

**ANALYZING THE IMPACT OF PROCESS IMPROVEMENT ON REDUCING
OPD ADMISSION TIME, TAT, AND WAITING TIME**

Dissertation submitted to



The IIHMR University, Jaipur

for the partial fulfillment for the award of the degree of

Master of Business Administration (MBA)

in

Hospital and Health Management

by

Manovrit Sood

under the supervision and guidance of

Dr. Varsha Tanu

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DECLARATION BY THE STUDENT

I hereby declare that this dissertation titled **Analyzing the Impact of Process Improvement on OPD Admission time, TAT, and Waiting Time** 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 Information derived from the published or unpublished work of others has been duly acknowledged in the text.



Manovrit Sood

Date: 27th May 2023

NH/JPR/HRD-NOC/2023/1101

23 May 2023

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr. Manovrit Sood**, a student of IIHMR, Jaipur, has successfully completed his internship training at **Narayana Multispeciality Hospital Jaipur**, in **Outpatient Services / Fro Department** from **22 February 2023 to 22 May 2023**.

During the internship his character and conduct was good.

For Narayanaya Multispeciality-Jaipur



Nikhil Mathur
Deputy General Manager – HR

Narayana Multispeciality Hospital

Unit of Narayana Healthways Limited | CIN: U51109KA2000PLC021431

Registered Office: 258/A, Bommasandra Industrial Area, Anekal Taluk, Bangalore 560099

Hospital Address: Sector-28, Kumbha Marg, Pratap Nagar, Jaipur 302033

Tel: +91 141 7122 233 | Email: info.jpr@narayanahealth.org | www.narayanahealth.org

GST No. 08AABCN1685J128



Appointments

1800-309-0309 (Toll Free)

Emergencies

99837-32222

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This is to certify that dissertation titled **Analyzing the Impact of Process Improvement on OPD Admission time, TAT, and Waiting Time** is a record of the research work undertaken by Manovrit Sood 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 his approach to the research study has been sincere, scientific, and analytical.

Dr. Varsha Tanu
Faculty Guide
IIHMR University, Jaipur

Date: 27th May 2023

Dr. Mahender Kumar
School Dean
IIHMR University, Jaipur

Date: 27th May 2023

ABSTRACT

This report examines the impact of process improvement on OPD (Outpatient Department) admission time, TAT (Turnaround Time), and waiting time. The objective is to identify areas for improvement and enhance overall efficiency and patient experience in the outpatient setting.

A mixed methods research design was employed, combining quantitative data analysis and qualitative insights. Quantitative data included measures of admission time, TAT, and waiting time obtained from hospital records. Qualitative data were gathered through interviews with healthcare providers, administrators, and patients.

The findings indicate that process improvement methods have a significant impact on OPD admission time, TAT, and waiting time. Specific interventions, such as streamlining registration procedures, implementing appointment scheduling systems, and optimizing triage processes, were found to reduce admission time, improve TAT, and decrease waiting time for patients. The qualitative insights highlight the importance of stakeholder engagement, communication, and teamwork in the successful implementation of process improvement methods.

The report concludes by emphasizing the need for ongoing evaluation and collaboration to sustain and improve the effectiveness of these interventions. The recommendations derived from this study provide a basis for future quality improvement initiatives in OPD settings, aiming to optimize processes, reduce waiting times, and enhance patient care.

Key Words: Outpatient department, Turn-around time, Waiting time, Inter-arrival time, Process improvement, Patient satisfaction.

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ABBREVIATIONS

OPD: Outpatient Department

TAT: Turn-around time

IP: In patient

SOP: Standard Operating Principle

RGHS: Rajasthan Government Health Scheme

CGHS: Central Government Health Scheme

PCE: Patient Care Executive

HMIS: Hospital Management Information System

INTRODUCTION

Background: -

In the Healthcare Industry, efficient management of outpatient services plays a crucial role in providing quality care and patient satisfaction. An Outpatients Department of hospital provides treatment and/or consultation to patients who may/may not require immediate hospitalization. Since an OPD is the first point of contact for the patient with the hospital and its primary focus is to provide high-quality, timely and cost-effective treatment, a key aspect of OPD management includes the assessment, analysis, and optimization of waiting time and turn-around time (TAT) in the Outpatient Department (OPD).

The **turn-around time (TAT)** for an executive working at the front office desk refers to the time taken for a patient or his attendant to make a transaction i.e., to book a consultation with a physician and pay the required amount through any mode of payment. The **waiting time** for a patient refers to the total amount of time taken to visit the physician, right from the time he has entered the hospital facility i.e., his arrival time in the waiting queue.

Purpose: -

The purpose of this report is to analyze and evaluate OPD waiting time and TAT to identify areas for improvement and enhance the overall patient experience. By examining these critical metrics, healthcare organizations can streamline operations, minimize patient waiting time, enhance service efficiency, and ultimately improve patient satisfaction.

Problem Being investigated: -

Effective management of waiting time and TAT is very beneficial not only to the patient but to the service provider as well. Inefficient and inconsistent waiting time and TAT can have significant implications for the healthcare provider. Long waiting times lead to patient dissatisfaction, decreased patient compliance, and even the loss of potential

patients to competitors. Furthermore, extended TATs can have a negative impact on the patient journey within the facility, creating bottlenecks in service delivery, and decreased productivity of treating physicians.

A comprehensive review of the OPD registration and admissions process, gaps in patient flow, and data will be undertaken for the successful completion of this analysis. This report will also examine the factors responsible for extended waiting times and TATs along with the challenges in implementing potential solutions to the delay.

Aims & Objectives: -

By utilizing quantitative and qualitative research methods, this report aims to highlight the patterns, bottlenecks and areas of improvement while suggesting ways to streamline the whole process and enhance patient satisfaction. This report explores potential solutions such as online appointment scheduling, encouraging the use of telemedicine, and introduction of new technological advancements to reduce manpower and TAT.

As healthcare institutions strive to deliver high-quality care while meeting the growing demands of patient populations, the outcomes, results, and recommendations presented in this report might benefit healthcare administrators in administering solutions to their problems in managing the OPD services of their healthcare setting. It will also benefit policymakers and decision-makers to make informed decisions and implement changes that might streamline the flow of patients and optimize OPD waiting time and TAT. Ultimately, the goal is to increase the quality of healthcare services, making it a patient-centric healthcare delivery model.

LITERATURE REVIEW

Due to the rising demand for quality healthcare and looking at the gravity of the situations at hand, there is a need to design efficient healthcare processes. The outpatient services provided by any healthcare clinic play a pivotal role in this, since they are the shopwindow of any healthcare facility and have the potential to enhance the standards of patient satisfaction to a great extent.

In a study titled “*Discovery of Outpatient Care Process of a Tertiary University Hospital Using Process Mining*”, 2019, the authors - E. Kim, S. Kim, and M. Song, clearly identified the key areas of improvement that might reduce the waiting and consultation times for the patient. The study highlighted that the general process of OPD consultation follows an array of steps including – Consultation registration > Consultation scheduling > Payment > Consultation > Prescription Printing (1).

The study also highlighted the need for further research and analysis into these key areas of OPD operations to effectively impact the efficiency of healthcare delivery. Hence, this dissertation report will closely look at each of these areas, analyzing the general processes, gaps, and recommendations to improve their functioning.

Another study, “*Specific timely appointments for triage to reduce wait times in a medical outpatient clinic: protocol of a pre-post study with process evaluation*” by A.K. Lewis et al, 2019, highlights a model of triage and appointment allocation tested to reduce the waiting time by about a third in a community setting through process evaluation method. The study aims to apply this model to specialty outpatient departments of hospitals to reduce the waiting times for patients seeking a consultation with the doctor (2).

This 1-year long pre-post study conducted at an epilepsy clinic in Melbourne, describes a system which maintains the flow of patients in an outpatient services department through data modelling technique by a model named STAT (Specific Timely

Appointments for Triage), which will assess the rate of new appointments per week and devise a way to schedule them for consultation (2).

Yet another study conducted at an outpatient department of a children's hospital in Uganda in 2020, "Evaluation of a digital Triage platform in Uganda: A quality improvement initiative to reduce the time to antibiotic admission", by V. Lee et al, displays the importance of introduction of digital software to reduce the waiting time for patients by prioritizing the category of their illness through triaging (3).

The study clearly indicated a reduction of 11 minutes in the waiting time, from 51 minutes pre-implementation to 40 minutes post-implementation (3) and an appreciable increase in patient satisfaction post introduction of a digital triaging platform (3).

Some studies also suggest the use of artificial intelligence to introduce live application tracking and healthcare education & awareness for patients/attendants in the waiting area of the OPD to reduce waiting time and enhance patient satisfaction. A study titled *"Developing and testing a Chatbot to integrate HIV education into family planning clinic waiting areas in Lusaka, Zambia"*, 2022, outlined the underutilized opportunity of imparting healthcare knowledge and information to patients in the waiting areas of a clinic. It showed that almost 83% of people gained new insights into health diseases using a Chatbot and 96% of people discussed these diseases with their physicians during consultation (4).

A similar study, *"Improvement in Outpatient services using the WeChat calling system in the Shanghai Children's Hospital"*, 2021, highlighted the benefits of using a live application and queue tracking system in a hospital. Reduced waiting times, lower operating costs than traditional calling systems, and enhanced patient satisfaction were some of the most notifiable features of this AI-based tracking system (5).

The studies mentioned above highlight the need to introduce technological advancements in the outpatient services department, for triaging and appointment

scheduling, to reduce the waiting time for patients to visit the consultants; optimize resource utilization; and enhance their level of satisfaction and enrich their journey within the hospital.

However, the inclusion of technological advances alone cannot ensure a streamlined flow of operations in an OPD of a tertiary clinic. There are several barriers to appointment scheduling and attendance behaviour of patients. These barriers were reviewed through two research articles titled, “*Exploring the factors influencing outpatient appointment scheduling and attendance for specialist services: a systematic review*”, 2019, and “*Targeting the use of reminders and notifications for uptake by populations (TURNUP): a systematic review and evidence synthesis*”, 2014.

These studies identified the barriers from the patient and providers’ side that affect the attendance behaviour and appointment scheduling for patients while providing prompt ideas on redesigning the reminder interventions (6). Factors including source of original appointment, timing of the appointment, waiting time for the appointment, patient involvement in the initiation and scheduling of appointments, service location and transport facilities, reputation of the healthcare facility, etc. play an important role in the attendance behaviour from the healthcare providers’ view (6).

On the other hand, factors including demographic and socioeconomic characteristics, indicators of health and wellbeing, previous patterns of non-attendance, etc. play an important role in the attendance behaviour from the patients’ view (6). Another study “*Barriers to and facilitators of Automated patient self-scheduling for healthcare organizations: scoping review*”, 2022, outlined how national policy, competition and response to patients’ needs and technology access play a crucial role in the appointment scheduling and behavior patterns among patients from different demographic and socioeconomic backgrounds (7).

To tackle such problems of appointment scheduling and patient behaviour several studies have been conducted to highlight the benefits of artificial intelligence and patient-initiated scheduling systems. A study “*Patient-initiated appointment systems for*

adults with chronic diseases in secondary care”, 2020, indicated that self-initiated appointments may have little or no effect on patient satisfaction levels or the waiting times in healthcare clinics (8). However, a few other studies, “*Effects of a comprehensive reservation service for non-emergency registration on appointment registration rate, patient waiting time, patient satisfaction and outpatient volume in a tertiary hospital in China*”, 2019, and “*Artificial intelligence assisted reduction in patients’ waiting time for outpatient process: a retrospective cohort study*”, 2021, showed a reduction in the waiting time and TAT to enhance patient satisfaction using AI.

Such systems help patients book diagnostic tests and imaging services automatically based on the signs and symptoms of their disease, before visiting the doctor, so that they can save time waiting in long queues again and again to book their slots for diagnosis (9, 10). This system provides a comprehensive aspect of healthcare delivery which highly increases patient satisfaction and the reputation of the hospital (9, 10).

The waiting time to visit the treating physicians can also be reduced to a greater extent by enhancing the efficiency of waiting queues and waiting areas in an outpatient services department of a hospital. This was analyzed by a study conducted at Benue State University Teaching Hospital in a report titled, “*Improving the efficiency of outpatient services at Benue State University Hospital using the queuing theory*”, 2017.

The study discussed the benefits of optimization of staff resources and devising a proper mechanism of queuing patients/attendants using queuing theory/queuing model in the efficient operation and functioning of an OPD of a hospital or any healthcare facility delivering consultations to patients (11).

Another study outlining the gaps in streamlined outpatients flow in hospitals was conducted in 2017, titled “*An assessment of patient waiting and consultation time in a primary healthcare clinic*”. The study clearly outlines that the major challenges in the effective and efficient operations of an outpatient department are the number of staff at

the registration counter, appointment system for follow-up patients, and queuing system for walk-in patients.

This study was conducted for 4 weeks, and the data was collected by using a Queuing Management System (QMS) and SPSS software (12). The results clearly indicated a difference of about 10 minutes in the waiting time by increasing the number of staff on registration counters, enforcing a staggered appointment system for follow-up patients, and enhancing the queuing system for walk-in patients (12).

METHODOLOGY

Research Questions: -

Based on the title “Analyzing the Impact of Process Improvement on reducing OPD Admission time, TAT, and Waiting time”, the research questions that guide this dissertation report are:

- How can we analyze the Admission Time, Transaction turn-around time and Waiting time for outpatient services in a hospital?
- What are the barriers and facilitators of effective and efficient process improvement to reducing OPD TAT and Waiting time?
- What is the current time-motion status of the OPD department in hospital?
- How can technology and automation be perceived to streamline patient flow in ODP?

Objectives: - The research objectives of this report are:

- To observe and collect data on the current OPD transaction turn-around time and waiting time.
- To analyze and interpret the data collected over the study period of 2 months.
- To determine the impact of process improvement on OPD turn-around time and waiting time.
- To recommend certain methods/processes that might reduce the current turn-around time and waiting time.

Study Type: - This research aims to follow a mixture of both qualitative and quantitative approach to study the impact of process improvement on the TAT and waiting time. Such a way is opted to get a comprehensive view of the current situation and future advancements required.

Inclusion Criteria: - All the patients visiting the OPD for consultation and investigations have been included for the study, however, the consultation and investigation must be conducted on the same day. Stratified random sampling will be

employed to sample patients to include a variety of demographic and medical conditions.

Exclusion Criteria: - The patients who visit the front desk only to get the investigations done or to receive the test reports and the patients who have already availed health packages from the hospital have been excluded from the study to remove extremities from the data.

Sampling Technique: - The study is conducted for a period of 2 months followed by analysis and recommendations for about a month. The sampling of participants is conducted using non-probability consecutive sampling method to avoid expensive and complex data collection.

Data Collection: - Both qualitative and quantitative data is collected for the study. Qualitative data is collected through semi-structured interviews with managers and administrators as well as executives working at the ground level. Opinions, experiences, and perceptions of patients will also be taken into consideration through a series of open-ended questions, surveys, and feedback.

Quantitative data is collected through hospital entry logs, database system, and self-observation. Admission time is the time of arrival of patients in the outpatient department of the hospital. TAT is the amount of time spent by a patient to complete necessary documents and procedures before proceeding to the waiting area of doctor. Waiting time is the total amount of time spent by the patient to consult a doctor.

Data Analysis: - Qualitative data is analyzed by reviewing literature from free journal publishing sites available on the internet to understand the usual trends and patterns of TAT and waiting times of competitors or other hospitals within the same region.

On the other hand, quantitative data is analyzed by using statistical measures such as mean, median and exponential averages to get a comprehensive overview.

Ethical Considerations: - The participants/volunteers/patients are fully informed of the study design and purpose of research by means of oral consent. Patient data and personal information is kept fully confidential and is not shared with any third party. Since the study deals with human subjects, human rights and all other rights pertaining to them are completely obeyed.

Limitations: - The research is conducted in a single hospital facility and hence there is a limitation to the generalization of research outcomes. The study duration and availability of resources also pose a limitation to the accuracy and availability of data on TAT and Waiting time.

RESULTS

The data is collected in Excel sheets in a tabular form including various column heads as shown by the figure below:

Patient ID	Arrival time in queue	Transaction start time	Transaction end time	Transaction TAT	Waiting time
451004	10:01:22	10:02:30	10:08:02	332	400
451006	10:03:47	10:08:02	10:09:07	65	320
451007	10:04:51	10:09:07	10:12:32	205	461
451009	10:08:27	10:12:32	10:14:14	102	347
216364	10:08:30	10:14:14	10:15:35	81	425
384504	10:12:12	10:15:35	10:18:48	193	396
452456	10:13:57	10:18:48	10:20:52	124	415
337319	10:15:55	10:20:52	10:23:43	171	468
452457	10:16:17	10:23:43	10:26:46	183	629
226470	10:20:24	10:26:46	10:28:22	96	478
452450	10:22:54	10:28:22	10:30:30	128	456
358744	10:28:30	10:30:30	10:31:50	80	200
449678	10:29:05	10:31:50	10:33:55	125	290
452337	10:33:55	10:33:55	10:35:32	97	97
223159	10:33:55	10:35:32	10:37:38	126	223
450663	10:34:47	10:37:38	10:39:00	82	253
359102	10:38:58	10:39:00	10:40:12	72	74
452447	10:39:40	10:40:12	10:41:15	63	95

Figure 4.1: Template for Data Collection

Data for 350 participants/patients was collected in this manner in the same table.

Daily averages for the TAT, waiting time, and Inter-arrival time (the time between arrival of consecutive patients) is calculated using the following formulas:

$$\text{Average Daily TAT} = \frac{\sum \text{TAT of each patient}}{\text{Total number of patients visiting the OPD on that day}}$$

$$\text{Average Daily Waiting Time} = \frac{\sum \text{Waiting time for each patient}}{\text{Total number of patients visiting the OPD on that day}}$$

The results thus obtained can be presented as:

DAILY AVERAGES						
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Avg. TAT	150.29	188.36	193.16	194.80	195.45	176.60
Avg. Waiting Time	365.92	509.67	423.51	619.52	582.57	975.93
Interarrival time	182.00	250.93	262.26	191.78	249.29	205.85

Figure 4.2: Results of Daily Averages

These results can be presented graphically as:

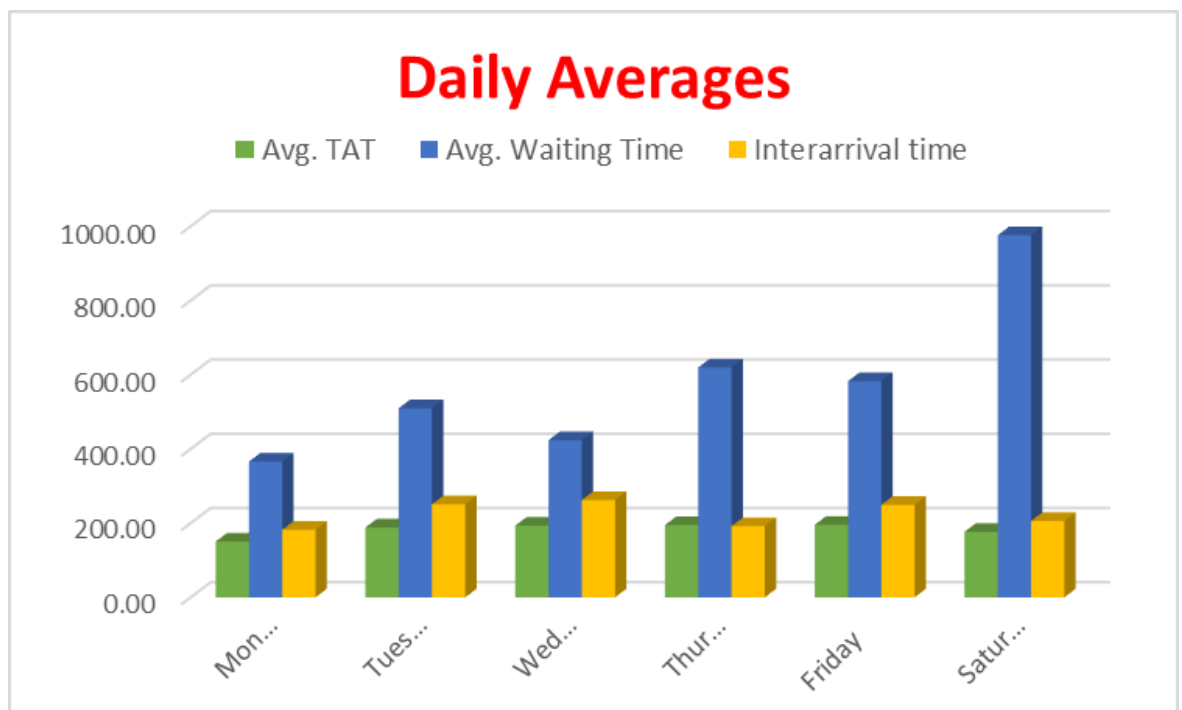


Figure 4.3: Graphical Representation of Daily Averages

The analysis of overall TAT into different categories or segments of time can be conducted as below:

Table 4.1: Categorization of TAT

TAT (IN SEC)	NO. OF PATIENTS
15-65	39
66-116	78
117-167	65
168-218	66
219-269	43
270-320	21
320+	39

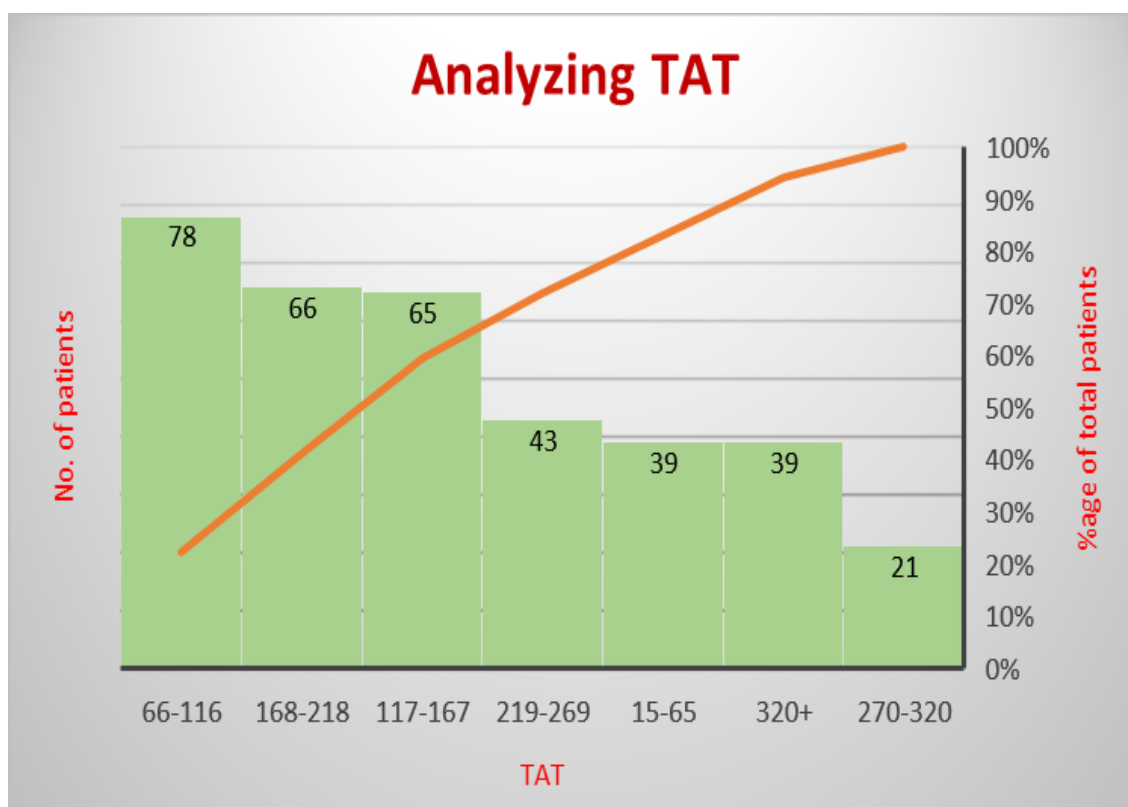


Figure 4.4: Graphical Representation of categorized TAT

Similarly, for waiting time the overall time can be segregated as:

Table 4.2: Categorization of Waiting Time

WAITING TIME (IN SEC)	NO OF PATIENTS
25-100	23
101-200	30
201-300	36
301-500	68
501-700	58
701-800	22
900-1000	13
ABOVE 1000	37

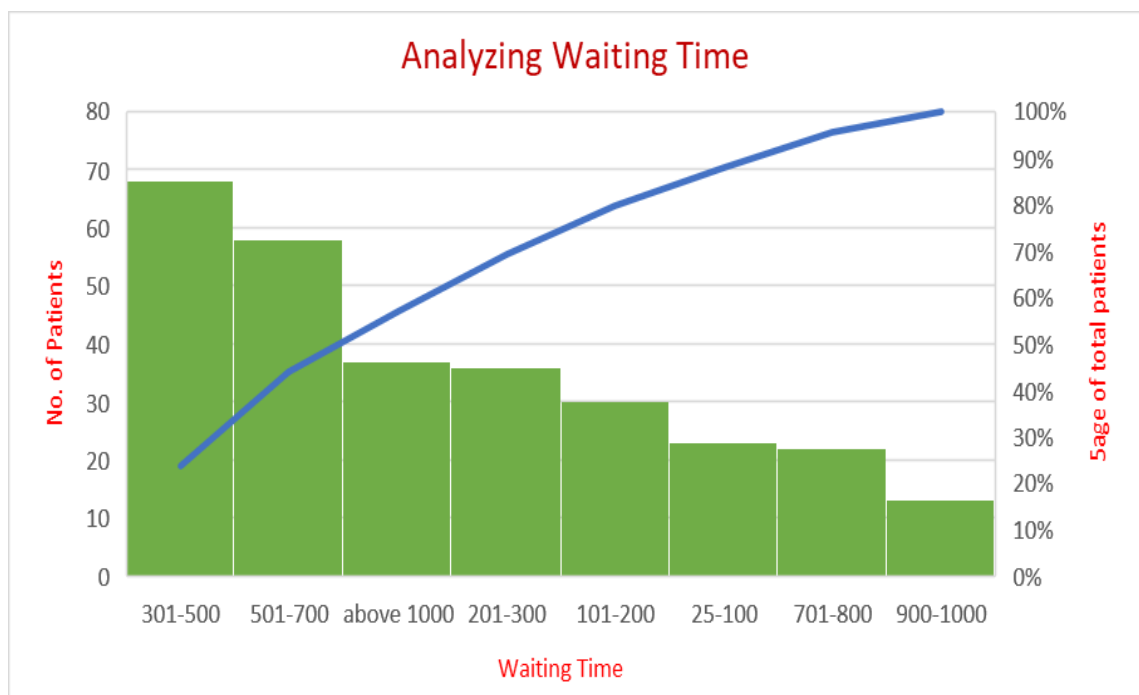


Figure 4.5: Graphical Representation of categorized Waiting time

The overall analysis can be summarized as below:

Table 4.3: Overall Analysis of TAT and Waiting time

Total number of patients	350
Minimum Transaction TAT	19 sec
Maximum Transaction TAT	713 sec/12 min
Minimum Waiting Time	25 sec
Maximum Waiting Time	2723 sec/45 min
Average Transaction TAT	179 sec/3 min
Average Waiting Time	566 sec/9 min

DISCUSSION

This dissertation report aimed to assess the effect process improvement has on the patient flow and their satisfaction visiting the outpatient services department of a healthcare facility. This was analyzed using statistical metrics on the transaction turn-around time and the waiting time for each patient visiting the OPD of the concerned hospital. Deploying a mixture of both qualitative and quantitative research approach, the study presents a broad and extensive view to the challenges, barriers, and facilitators of the process interventions governing TAT and waiting time in an OPD.

The outcomes of the quantitative data reveal beneficial insights into the current state of OPD admissions process and the gaps in waiting time and TAT. Figure 4.1 presents an overview of how the data was collected initially for the purpose of research. The figure represents a table including details for every patient under the heads of Patient ID, Arrival time, Transaction start time (HH:MM:SS format), Transaction end time (HH:MM:SS format), TAT in seconds (Transaction end time – Transaction start time), and Waiting time in seconds (Transaction end time – Arrival time). The analysis of results was carried out from this initial data of 350 patients.

Figure 4.2 in this report displays the daily averages of TAT, waiting time, and inter-arrival times of patients averaged out over a period of 1 week. These averages vary depending on the patient traffic in the OPD and the number of staff attending to the patients in the OPD. Hospitals generally face a large amount of patient traffic on Mondays and Saturdays since Saturday is the last working day for a working individual and hence opts for Saturday to visit their consultants or to collect their investigation reports. Figure 4.3 depicts the analysis of this data in the form of a bar graph to make it easier to understand the deviations and patterns.

Table 4.1 and Figure 4.4 depict an analysis of TAT, measuring the parameters of number of patients and cumulative percentage of patients. The analysis of TAT sheds a huge light on the benefits and impact of deviated TAT on the current processes operating in the process of OPD admissions.

The analysis presents the current average TAT to be around 179 seconds or 3 minutes. The hospital facility's SOP (Standard Operating Principles) mention that the TAT must be 2 minutes or 120 seconds, hence, the average calculated TAT is about 60 seconds more than the expected average. This deviation, however small, can impact the waiting time for patients over a large period or on a high traffic day.

Table 4.2 and Figure 4.5 depict an analysis of waiting time, measuring the parameters of number of patients and cumulative percentage of patients. The analysis of waiting time sheds valuable insights into the total time patients spend visiting their consultants, indicating potential bottlenecks and key areas for improvement.

The analysis reveals the calculated average waiting time to be 9 minutes whereas the hospital's SOP mentions the waiting time must be only 6 minutes. This depicts a huge deviation in calculated waiting time from the expected waiting time mentioned in the hospital SOP. Thus, certain methods or enhancements must be devised to reduce the average waiting time for patients closer to the expected waiting time.

Table 4.3 depicts the overall metrics for analysis in this report. It depicts the minimum and maximum TAT and waiting times along with the overall averages. This table makes it quite easy to devise improvement measures.

The qualitative insights gathered through interactions, surveys and feedback from administrators, managers, patients and executives also shed a light on the effect of process improvement on OPD admission time, TAT, and waiting times.

The analysis revealed that experience and training of the staff working at the front desk and the waiting areas has a huge effect on how the patients are greeted in the hospital and provided guidance in reference to visiting the consultants. Healthcare administrators emphasized the need of adequate knowledge, training, and effective stakeholder engagement with policymakers to streamline the whole OPD admission process and

alleviating bottlenecks from the process with the addition of enhanced process interventions.

The reputation and image of the hospital facility in society also matters to a great extent since people come with those expectations. From the patients view, their perception about the consultants and the OPD admissions process has a huge impact on reducing the waiting time and TAT, along with proving beneficial for adding the aspect of consideration and understanding.

However, it is important to note the limitations of this study in enhancing OPD admission time, TAT, and waiting time. Due to the variation in the number of people visiting the OPD on a daily basis and the purpose of their visit to the hospital facility, the daily averages might vary from day-day and cannot be generalized. Moreover, the research was conducted in a single hospital facility and hence, cannot be compared with the expected averages or the operations of other hospitals in the same region.

Another limitation to the study was the lack of available resources and the duration of the study. Since the study was conducted only for a total period of 3 months, there was insufficient time to study the effects of the enhanced interventions on the waiting time, TAT, and patients' perceptions. In addition, due to the same reason the data collected could also not be reliable or accurate which creates a difficulty in devising better process improvements.

However, this report presents an overall understanding of the admissions process and the status of the TAT and waiting time in the outpatient department of the hospital. The findings in this report may also be used for future studies on analyzing and recommending effective and enhanced process improvements for utilization in the OPD.

CONCLUSIONS

In conclusion, this report presents an overall broad and extensive view of the effects of process improvement on the functioning and operations of an OPD department in a hospital. The report depicts an in-depth analysis of TAT and waiting time for patients in a hospital before consulting a doctor. This has a huge effect on patient satisfaction and continuous quality improvement measures operating within the hospital.

Certain recommendations to enhance the patient satisfaction levels and reduce the TAT and waiting time for patients include streamlining the admissions or registration process for a patient visiting the hospital. This can be achieved through installation of self-registration bots that help patients avoid standing in long queues at the registration desk and complete the process themselves with the help of a front office executive. In a large and crowded hospital, with huge volumes of patient inflow, 2 or 3 such bots can be installed to effectively manage all the patients.

Another bottleneck in the patient flow in OPD is the inadequate number of operating counters at the registration desk or the front desk. This can be managed efficiently by operating a greater number of counters with trained and experienced staff, according to the inflow of patients. If on certain days the patient inflow is less, the staff may be used elsewhere, wherever needed. Proper signage in the OPD area will also help the patients lead a good journey and experience in the hospital.

Appropriate amount of seating arrangement in the waiting area and installation of AI-based bots delivering healthcare education and awareness to patients waiting to visit the doctor will also enhance the level of satisfaction among the patients and keep them interested enough to wait for their turn. This will in turn enhance the patient satisfaction.

Another way to boost up the reputation of the hospital and enhance the patient journey while making the hospital more sustainable, is to go “paperless”. This can be achieved through the integration of a comprehensive mobile health application through which the

patients will receive all their receipts, medical documents, prescriptions, and investigation reports in the form of a soft copy, easily downloadable over the app. Awareness must be spread for the downloading of the app over the play store for increasing the number of downloads.

Regular and periodic training must be provided to the staff directly interacting with the patients to make them understand their corporate social responsibility as well as to enhance their communication skills with patients. The staff must always be aware of all the empaneled third-party organizations so that the TAT can be reduced.

All these process improvements are sought to reduce the Tat and waiting times along with enhancing the patient satisfaction.

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