Summer Internship Report

at

Sitaram Bhartia Institute of Science and Research

(April 22nd to June 21st, 2024)

A Report on

The time motion study to evaluate the average waiting time in OPD.

By

Akanksha Kumari

PGDM (Hospital and Health Management)

2023-2025

IIHMR DELHI

International Institute of Health Management Research, New Delhi

Acknowledgements

I would like to convey my heartfelt gratitude to **Mrs. Irina Sharma** (Head, Patient Services), **Mrs. Anitha Manoharan** (Head, Human Resources) **Mrs. Tanuja Rana** (Assistant Duty Manager), **Mr. Kuldeep Singh** (Deputy Manager, Patient Services) and **Mrs. Alpana Singh**, Paediatrics, Service lead (Coordinator), at *Sitaram Bhartia Institute of Science and Research* for their tremendous support and assistance in the completion of my project. The completion of the project would not have been possible without their help and insights.

I would also like to thank **Sitaram Bhartia Institute of Science and Research, New Delhi**, and **IIHMR, New Delhi** for providing me with this wonderful opportunity to work on a project with the topic '*The time motion study to evaluate the average waiting time in OPD*'.

I am also immensely thankful to my mentor at IIHMR Delhi, **Dr Pijush Kanti Khan** (Assistant Professor) for sharing his wisdom and guiding me throughout this project. His collaboration has been essential in the successful completion of this project.

Table of Contents

Acronyms/Abbreviations

1. OPD - Outpatient Department
2. TAT- Turn Around Time

Observational Learning

Sitaram Bhartia Institute of Science and Research is a multi-specialty hospital and research centre located in Delhi, India. It is well-known for its emphasis on evidence-based medicine, ethical practices, and patient-centred care. The hospital offers a wide range of medical services, including but not limited to:

1. *Obstetrics and Gynaecology*: Known for its natural birthing options and low caesarean rates.
2. *Paediatrics*: Comprehensive child care services, from new-born to adolescent health.
3. *Internal Medicine*: Focuses on adult medical care with an emphasis on prevention and management of chronic diseases.
4. *Endocrinology*: Specialised in diabetes, thyroid, and other hormone-related disorders.
5. *Orthopaedics*: Offers treatment for musculoskeletal issues, including sports injuries and joint replacements.
6. *Cardiology*: Provides diagnostic and therapeutic services for heart-related conditions.
7. *Gastroenterology*: Focuses on digestive system disorders.
8. *Urology*: Treats urinary tract and male reproductive system disorders.

Sitaram Bhartia also places a strong emphasis on health education and preventive care, frequently organizing health talks, workshops, and community outreach programs. The hospital is committed to high standards of care and continuously updates its practices based on the latest medical research.

Vision: To set the standard excellence in healthcare and Medical research

Mission: To Provide high quality, ethical and affordable service and to advance medical research and education.

Core Values:
- Patient centred care: Ensuring the patient needs and well-being are always the primary focus.
- Integrity: Maintaining the highest standards of honesty, ethics and professional conduct.

- Excellence: Continuously striving for research and clinical care, research and education.
- Collaboration: Promoting teamwork among healthcare professional, patients and their families to provide the best possible care.
- Innovation: Encouraging and embracing new ideas and technologies to improve healthcare delivery and outcomes.
- Compassion: Delivering care with empathy, kindness, and respect for all individuals.

Abstract: A hospital's outpatient department (OPD) serves as the initial point of contact. Patient satisfaction in the outpatient department (OPD) is a reflection of the quality of care that the hospital provides. Due to lengthy wait times and shortened consultation times, overcrowding greatly increases patient discontent. The two approaches were combined and improved upon to create a well-recognized approach that may be used to upgrade and enhance work systems.

OPD Introduction: OPD Since the hospital offers services to many patients at a reasonable cost, patient services are the most significant service it offers. The amount of time a patient remains at a facility from the moment they arrive at the registration desk until they depart for the final service is known as the outpatient department waiting time. Additionally, it is commonly known that 8–10% of OPD patients require hospitalization. OPD "waiting time" is one of the key measures of quality assurance for patients, hence a hospital's overall long OPD waiting time is hurtful. Both walk-in and OPD appointment patients' turnaround times are being calculated.

Patient Appointment Process

Patient's OPD journey starts with a centrally located appointment desk (telephonic booking of appointments), help desk (coordination desk) and the registration & billing counter. It guides the patient in case it is his/her first visit and accordingly, the billing is done.

A patient then moves towards the coordination desk where they are directed towards nursing station, where vitals take place. The consultation fee in OPD is ranging from Rs. 1200 to Rs. 1500; follow up visit within a week is not charged.

Post vitals, as per their turn, they are directed to doctor's chamber for consultation where a complete medical file is prepared in EMR consisting medical history in detail, vitals, and symptoms.

Project Report

Aims and Objectives:

The study's primary goal is to ascertain how much time patients typically spend in the OPD.

1. To determine the causes of the extended wait times in the OPD.

2. To propose strategies to cut down on OPD consultation and waiting times.

3. To verbally ask a small number of patients about their satisfaction with the OPD care they received.

Research Methods:

The study was observational. The information was gathered over time. From the patient's entrance into the outpatient department to their entrance into the doctor's chamber, the process flow was seen. The study was conducted for two months in the OPD area of the basement of Sitaram Bhartia Hospital. OPD counter employees and patient attendants are inclusion requirements.

1. *Real-time data* is the type of data.
2. Types of Patients: *Follow-up and Initial Visit*.
3. *Patient registration slips and observations* are used as data gathering tools.
4. Data gathering methods include *staff, patient observation, and patient registration records*. This study's methodology is *live observation*.
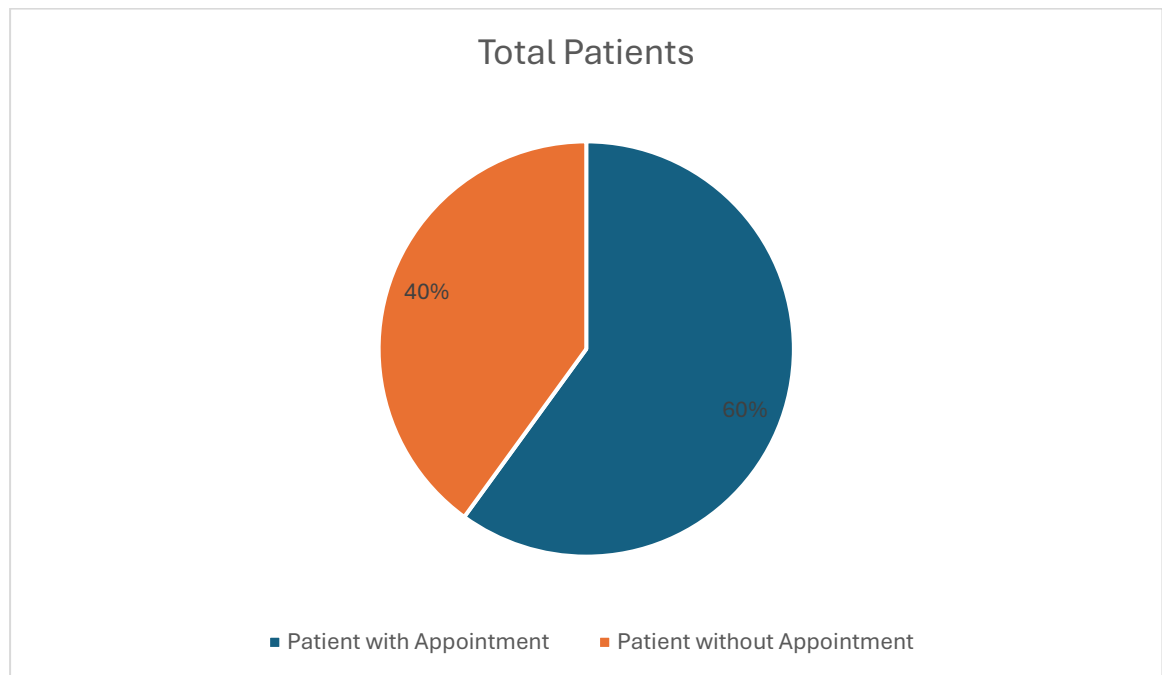
Data Analysis and Interpretation:

The result is based on an observational study that counts the amount of time spent in the OPD. Data analysis was done by dividing the total number of minutes by the total number of patients, and then calculating the waiting and consultation times in the OPD.

1. Waiting time in the OPD: Total minutes divided by the total number of patients.
2. Consultation time in the OPD : Total time in minutes divided by the total number of patients.

1. Number of patients who visit with or without an appointment- through time motion study (One paediatric doctor was observed during the study).

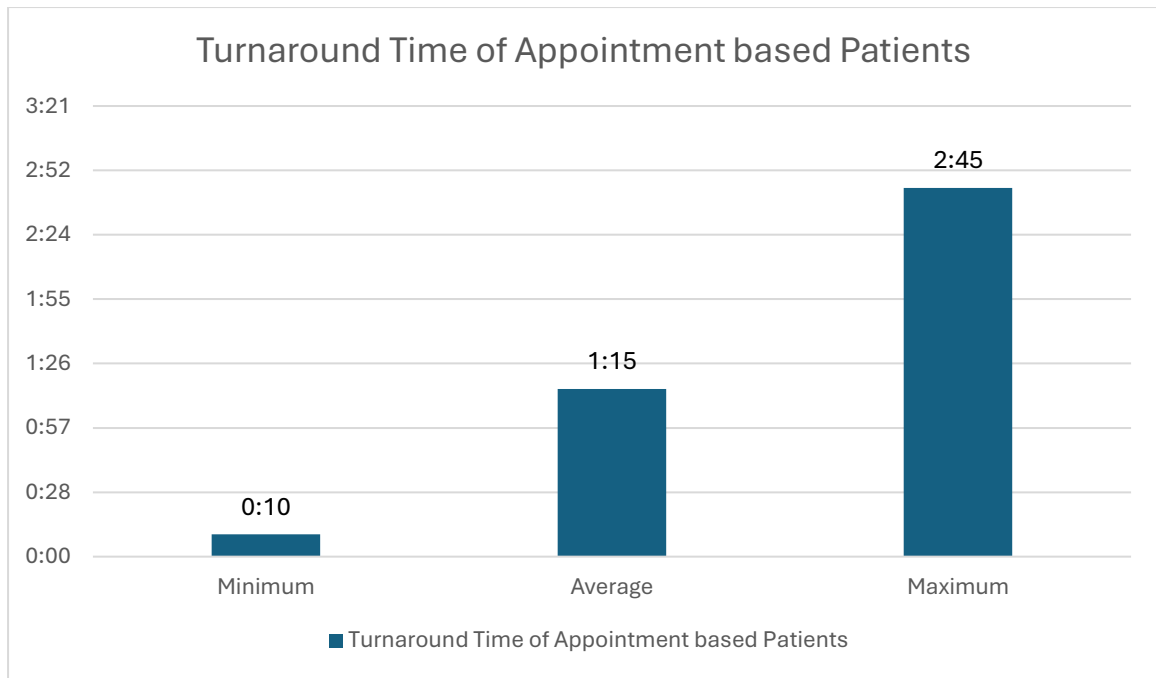| Patient with appointment	60%
Patients without appointment	40%

Total Patients

Interpretation- The above graph depicts the total number of patients who visit with/without an appointment.

In our sample size of 100 patients, 60 were appointment-based patients and 40 were walk-ins.

2. Turnaround time for appointment-based patients (in hours and minutes)

Minimum Time	0:10
Average Time	1:15
Maximum Time	2:45

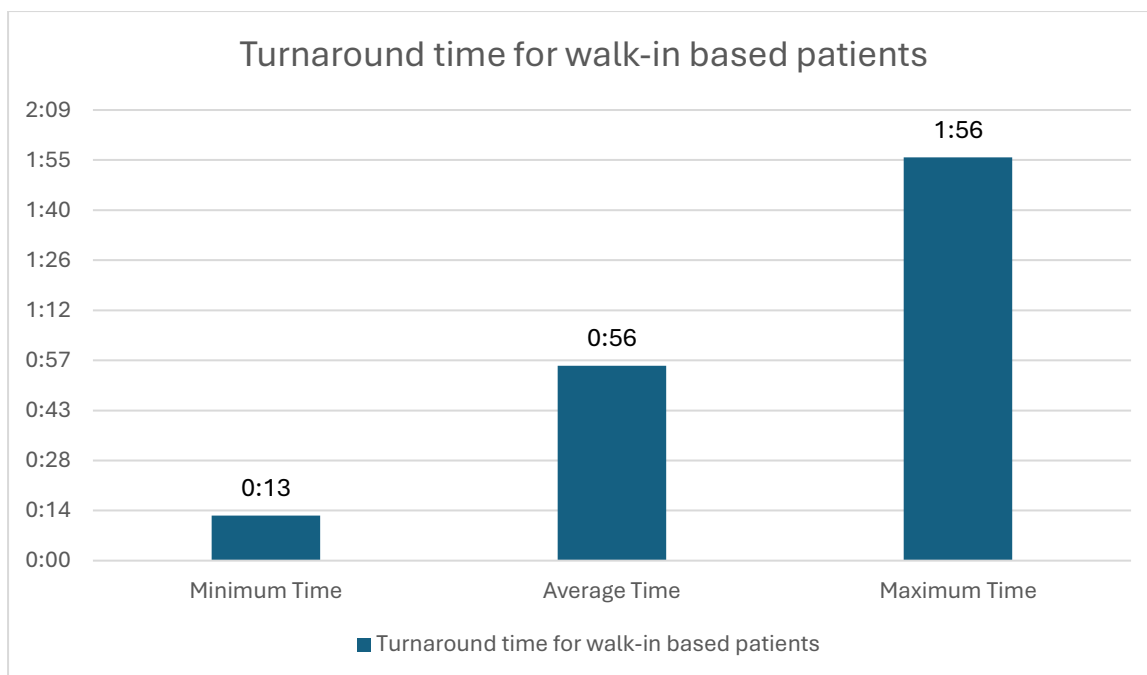**Turnaround Time of Appointment based Patients**

Interpretation - The above graph represents the Turn Around Time (TAT) or the waiting time in OPD consultation for appointment-based patients. This is the time when the patient is waiting outside the OPD chamber for his/her turn; the baseline is appointment time.

The minimum TAT is 10 minutes, average TAT is 1 hour and 15 minutes and maximum TAT is 2 hours and 45 minutes.

3. Turnaround time for walk-in based patients

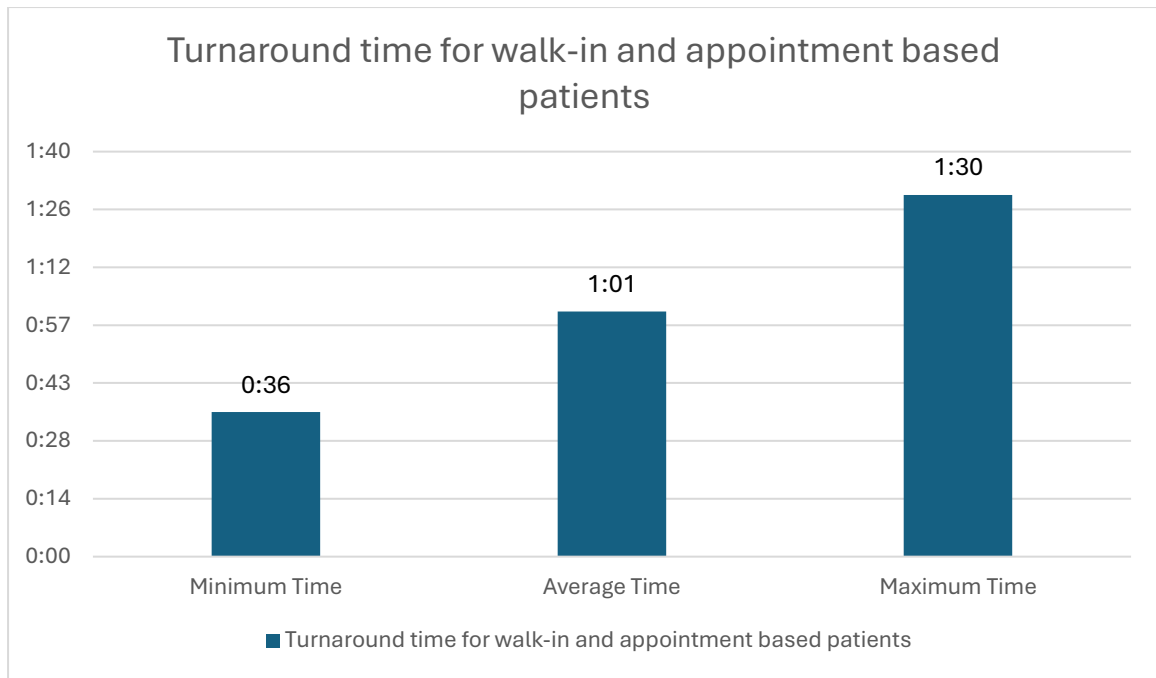| Minimum Time	0:13
Average Time	0:56
Maximum Time	1:56

Turnaround time for walk-in based patients

Interpretation – The above graph represents the Turnaround time for walk-in based patients for OPD consultation.

Minimum TAT 13 minutes, average TAT is 56 minutes and Maximum TAT is 1 hours 56 minutes.

4. TAT for both walk-in and appointment-based patients

Minimum Time	0:36
Average Time	1:01
Maximum Time	1:30

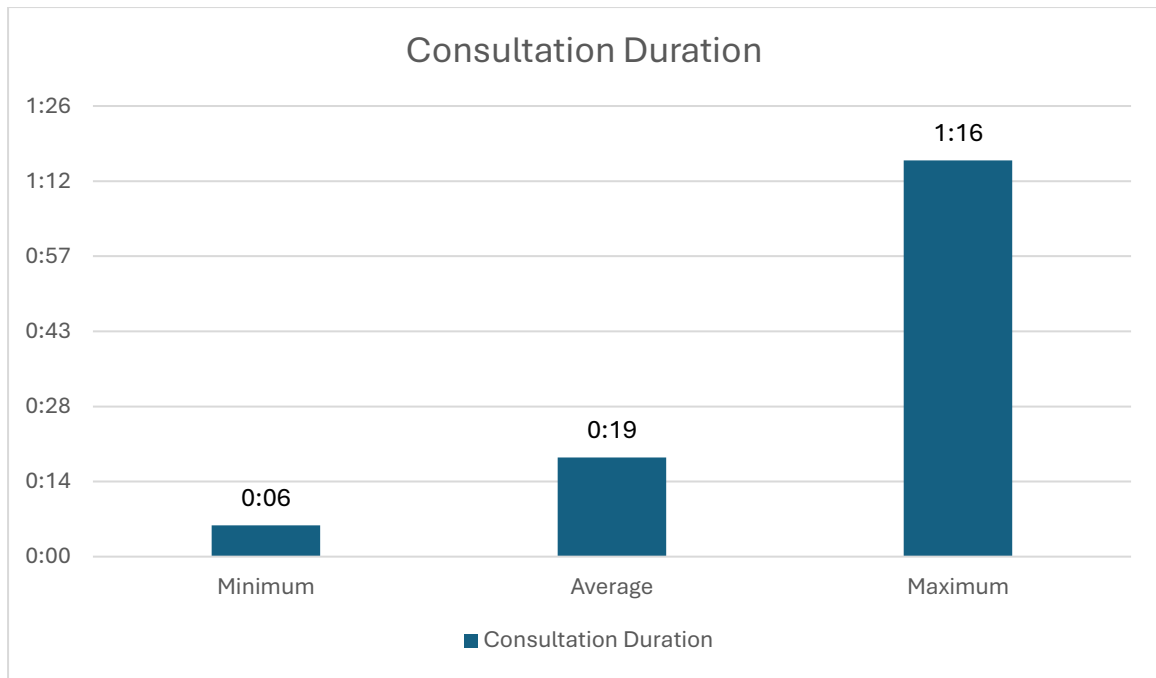## Turnaround time for walk-in and appointment based patients

Interpretation- The above graph represents the TAT for walk-in and appointment-based patients both in OPD consultation.

The minimum TAT is 36 minutes, average TAT is 1 hour and 1 minute and maximum TAT is 1hour and 30 minutes.

5. Consultation Duration of patients

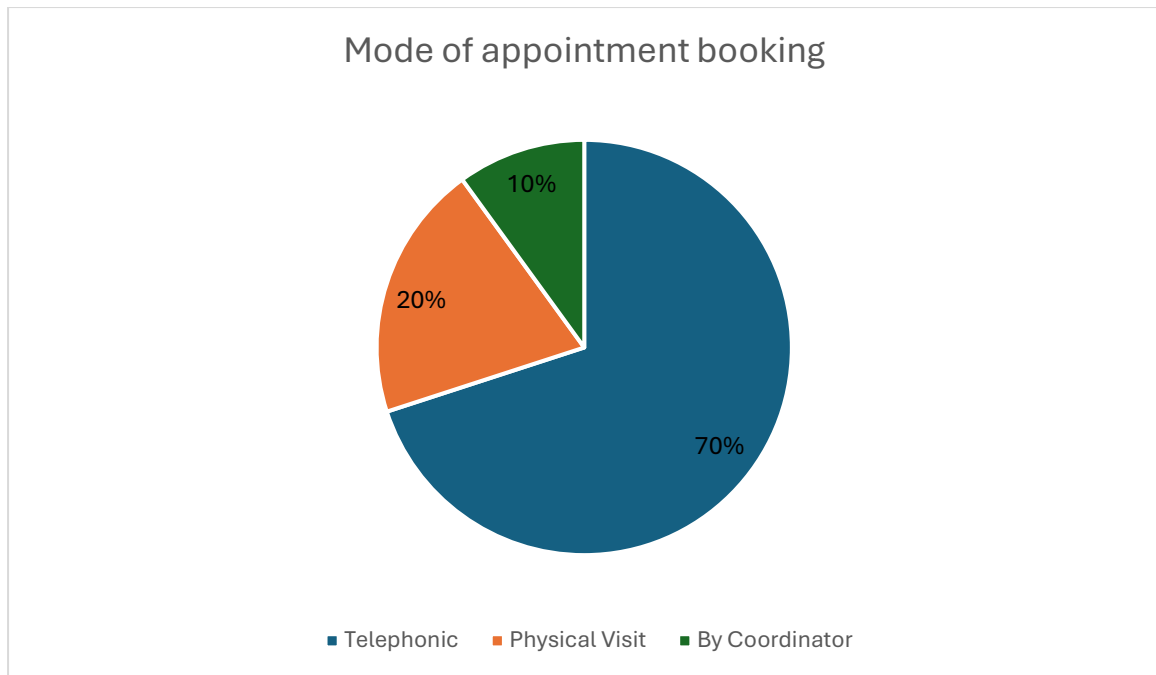| Minimum Time	0:06
Average Time	0:19
Maximum Time	1:16

Consultation Duration

Interpretation - The above graph represents the consultation duration of a patient in OPD consultation.

The minimum consultation time is 6 minutes, average consultation time is 19 minutes and maximum consultation time is 1 hour 16 minutes.

6. Mode of appointment booking preferred by patients

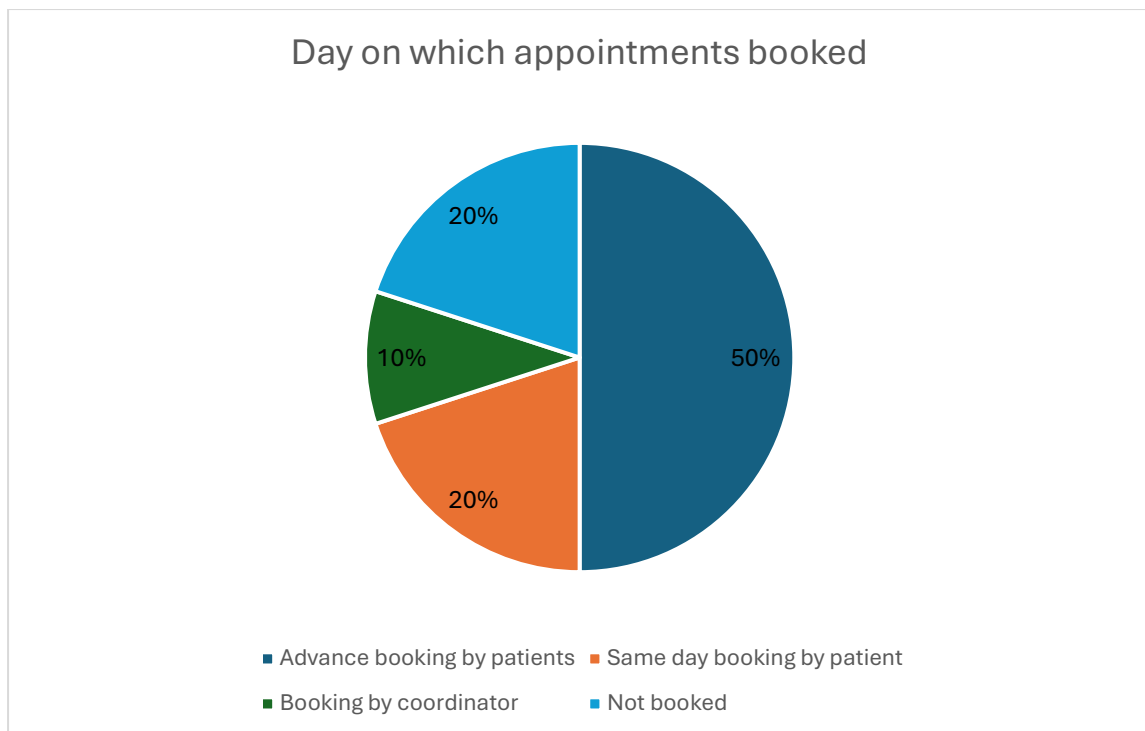| Telephonic	70%
Physically visit	20%
By coordinator	10%

Mode of appointment booking

Telephonic 70%
Physical Visit 20%
By Coordinator 10%

Interpretation- The above graph represents the mode of appointment booking preferred by the patients in OPD consultation in which 70% appointments are booked by Telephone, 20% appointments are booked by Physical visit and 10% appointments are booked by Coordinator.

7. The day on which the appointments are booked by patients

Advance booking by the patient	50%
Same day booking by patients	20%
Advance/Same day bookings by coordinator	10%
Not booked	20%

Day on which appointments booked

Interpretation- The above graph represents the day on which appointments were booked preferred by the patients in OPD consultation in which 50% patients booked their appointment in advance, 20% patients booking their appointment same day, 10% appointment booked by coordinator and 20% are not booked.

Observations & Analysis

The average waiting time of appointment based patients is approximately equal to average waiting time of walk-in patients. This is because if the appointment based patients are not on time then the walk-in patients are sent for consultation. This leads to less waiting time for walk-in patients which later causes disputes among both types of patients. Hence below are some recommendations to overcome this issue.

Conclusion:

At whatever level of healthcare, patient satisfaction is a crucial metric that represents the calibre of services. Patient dissatisfaction is caused by a number of causes, including waiting times, doctors' unavailability, excessive hurrying, and the lack of physical facilities at the OPD registration counter area.

Parents are unwilling to jeopardize their children's health, particularly in the paediatrics department, if there is a doctor shortage or a lengthy wait period. They can handle vaccinations for a short while, but they are not prepared to hear anything during the consultation procedure.

Overall, the survey found that patients were generally satisfied with the OPD services they received from this hospital. The OPD consultation and waiting times in this study are adequate. As of right now, I have not discovered any significant issues.

Recommendations:

1. The appointment based patients should be directed/requested to reach in time otherwise waiting time would likely to be increased by Appointment Department.
2. The total number of appointment-based patients can be increased by spreading more awareness about appointment booking system through display of short videos on the display screens of OPD situated near help desk.
3. Discouraging walk-ins in OPD.
4. Charging walk in patients more than the appointment-based patients can be one of the options.
5. Vaccination should be held once, twice and thrice in a week based on the numbers or it can be fixed.

References

1. Naaz, F., & Mohammed, I. (2019). A time motion study to evaluate the average waiting time in OPD with reference to patient satisfaction in the setting of state-level AYUSH Hospital (India). Medical Journal of Islamic World Academy of Sciences, 27(3), 71–76. https://doi.org/10.5505/ias.2019.89410
2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3868129/
3. https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-022-07502-8

<div align="center">

Annexure

</div>

Appointment Tracker

Sno.	Uhid	Patient name	Dr.name	Appointment date	Appointment time	Billing time	Vital time	Consultation start	Consultation end	Consultation time	Waiting time

Completion of Summer Internship from Sitaram Bhartia Institute of Science and Research

The certificate is awarded to

Akanksha Kumari

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

Operations (Patient Service)

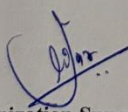and has successfully completed her Project on

"The time motion study to evaluate the average waiting time in OPD"
Date: 19th June 2024
Sitaram Bhartia Institute of Science and Research

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for
learning
We wish her all the best for future endeavours.

Organization Supervisor

Head-HR/Department Head
Anitha Manoharan

18

Certificate of Approval

The Summer Internship Project of titled **"The time motion study to evaluate the average waiting time in OPD"** at **"Sitaram Bhartia Institute of Science and Research"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed, or conclusion drawn therein but approve the report only for the purpose it is submitted.

Dr Pijush Kanti Khan
Assistant Professor
IIHMR, Delhi

19

FEEDBACK FORM
(Organization Supervisor)

Name of the Student: MS AKANKSHA KUMARI

Summer Internship Institution: SITARAM BHARTIA INSTITUTE OF SCIENCE & RESEARCH

Area of Summer Internship: OUTPATIENT DEPARTMENT (PATIENT SERVICES)

Attendance: OKAY, AS PER HOSPITAL'S POLICY

Objectives met: YES

Deliverables: Recommendations made to minimize Pediatric OPD waiting time; the solutions are shown to be practical & worth testing.

Strengths: Sincere & consistent

Suggestions for Improvement:

Work on strategic planning.

Signature of the Officer-in-Charge (Internship)

Date: June 19, 2024
Place: New Delhi

20

FEEDBACK FORM
(IIHMR MENTOR)

Name of the Student: Akanksha Kumari

Summer Internship Institution: Sitaram Bhartia Institute of Science and Research

Area of Summer Internship: Outpatient Department (Patient Services)
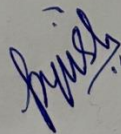
Attendance: Fulfilled as per Hospital's Policy

Objectives met: Yes

Deliverables: Recommendations made to minimize the Paediatrics OPD waiting time; solutions are shown to be practical and worth testing.

Strengths: Sincere and Consistent.

Suggestions for Improvement: Work on strategic planning.

Signature of the Officer-in-Charge (Internship)

Date: 24ᵗʰ June 2024
Place: New Delhi

21