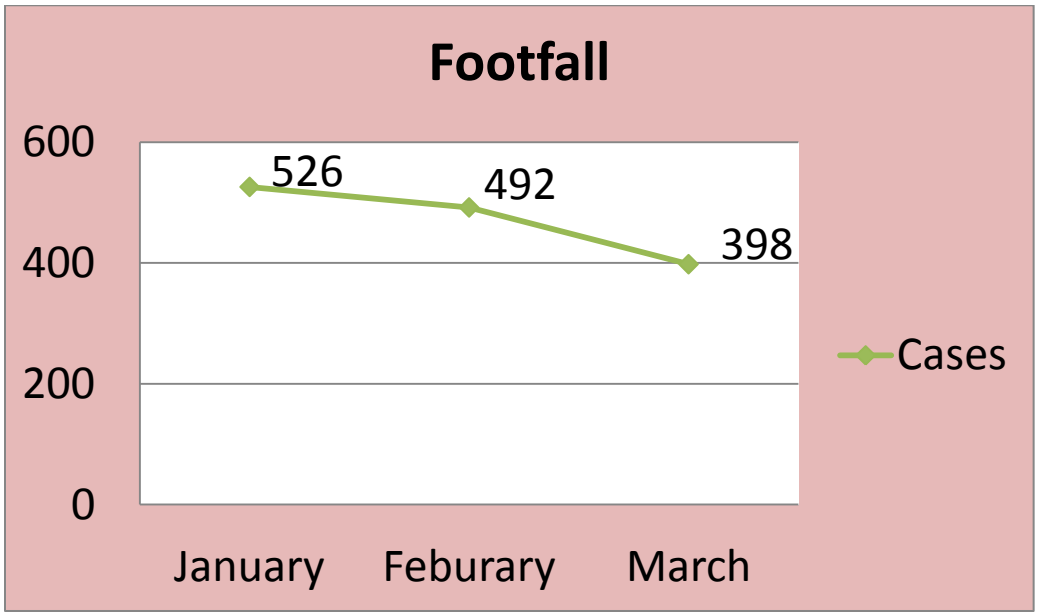
Key Output

As seen in figure 9.6 ideally patient should leave hospital within 30 minutes (without dilation) to 1 hour duration (with dilation) but maximum patients i.e. 80% are leaving beyond the ideal time

Key Issues (for high TAT of Physical Movement)

Shortage of staff. Delay in dilation and refraction .Doctors take more time for consultation Mismanagement of files that leads to delay in overall process

Figure 9.7 Footfall



As shown in figure 9.7, there is decrease in patient footfall due various reasons as mentioned previously i.e.

Long waiting time

Dissatisfied customers

As seen in table 9.8 there is shortage of 9 staff members in hospital but as per the norms of vasan eye care there should be minimum 22 staff members in each hospital.

Table 9.8: Manpower Analysis

Department	Current Status	Required
Doctor	1	2
Optometrist	1	2
Counselor	0	2
Operation Executive	2	2
Clinical Assistants	2	3
Front Office	2	2
Store Keeper	1	1
MRD	0	1
Others	4	7
TOTAL	**13**	**22**

10. Bottlenecks

The data analysis shows that bottlenecks in the process were at four major steps –
Waiting Time for Preliminary Examination- Refraction, Time taken for dilating the pupil, Waiting Time for Consultation and Counseling and Long waiting time in Out Patient Department.

11. Key Reasons for the bottlenecks

Shortage of staff and Chamber for examination , Long waiting time , Lack of coordination and communication among the staff , Not well defined roles and responsibilities of the staff ,Absence of SOP (standard operating procedures) for Medical Record , Department (MRD) leading to mismanagement of files. And Increase workload on staff

12. Business Impact due to increase waiting time.

Dissatisfaction amongst patients, Decrease in footfall, Lack of motivation in staff and Brand image of hospital is affected

13.Suggestions

On Key Areas of Improvement

13.1. Process:

- Preparation of patient movement sheet to track daily activities
- Preparation of Camp activity sheet in advance and preparation of duty roaster accordingly so that staff can be arranged prior and workload burden can be reduced
- Formulation of medical records department policy is recommended on priority basis.
- Preparation of Monthly Academic Calendar & monthly Audit System

13.2. Infrastructure:

- Some Architectural suggestions should also be implemented i.e. doctor room and optometrist room should be added

13.3. Staffing:

- Recruitment of staff as mentioned in table
- Training of staff should be done as per their role and responsibilities with time management

There are also ways to make downtime more palatable for the patient. Some of the immediate changes that can be implemented are as follows:

13.4 Proactive Communication with Patients

Research shows that patients are much more willing to wait for their care if they know the length or cause of the delay in advance. Some methods to communicate better include:

- **Rounding the reception area**: A staff member should enter reception every 15 to 30 minutes to acknowledge patients, provide updates, ensure the patient's comfort and that the process is in order.
- **Wait-time transparency**: On check-in, staff should let patients know exactly how long it will be, or even post it digitally, to manage expectations and foster accountability among staff.
- **Service recovery**: When patients wait longer than expected, acknowledging and apologizing for the delay can help to diffuse the situation.

13.5. Improving perceptions of wait time

Providing some sort of valuable services to patients beyond magazines and talk shows can help to improve perceptions of wait times. Some examples:

- Refer to the waiting room as "reception area" or "lobby“
- Furnish the area with comfortable and clean seating
- Create décor to make the room more homelike, including glare-free lighting, soft music, and snacks and beverages
- Supply current magazines.
- Reschedule if the patient prefers not to wait.
- Providing automated SMS with estimated time so as to avoid waiting.

14. Conclusion

Based on the research analysis and survey conducted with a sample of 250 patients and working staff, the key factors (bottlenecks/ inefficiencies) impacting the business and patient satisfaction were identified in three broad areas – Process, Infrastructure, Staffing.

As per the suggestions provided, hospital need to improve the processes, some infrastructure needs to be developed for doctors and optometrist and specific targeted hiring need to be done so as to improve patient satisfaction regarding waiting time.

15. Sources

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