Streamlining Out-Patient Services: A Step towards Reducing Patient Wait-Time

Internship Training
at

(February 1-May 30, 2014)

By
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Under the guidance of
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Post Graduate Diploma in Hospital & Health Management
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Institute of Health Management Research
Jaipur
2014

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TO WHOMSOEVER MAY CONCERN

This is to certify that ***Dr Gagan Dhawan*** student of post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management Research, Jaipur has undergone internship training at Medanta, the Medicity from ***February 1,2014 to April 30,2014.***

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

The internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

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

Dr.Tanjul Saxena
Associate Professor
IIHMR, Jaipur

Global Health
Private Ltd.

Date: 21st May 2014

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Gagan Dhawan** student of **IIHMR, Jaipur** has done her 3 months internship in the department of **Medical Administration** and has successfully completed her project on **"Streamlining Out Patient services: A step towards reducing Patient wait time "** from **1st February 2014** to **30th April 2014** with **Global Health Private Limited (GHPL), Medanta The Medicity Hospital, Gurgaon (Haryana).**

Very truly yours,

For **Global Health Private Limited**

Monica

Authorized Signatory

MEDANTA-THE MEDICITY
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INSTITUTE OF HEALTH MANAGEMENT RESEARCH, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled 'Streamlining the Outpatient Services: A step towards reducing patient wait-time' submitted by Dr. Gagan Dhawan, Enrollment No. 1309 under the supervision of Dr. Tanjul Saxena for award of Post Graduate Diploma in Hospital and Health Management of the Institute carried out during the period from 03rd February 2014 to 30th April 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.

Gagan Dhawan 23/05/14

Signature

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ACKNOWLEDGEMENT

A journey is easier when you travel together. Interdependence is certainly more valuable than independence. This project report is the result of three months of training whereby I have been accompanied and supported by many people. It is a pleasant aspect that I now have the opportunity to express my gratitude for all of them.

I convey my heartfelt thanks to Dr. Naresh Trehan, Chairman and Managing Director, Medanta- The Medicity, Gurgaon, Haryana for granting me the opportunity to work with this resourceful organization.

I express my sincere gratitude to Mr. Pankaj Sahni , Chief Operating Officer, Medanta for guiding me and granting me the enviable honor and rare privilege to work as Floor Manager of Emergency Department, at Medanta during the study period.

I am also thankful to Dr. Awadhesh Dubey, Medical Superintendent, Dr. Sumana Arora (Deputy Medical Superintendent) and Ms. Soma Chatterjee for immense guidance and help during my dissertation.

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At last I would like to express my adoration and regards to my parents for their patience, consistent motivation and affection for me to surpass the hurdles in my life.

Dr. Gagan Dhawan

PGDHM- 17th Batch

IIHMR-Jaipur

LIST OF ABBREVIATIONS:

ABG	ARTERIAL BLOOD GAS
ADR	ADVERSE DRUG REACTION
CCU	CORONARY CARE UNIT
COO	CHIEF OPERATING OFFICER
CT	COMPUTED TOMOGRAPHY
ED	EMERGENCY DEPARTMENT
EM	EMERGENCY
ER No	EMERGENCY EPISODE NUMBER
EMO	EMERGENCY MEDICAL OFFICER
ENT	EYES NOSE THROAT
F & B	FOOD AND BEVREGES
HCC	HEART COMMAND CENTER
HDU	HIGH DEPENDENCY UNIT
HIS	HOSPITAL INFORMATION SYSTEM
HMIS	HOSPITAL MANAGEMENT INFORMATION SYSTEM
HR	HUMAN RESOURSE
ICCU	INTENSIVE CARDIAC CARE UNIT
ICU	INTENSIVE CARE UNIT
IP No	INPATIENT EPISODE NUMBER
IPD	INPATIENT DEPARTMENT
JCI	JOINT COMMISSION INTERNATIONALE
LAB	LABORATORY
LAMA	LEAVE AGAINST MEDICAL ADVICE

MLC	MEDICO LEGAL CASES
MRD	MEDICAL RECORD DEPARTMENT
MRI	MAGNETIC RESONANCE IMAGING
MS	MEDICAL SUPRINTENDENT
NCR	NATIONAL CAPITAL REGION
OBH	OBSERVATION AND HOLDING AREA
OPD	OUT PATIENT DEPARTMENT
OT	OPERATION THEATRE
OT	OPERATION THEATRE
PET CT	FOOD AND BEVERAGES
RFA	REQUEST FOR ADMISSION SHEET
SOP	STANDARD OPERATING PROCEDURE
UHID	UNIQUE HOSPITAL IDENTIFICATION NO.

PART: A

HOSPITAL PROFILE
Medanta- The Medicity
Gurgaon

1. INTRODUCTION

medanta
THE MEDICITY
dedicated to life

1.1 HOSPITAL PROFILE

Medanta – The Medicity is one of India's largest multi-super specialty institutes located in Gurgaon, a bustling town in the National Capital Region. Founded by eminent cardiac surgeon, Dr. Naresh Trehan, the institution has been envisioned with the aim of bringing to India the highest standards of medical care along with clinical research, education and training. Medanta is governed under the guiding principles of providing medical services to patients with care, compassion, commitment.

Medanta – The Medicity brings together an outstanding pool of doctors, scientists and clinical researchers to foster collaborative, multidisciplinary investigation, inspiring new ideas and discoveries; and translating scientific advances more swiftly into new ways of diagnosing and treating patients and preventing diseases. A one-of-its-kind facility across the world, Medanta through its research integrates modern and traditional forms of medicine to provide accessible and affordable healthcare.

WHAT IS UNIQUE ABOUT MEDICITY?

Medicity aims to functionally integrate within one campus and one management the facilities of medical care, teaching as well as research and development. It also offers to explore the possibility of integrating knowledge of traditional and alternative medicine with modern medicine, through means of scientific research.

Medicity is led by Dr. Naresh Trehan, one of the leading luminaries in the medical world.

Dr Trehan is a recipient of various national and international awards for excellence including highest national awards Padma Shri and Padma Bhushan, in recognition of his distinguished service to the nation. He has also served as personal surgeon to the President of India since 1991 and was formerly President of the International Society for Minimally Invasive Cardiac Surgery.

Medicity's team has attracted some of the most distinguished names in medical and non medical fields from all over the world.

INFRASTRUCTURE

Located across 43 acres in the new international business destination of Gurgaon, Medicity will be a 1600-bed institute of world standards with over 45 operating theatres**,** 1260-bedded IPD, with 350 Critical care beds. 24 OTs and 704 bedded IPD are functional as of now.

EDUCATION

Medicity will have a full-fledged medical college, the objective of which will be to produce highly competent general physicians and specialists who are socially sensitive and fully committed to principles of medical ethics. It will also make every attempt to erase the dividing line between clinical and non-clinical areas.

RESEARCH AND DEVELOPMENT

Medicity will have a state-of-the-art research and development centre integrated with the hospital and the teaching establishment. It is planned to be one of the best funded, staffed and managed medical R&D centre in the country. Its Research Advisory Committee will consist of 12 members from amongst the best known names in modern biology, including various areas of medicine.

TRADITIONAL MEDICAL PRACTICES

An important objective of Medicity will be to validate – and integrate with modern medical system – those medical practices in our traditional and complimentary systems of medicine such as Ayurveda, Unani, Siddha and tribal systems that are compatible with science.

SPECIAL INTERNATIONAL SERVICES

Medanta offers personalized services to International patients that include Appointment Scheduling, Treatment Packages, Visa Assistance, and Hotel Reservations, among others, etc.

TELE-MEDICINE CENTRE

Has the state of the art technology and provides continuous access to various primary & secondary health centers in the remotest locations across India. It plans to connect 600 villages across India & provide connectivity to 56 African cities. Services Offered by Tele-medicine:-

- Tele-Consultation
- Tele-Diagnosis
- Expert's Opinion / Specialist's Opinion
- Live Surgeries
- Public Awareness programs
- Case follow-ups (Post-Surgery)
- CME Programs
- Tele-Conferences

Figure 1: ADMISSION COUNTERS

Figure 2: HI TECH INFRASTRUCTURE

Figure 3: IN PATIENT DEPARTMENT

Figure 4: AMBULANCE OUTSIDE EMERGENCY

Figure 5: MEDANTA- WHERE WORLD'S RENOWNED DOCTORS SERVE

MEDICAL TECHNOLOGY

- 256 Slice CT
- 3-D semi robotic targeted prostate biopsy system with MRI/TRUS fusion technology
- Brain Suite, Intra-Operative Imaging Operating Theater
- Da Vinci Robot for Minimal Invasive Surgery
- Artis- Zeego Endovascular Surgical Cath Lab
- 4 Linear Accelerators (provision for IGRT/ IMRT) (radiation surgery)
- Tomotherapy

- Integrated Brachytherapy Unit with remote controlled HDR
- 3.0 Tesla MRI
- PET CT
- Gamma Camera
- Digital X-Ray, Fluoroscopy, Bone
- Densitometry
- 3D and 4D Ultra Sound
- Digital Mammography

Medanta offers cutting edge technology and state-of-art treatment facilities designed to deliver healthcare at an *affordable cost*.

1.2 HOSPITAL PHILOSOPHY

VISION & VALUES

Institute is governed under the guiding principles of providing affordable medical services to patient with care, compassion and commitment.

OBJECTIVES

- To establish integrated tertiary care services incorporating over 20 super specialties of the highest quality.
- To form an integrated approach to achieve this where Pharmaceutical research, Biotechnology research and Health care delivery are conducted seamlessly.

- To incorporate the strengths of Traditional & Modern medicine to create newer therapies.
- To exploit potential of global healthcare by leveraging technology and hospitality services (medical value travel).
- To leverage the strengths for value added service in research and development, etc.
- To provide world class education and training.

POLICY

- **Integrity**-Medanta wants to be able to live by principles. Team Medanta work together to ensure the highest principles are adhered to and live by integrity and work by it.
- **Compassion**-Medanta's medical care professionals are people of compassion and empathy. Patients are not treated as numbers; they are referred to by name. Medanta staff cares about the patient's recovery and wellbeing.
- **Transparency**-Medanta will have the most transparent governance practices, outcomes and billing systems.
- **Affordability**-As medical care professionals, vision is to provide health care to all, and not just society's select few. Medanta endeavor to offer the best Medicare available at a reasonable, realistic cost. The overriding objective is to ensure that quality care is on offer to the widest possible strata of the community.
- **Futuristic medical Practice-** Medanta wants to be at the cutting edge of international medical practice. The techniques and equipment used are no different from what you would find in the most advanced economies of the

world. Medanta's specialist staff scours the globe for the best practice to bring it home to India.

1.3 HOSPITAL LOCATION

Medanta is strategically located in NCR, 8 minutes from the international airport. Seamless integration of various super specialties is evident (1500 beds, 350 critical care beds and 45 OTs), out of which 800 beds, 78 critical care beds and 14 OTs are already functional. Hotel/service apartments, residential and commercial complexes are also available.

AREA

Total covered area of about 4000,000 square meters.

1. LIST OF DEPARTMENTS & DIVISIONS VISITED

- Department of Clinical Immunology & Rheumatology
- Department of Dental Surgery
- Division of Endocrinology & Diabetes
- Division of ENT & Head Neck Surgery
- Department of General Surgery
- Division of GI & Bariatric Surgery
- Department of Hepatology and Liver Transplant
- Department of Urology and Andrology
- Department of Nephrology
- Department of Orthopedics and Joint Replacement
- Department of Neurosciences

- Department of Internal Medicine
- Department of Ophthalmology
- Division of Plastic, Aesthetic & Reconstructive Surgery
- Department of Pathology and Laboratory Medicine
- Department of Physiotherapy and Rehabilitation
- Department of Respiratory Medicine
- Division of Radiology & Nuclear Medicine
- Department of Transfusion Medicine (Blood Bank)
- Emergency and Trauma Care
- Pharmacy

1. SPECIALTIES VISITED

Medanta is a conglomeration of multi-super specialties institutes which are led by exceptional medical practitioners who are leaders in their respective fields. Attracted from all over the world with the vision to reach the highest levels, these medical leaders are determined to push hard for excellence in medical care and research.

Medanta brings together state-of-the-art infrastructure, cutting edge technology, and a highly integrated and comprehensive information system, along with a quest for exploring and developing newer therapies in medicine. A one-of-its-kind facility in this part of the world, through research Medanta will integrate modern and traditional forms of medicine to provide accessible and affordable healthcare.

Medicity provides integrated primary, secondary and tertiary care services spanning over 20 Super-specialties and high-end services in:

INSTITUTES

1. Heart Institute
   a. Division of Cardio Thoracic & Vascular Surgery
   b. Division of Cardiology
2. Institute of Neurosciences
3. Bone & Joint Institute
4. Kidney & Urology Institute
5. Cancer Institute

a. Division of Radiation Oncology
b. Division of Medical Oncology & Hematology

6. Institute of Critical Care & Anesthesiology
7. Institute of Digestive & Hepatobiliary Sciences
8. Institute of Minimally Invasive Surgery
9. Institute of Transplant and Regenerative Medicine

PART: B

INTERNSHIP
(Floor Manager-Out-Patient Department)
At Medanta, the Medicity
Gurgaon

1) Reporting to: OPD Incharge and Medical Superintendent.
2) Since Medanta is a young and growing organization a lot of learning opportunities and important job responsibilities lied in the role of a floor manager.
3) Out-Patient Department being the first point of contact for the patients plays a critical role in the hospital. OPD deals not only with consultations but also minor procedures that took place on Out-patient basis. The role of the Emergency Manager is challenging in itself as this part of the hospital has maximum footfall. It caters to the masses. Being shop window of the hospital, OPD experience of the patient influences his/her response towards other services.
4) In all, the following work responsibilities were provided by the organization-

    a) Ensure better patient experience, better queue management by the staff.
    b) Ensure that the rules and protocols are followed by all the staff members of OPD.
    c) Properly handling patient complaints and staff grievances.
    d) To resolve all issues related to queue management.
    e) The floor manager not only addresses patient's problems but also provides necessary information in case of any queries.
    f) Ensure availability of doctors on time.
    g) Manage security, housekeeping, billing and registration to ensure smooth functioning of the department.
    h) Analyze and streamline all the processes in the OPD and suggest reforms continuously.
    i) Ensure the regular updating of the Department Manuals.

j) Educate the departmental staff for the NABH protocols and interview them regularly to check the preparedness of the staff before NABH inspection
k) Coordinate with Quality Team for revision of various forms in the Department and the manuals.
l) Continuous review of patient waiting-time and reforms to minimize it.
m) Continuous review of HIS compliance of doctors.
n) Rescheduling the OPD appointments as per requirement.
o) Ensuring general up-keep of the department.
p) Coordinating with doctors for managing walk-in patients.
q) Coordinating with diagnostic services to ensure continuity of care.

Part C

DISSERTATION

Streamlining the Out-Patient Services: A step towards minimizing the patient wait-time.

1.1 EXECUTIVE SUMMARY

The study was taken because there was long waiting time for both walk-in and appointment patients. So, the purpose of this study was to come up with solution to minimize the waiting time and streamlining the patient flow. Streamlining of the patient was done by first studying the existing patient flow and then decreasing the number of contact points and also, training the nursing staff about the newly set process. After study the patient flow and handling the patient complaints, it was found out that long waiting time has more than one cause. So, decreasing the waiting time required working on all aspects of these causes, which included, tracking the delays in starting the OPD, appointments rescheduling and appointment slot redesigning. Also, high number of walk-in patients and long waiting time for them was one of the major challenges, which required making provision for walk-ins in the appointment schedules of the doctors.

After taking the appropriate measures, it was found that, waiting time for walk-in patients and appointment patients decreased by around 49% and 13% respectively.

1.2 INTRODUCTION

Hospitals these days have a separate Out Patient Department or OPD, which acts as first point of contact between the hospital and patient. The advantage of having an OPD is that much of investigative and curative work can be done here without admitting the patient in the hospital thus saving medical expenses and avoiding disruption of work and family life for patient.

OPDs act as a window to hospital services and a patient's impression of the hospital begins at the OPD. This impression often influences the patient's sensitivity to the hospital and therefore it is essential to ensure that OPD services provide an excellent experience for customers. It is also well-established that 8-10 per cent of OPD patients need hospitalization. When well organized and

professionally run, not only can such OPDs help avoid confusion, frustration and overspending by fearful patients but can also regulate the flow of inpatients to the hospitals. Having observed this, hospitals today are making changes on various fronts to streamline this area. It is crucial to manage time well and optimize its use for both consultants as well as patients. The situation is challenging with more visiting consultants serving hospitals. Since today many doctors are fee-for-service consultants and operate in more than one hospital it is not easy for the patient to find out whether the particular consultant he is looking for is indeed available in the OPD, especially surgeons who are often in the theatre. The patient might have to wait a while before the consultant is free.

- 'Why I have been given an appointment at 11:00am if my Doctor doesn't arrive at this time?' –*patient voice.*
- 'What is the purpose of booking an appointment if I still have to wait' – *patient voice.*
- Every half an hour my turn is extended in the queue, how long I have to wait if I don't have an appointment with Doctor? –walk-*in patient*

From the above comments of the stakeholders i.e. the patients of the hospital gives us a clear idea about the problems faced at OPD by patients as well as hospitals. A well planned and well designed OPD can help better market a hospital as well as reduce patient anxiety.

Hospitals must set up systems in consultation with doctors to ensure that doctors and everybody else understands why they have to be on time, and how much time is allotted for each consultant so that patients are not kept unnecessarily waiting. A Dedicated full time doctor can make a huge difference in this scenario. As most patients, whether new or old, prefer to come to the hospital in the morning, there is

always a crowding of outpatients. Moreover, the doctors would like to see the patients in the mornings and many a times patients also come without appointments. We can say that an important area to improve upon is the appointment and scheduling system. The heavy rush of patients in peak hours leads to long queues to meet the concerned doctors and keeping an appointment is becoming difficult for the doctors as well as patients due to inaccurate estimation of time for doctors and patients. An effective centralized appointment system for doctors can help in retaining patients. It is integral to provide a single point of contact for scheduling and cancelling appointments which can help save time and increase efficiency for the hospital as well as for doctors. This will reduce incidences like when patients coming to hospitals find that the doctors haven’t come for the OPD etc.

Along with an efficient scheduling system, well-groomed and efficient billing and front office staffs is key to the efficient functioning of OPDs. Soft skills like customer focused and process centric training to the OPD personnel and creating a culture of empathy and compassion for patients in the OPD should be high on the agenda of today's hospitals. When the patient finds that there is a friendly and efficient person available to greet them, to give them information and attend to any needs they may have, they feel secure and it helps in reducing patient apprehension. The front office executives should also have a good knowledge of the various common procedures. Besides dedicated chambers for doctors, experts also emphasize having special co-coordinators and nursing staff available at the OPD desk. Smart secretaries can be appointed for the consultants, who would feel the pulse of the patients and make suitable small adjustments, so that those in a hurry may be allowed to see the doctors on priority without offending those who are waiting for long.

The major hindrances in proper working of a hospital are Poor facility planning and space allocation for specialties, dispersed functionally related departments, OPD and IPD activities like reception, billing, and diagnostics etc. When carried out on the same floor can cause major confusions on the floor.

1.3 REVIEW OF LITERATURE:

PATIENT SATISFACTION AT THE MUHIMBILI NATIONAL HOSPITAL IN DAR ES SALAAM, TANZANIA- E.P.Y. Muhondwa, M.T. Leshabari, M. Mwangu, N. Mbembati, M. J. Ezekiel:

In this Patient Satisfaction study, the authors examined the extent to which patients at the Muhimbili National Hospital (MNH) were satisfied with the services and care they received at MNH outpatient services. This was part of a baseline study that sought to determine the level of performance of the hospital before massive restructuring, reform, and renovations were undertaken. Exit interviews were the main research method used to determine patient satisfaction. Patients were interviewed as they were leaving the OPD clinics, laboratory, X-ray, pharmacy and inpatient wards. It was evident in this study also that Waiting time and staff behavior was crucial for OPD patients as in the study patients expressed complaints about staff shortage and poor behavior of members of staff, and the time patients spent waiting for services.

With specific reference to the poor behavior of staff, the patients complained about their use of humiliating words while attending patients. Patients felt that the speed at which services was provided were very slow. This in turn led to patients milling around in the hospital for a long time. Patients reported that they spent a long time waiting for consultation.

STUDY ON OUTPATIENTS' WAITING TIME IN HOSPITAL UNIVERSITY KEBANGSAAN MALAYSIA (HUKM) THROUGH THE SIX SIGMA APPROACH: Abdullah Hanafi Mohamad.

In this study the purpose was to identify the various procedures at the outpatient clinic as

Well as to investigate the possible operational problems that may lead to excessive patients' waiting time. A patient's experience in waiting time will radically influence his/her perceptions on quality of the service. The study was carried out in one of the teaching hospitals in Kuala Lumpur, Malaysia – Hospital University Kebangsaan Malaysia (HUKM). The subjects were outpatients who came to the outpatient clinic at HUKM. In this study the author identified 3 main causes as contributing factors for excessive waiting time at the OPD for the patients which are- the registration time, insufficient number of counter service staff and insufficient number of doctors. Attempts should therefore be made to reduce the registration time as well as to improve the doctor-patient ratio.

EVALUATION OF SERVICE QUALITY OF HOSPITAL OUTPATIENT DEPARTMENT SERVICES- Col Abhijit Chakravarty:

This study was conducted at a 99 bed peripheral service hospital with basic specialist facilities by designing a cross sectional study of patients attending the OPD of the hospital. Every third patient who had utilized the OPD services of the hospital at least once before the current visit was requested to respond to the self-administered questionnaire on-site. Patients were assured full confidentiality and anonymity and requested to complete the survey while waiting for their supply of medicines at the dispensary after completing the doctor's consultations. It was found that there was high dissatisfaction due to high waiting time before consultation in OPD patients, also Statistically significant quality gap was also

observed between expectation and perception observed against the necessity of prompt service and prompt response by OPD staff. This deficiency possibly referred to requirement for additional inputs in behavioral training of OPD staff. However, it may also be interpreted as inadequate staffing of the OPD, as dependable and helpful OPD staff is
not being able to deliver prompt service, though willing to do so.

A CROSS-SECTIONAL STUDY OF PATIENT'S SATISFACTION TOWARDS SERVICES RECEIVED AT TERTIARY CARE HOSPITAL ON OPD BASIS: Patavegar Bilkish N, Shelke Sangita C, Adhav Prakash, Kamble Manjunath S.

In this study the relation between patient waiting time and satisfaction of patient from the OPD services were highlighted as one of the main factors contributing towards the reputation of the hospital. The main objective of the study was to measure the satisfaction of OPD patients in tertiary care hospital and to know the relationship between various determinants & OPD patient's satisfaction. The authors also highlighted that the Patient's satisfaction depends on many factors such as quality of clinical services provided, availability of medicine, behavior of doctor and other health staff, cost of services, hospital infrastructure, physical comfort, emotional support and respect for patient preferences. Patient satisfaction is recognized as an important parameter for assessing the quality of patient care services. The authors also found a statistically significant association between waiting time before consulting the doctor and total satisfaction. (p-value =0.001) Patients are already in pain or sufferings. Naturally they want to visit doctor as early as possible to get relieved from the sufferings. After consulting doctor patients wants to take treatment as early as possible so that they get relieved from sufferings. They wish to get drugs as early as possible. Patients who wait for longer time naturally had less satisfaction level.

TIME, EXPECTATION AND SATISFACTION: PATIENTS' EXPERIENCE AT NATIONAL HOSPITAL ABUJA, NIGERIA- Oluwagbenga Ogunfowokan, Muhammad Oora:

The objectives of this study were to determine the time spent by patients at the service points in the general OPD of the National Hospital Abuja (NHA), to establish the perception of patients regarding the patient–clinic encounter time, and to describe the level of satisfaction of patients with the services received. For which a cross-sectional study was conducted at the general OPD of the NHA. Information relating to the time spent at the various service points amongst others were obtained from 320 randomly selected patients using a patient administered validated questionnaire. It was found that the reduction in patient–clinic encounter time and meeting patients' pre-visit expectations could significantly improve patient satisfaction after clinic visit encounter at the general OPD of NHA.

1.4RATIONALE

The purpose of study was to understand the OPD patient flow process and come up with reforms to reduce patient wait time and then measure the effect of the reforms. It was seen that 92% patient complaints in OPD were about long waiting time. 50.06% of OPD patients came in as walk-ins, yet there was no provision in appointment schedule for walk-in patients. So long waiting times for walk-in patients was one of the biggest challenges. As OPD is first point of contact for most of the patients, their experience here determines their behavior towards other hospital services.

1.5 AIM

To understand the OPD flow process and reduce patient waiting time in the OPD of the hospital.

1.6 RESEARCH QUESTION:

1. What are the reasons of long waiting time in the OPD?
2. What can be done to reduce long OPD waiting time?

1.7 OBJECTIVES:

- To calculate the waiting time for appointment and walk-in patients.
- To study the relation of waiting time with number of walk-in patients.
- To access the need for increasing the number of appointment slots, if any.
- To study the effect of slot redesigning on waiting time.

1.8 METHODOLOGY:

Sampling method: systematic stratified sampling.

Sample size: 6% patients of all doctors were followed.

Study design: cross sectional analytical study.

Study area & duration: Gastroenterology Out-patient department of 1200 bedded multi-super specialty hospital. Duration of the study was from Feb ’14 to April ’14.

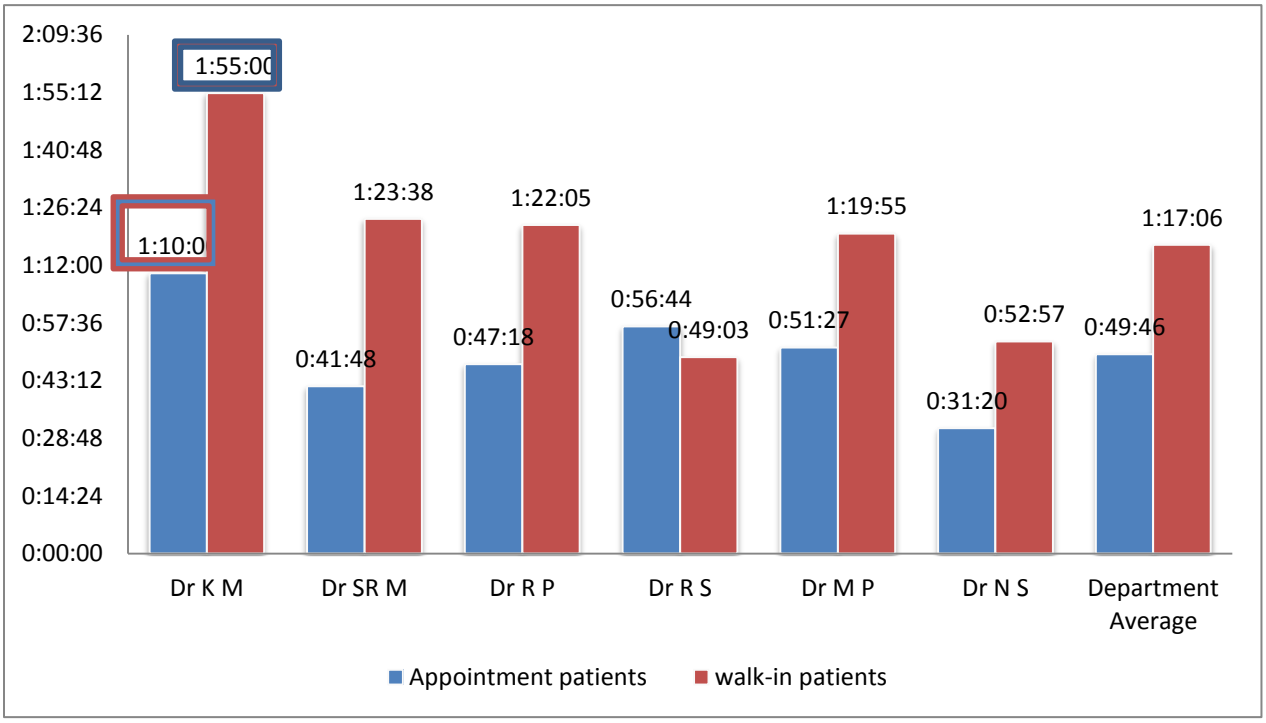
Data analysis: was done using Microsoft Excel 2007 and SPSS 16.0

1.9 Ethical Considerations:

- The data collected from the records is kept confidential and anonymous.
- The anonymity, privacy and confidentiality of the respondents was ensured
- The data collected will only be used for research purposes.

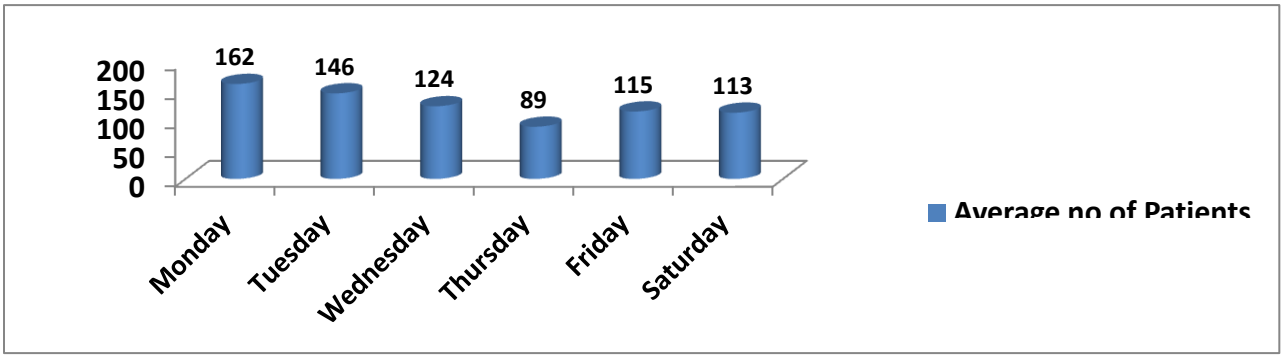
1.10 DATA ANALYSIS AND INTERPRETATION:

Graph 1.1:



Graph1.1 shows the doctor wise waiting time for appointment and walk-in patients. It was seen that waiting time for Dr KM is maximum, being 1hour 10 minutes for appointment patients and 1 hour 55 minutes for walk-in patients. Average waiting time for the department was 49 minutes for appointment patients and 1 hour 17 minutes for walk-in patients.

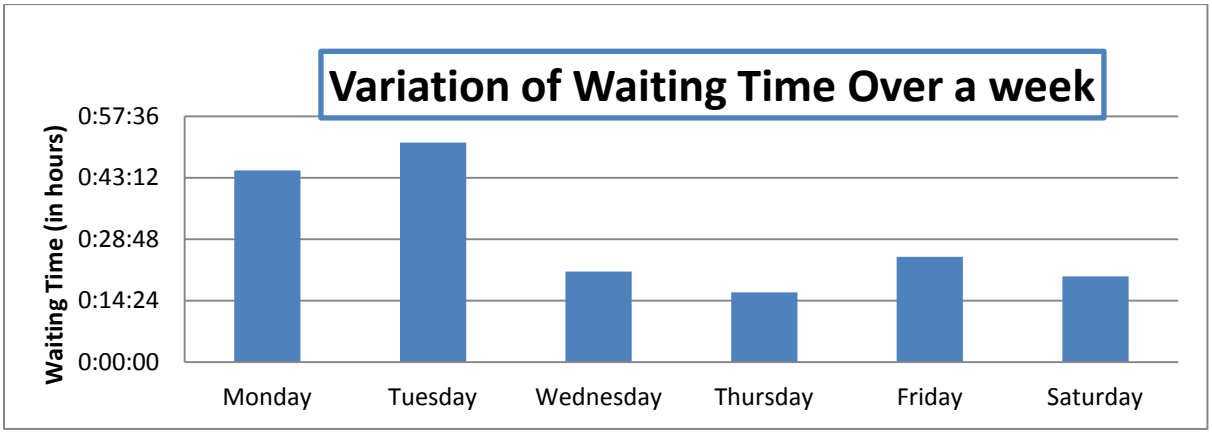
Graph 1.2:



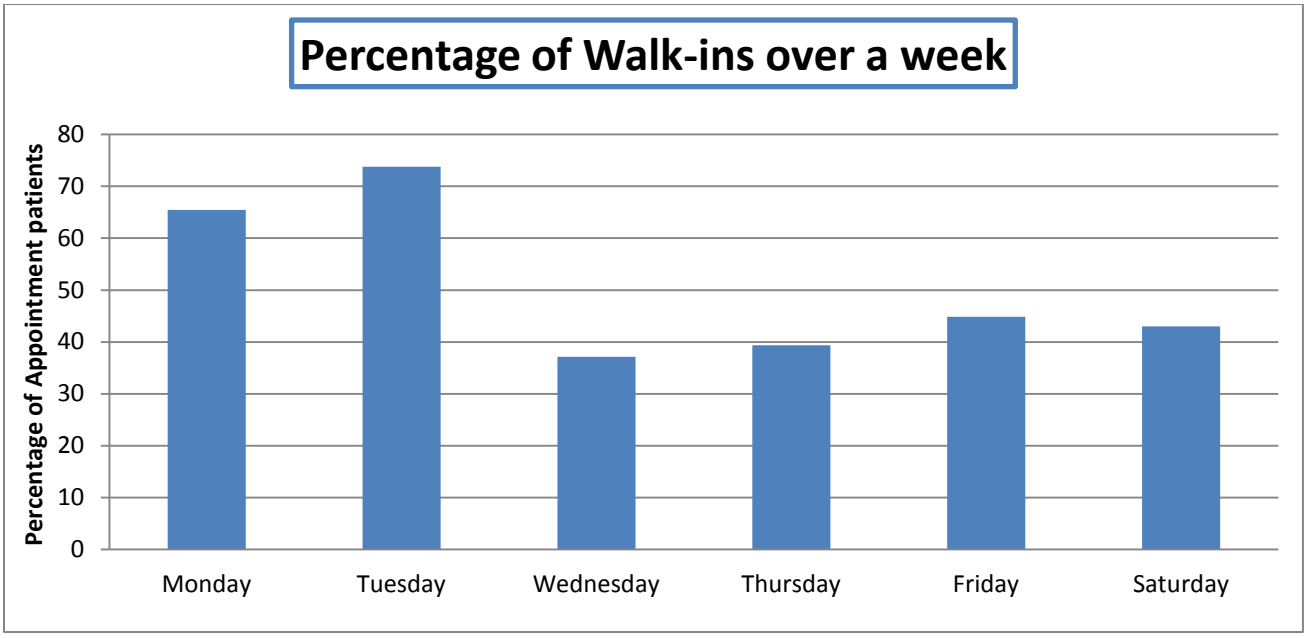
Graph shows the variation of number of patients over the week, maximum patients were catered on Mondays and Tuesdays and minimum on Wednesdays. Thus there was uneven flow of the patients over the week, leading to increased waiting time on Mondays and Tuesdays.

Variation of waiting time over the week follows the same pattern as the variation in number of consultations over the week and number of walk-ins. Days with more number of consultations and walk-ins have more waiting time.

Graph 1.3



Graph 1.4:



Graphs 1.3 and 1.4 show that patient wait time over the week followed the same time as the percentage of walk-in patients over the week. Thus when correlation test was applied, the value of R came out to be 0.98, suggesting strong positive correlation.

Table 1.1

DAY	Consultations	Slots	Shortage	% Shortage
Monday	185	131	54	41.2
Tuesday	152	128	24	18.8
Wednesday	101	78	23	29.5

Thursday	77	65	12	18.5
Friday	105	101	4	4.0
Saturday	93	73	20	27.4
AVERAGE				**23.20%**

Table1.1 shows the discrepancy between number of slots available of week's days and average number of consultations done. Thus, suggesting the need for increasing the number of appointment slots.

Suggestions:

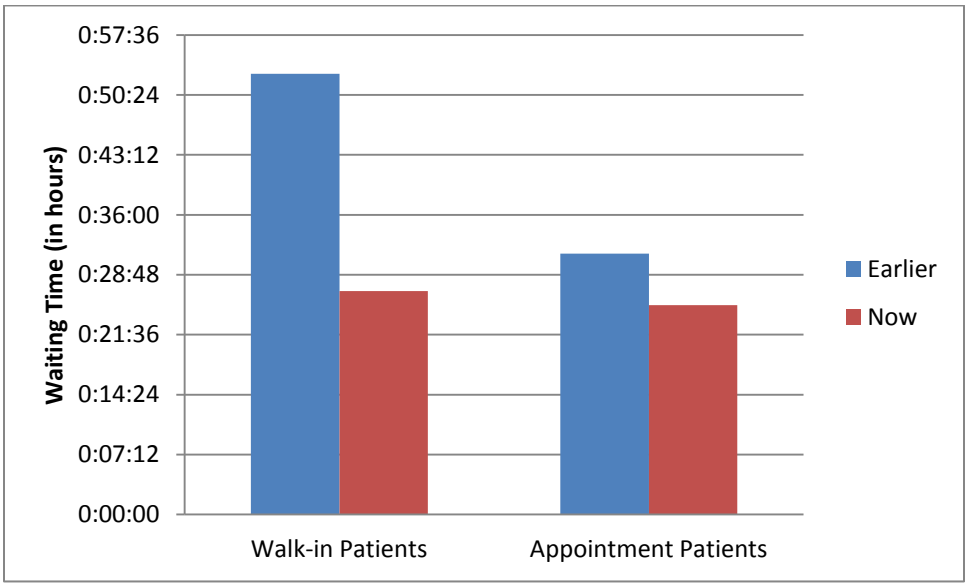
- Redesigning the appointment slots.
    a) Increasing number of appointment slots to accommodate follow up patients and to convert walk-in to appointment patients.
    b) Introducing buffer slots among appointment slots to accommodate walk-in patients, this will reduce the waiting time for walk-in patients.
- Educating patients about booking an appointment before coming for consultation. (Bilingual Leaflets for OPD patients) to convert maximum number of walk-ins into appointment patients.
- Designated 'On call' Gastro-Physician for walk-in patients. So that walk-in patients don't have to wait for OPD of specific Doctor to start. This will help reduce the waiting time for outliers.

- For delay in start of OPD, any delay of more that 15 minutes will be recorded and the weekly report will be shared with chairman of the department.

Results of redesigning the slots:

On increasing the number of slots and adding buffer slots, the waiting time of patients, especially walk-ins came down drastically.

Graph 1.5:



Graph1.5 shows the decrease in waiting time of the walking patients and appointment patients decreased by 49.29% and 19.73%respectively.

Null hypothesis: there was no decrease in the waiting time of the patients post-intervention.

H1: there was significant decrease in waiting time of the patients post-intervention.

On applying chi-square test, calculated value came out to be 0.0123 and tabulated value is 0.00393. Thus, null hypothesis was rejected. So, there was significant decrease in the waiting time of the patients.

This is beginning, waiting time is expected to reduce further, as training of staff and patient education will follow the learning curve.

1.11 Conclusion

In OPD, waiting time for the patients is one of the major key performance indicators for OPD manager. It also is the indicator for the smooth functioning of the OPD. Patient satisfaction also depends on waiting time. After 30 minutes of waiting time, the patients' satisfaction level starts to fall. Thus keeping it minimal is essential for the better functioning of an out patient department. The process of reducing wait-time requires converting maximum number of walk-in patients to appointment patients, so that they arrive on their appointment times and don't have to wait. Also, it requires making provision for them in appointment schedule. Major challenges faced during redesigning of the slots were, resistance from the staff and education/motivating the patients to book a prior appointment.

1.12 References

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1.13Annexure:

1.13 a Format used for collecting data on patient wait-time.

DATE	DOCTOR	UHID	Arrival Time	Appointment time	Consultation time	WAIT TIME

1.3 b Earlier Slotting format:

Time	Patient Details	visit type	Reason for Contact	Contact Details
12:00-12:10				
12:10-12:20				
12:20-12:30				
12:30-12:40				

12:40-12:50				
12:50-1:00				
1:00-1:10				
1:10-1:20				
1:20-1:30				
1:30-1:40				
1:40-1:50				
1:50-2:00				

1.3 c New Slotting format:

Time	Patient Details	visit type	Reason for Contact	Contact Details
12:00-12:06				
12:06-12:12				
12:12-12:18				
12:18-12:24	blocked			
12:24-12:30				
12:30-12:36				
12:36-12:42				
12:42-12:48	blocked			

12:48-12:54				
12:54-1:00				
1:00-1:06				
1:06-1:12	blocked			
1:12-1:18				
1:18-1:24				
1:24-1:30				
1:30-1:36	blocked			
1:36-1:42				
1:42-1:48				
1:48-1:54				
1:54-2:00	blocked			