

Study on Patient Discharge Process at Thumbay Hospital, Hyderabad

By

K. Dilip Varma

*Dissertation submitted in partial fulfillment of the requirements of the degree
MBA Hospital and Health Management*

Academic year, 2017-2019



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: www.iihmr.edu.in

Study on Patient Discharge Process at Thumbay Hospital, Hyderabad

By

K. Dilip Varma

*Dissertation submitted in partial fulfillment of award of
MBA Hospital and Health Management*

Academic year, 2017-2019

Thumbay Hospital New Life, Hyderabad



The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan

Ph: 0141 3924700, Fax: 3924738

Website: www.iihmr.edu.in

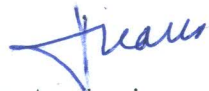
TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr.Dilip Varma**, student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at **Thumbay Hospital New Life, Hyderabad** from **6th Feb to 6th May 2019**.

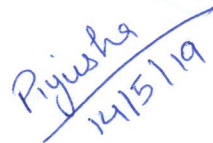
The Candidate has successfully carried out the study assigned to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

A handwritten signature in blue ink, appearing to read 'Dilip'.

Dean, Academics and Student Affairs
The IIHMR University, Jaipur

A handwritten signature in blue ink, appearing to read 'Piyusha' with the date '14/5/19' written below it.

Professor
The IIHMR University, Jaipur



తుంబే హాస్పిటల్ ఇండియ ప్రై. లి.
THUMBAY HOSPITAL INDIA PVT. LTD.

(CIN: U85100TG2015FTC101486)



6th May, 2019

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Dilip Varma Kosuri**, Healthcare Management student from IIMHR University, Jaipur has successfully completed his dissertation/internship in the department of Operations on the topic of “A Study on Discharge Process” at Thumbay Hospital, Hyderabad from 6th February 2019 to 6th May 2019.

During the period, he is found to be sincere towards his work and satisfactory.

We wish him all the best for his future endeavour.

For Thumbay Hospital India Private Limited.

Mohammed Dawood Irfan
Manager - Human Resources

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled STUDY ON PATIENT
..... DISCHARGE PROCESS AT THUMBAY HOSPITAL,
..... HYDERABAD and submitted by (Name) K. DILIP VARMA
..... Enrollment No. 0588
under the supervision of DR. PIYUSHA MASUMDAR
for award of MBA in Hospital and Health/ Pharmaceutical / Rural Management in Health
and Hospitals of the University carried out during the period from .. 6-2-19 to
..... 6-5-19 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

(DILIP VARMA)

ABSTRACT

Introduction:

Hospital discharge plan process consists of clinical, financial, legal, administrative and record keeping aspects, starts right from writing of discharge orders to settlements of all kinds of hospital bills and is a time consuming process, but if executed in an organized way with assistance from trained medical, para-medical and administrative staff, can be completed as per global standards.

Methodology:

The study was carried out in the inpatient department of Thumbay Hospital New Life, Hyderabad. It was an observational type of study where in all the patients who got discharged in the said wards from 10am to 5pm daily (Except Sundays) were observed for their discharge process and a semi structured questionnaire was administered in all the discharged patients' relatives about the discharge process including time taken for its completion and reasons of delay thereof.

Results:

A total of 322 Discharged patients were observed during the study period which includes four wards (general /cubicle/sharing & deluxe) of the inpatient department. The results show that the average time taken for discharge process was 268 minutes for those who had a planned discharge and had to pay out of pocket (Self- Payment). An average length of stay was observed as 2.5 days . The results also show that among all discharged patient's relatives observed, majority felt that their discharges were delayed due to non - availability of resident doctor for preparing the summaries while others considered long waiting time for billing as the main reason for their delay.

Conclusion:

Time and tedious discharge procedure, also eventually contributes to patient dissatisfaction. All departments involved in the discharge process should be adequately staffed, depending on patient load in the hospital. Hospital administration should themselves carry out a periodic time motion studying all concerned departments and identify the reasons for the delays and difficulties in implementation of procedures. Hospital administration should also take feedback from patients about services including discharges as an ongoing activity.

ACKNOWLEDGEMENT

Firstly, I would like to offer my humble salutation to The Creator and thank Him for giving me strength to complete this project.

This is a great opportunity for me to express my humble gratitude to everyone who has been a constant support to me throughout the terms of my MBA project. I am grateful to my friends and family for their aspiring guidance, invaluable constructive criticism and friendly advice during the project work.

I would also like to pass on my regards to entire staff of Thumbay Hospital New Life, Hyderabad for sparing their precious time and providing full co-operation in completion of my assigned task. Special thanks to Dr. Raza Ali Khan, COO and Dr. Syed Mustafa Ashraf, Medical Director And Dr. Vijay Kumar, senior operations head for being helpful, supportive, and receptive.

My chain of thanks would be incomplete without thanking my guide and mentor Dr. Piyusha Majumdar, assistant professor of the IIHMR University, Jaipur for unconditional support and treasured suggestion in completion of the project. Her word of wisdom has always been a perpetual source of inspiration.

At the end I am always thankful to my friends who were always there for me to boost my confidence and helped me whenever I needed. Their moral support was everything for me.

TABLE OF CONTENTS

S.no	Content
1	Abstract
2	Acknowledgement
3	Abbreviations
4	Table of content
5	List of Figures
6	List of Tables
7	Introduction
8	Literature Review
9	Problem Statement
10	Objective
11	Operational Definition
12	Methodology
13	Result
14	Recommendations
15	Discussion
16	Conclusion
17	Ethical Consideration
18	References

List of Figures

S.no	Content
1	Process Mapping of Discharge Process
2	Gantt Chart for proposed study
3	Pie Chart Showing TAT
4	A graph showing discharge summary over different time slot
5	Fish Bone Analysis
6	Chart showing patients and attenders' feedback regarding discharge process
7	Chart showing the impression of patient/attenders towards the hospital at the time of discharge

List of Tables

S.no	Content
1	A table showing ALOS and Average TAT

List of Symbols and Abbreviations

COO	Chief Operating Officer
ALOS	Average Length of Stay
HOD	Head of Department
IP	In Patient
IPD	In Patient Department
TAT	Turn Around Time
TPA	Third Party Assurance
PAD	Patient Affairs Department
DMO	Duty Medical Officer
NABH	National Accreditation Board for Hospitals and Health Care Providers
BOR	Bed Occupancy Rate
HIMS	Hospital Information Management System
MS	Microsoft

ORGANIZATION PROFILE

Thumbay Hospital is a network of academic hospitals based in the UAE, affiliated to Gulf Medical University (GMU), Ajman. Thumbay Hospitals are in Dubai, Ajman, Sharjah and Fujairah, in addition to Hyderabad-India. The hospital chain is owned by Thumbay Group.

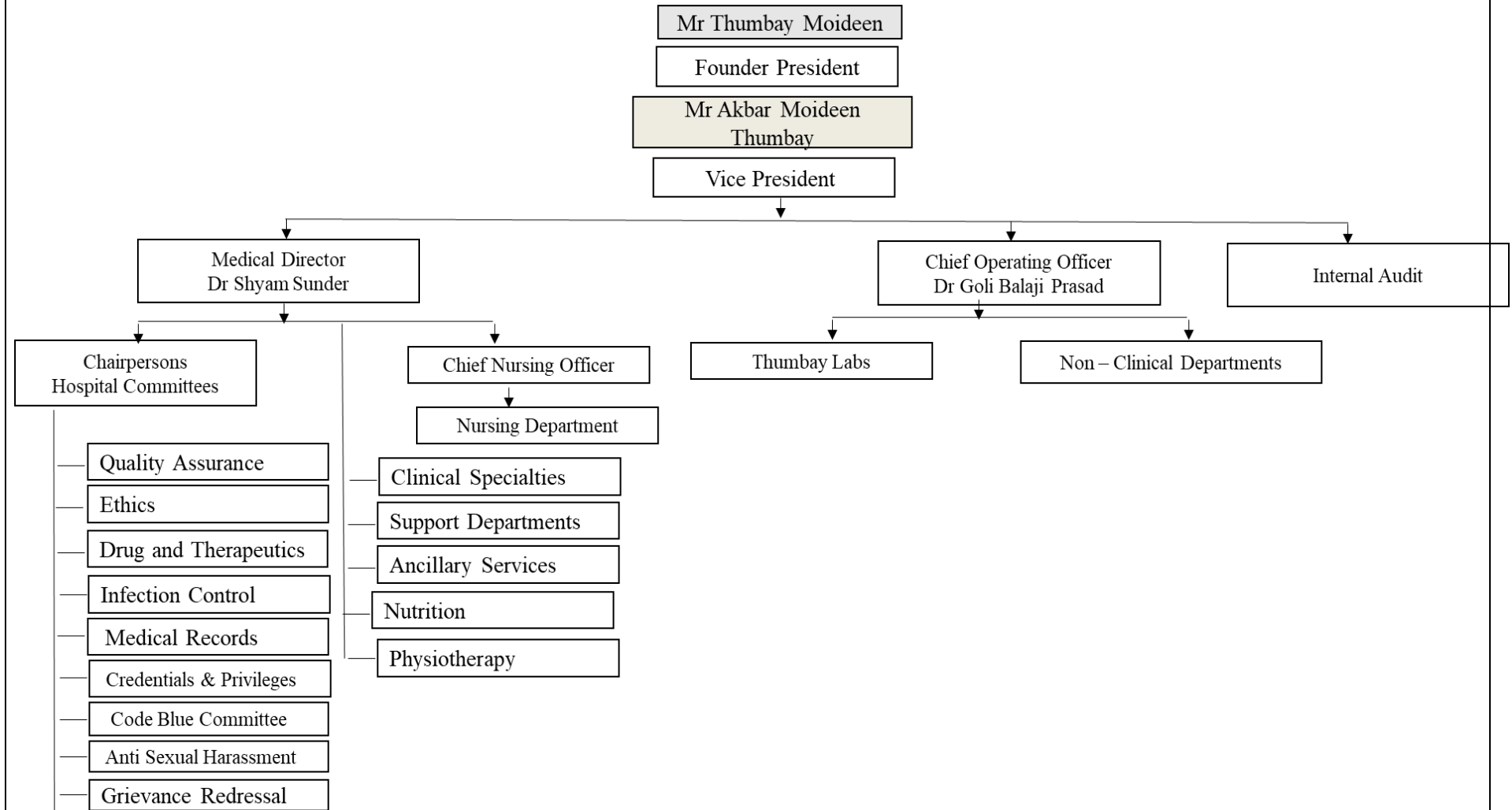
Thumbay Chain of Hospitals is one of the largest health care providers in the region. The group focuses on three pillars Education, Healthcare and Research. Thumbay Hospital New Life is an ultramodern multispecialty hospital owned and operated by Thumbay Group UAE, which is one of the largest healthcare providers in the UAE. Thumbay Group's hospitals are renowned for the high-quality healthcare delivered, with the most modern equipment and cutting-edge technology combined with expert doctors, technicians and nursing staff with extensive experience. Thumbay Hospital New Life aspires to emerge as the leading super specialty facility in the region. It is conceived as a 'family' healthcare facility where high quality healthcare is delivered at affordable costs. Thumbay Group also aims to make it a hub of Medical Tourism, as well as a leader in healthcare/medical training. Many more super-specialties would be added to the hospital, in the next two years

Departments at Thumbay Hospital New Life:

- ✓ Anesthesiology
- ✓ Cardiology
- ✓ Critical Care
- ✓ Endocrinology
- ✓ General Medicine
- ✓ General Surgery
- ✓ Laparoscopic Surgery
- ✓ Medical Gastroenterology
- ✓ Surgery Gastroenterology
- ✓ Nephrology
- ✓ Neurology
- ✓ Obstetrics and Gynecology
- ✓ Orthopedic Surgery

- ✓ Pediatrics
- ✓ Physiotherapy
- ✓ Radiology
- ✓ Respiratory Medicine
- ✓ Urology

ORGANOGRAM



Introduction

A hospital mainly provides two types of services, outpatient and inpatient services. Out of which the outpatient is a person who receives ambulatory care in the hospital, which do not require an overnight hospital stay. “An inpatient” is a person who has been admitted to a hospital for purpose of receiving inpatient hospital services. The inpatient in a hospital has to go through and experience three different stages. First is admission next is Intervention and the final stage is discharge. During the discharge of the patient, after the necessary interventions, a number of procedures have to take place by engaging various staff members and departments making the process complex.

Discharge is defined as, “a release of a hospitalized patient from the hospital by the admitting physician after providing necessary medical care for a period deemed necessary.

Hospital discharge plan includes clearance from all departments, bill settlement, and inform patients regarding appropriate post-hospital treatment as per standard documentation. The process comprises of clinical, financial, legal and administrative and record keeping aspects, starts right from writing of discharge orders to settlements of all kinds of hospital bills and is a time consuming process; but if executed in an organized way with assistance from trained medical, Para-medical and administrative staff, can be completed as per those prescribed by hospital accreditation boards like NABH at national level. Therefore keeping in view above factors a study on discharge process of patients was conducted in Thumbay Hospital New Life, Hyderabad in order to review the existing discharge process and find the factors which are causing delay in the process.

Discharge process is the last stage of the patient journey in the hospital and is more likely to be remembered by the patient. So, delay in the discharge process can be depressing to the patients and increases the pressure on hospital beds. Delay in the discharge process is the most common problem which is faced in many hospitals which leads to the patient dissatisfaction. Hence the study will be done to understand the causes of delays and to come up with a standard process of discharge. During the discharge of the patient, after the necessary interventions, several procedures must take place by engaging various staff members and departments making the process complex. It is a very important indicator of quality of care and patient satisfaction. Delay in Discharge of the patient also increases

the pressure on beds of the hospital hence it is bad for both hospitals and the patients. So, effective strategies must be taken place to solve this issue hence this study will be useful in identifying the factors affecting the discharge process of in patients which can be used by the hospital for improving the process.

Definition of Terms:

Discharge: Discharge from the hospital is the point at which the patient leaves the hospital either returns home or is transferred to another facility such as one for rehabilitation or to a nursing home.

Average length of stay: This measure refers to the average number of days that a patient stays in a hospital. It is calculated using the following formula $ALOS = (\text{total length of stay} / \text{total number of discharges})$

Bed Occupancy rate (BOR): The occupancy rate is a measure of utilization of the available bed capacity in a hospital. It indicates the percentage of beds occupied by patients in a defined period of time, usually a year. It is computed using the following formula: $BOR = (\text{inpatient days} / (\text{Bed days}) * 100$

Discharge order: It is the time at which concerned Doctor or Most Responsible Physician writes order of discharge in the file for patient.

Discharge Summary: The time at which the Most responsible physician or General practitioner writes summary and prints for patient.

Initiation Time: The time at which Nursing Staff Initiates discharge in system, after putting all the services accounted for.

Approval Time: The time at which insurance company approves the claim filed for patient's availed services.

Room Clearance Time: The time at which patient with all the belongings leaves the room.

Physical Discharge: When patient exactly vacates the bed

Delay: Delay in discharge from the ward was defined as time elapsed between the allotted time for discharge and the actual discharge time.

1.1 Aim: To understand discharge process flow and identify delay in discharge procedure at Thumbay Hospital New Life, Hyderabad.

1.2 Objectives: The following objectives were kept in mind while conducting the study:

- To study the process of discharge at Thumbay Hospital.
- Identify the cause of delay in discharging patients from the Inpatient Department.
- To propose recommendations based on the study findings.

Rationale:

The timely completion of Discharge process is a key indicator for efficiency, performance, and satisfactory services

Problem Statement:

The Discharge process is taking a lot of time for the hospital.

PROCESS MAPPING OF THE DISCHARGE PROCESS

```
graph LR; A[ ] --> B[ ]; B --> C[ ]; C --> D[ ]; D --> E[ ]; E --> F[ ]; F --> G[ ]; G --> H[ ]; H --> I[ ]; I --> J[ ]; J --> K[ ]; K --> L[ ]; L --> M[ ]; M --> N[ ]; N --> O[ ]; O --> P[ ]; P --> Q[ ]; Q --> R[ ]; R --> S[ ]; S --> T[ ]; T --> U[ ]; U --> V[ ]; V --> W[ ]; W --> X[ ]; X --> Y[ ]; Y --> Z[ ]; Z --> AA[ ]; AA --> AB[ ]; AB --> AC[ ]; AC --> AD[ ]; AD --> AE[ ]; AE --> AF[ ]; AF --> AG[ ]; AG --> AH[ ]; AH --> AI[ ]; AI --> AJ[ ]; AJ --> AK[ ]; AK --> AL[ ]; AL --> AM[ ]; AM --> AN[ ]; AN --> AO[ ]; AO --> AP[ ]; AP --> AQ[ ]; AQ --> AR[ ]; AR --> AS[ ]; AS --> AT[ ]; AT --> AU[ ]; AU --> AV[ ]; AV --> AW[ ]; AW --> AX[ ]; AX --> AY[ ]; AY --> AZ[ ]; AZ --> BA[ ]; BA --> BB[ ]; BB --> BC[ ]; BC --> BD[ ]; BD --> BE[ ]; BE --> BF[ ]; BF --> BG[ ]; BG --> BH[ ]; BH --> BI[ ]; BI --> BJ[ ]; BJ --> BK[ ]; BK --> BL[ ]; BL --> BM[ ]; BM --> BN[ ]; BN --> BO[ ]; BO --> BP[ ]; BP --> BQ[ ]; BQ --> BR[ ]; BR --> BS[ ]; BS --> BT[ ]; BT --> BU[ ]; BU --> BV[ ]; BV --> BW[ ]; BW --> BX[ ]; BX --> BY[ ]; BY --> BZ[ ]; BZ --> CA[ ]; CA --> CB[ ]; CB --> CC[ ]; CC --> CD[ ]; CD --> CE[ ]; CE --> CF[ ]; CF --> CG[ ]; CG --> CH[ ]; CH --> CI[ ]; CI --> CJ[ ]; CJ --> CK[ ]; CK --> CL[ ]; CL --> CM[ ]; CM --> CN[ ]; CN --> CO[ ]; CO --> CP[ ]; CP --> CQ[ ]; CQ --> CR[ ]; CR --> CS[ ]; CS --> CT[ ]; CT --> CU[ ]; CU --> CV[ ]; CV --> CW[ ]; CW --> CX[ ]; CX --> CY[ ]; CY --> CZ[ ]; CZ --> DA[ ]; DA --> DB[ ]; DB --> DC[ ]; DC --> DD[ ]; DD --> DE[ ]; DE --> DF[ ]; DF --> DG[ ]; DG --> DH[ ]; DH --> DI[ ]; DI --> DJ[ ]; DJ --> DK[ ]; DK --> DL[ ]; DL --> DM[ ]; DM --> DN[ ]; DN --> DO[ ]; DO --> DP[ ]; DP --> DQ[ ]; DQ --> DR[ ]; DR --> DS[ ]; DS --> DT[ ]; DT --> DU[ ]; DU --> DV[ ]; DV --> DW[ ]; DW --> DX[ ]; DX --> DY[ ]; DY --> DZ[ ]; DZ --> EA[ ]; EA --> EB[ ]; EB --> EC[ ]; EC --> ED[ ]; ED --> EE[ ]; EE --> EF[ ]; EF --> EG[ ]; EG --> EH[ ]; EH --> EI[ ]; EI --> EJ[ ]; EJ --> EK[ ]; EK --> EL[ ]; EL --> EM[ ]; EM --> EN[ ]; EN --> EO[ ]; EO --> EP[ ]; EP --> EQ[ ]; EQ --> ER[ ]; ER --> ES[ ]; ES --> ET[ ]; ET --> EU[ ]; EU --> EV[ ]; EV --> EW[ ]; EW --> EX[ ]; EX --> EY[ ]; EY --> EZ[ ]; EZ --> FA[ ]; FA --> FB[ ]; FB --> FC[ ]; FC --> FD[ ]; FD --> FE[ ]; FE --> FF[ ]; FF --> FG[ ]; FG --> FH[ ]; FH --> FI[ ]; FI --> FJ[ ]; FJ --> FK[ ]; FK --> FL[ ]; FL --> FM[ ]; FM --> FN[ ]; FN --> FO[ ]; FO --> FP[ ]; FP --> FQ[ ]; FQ --> FR[ ]; FR --> FS[ ]; FS --> FT[ ]; FT --> FU[ ]; FU --> FV[ ]; FV --> FW[ ]; FW --> FX[ ]; FX --> FY[ ]; FY --> FZ[ ]; FZ --> GA[ ]; GA --> GB[ ]; GB --> GC[ ]; GC --> GD[ ]; GD --> GE[ ]; GE --> GF[ ]; GF --> GG[ ]; GG --> GH[ ]; GH --> GI[ ]; GI --> GJ[ ]; GJ --> GK[ ]; GK --> GL[ ]; GL --> GM[ ]; GM --> GN[ ]; GN --> GO[ ]; GO --> GP[ ]; GP --> GQ[ ]; GQ --> GR[ ]; GR --> GS[ ]; GS --> GT[ ]; GT --> GU[ ]; GU --> GV[ ]; GV --> GW[ ]; GW --> GX[ ]; GX --> GY[ ]; GY --> GZ[ ]; GZ --> HA[ ]; HA --> HB[ ]; HB --> HC[ ]; HC --> HD[ ]; HD --> HE[ ]; HE --> HF[ ]; HF --> HG[ ]; HG --> HH[ ]; HH --> HI[ ]; HI --> HJ[ ]; HJ --> HK[ ]; HK --> HL[ ]; HL --> HM[ ]; HM --> HN[ ]; HN --> HO[ ]; HO --> HP[ ]; HP --> HQ[ ]; HQ --> HR[ ]; HR --> HS[ ]; HS --> HT[ ]; HT --> HU[ ]; HU --> HV[ ]; HV --> HW[ ]; HW --> HX[ ]; HX --> HY[ ]; HY --> HZ[ ]; HZ --> IA[ ]; IA --> IB[ ]; IB --> IC[ ]; IC --> ID[ ]; ID --> IE[ ]; IE --> IF[ ]; IF --> IG[ ]; IG --> IH[ ]; IH --> II[ ]; II --> IJ[ ]; IJ --> IK[ ]; IK --> IL[ ]; IL --> IM[ ]; IM --> IN[ ]; IN --> IO[ ]; IO --> IP[ ]; IP --> IQ[ ]; IQ --> IR[ ]; IR --> IS[ ]; IS --> IT[ ]; IT --> IU[ ]; IU --> IV[ ]; IV --> IW[ ]; IW --> IX[ ]; IX --> IY[ ]; IY --> IZ[ ]; IZ --> JA[ ]; JA --> JB[ ]; JB --> JC[ ]; JC --> JD[ ]; JD --> JE[ ]; JE --> JF[ ]; JF --> JG[ ]; JG --> JH[ ]; JH --> JI[ ]; JI --> JJ[ ]; JJ --> JK[ ]; JK --> JL[ ]; JL --> JM[ ]; JM --> JN[ ]; JN --> JO[ ]; JO --> JP[ ]; JP --> JQ[ ]; JQ --> JR[ ]; JR --> JS[ ]; JS --> JT[ ]; JT --> JU[ ]; JU --> JV[ ]; JV --> JW[ ]; JW --> JX[ ]; JX --> JY[ ]; JY --> JZ[ ]; JZ --> KA[ ]; KA --> KB[ ]; KB --> KC[ ]; KC --> KD[ ]; KD --> KE[ ]; KE --> KF[ ]; KF --> KG[ ]; KG --> KH[ ]; KH --> KI[ ]; KI --> KJ[ ]; KJ --> KK[ ]; KK --> KL[ ]; KL --> KM[ ]; KM --> KN[ ]; KN --> KO[ ]; KO --> KP[ ]; KP --> KQ[ ]; KQ --> KR[ ]; KR --> KS[ ]; KS --> KT[ ]; KT --> KU[ ]; KU --> KV[ ]; KV --> KW[ ]; KW --> KX[ ]; KX --> KY[ ]; KY --> KZ[ ]; KZ --> LA[ ]; LA --> LB[ ]; LB --> LC[ ]; LC --> LD[ ]; LD --> LE[ ]; LE --> LF[ ]; LF --> LG[ ]; LG --> LH[ ]; LH --> LI[ ]; LI --> LJ[ ]; LJ --> LK[ ]; LK --> LL[ ]; LL --> LM[ ]; LM --> LN[ ]; LN --> LO[ ]; LO --> LP[ ]; LP --> LQ[ ]; LQ --> LR[ ]; LR --> LS[ ]; LS --> LT[ ]; LT --> LU[ ]; LU --> LV[ ]; LV --> LW[ ]; LW --> LX[ ]; LX --> LY[ ]; LY --> LZ[ ]; LZ --> MA[ ]; MA --> MB[ ]; MB --> MC[ ]; MC --> MD[ ]; MD --> ME[ ]; ME --> MF[ ]; MF --> MG[ ]; MG --> MH[ ]; MH --> MI[ ]; MI --> MJ[ ]; MJ --> MK[ ]; MK --> ML[ ]; ML --> MN[ ]; MN --> MO[ ]; MO --> MP[ ]; MP --> MQ[ ]; MQ --> MR[ ]; MR --> MS[ ]; MS --> MT[ ]; MT --> MU[ ]; MU --> MV[ ]; MV --> MW[ ]; MW --> MX[ ]; MX --> MY[ ]; MY --> MZ[ ]; MZ --> NA[ ]; NA --> NB[ ]; NB --> NC[ ]; NC --> ND[ ]; ND --> NE[ ]; NE --> NF[ ]; NF --> NG[ ]; NG --> NH[ ]; NH --> NI[ ]; NI --> NJ[ ]; NJ --> NK[ ]; NK --> NL[ ]; NL --> NM[ ]; NM --> NO[ ]; NO --> NP[ ]; NP --> NQ[ ]; NQ --> NR[ ]; NR --> NS[ ]; NS --> NT[ ]; NT --> NU[ ]; NU --> NV[ ]; NV --> NW[ ]; NW --> NX[ ]; NX --> NY[ ]; NY --> NZ[ ]; NZ --> OA[ ]; OA --> OB[ ]; OB --> OC[ ]; OC --> OD[ ]; OD --> OE[ ]; OE --> OF[ ]; OF --> OG[ ]; OG --> OH[ ]; OH --> OI[ ]; OI --> OJ[ ]; OJ --> OK[ ]; OK --> OL[ ]; OL --> OM[ ]; OM --> ON[ ]; ON --> OO[ ]; OO --> OP[ ]; OP --> OQ[ ]; OQ --> OR[ ]; OR --> OS[ ]; OS --> OT[ ]; OT --> OU[ ]; OU --> OV[ ]; OV --> OW[ ]; OW --> OX[ ]; OX --> OY[ ]; OY --> OZ[ ]; OZ --> PA[ ]; PA --> PB[ ]; PB --> PC[ ]; PC --> PD[ ]; PD --> PE[ ]; PE --> PF[ ]; PF --> PG[ ]; PG --> PH[ ]; PH --> PI[ ]; PI --> PJ[ ]; PJ --> PK[ ]; PK --> PL[ ]; PL --> PM[ ]; PM --> PN[ ]; PN --> PO[ ]; PO --> PP[ ]; PP --> PQ[ ]; PQ --> PR[ ]; PR --> PS[ ]; PS --> PT[ ]; PT --> PU[ ]; PU --> PV[ ]; PV --> PW[ ]; PW --> PX[ ]; PX --> PY[ ]; PY --> PZ[ ]; PZ --> QA[ ]; QA --> QB[ ]; QB --> QC[ ]; QC --> QD[ ]; QD --> QE[ ]; QE --> QF[ ]; QF --> QG[ ]; QG --> QH[ ]; QH --> QI[ ]; QI --> QJ[ ]; QJ --> QK[ ]; QK --> QL[ ]; QL --> QM[ ]; QM --> QN[ ]; QN --> QO[ ]; QO --> QP[ ]; QP --> QQ[ ]; QQ --> QR[ ]; QR --> QS[ ]; QS --> QT[ ]; QT --> QU[ ]; QU --> QV[ ]; QV --> QW[ ]; QW --> QX[ ]; QX --> QY[ ]; QY --> QZ[ ]; QZ --> RA[ ]; RA --> RB[ ]; RB --> RC[ ]; RC --> RD[ ]; RD --> RE[ ]; RE --> RF[ ]; RF --> RG[ ]; RG --> RH[ ]; RH --> RI[ ]; RI --> RJ[ ]; RJ --> RK[ ]; RK --> RL[ ]; RL --> RM[ ]; RM --> RN[ ]; RN --> RO[ ]; RO --> RP[ ]; RP --> RQ[ ]; RQ --> RR[ ]; RR --> RS[ ]; RS --> RT[ ]; RT --&gt
```

1. Review of Literature:

Lovepreet Kaur et al suggested the following in regards to discharge process:

- 1) There should be a provision of separate discharge templates in the existing software with alarming system on the main screen.
- 2) Follow up of cases at various stages of the discharge process. The shortcomings and possibility of delays can be predicted in advance and thereby interventions can be taken early.
- 3) When discharge time is crossed than average time period, it can be displayed on HIS (hospital information system) with discharge delay alert.
- 4) The discharge summary should be typed right from the day of admission and updated on a daily basis. On the day of discharge, only minor additional information should be added
- 5) Doctors are always busy with their routine hectic schedules, so the implementation of medical transcription can aid in translating the discharge summary by transcriptionist which will help to reduce the unnecessary delay in discharge time.

Shahnawaz Hamid et al pointed that Time and tedious discharge procedure, also eventually contributes to patient dissatisfaction. All departments involved in the discharge process should be adequately staffed, depending on patient load in the hospital. Hospital administration should themselves carry out a periodic time motion studying all concerned departments and identify the reasons for the delays and difficulties in implementation of procedures. Hospital administration should also take feedback from patients about services including discharges as an ongoing activity.

Bérengère Couturier et al pointed that no consistent statistical association between hospital discharge and patient health outcome.

Waring *et al* the first addresses the safety challenge of hospital discharge, elaborating this as a problem of co-ordination and collaboration among various health and social care agencies. Attention is given to major policy changes and interventions aimed at enhancing discharge, as well as research evidence on clinical risk and patient safety. The second literature develops the analysis of patient safety as applied to hospital discharge, suggesting that the transition from acute hospital to community care might be interpreted as a complex system with vulnerable connections between multiple actors. The chapter draws together these literatures to explore how knowledge sharing might be a source of system safety through helping to co-ordinate and integrate the activities of different agencies and, in turn, reducing system complexity.

Victor *et al* states nearly 30% of older people experience some delay in their hospital discharge, which is known to expose patients to additional hospital-related risks, create emotional and physical dependency, incur additional hospital costs and restrict the availability of inpatient beds. In parallel, premature discharge or discharge without appropriate arrangements for onward care can also lead to complications for patient recovery.

Tierney *et al* points to a range of common factors, including (a) poor communication between health and social care; (b) lack of assessment and planning for discharge; (c) inadequate notice of discharge; (d) inadequate involvement of patient and family; (e) over-reliance on informal care; and (f) lack of attention to the special needs of vulnerable groups.

Methodology

Research Methodology:

Type of Study: Descriptive Study

Study Type: Non- Interventional

Study Population:

IPD Patients at General Ward, sharing and deluxe ward.

Study area-

IP and Respective wards

Sampling Method:

convenience Sampling:

Only IP Patients are taking and the indents are taken in day time. The night indents are not monitored.

Sample size:

Total 322 Samples

Mode of Data Collection-

Observation Methods

Noting the time of each step of process and noting down reasons of any delay, as well any specific reasons.

Tool of Data Collection:

Discharge tracker by hospital Information System.

Type of Data:

Quantitative

Duration: 3 months

- ☐ Understanding work place environment: 2 week
- ☐ Preparation of the questionnaire: 1 weeks
- ☐ Data collection for the primary survey: 4 weeks
- ☐ Data Analysis: 2 weeks
- ☐ Report Writing: 2 weeks
- ☐ Final changes and presentation: 1 week

Inclusion Criteria:

- Cash Patients.
- Patients from inpatient wards

Exclusion Criteria:

- Insurance and Arogyasri patient

Figure 2.1: Gantt Chart for proposed study

S l o .	Task Name	(Time in weeks)	5th-10 Feb	12th- 17thFeb	19-24 Feb	27 Feb- 3rd Mar	5th- 10th Mar	12th-17 Mar	19th- 24th Mar	26th-31 Mar	2nd-7th Apr	9th-14 Apr	16th-21 Apr	23rd-28th Apr	30th Apr-5th May
1	Understandin work place environment	1													
2	Preparation of the questionnaire	2													
3	Data collection for the primary survey	4													
4	Data Analysis	2													
5	Report Writing	2													
6	Final changes and presentation	2													

1.2 Data Collection

The study included collection of primary data through HIMS.

Sample Size: 322 respondents

Results

The data collected with the help HIMS was analyzed using MS Excel and the results are as follows:

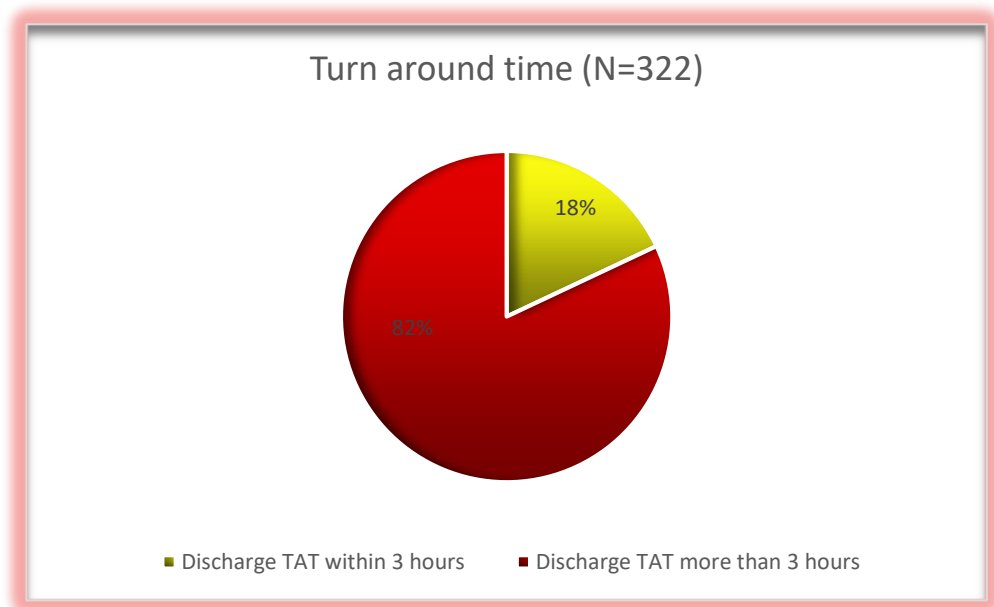


Figure 4.1(a) A pie chart showing Turn around time less than 3 hours and more than 3 hours.

Here N refers to total sample size

From the above pie chart in Fig 4.1(a), we can infer that out of 322 patients 82% of the patient's discharge time was more than 3 hours and only 18% of the patient's discharge time was less than 3 hours. As we all know patient satisfaction is directly related to waiting time. Therefore, there is a need to reduce Thumbay Hospital's TAT.

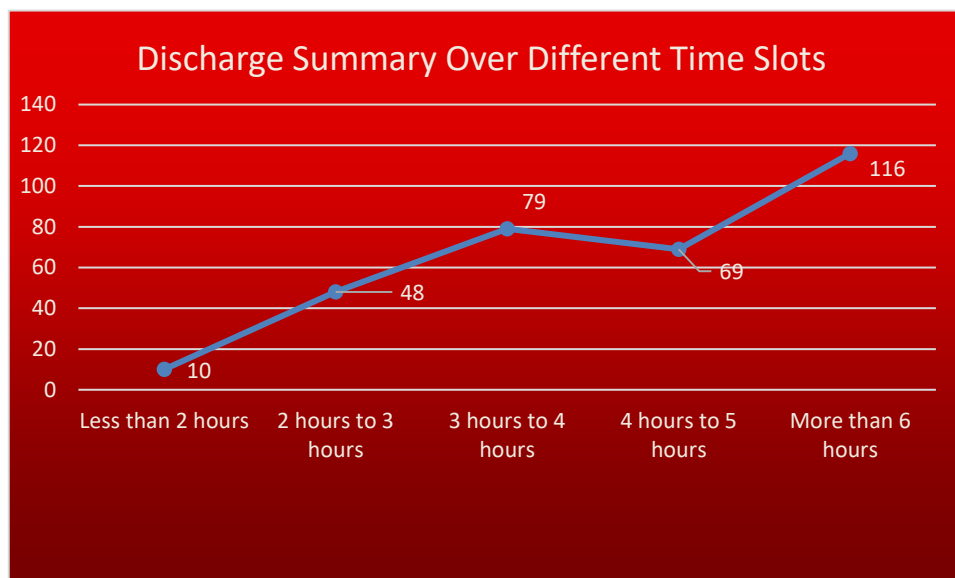
\

Table 1 (a) A table showing ALOS and Average TAT

ALOS	2 .5 days
Average TAT	4.28 hours

The above table 1(a) shows that Average length of stay was 2 and a half days. Average discharge Turn Around time was noted to be 4 hours and 28 minutes

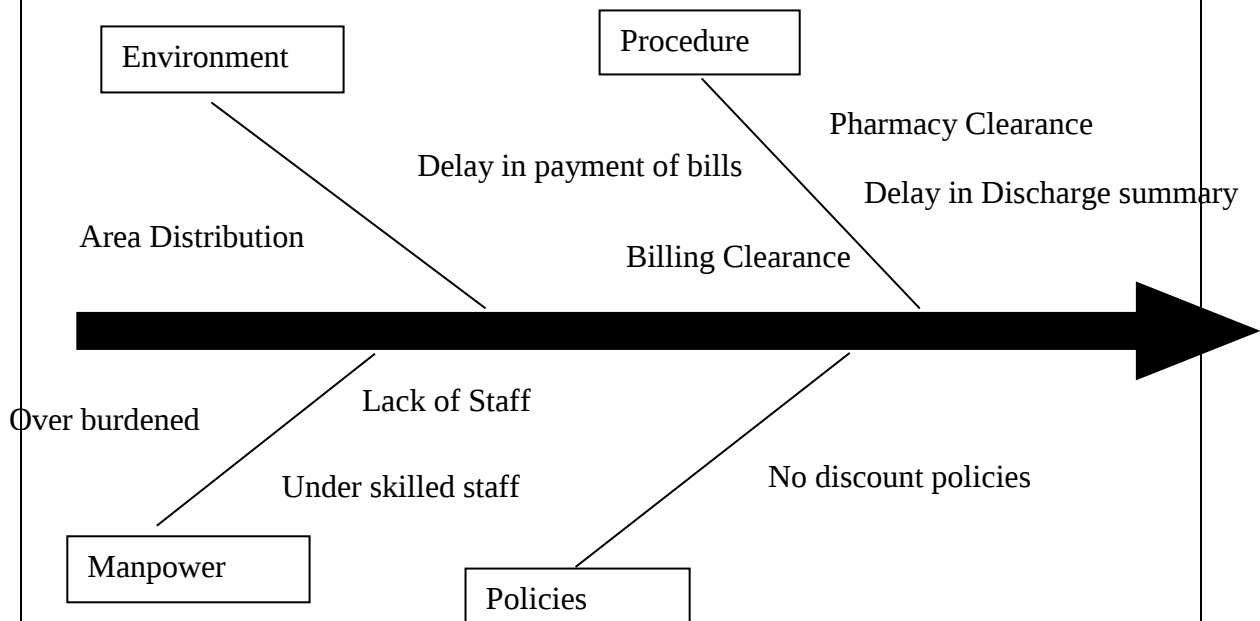
Figure 4.1(b) A graph showing discharge summary over different time slots



The above graph Fig 4.1(b) depict that out of 322 discharges 116 patients discharge time was more than 6 hours, 69 patient's discharge time was between 4 hours to 5 hours. 48 patients discharges was done between 2 to 3 hours and only 10 patients discharge process was completed within 2 hours from the time primary consultant ordered for discharge.

SR. No.	Reasons for delay in discharge for he highest number of patients i.e (116)
1.	Insufficient cash available at the time of discharge among the attendants
2.	Expecting discounts on the final bill settlement
3.	Pharmacy returns of few medicines which cant be returned such as Insulin.

Fig : Fish bone Analysis: To identify reasons for delay in discharge.



PROBLEMS IDENTIFIED

Various reasons were identified causing the problem of excess time being taken to prepare a discharge summary. These are divided into four main components and stated as below:

A. DELAY IN SENDING THE FILE TO DISCHARGE DESK

- i. Delay by nursing staff in handing over the patient file to the discharge desk. There can be various reasons for this like, nursing staff taking time in delivering the file, or they are engaged in some other work (attending the patients).
- ii. Wait for doctor's round to order the discharge for a patient. The doctor may have already ordered discharge of the patient the previous day, but final order is needed as per the norm.
- iii. Delay in getting the clearances like pharmacy and lab. The staff may get busy in fulfilling these formalities that the file is not sent to the discharge desk.
- iv. Tasks like medicine indent or marking for discharge takes time.

B. DISCHARGE DESK

- i. Workload due to under staffing may lead to forget intimating about the discharge advised by consultant to DMO at times.
- ii. Sometimes the staff have many files so there is work overload.
- iii. While in the hurry of making discharge summary, the staff may make mistakes such as typing errors.
- iv. The staff may not understand some terms and may type the wrong prescription.
- v. Prior intimation of leave by staff to the hod would help to accommodate alternatives in the ward which does not affect the delay of process.

C. DMO

- i. DMO goes for rounds in the middle of the task of discharge summary making as various consultants have their rounds at different timings.
- ii. DMO may go in between the summary making as he or she needs to attend patient complaints when needed..

D. CONSULTANT

- i. Most of the time, he/she is not available for the purpose of cross checking the discharge summary.

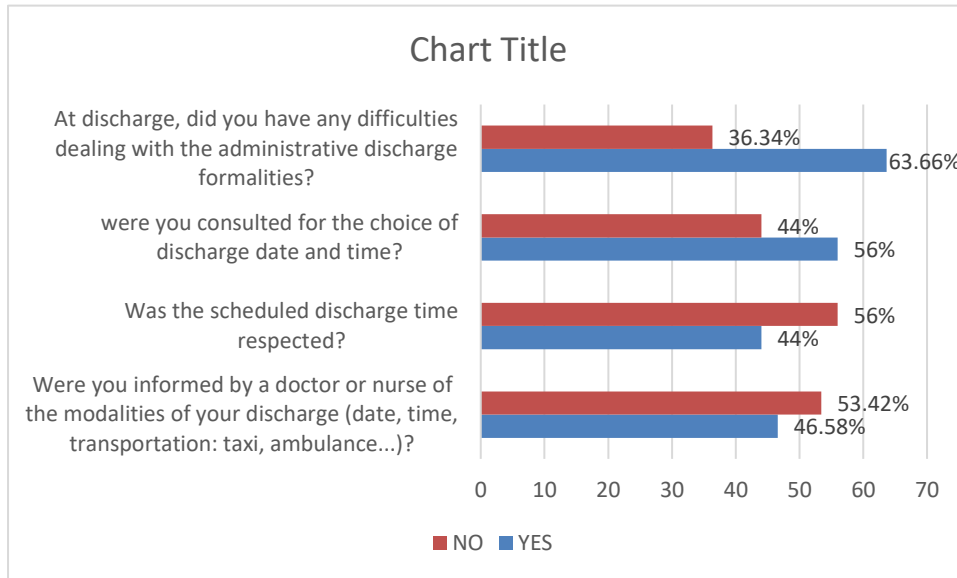


Figure 4.1(c) A chart showing patients and attenders' feedback regarding discharge process.

The above figure 4.1 (c) clearly depicts that when patients/ attender were not satisfied by the discharge process of Thumbay hospital, Hyderabad. When asked if they were informed about discharge date and time, 172 out of 322 patients said they were not informed. When asked if the scheduled discharge time was respected 180 out of 322 patients answer was negative. 180 patient said that they were consulted for the choice of discharge date and time. However about 205 patients out of 322 said that they had many difficulties dealing with the administrative discharge formalities.

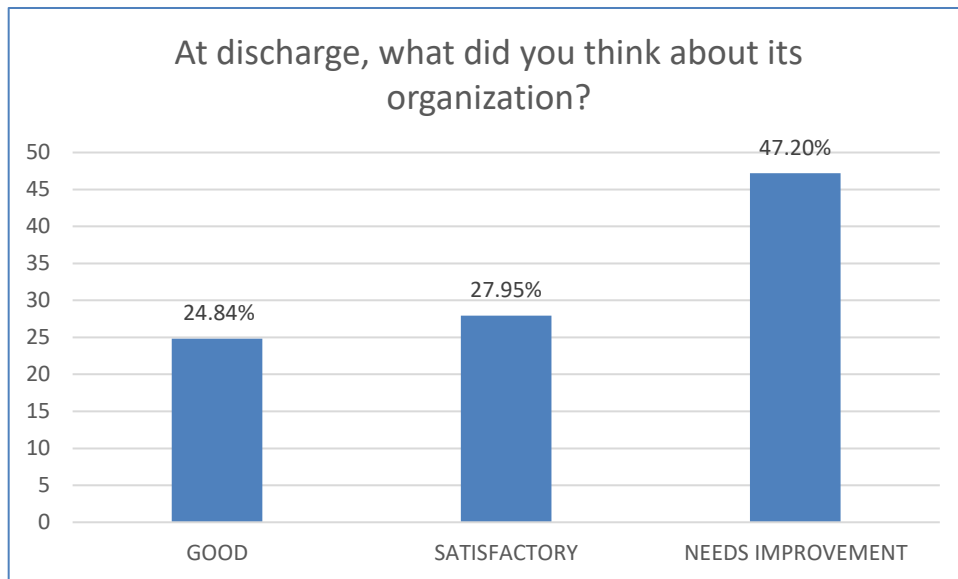


Figure 4.1(d) A chart showing patients and attenders' feedback regarding discharge process.

The above Figure 4.1 (d) shows the impression of patient and attenders towards the hospital at the time of discharge, 80 patients said it is good, 90 said satisfactory and 152 patients said our process needs improvement. Other than set questions, patients also gave a comment on long unorganized billing process, miscommunication, and they also said that they were very tired as they had to move from one place to another.

4. SUGGESTIONS TO REDUCE TIMELINESS OF DISCHARGE PROCESS

Time of completion of discharge summary should be captured in the system.

1. Periodic Training to staff to be given who all are involved in the discharge process.
2. Provisional discharge summary should be made by DMO and sent to discharge desk for a better outcome
3. A discharge summary template should be already prepared for planned discharges.
4. The problem of under staffing should be solved by appointment of more professional staff.
5. PAD department should be prepared to collect the pending cash in advance for planned discharges
6. Training sessions should be organized for regular updating of expertise among the employees
7. Planned discharges plays a vital role in reducing the discharge TAT.

5. CONCLUSION

Delays in discharging patients are occurring in hospitals, and hospital officials need to address the multiple dynamics associated with delays in discharging patients.

By undertaking this particular study, we identified the basic core areas from where the problems of timeliness of discharge process are increasing. A thorough process mapping of the study population helps in understanding the problem better and accordingly suggestions are given to reduce the timeliness.

Hospital discharge plan process comprises of clinical, financial, legal and administrative and record keeping aspects, starts right from writing of discharge orders to settlements of all kinds of hospital bills and is a time consuming process; but if executed in an organized way with assistance from trained medical, para-medical and administrative staff, can be completed as per global standards. Research about delays when discharging patients is useful in the hospitals and can assist hospital officials in the efficient discharge of patients. Thus, it should be carefully planned and regular follow up of the entire process should be taken.

ETHICAL CONSIDERATIONS:

Privacy and confidentiality was maintained for the respondent. Consent was taken from Hospital management to undertake the process.

6. REFERENCES :

- Mogli GD. Medical Record Organization and Management, Jaypee Brothers, Medical Publishers Pvt Ltd: New Delhi, 2001.
- Shobitha sunil, *et al.* Analysis of Time Taken for the Discharge Process in a Selected Tertiary Care Hospital. International Journal of Management and Applied Science, ISSN. 2016
- Janita Vinaya Kumari. A study on time management of Discharge and billing process in tertiary care teaching Hospital, 2012
- Swapnil Tak, *et al.* global journal of medicine and public health. A comparative time motion study of all types of patient discharges in a hospital. 2013
- Lovepreet Kaur, *et al.* A Study to Assess the Efficiency of Discharge Process in Inpatient, Cause of Discharge Delays, and their Impact on Increase Average Length of Stay. 2017
- Lakshmi bhaskar, *et al.* A Study of Discharge Process with a Special Focus on Reducing the Waiting Time in a Tertiary Care Teaching Hospital. 2016
- Hendy p, *et al.* In-depth analysis of delays to patient discharge: -A Metropolitan teaching hospital experiences. 2012
- Soraia Aparecida da Silva, *et al.* Reasons for discharge delays in teaching hospitals Article (PDF Available) in Revista de saude publica. 2014
- Forster AJ, Murff HJ, Peterson JF et al. The incidence and severity of adverse events affecting patients after discharge from the hospital. Ann Intern Med 2003
- Forster AJ, Clark HD, Menard A et al. Adverse events among medical patients after discharge from hospital. CMAJ 2004
- Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. N Engl J Med 2009
- Rising KL, White LF, Fernandez WG et al. Emergency department visits after hospital discharge: a missing part of the equation. Ann Emerg Med 2013
- Vashi AA, Fox JP, Carr BG et al. Use of hospital-based acute care among patients recently discharged from the hospital. JAMA 2013
- Roy CL, Poon EG, Karson AS et al. Patient safety concerns arising from test results that return after hospital discharge. Ann Intern Med 2005
- Perren A, Previsdomini M, Cerutti B et al. Omitted and unjustified medications in the discharge summary. Qual Saf Health Care 2009

QUESTIONNAIRE

Q1. Were you informed by a doctor or nurse of the modalities of your discharge (date, time, transportation: taxi, ambulance...)?

A. YES B. NO

Q2. Was the scheduled discharge time respected?

A. YES B. NO

Q3. Were you consulted for the choice of discharge date and time?

A. YES B. NO

Q4. At discharge, did you have any difficulties dealing with the administrative discharge formalities?

A. YES B. NO

If yes, can you elaborate on that

Q5. At discharge, what did you think about its organization?

A. Well planned B. A sense of haste, upheaval

**QUESTIONNAIRE WHICH CAN BE IMPLEMENTED FOR IMPROVEMENT
OF DISCHARGE PROCESS (FEEDBACK)**

01.Did you feel you were involved in decisions about your discharge from hospital?

- 1 † Yes, definitely
- 2 † Yes, to some extent
- 3 † No
- 4 † I did not want to be involved

02.Were you given enough notice about when you were going to be discharged?

- 1 † Yes, definitely
- 2 † Yes, to some extent
- 3 † No

03.On the day you left hospital, was your discharge delayed for any reason?

- 1 † Yes
- 2 † No

04.What was the MAIN reason for the delay? (Cross ONE box only)

- 1 † I had to wait for medicines
- 2 † I had to wait to see the doctor
- 3 † I had to wait for an ambulance
- 4 † Something else

05.. How long was the delay?

- 1 † Up to 1 hour
- 2 † Longer than 1 hour but no longer than 2 hours
- 3 † Longer than 2 hours but no longer than 4 hours
- 4 Longer than 4 hours

06. .Before you left hospital, were you given any written or printed information about what you should or should not do after leaving hospital? 1 † Yes

- 2 † No

07. Were you told how to take your medication in a way you could understand?

- 1 † Yes, definitely
- 2 † Yes, to some extent
- 3 † No
- 4 † I did not need to be told how to take my medication