Unveiling healthcare provider challenges in discharge process:
A stakeholder analysis at multi-speciality hospital in Gurugram

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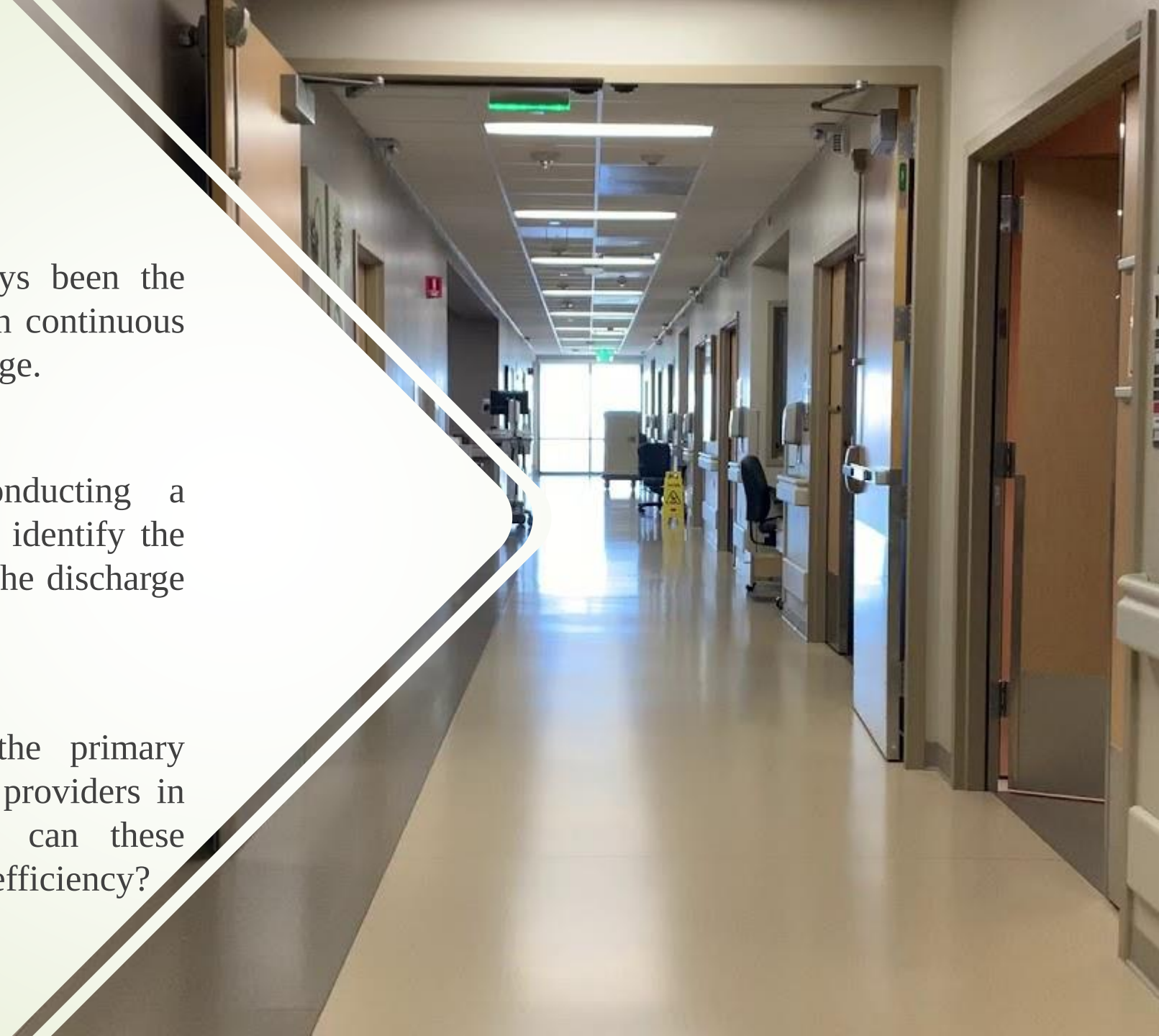
Introduction

- Discharge from hospital has always been the topic of research and there has been continuous striving to reduce the time of discharge.

- **Purpose of Research-** By conducting a stakeholder analysis, the study will identify the issues that hinder the efficiency of the discharge process.

- **Research Question:** What are the primary challenges faced by the healthcare providers in the discharge process and how can these challenges be addressed to improve efficiency?



Aims and Objectives

- To analyse the discharge process for in-patients and quantify the delay in each step
- To identify the main stakeholders involved in the discharge process
- To investigate the challenges faced by each stakeholder during the discharge process
- To recommend optimal and efficient solutions to overcome the identified challenges.

- The ultimate objective is to promote a culture of continuous improvement, where stakeholders work collaboratively to improve the efficiency, effectiveness, and quality of the discharge process.

Author (Year)	Study Location	Sample Size	Sampling Technique	Salient Features
Okoniewska, B., Santana, M. J., Groshaus, H., Stajkovic, S., Cowles, J., Chakrovorty, D., & Ghali, W. A.	The study was conducted in an acute care medical teaching unit at a large urban hospital in Calgary, Alberta, Canada	45 health care providers	The study used purposive sampling to select participants to ensure that the sample consisted of health care providers with direct involvement in the discharge planning process.	Several key barriers have been recognized which include breakdown of communication channels; lack of adequate resources for planning a discharge, inefficiency in administration. In order to address these matters effectively, authors insist on improved coordination among health teams including adoption of enhanced communication strategies and resource allocation mechanisms.
Joanne Goldman, Scott Reeves, Robert Wu, Ivan Silver, Kathleen MacMillan, Simon Kitto	The study was conducted at two large academic teaching hospitals in Toronto, Ontario, Canada.	The study involved 24 medical residents.	The study utilized purposive sampling, focusing on medical residents who were actively involved in the discharge process.	The study looks at the negotiation of patient discharge by medical residents. It also notes that these residents struggle with ambiguity in their roles and how to communicate within a team of different professionals. Such processes may be delayed by hierarchical structures. Nonetheless, when considering interprofessional education programs, it is evident that there is great potential for improving the skills of residents to negotiate effectively. All in all, successful patient discharge negotiation demands collaborative teamwork.

Literature Review:

Author (Year)	Study Location	Sample Size	Sampling Technique	Salient Features
Lauren Cadel, Jane Sandercock, Michelle Marcinow, Sara J T Guilcher, Kerry Kuluski	The study was conducted in Ontario, Canada	The study involved 29 participants	The study employed purposive sampling to select participants.	The results of this qualitative study suggest some key things about what makes discharge planning difficult or easy; it includes themes like communication between team members, coordinating care, availability of resources, and engaging patients in their own care. The implications drawn from the study may include suggestions on enhancing teamwork among staffs, allocating more resources into discharge planning approach and improving communication strategies within hospitals settings.
Janne Agerholm, Natasja Koitzsch Jensen, Ann Liljas	The study was conducted in two Nordic capitals (Copenhagen, Denmark, and Stockholm, Sweden	The study involved 56 healthcare professionals.	The study likely used purposive sampling to select participants. This method allows researchers to target healthcare professionals who have direct experience in coordinating care	This study is a qualitative one that looks at what healthcare practitioners think about coordinated care for the elderly suffering from multiple illnesses.Some of the barriers identified include disjointed systems and communication voids while enhancing aspects involve clear communication and cooperation. Contextual factors play a critical role, and the findings have implications on practice and policy to enhance coordination of care for this vulnerable group.

Methodology

Study setting: The study was done at the Fortis Memorial Research Institute located in Gurugram, Haryana

Study Design: Descriptive Cross-sectional study

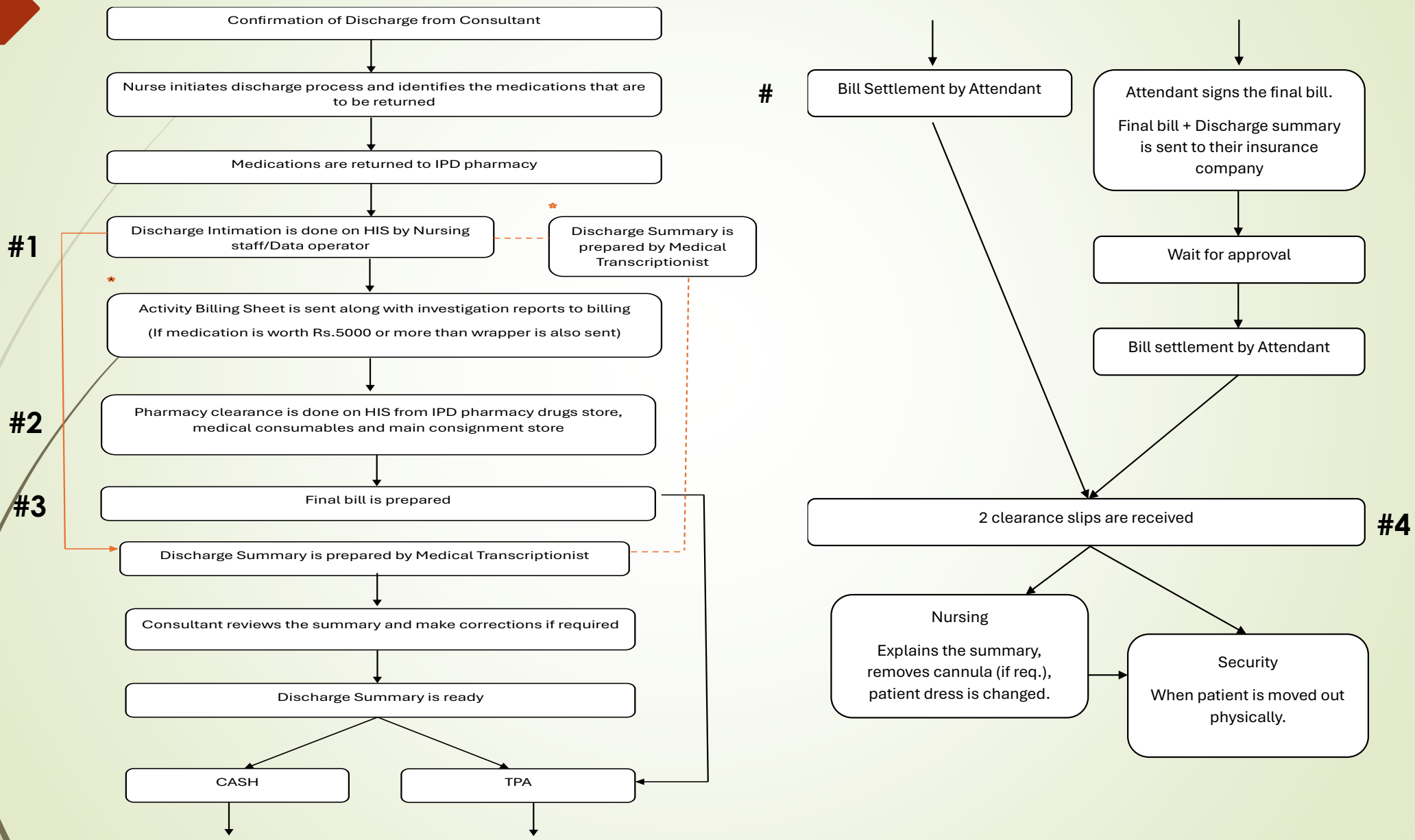
Duration of the Study: 1st April to 30th June, 2024

Sampling Technique: Convenience Sampling Technique

Data Collection and Analysis: First phase included collection of Length Of Discharge data for the month of April from hospital records, This data included Various steps of discharge process which are captured in HIS, After comparing the standard TAT with actual TAT, we were able to identify the most time-consuming steps. Post this, an online questionnaire survey was done to understand the challenges of healthcare providers leading to delays in discharge.


RESULTS

Mapping of discharge process:



Analysis of Length of Discharge Data:

Table 1: Distribution of Patients in Comparative Analysis

Payor Type	No. of Patients	%
Cash	1828	61%
TPA	1190	39%
Total	**3018**	**100%**

Table 2: Standard TAT for discharge steps captured in HIS

#	Discharge Step(s) in HIS	Standard TAT	
		Cash	TPA
1	Intimation Time<>IPD Pharmacy Clearance	20mins	20mins
2	IPD Pharmacy Clearance<>Bill Ready	30 mins	180 mins
3	Bill Ready<>Bill Clearance	30 mins	30 mins
4	Bill Clearance<>Physically Moved	30 mins	30 mins

Table 3: Average Time taken between each step (*Outliers are where Total time taken > 12 hrs)

#	Average Time Taken Between Each step	Cash	TPA
1	Intimation Time<>IPD Pharmacy Clearance	84 mins	97 mins
2	IPD Pharmacy Clearance<>Bill Ready	6 mins	214 mins
3	Bill Ready<>Bill Clearance	59 mins	16 mins
4	Bill Clearance<>Physically Moved	79 mins	59 mins
Total Time taken		**226 mins**	**386 mins**

Table 4: % of patients with more than Standard TAT
*Outliers are where Total time taken > 12 hrs

#	Discharge Step(s) in HIS	Count of Entries with More than Standard TAT		% Split	
		Cash	TPA	Cash	TPA
1	Intimation Time<>IPD Pharmacy Clearance	1119	887	61%	75%
2	IPD Pharmacy Clearance<>Bill Ready	80	533	4%	45%
3	Bill Ready<>Bill Clearance	637	121	35%	10%
4	Bill Clearance<>Physically Moved	833	671	46%	57%
Total Patients		**898**	**732**	**49%**	**62%**

Analysis of online questionnaire survey

Participants in survey

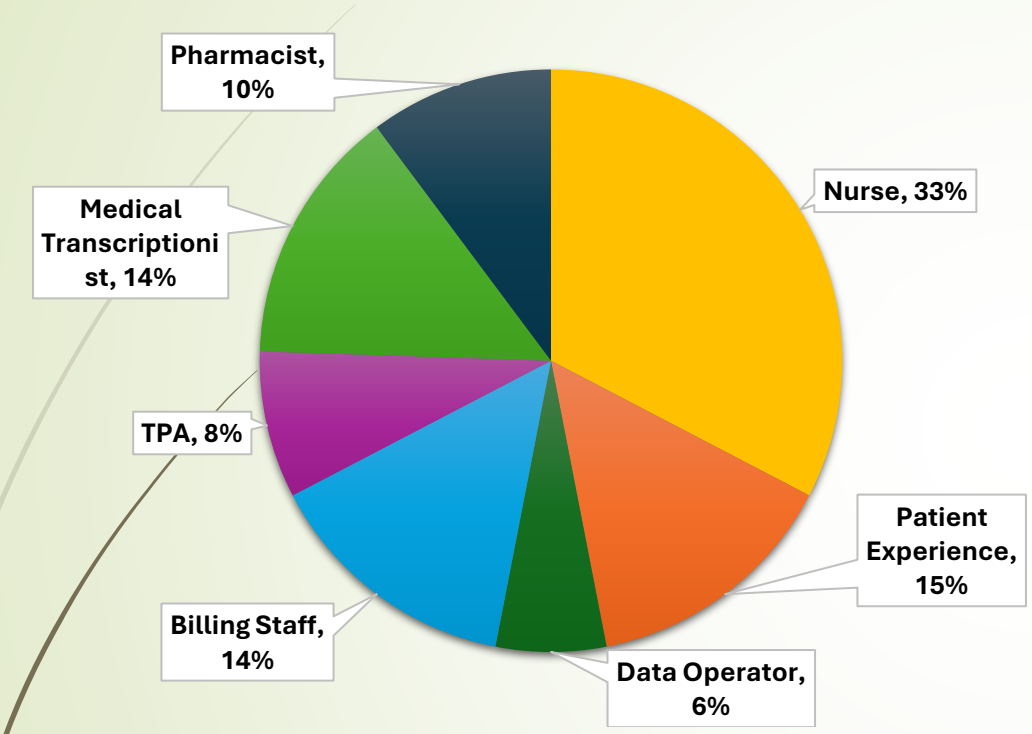


Figure 1: Key stakeholders' distribution in online questionnaire survey

Age-wise distribution of participants

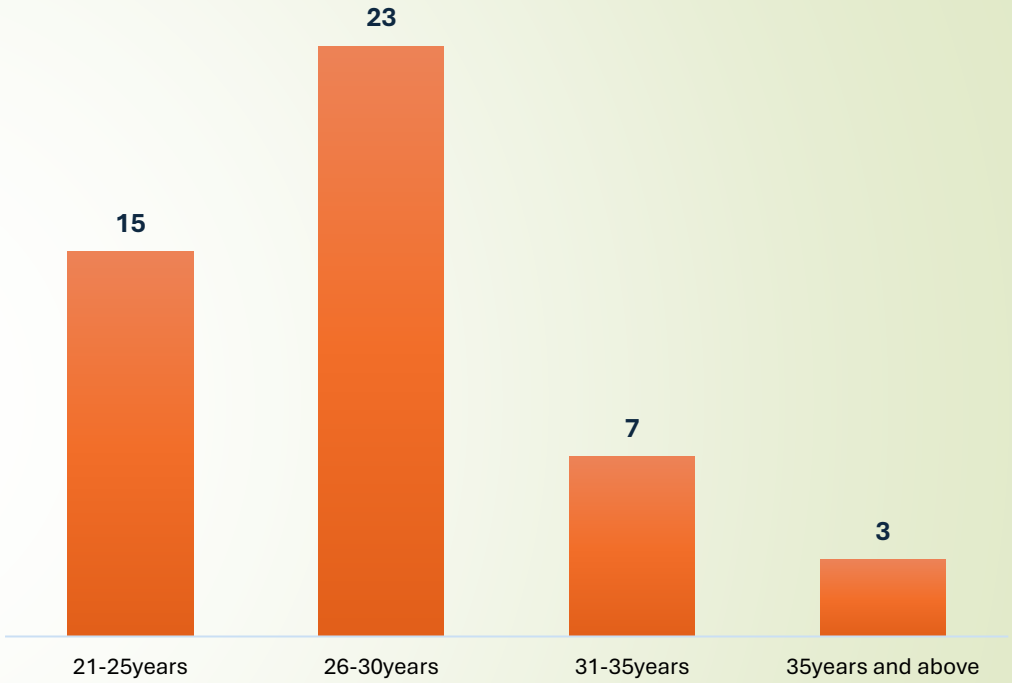


Figure 2: Age-wise distribution of participants

This distribution suggests a predominant focus on younger adults in the study, with significantly fewer middle-aged and older adults participating.

Analysis of online questionnaire survey

Work Experience of Stakeholders

Figure 3: Work Experience of Stakeholders

This distribution indicates a higher representation of relatively less experienced stakeholders, with a significant majority having up to 5 years of work experience. Only a small fraction of participants have extensive experience exceeding a decade.

Challenges faced in the discharge process

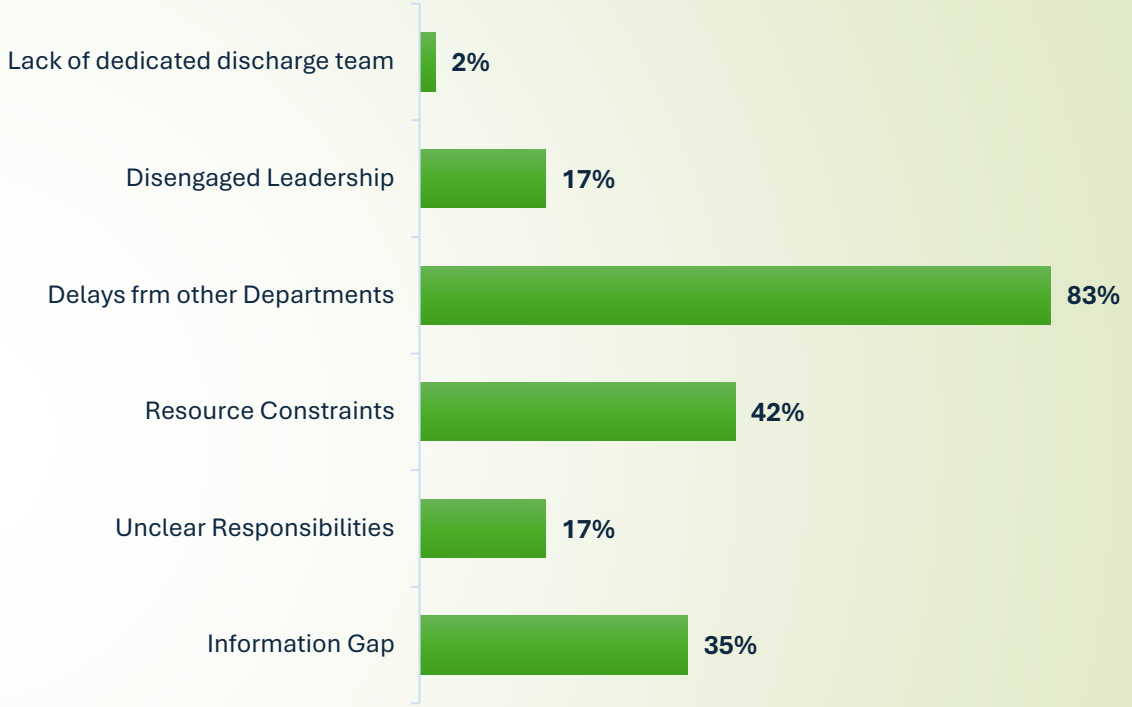


Figure 4: Percentage of people facing Main Challenges in the discharge process

- 83% Delays from other Departments-highlighting inter-departmental coordination as a critical bottleneck
- 42% Resource Constraints-need for better allocation of resources.
- 35% Information Gap
- Disengaged Leadership" and "Unclear Responsibilities-role clarity issues
- Lack of a dedicated discharge team

Analysis of online questionnaire survey

Departments affected by manpower shortage

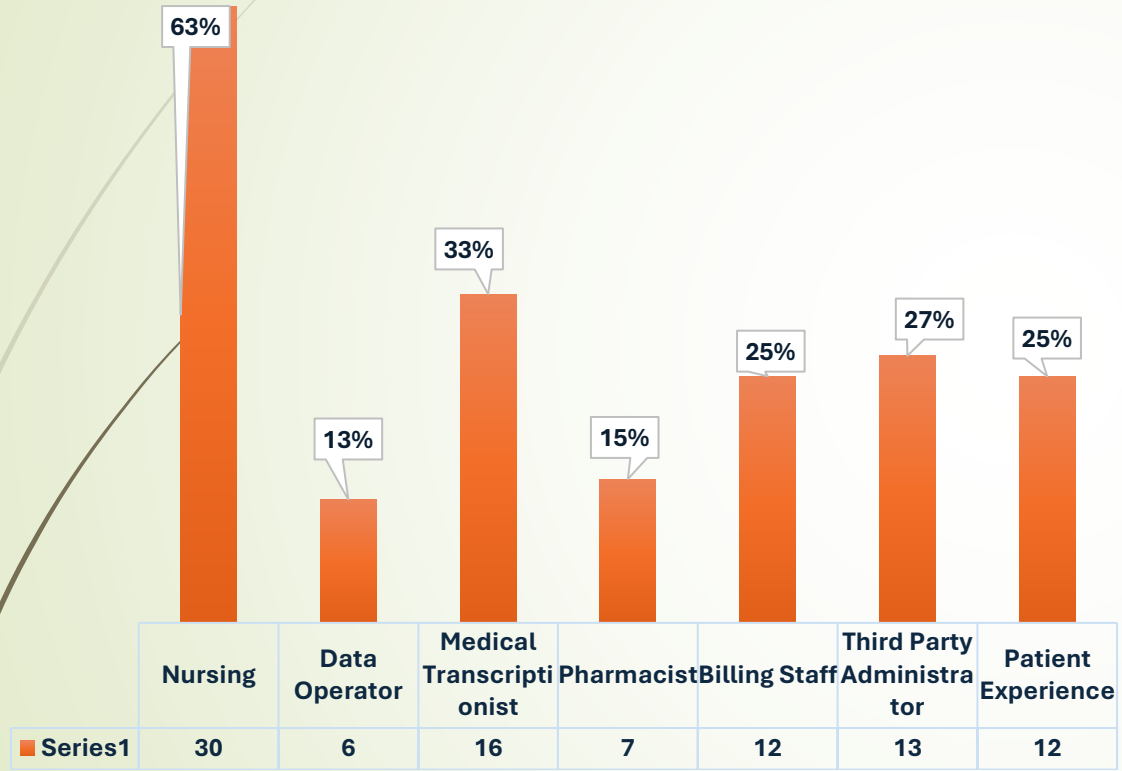


Figure 5: Departments Most Affected by Manpower Shortages as precepted by key stakeholders/participants

Suggested Improvements to Enhance Collaboration Between Teams

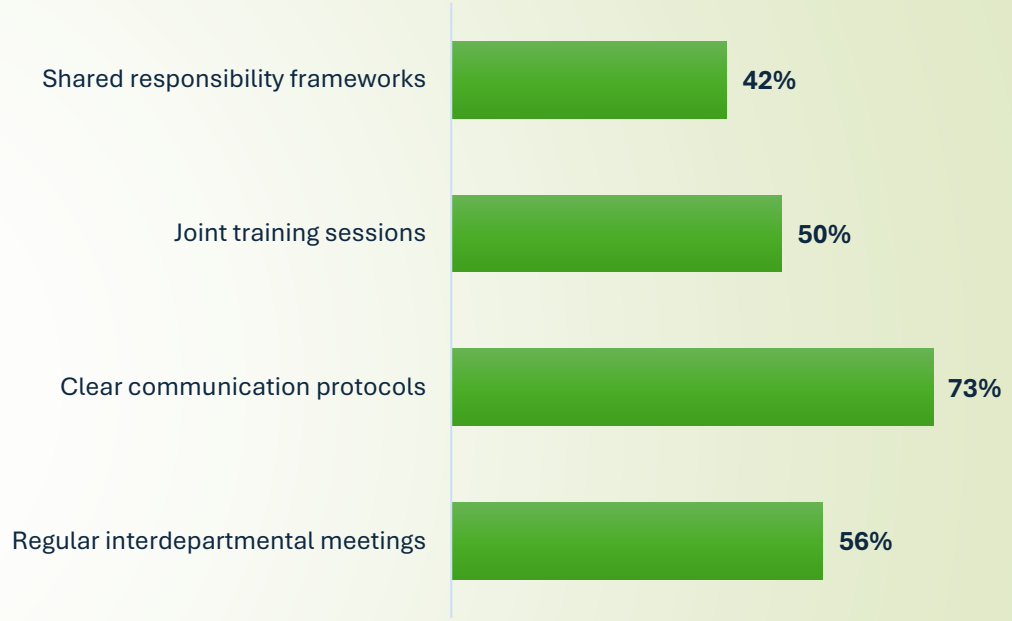


Figure 6: Suggested Improvements to Enhance Collaboration Between Teams

- 73% Clear communication protocols-indicating a strong need for standardized communication.
- 56% Regular interdepartmental meetings-importance of consistent interaction
- 50% Joint training sessions
- 42% Shared responsibility frameworks

Analysis of online questionnaire survey

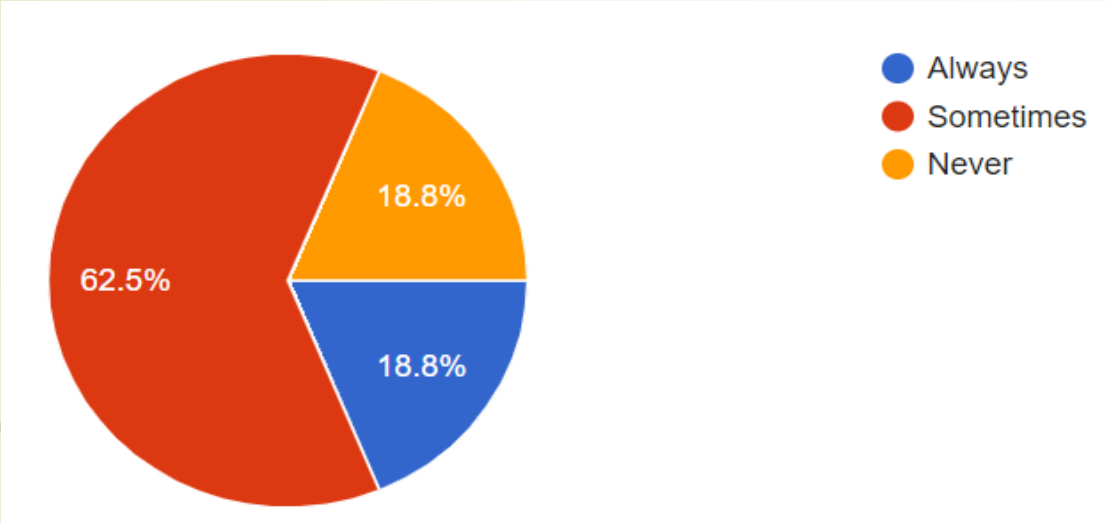


Figure 7: Frequency of Senior Leadership Seeking Input on Improving the Discharge Process

This distribution suggests that senior leadership intermittently engages with stakeholders for improving the discharge process, while there is a significant portion of respondents who feel that senior leadership never engaged.

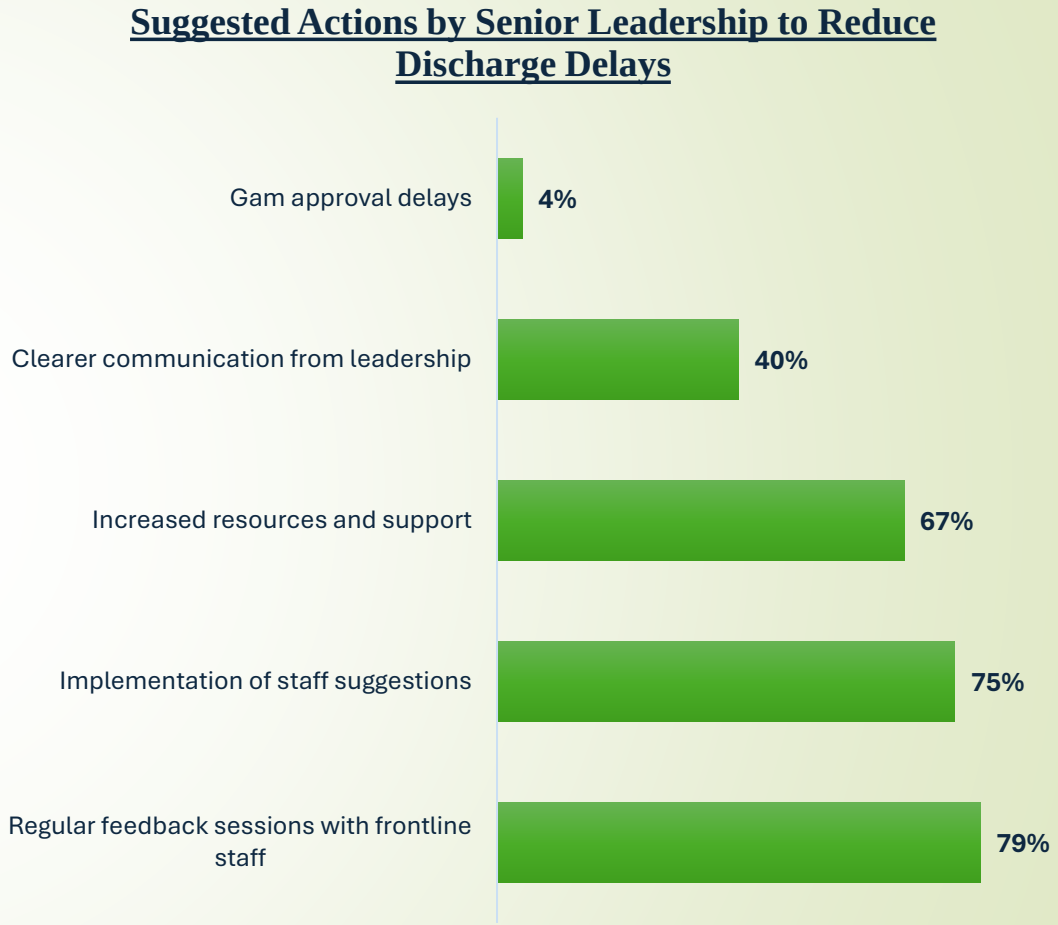


Figure 8: Suggested Actions to be taken by Senior Leadership to Reduce Discharge Delays by stakeholders

DISCUSSION

- Deviation in Standard Turnaround Time (TAT) with observed TATs during different steps and identifying phases as well as reasons behind these deviations.

1. **Intimation Time to IPD Pharmacy Clearance:** Standard TAT: 20 mins (Cash and TPA) & Observed TAT: 61% (Cash) and 75% (TPA).

- **Reasons for Delay**:

- It is difficult for nurses to prepare complete patient dockets to send along with activity billing sheet and return drugs that remain unused simultaneously.
- Coordinating with pharmacy staff and ensuring that all medications and consumables have been returned takes time.

2. IPD Pharmacy Clearance to Bill Ready: Standard TAT: 30 mins (Cash), 180 mins (TPA) & Observed TAT: 4% (Cash) and 45% (TPA)

- **Reasons for Delay:**

- Insurance Processing: Lengthy verification processes for TPA patients.
- Resource Constraints: Limited staff and resources for preparing final bill.

3. Bill Ready to Bill Clearance: Standard TAT: 30 mins (Cash and TPA) & Observed TAT: 35% (Cash) and 10% (TPA)

- **Reasons for Delay:**

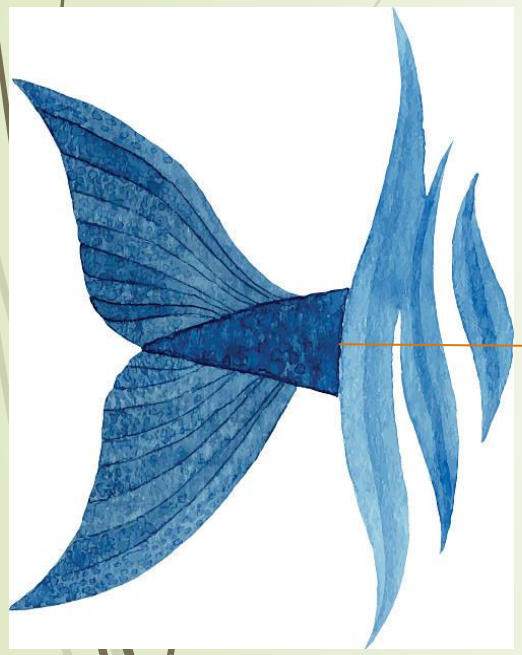
- Patients are not updated about their daily expenses leading to delays while finalizing bill.
- Approval Bottlenecks: GAM approvals required for manual charging of narcotic drugs takes time

4. **Bill Clearance to Physically Moved:** Standard TAT: 30 mins (Cash and TPA) & Observed TAT: 46% (Cash) and 57% (TPA)

- **Reasons for Delay**:

- Improper counselling of attendants to vacate bed
- Not proper use of Discharge lounge.
- Lack of diligent follow-ups for the discharge process, including explanations of the discharge summary, removal of cannulas by the TL, patient dress changes by the GDA.

Fish Bone Analysis on challenges face by stakeholders, causing discharge delays



Unclear Responsibilities

- Discharge Intimation
- Activity billing sheet (D.O/Nursing)
- Role of P.E

Administrative Burdens

- Lack of dedicated discharge team
- Wait for GAM approvals (Narcotic drugs)
- Manual Prep. of discharge summaries by MT.

Delay in Discharges

- Inadequate engagement and feedback from frontline staff

Disengaged Leadership

- Information Gap
- Delayed Responses(Delay in return of medication by nursing, leading to delay in pharmacy clearance, delay in sending file for summary prep. ,
- Manpower shortage

Delays from Other Departments


CONCLUSION

1. Communication Systems That Are More Efficient:

- **Standardize Communication Protocols:** defining specific channels for communication, setting expectations for response times, and creating templates for common communications like discharge notifications and medication lists.
- **Regular Interdepartmental Meetings**: These meetings can serve as a platform to address any communication gaps and ensure that all departments are aligned in their discharge duties

2. Administrative Processes That Are Easier To Manage:

- **Electronic Discharge Summaries**:Use electronic medical records (EMR) to create and store discharge summaries. Medical transcriptionists can input data directly into the EMR which can then be electronically reviewed and approved by experts. This reduces time spent on manual transcription and corrections.
- **Real-time Tracking Systems**:This allows staff to quickly identify bottlenecks and address them immediately. Such systems may give alerts for delays and ensure that all required actions are completed within expected time frames.

3. Teams Dedicated To The Discharge Process:

- **Form multidisciplinary teams** consisting of representatives from nursing, pharmacy, billing, TPA etcetera departments. These groups will be responsible for overseeing the entire discharge process.
- **Pilot Discharge Programs**: Pilot programs can be used to test out changes made in the discharge process. They can help identify real challenges and touch points for further optimization before rolling them out hospital-wide.

4. Training And Feedback On A Regular Basis:

- **Feedback Mechanisms**: Establish strong feedback mechanisms that allow staff to give their input about the discharge process. This can involve regular surveys, suggestion boxes and debrief sessions after discharges to identify pain points and areas for improvement.
- **Comprehensive Training Programs**: Develop comprehensive training programs for all staff involved in the discharge process. This should include training on use of HIS, communication protocols, administrative procedures.

5. Leadership Engagement:

- **Visible Support from the Top Management**: Examples of this might be regular attendance at wards, departments or units, taking part in meetings about discharges, and publicly recognizing what staff are doing.
- **Allocating Resources**: Another suggestion is to allocate enough resources for improving the discharge process

Thank you