Reducing the Waiting Time-A Step towards Patient Satisfaction

Internship Training
at
Burjeel Hospital, Abu Dhabi UAE

By
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Under the guidance of
Dr S.D Gupta

Post Graduate Diploma in Hospital & Health Management
2012–14

Institute of Health Management Research
Jaipur
2014

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TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr. Gunjan Gera** student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management Research, Jaipur has undergone internship training at **Burjeel Hospital, Abu Dhabi** from 11th February to 26th May 2014.

The candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical. The internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

Dr. Ashok Kaushik
Dean, Academics and Student Affair
IIHMR, Jaipur

Dr S.D Gupta
Corporate Director
IIHMR, Jaipur

مستشفى برجيل

burjeel hospital

This Certificate is awarded to

Dr. Gunjan Gera

In recognition of having successfully completed her

Dissertation in **Operations Department**

And has successfully completed her project on

Reducing the waiting time in dermatology clinic-A step towards Patient Satisfaction

In Burjeel Hospital ,Abu Dhabi UAE

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

We wish her all the best for future endeavors

Nidhi Mathur

Nidhi Mathur
Head of Human Resources
Burjeel hospital, Abu Dhabi

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **'Reducing the waiting time-A step towards patient satisfaction"** submitted by **Dr. Gunjan Gera Enrolment No. 1315** under the guidance of **Dr S.D Gupta** for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from **11th February 2014 to 26th May 2014** 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.

Signature: Gunjan

Abstract:

This study has been conducted in the dermatology clinic of Burjeel Hospital. It caters to more than 100 patients every day and the elite class is the target area of the hospital.Since cosmetological procedures have a high demand so the clinic serves the need for all.

The waiting time in the clinic was documented to be around 30-45 minutes for the month of February and March with variation in different clinics. Due to the long waiting time the patients were highly dissatisfied and sometimes have to cancel or reschedule the appointments. This ultimately affects the patient satisfaction and thus the revenue of the hospital.

The study was conducted which interviewed 34,200 patients in 37 hospitals in the emirate, by HAAD to monitor health care quality in hospitals, as well as provide information to patients about their choice of health care organizations.

It was found that on average, patients spent 3.5 hours in the emergency ward, with waits during peak times increasing to between 13 and 18 hours. It was at these times that such individuals truly earned the label of "patient."

The Study aims at improving the patient satisfaction by reducing the waiting time and thus improve service. The study deals with finding out the reasons causing the delay and thus looking for an appropriate solution.

Acknowledgement

As I reach this stage of conclusion of my project, I owe my sincere gratitude to all those who gave me support to work in this prestigious institution. I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals. I would like to extend my sincere thanks to all of them.

My foremost thanks goes to **Mr Clancey PO** (Chief Executive Officer) for giving me an opportunity to commence my project .I am deeply indebted to **Mr Vinay Lazarus** (Operations Manager) for his in-depth support ,stimulating suggestions and encouragement throughout my training period as well as providing necessary information regarding the project.

My sincere thanks are also due to my guide **Dr. S.D Gupta** and teachers at IHMR, Jaipur for their immense support and guidance. I am really thankful to **Dr. Ashok Kaushik** for all his efforts to place the PGDHM students in organizations of such repute.

A special mention needs to be made of the staff of Burjeel Hospital for their help and cooperation in successful completion of the project.

Finally I would like to appreciate my family and my friends for the wonderful cooperation shown by them during the project. My thanks and appreciations also go to my colleagues in developing the project and people willingly helping me out with their abilities.

Contents

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List of Abbreviations:

CCU	Cardiac Care Unit
IVF	In vitro Fertilization
NICU	Neonatal Intensive Care Unit
ICU	Intensive Care Unit
JCI	Joint Commission International
HAAD	Health Authority-Abu Dhabi
PGDHM	Postgraduate diploma in hospital and health management
ENT	Otorhinolaryngology
CAPA	Corrective and preventive action
OT	Operation Theatre
CSSD	Central Sterile Supply Department
CAP	College of American Pathologists
OPD	Out Patient Department

1.1.Introduction:

This study has been conducted in the dermatology clinic of Burjeel Hospital. The Department caters to more than 100 patients every day and the elite class is the target area of the hospital Since cosmetological procedures have a high demand so the clinic serves the need for all.

The waiting time in the clinic was documented to be around 30-45 minutes for the month of February and March with variation in different clinics. Due to the long waiting time the patients were highly dissatisfied and sometimes have to cancel or reschedule the appointments. This ultimately affects the patient satisfaction and thus the revenue of the hospital.

1.2.Literature review:

The chance to interact with health care professionals about treatment procedures and medical diagnoses was the best feature about hospitals across the emirate of Abu Dhabi, the results of a survey conducted by the Health Authority Abu Dhabi (HAAD) revealed Saturday -waiting times were the worst.

The patient satisfaction survey, which interviewed 34,200 patients in 37 hospitals in the emirate, was conducted by HAAD to monitor health care quality in hospitals, as well as provide information to patients about their choice of health care organizations.

Using UMT Plus, a multidisciplinary team gathered data on patient movements as well as the various tasks performed by emergency personnel, including doctors, nurses and orderlies. The analysis of this data proved very interesting.

For example, 60% of patients needed to see the emergency doctor twice. Patients were spending 66% of their time waiting. Meanwhile, emergency physicians were spending 36% of their time treating patients and another 30% managing files. Nurses spent between 18% and 25% of their time dealing with patients, while 43% of orderlies' time was spent moving

about the facility.

It was found that on average, patients spent 3.5 hours in the emergency ward, with waits during peak times increasing to between 13 and 18 hours. It was at these times that such individuals truly earned the label of "patient."

Another interesting note: patients arriving at the emergency ward by ambulance monopolized an average of 2.7 hours of the emergency physician's time.

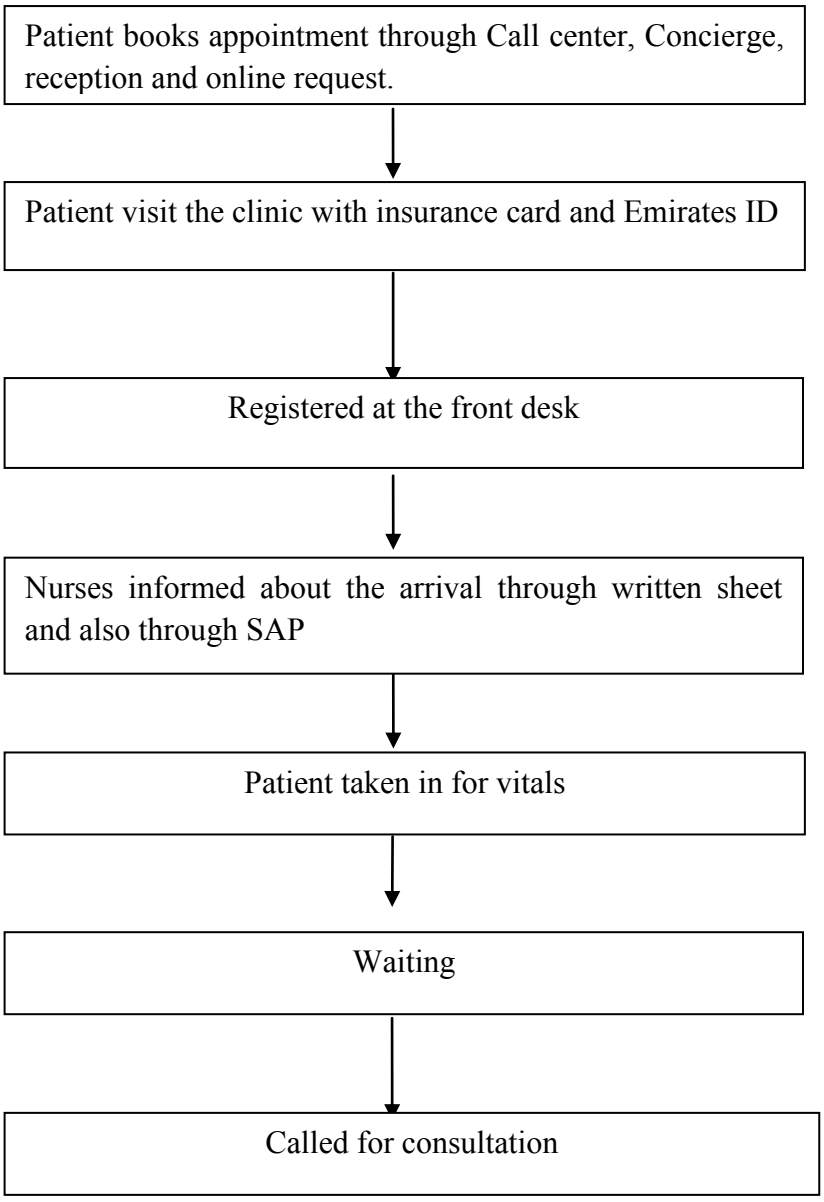
Simulation 1: Using this data, a simulation was carried out to reproduce the functioning of the hospital's emergency ward. Upon completion, the simulation proved to be identical to reality, which confirmed the validity of the various measures used.

Simulation 2: The simulation allowed the Kaizen team to evaluate the impact that changing two parameters would have on patients: 1) reduce the necessity for patients to see the doctor twice from 60% to 40% by establishing protocols; 2) for the approximate 100 patients arriving each year by ambulance, the emergency physician is responsible for the first hour of treatment. Following this, an on-call team takes over. The results of the second simulation were surprising. The average waiting time for patients dropped from 3.5 hours to 15 minutes.

The result of all that waiting -- overcrowded ER's, people leaving without treatment, and patient satisfaction dipping lower than 50 percent -- has prompted hospitals both locally and nationally to look at innovative ways of improving the overall ER experience and, coincidentally, their bottom lines.

Process mapping of Dermatology Clinic:

The process flow of the department has been detailed below:



1.3.Problem Statement:

The OPD at Burjeel Hospital, Abu Dhabi provides services to more than 1800 patients/day, therefore waiting time is a major concern the hospital. The waiting time was documented to be around 30-45 minutes for the month of February and March with variation across different clinics. The highest waiting time being recorded was more than 1.5 hrs for Plastic Surgery. The patients constantly complain about the delay in appointment. Currently no direct observational data was available on the average waiting time for these departments. Delay in appointment led to patient dissatisfaction and impacts customer care. This eventually affects the revenue of the hospital.

1.4.Research Questions:

1. Do the patients experience long waiting time at Dermatology Clinic in Burjeel hospital?
2. What is the average waiting time?
3. What are the key factors delaying the appointments of patients?
4. How does the long waiting time affect patient satisfaction?
5. How can we streamline the process to reduce the waiting time?

1.5.Objectives of the study:

- To analyze the current waiting time in dermatology clinic
- To identify the key factors in the delay which leads to increased waiting time and delay in appointments.
- To assess the patient satisfaction due to long waiting time.
- To suggest the solutions and methods that could be adopted to reduce the waiting time.
- To test the hypothesis that the scheduling of appointments in dermatology clinic can be streamlined to reduce the waiting time

1.6.Study Design & Methods:

Methodology

- **Study Area**: Burjeel Hospital, Abu Dhabi
- **Sample Unit:** Patients of Burjeel Hospital, Abu Dhabi
- **Research Design**: Descriptive Study
- **Method of data collection**: Through direct observations

Sampling design

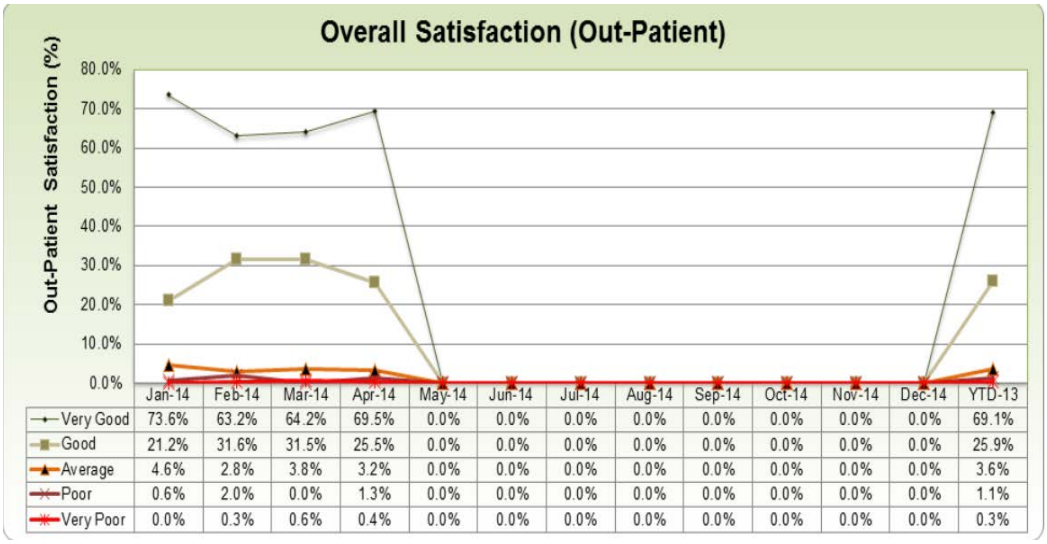
- Total Patients (April) – 2452
- Doctor A (with maximum patients) -824
- Based on 20% sampling
- Sample Size -165
- Sample Size taken :193
- Sample Design: Convenient Sampling
- Duration- Prospective-3 week/ Retrospective- 1 Month

Data collected:

- Registration time of patient
- Appointment time of patient
- Actual Consultation time of patient
- Feedback forms
- Process flow in hospital

1.7.Results:

Patient satisfaction:

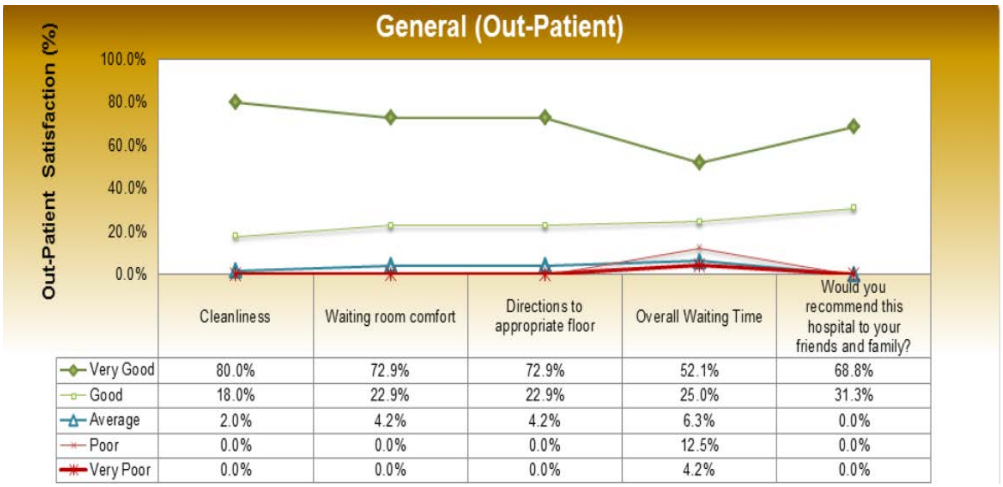


	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	YTD-13
Very Good	73.6%	63.2%	64.2%	69.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	69.1%
Good	21.2%	31.6%	31.5%	25.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.9%
Average	4.6%	2.8%	3.8%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.6%
Poor	0.6%	2.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%
Very Poor	0.0%	0.3%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%

Figure 1:Overall Patient satisfaction

Interpretation: The graph shows that patient satisfaction has dropped significantly in the period from the month of January 2014 to April 2014

Patient Satisfaction:



	Cleanliness	Waiting room comfort	Directions to appropriate floor	Overall Waiting Time	Would you recommend this hospital to your friends and family?
Very Good	80.0%	72.9%	72.9%	52.1%	68.8%
Good	18.0%	22.9%	22.9%	25.0%	31.3%
Average	2.0%	4.2%	4.2%	6.3%	0.0%
Poor	0.0%	0.0%	0.0%	12.5%	0.0%
Very Poor	0.0%	0.0%	0.0%	4.2%	0.0%

Figure 2:General Out Patient Satisfaction

Interpretation: The graph shows that patient feedback with regard to "very good" has declined . Also the feedback reveals that other factors except waiting time are satisfactory.

Retrospective study -March

Waiting time analysis in March:

Number of patients –March

Doctor on duty	Count of Registration Date
A	823
B	779
C	481
D	369
Grand Total	2452

Figure 3: Total Patients in March

Interpretation: The total OPD for the month of March was 2452 including patients of Doctors with Doctor A catering to maximum number of patients of 823.

Average waiting time-March:

Doctor on duty	Average of Waiting Time in minutes
A	0:34:58
B	0:37:22
C	0:34:32
D	0:21:15
Average Waiting time	0:31:11

Figure 4:Average Waiting time in March

Interpretation: Based on study outputs it was found that the average waiting time for per patient was 32 minutes with maximum waiting time being 34 minutes and minimum being 21 minutes

Retrospective –March (Week Wise)

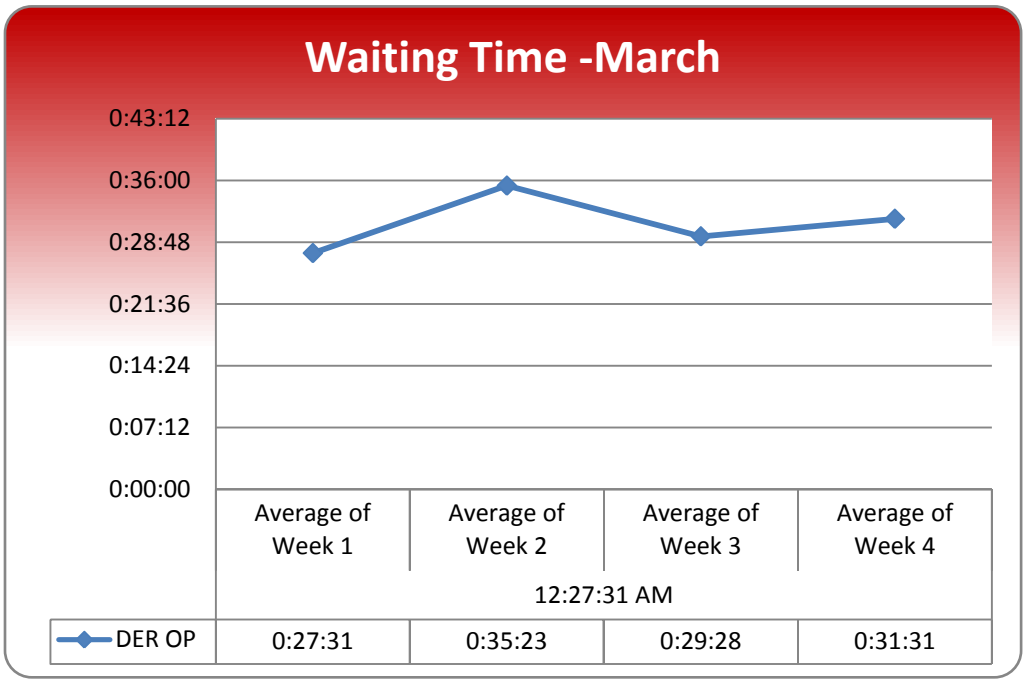


Figure 5:Waiting time in Mar(week wise)

Interpretation: The Graph shows that maximum waiting time was observed in the second week of march and minimum in the first week of march.

Prospective –April and May:

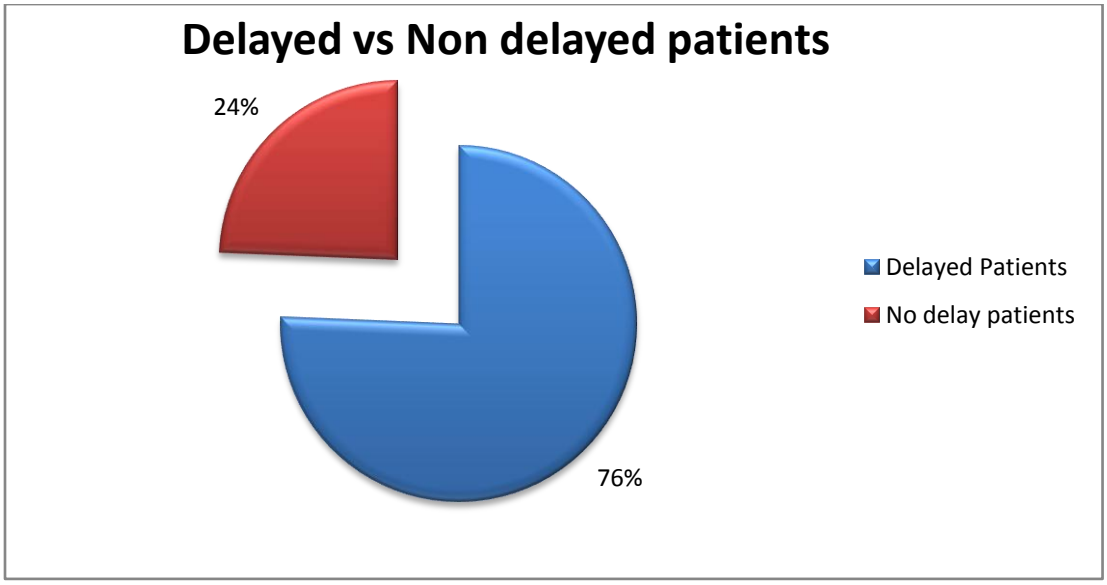


Figure 6:Delayed vs Non delayed Patients

Interpretation: The pie chart shows that 76% of the patients were delayed and only 24% of the patients were attended by doctor on time which states that maximum number of patients were delayed.

Waiting Time: Day Wise

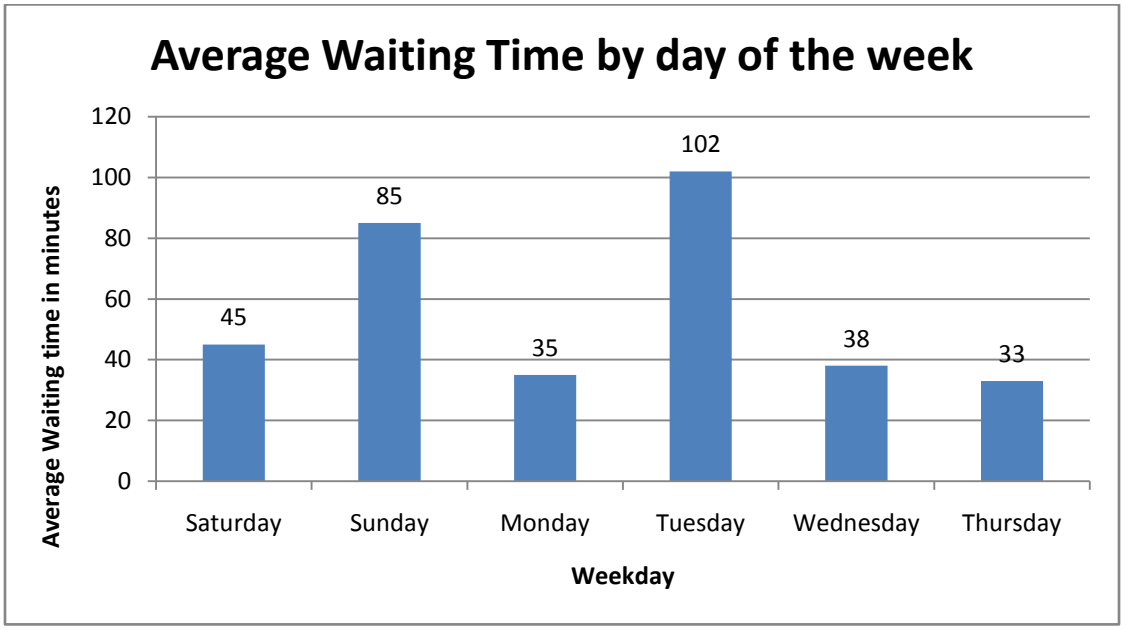


Figure 7:Waiting time in March (by day of the week)

Interpretation: The graph shows that maximum number of appointments are delayed on Tuesdays followed by Sundays whereas on Monday Wednesday and Thursday comparatively less number of patients are delayed.

Average wait time: Total Patients 193

Average Waiting time =33 minutes

Reasons for delay

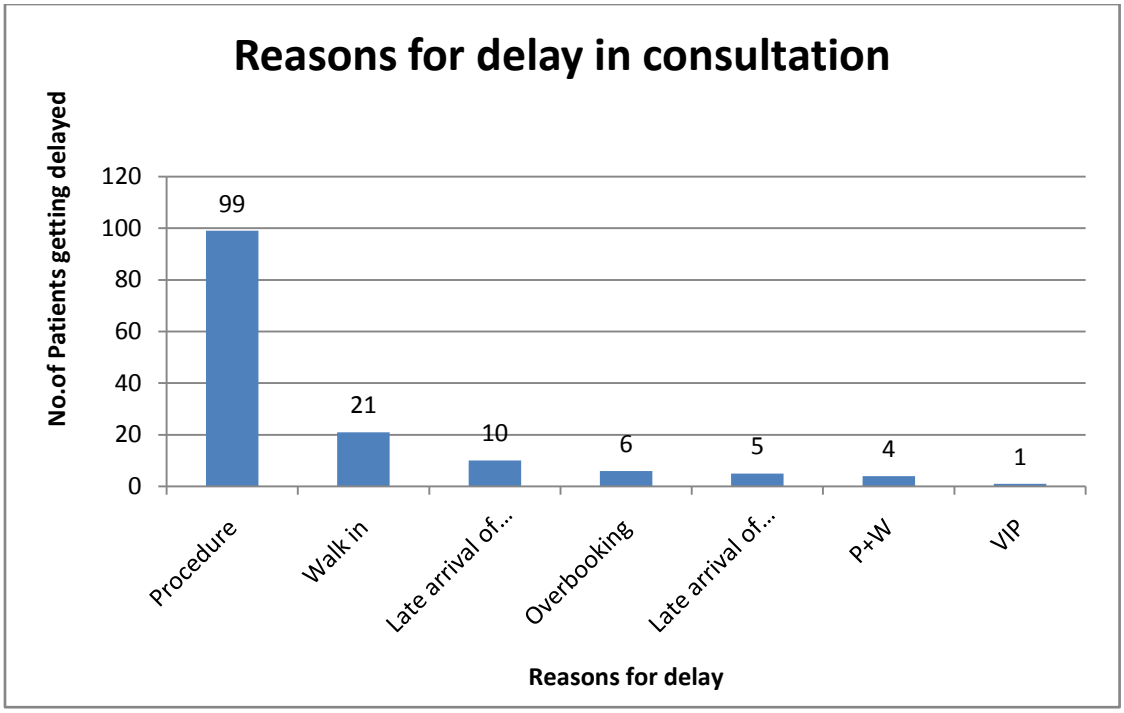


Figure 8:Reasons for Delay in Consultation

Interpretation: Based on the study it was found out that, the maximum number of patients were delayed because of the procedures done in between the appointments and also because of the walk in patients (who themselves wait for long and subsequently delay the appointment patients).

1.8.Discussions & Conclusion:

The findings of the study shows that in the month of March the average waiting time was 32 minutes on an average for the month of march with highest waiting time in the second week. The waiting time was …….in the month of April and 76% of the patients were delayed and only a small proportion of 24% of patients were taken in time which is the cause of patient dissatisfaction .

Also the maximum number of patients was delayed on Tuesdays followed by Sundays than on any other day of the week.

The main reason for the delay of appointments for patients was because of the procedures done in between the consultations and also because of the walk in patients accepted which alter the schedule of the appointment patients.

Recommendations:

1. Scheduling the procedures:

Because of the random appointments given in the clinic, procedures are clubbed together sometimes which becomes unmanageable practically. Since the procedure takes 20 -25 minutes so permanent slots can be blocked in intervals throughout the day so the doctors can proceed with the consultations without any delay between the procedures.

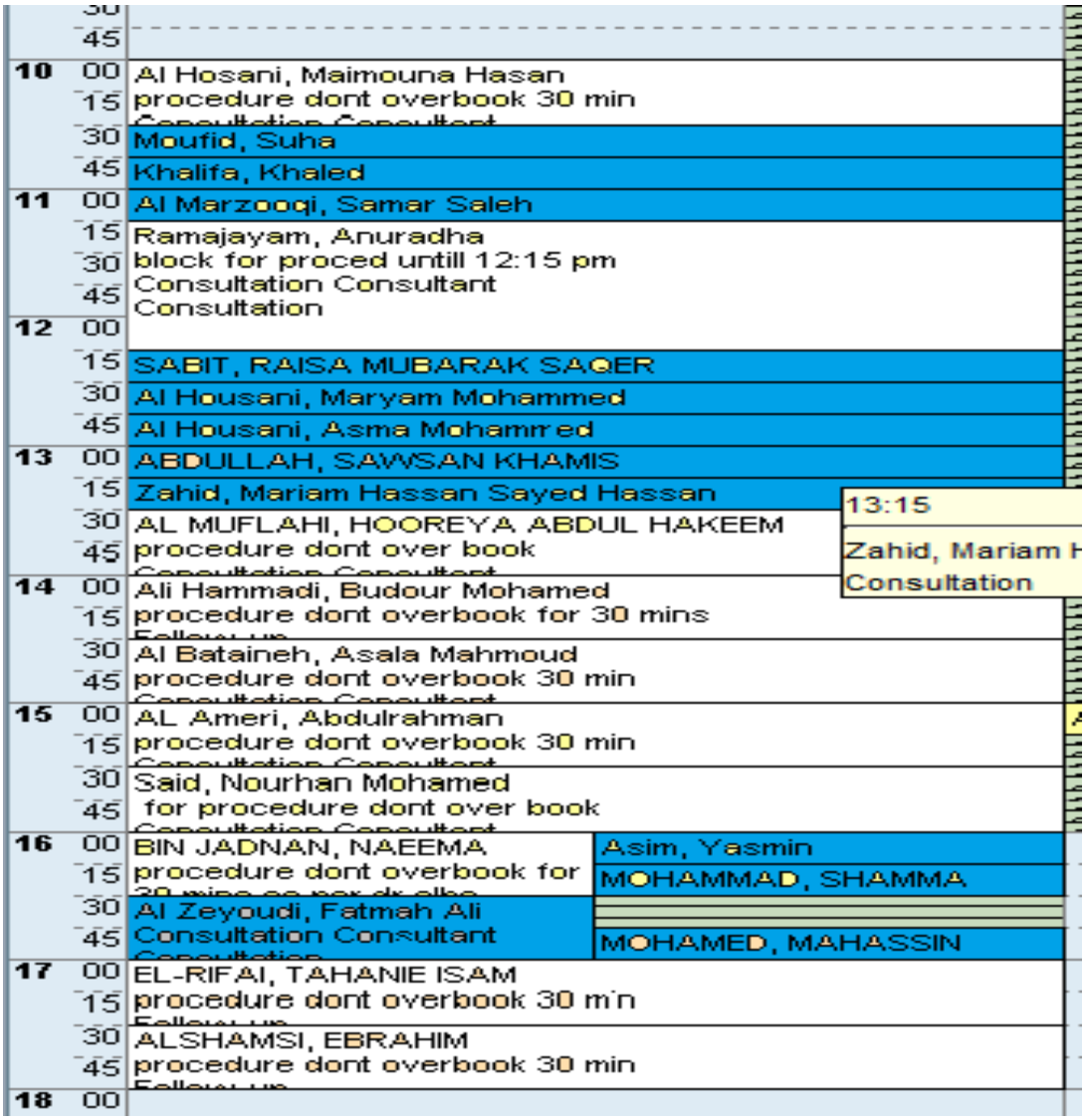


Figure 9:Screenshot of SAP

The screenshot showing appointments scheduled on 28.05.2014 **wherein all the procedures are clubbed from 13:30hrs to 16:30 hrs and also from 17:00 hrs to 18:00 hrs (in white) and no time has been allotted for preparation of new patient by the nurse(one nurse).**

2**. Suggested Appointments:**

8:00	Consultation
8:15	Consultation
8:30	Consultation
8:45	Consultation
9:00	**Block**
9:15	**Block**
9:30	**Block**
9:45	Consultation
10:00	Consultation
10:15	Consultation
10:30	**Block**
10:45	**Block**
11:00	**Block**
11:15	Consultation
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13:15	Consultation
13:30	Consultation
13:45	Consultation
14:00	**Block**
14:15	**Block**
14:30	**Block**
14:45	Consultation

15:00	Consultation
15:15	Consultation
15:30	**Block**
15:45	**Block**

The Suggested appointment slot shows that delay due to arrival of doctor can be minimized

- By starting the shift with consultation whereby the nurse can prepare the procedure patient

  In the meantime.
- Keeping consultations in between the appointments gives time for the preparation of the procedure patient by the nurse.
- The procedure appointments can be more organized by confirming the appointments beforehand and also by informing the patient about early arrival for preparation

3. Walk in slot:

To avoid overbooking and counter the rising no show rate a common walk in slot can be created in addition to the existing appointment slots for all the four doctors so as to estimate the number of walk in per day and then can be accommodated subsequently. Walk in slot can be created as per the availability of more number of doctors in the clinic.

Diagrammatic Flow

Timings	Doctors
8-10	2
10-13	3
13-16	**4**
16-18	3
18-21	1

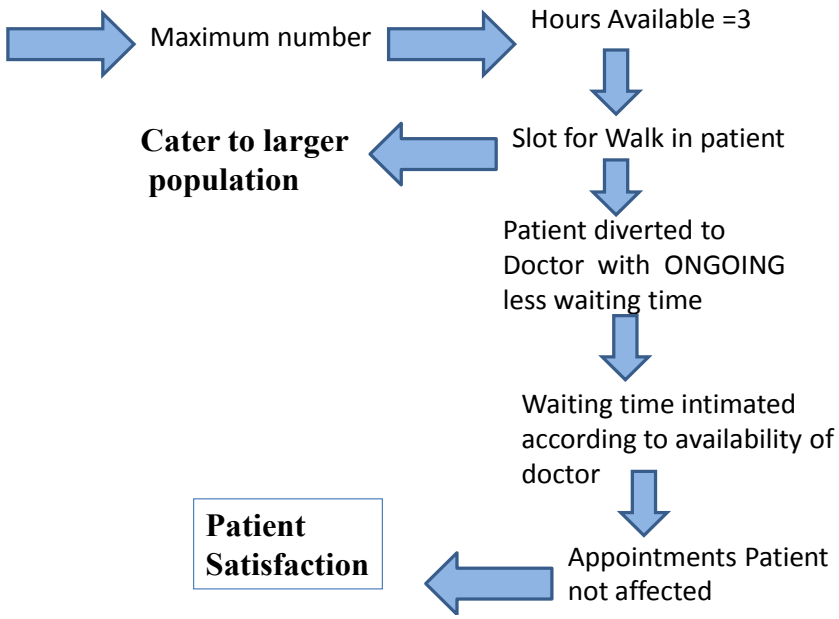

Figure 10:Proposed Scheduling Model

Interpretation: The table shows that the walk in slot can be created when maximum number of doctors are available .For Example in the abovementioned table 13:00-16:00 - 4 doctors available.

- Also **2 Doctors are needed to support the clinic in the evening** instead 2 in the morning from 8:00-10:00 hrs because of less footfall of patients in these hours.
- A **technician** to be hired to perform the procedures like Laser etc so doctor spends more time on direct patient care.
- **A second nurse** for the doctor who is doing a procedure, so consultations can be carried out smoothly while preparation of another procedure patient.

Conclusion:

The dermatology department serves maximum population either for cosmetics or for emergency services. So in either case the patients have a resistant towards waiting for long.

By scheduling the procedures and consultation appointments in an organised manner for the whole day and also by increasing the manpower, the patients can be attended smoothly without long waiting time .Hence patient satisfaction level can be raised which eventually will maintain or increase the footfall

1.9.References

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- science**cases**.lib.buffalo.edu/cs/collection/detail.asp?**case**_id=607&
- www.isixsigma.com/implementation/case-studiesP