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A Study on Patients Perception towards Discharge Process in Inpatient Department of Kovai Medical Center and Hospital Limited, Coimbatore

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ABSTRACT
In hospitals, patient discharge is a complicated process that involves a number of parties. Thus, the standard of medical care is becoming increasingly crucial in today's competitive environment. The discharge process is one of the significant variables associated with patient satisfaction among the different factors affecting the health care system. Discharge process is the release of a hospitalized patient from the hospital by the admitting physician after providing necessary medical care for a period deemed necessary. The objective of the study is to analyse the discharge process in the inpatient department in Kovai Medical Center and Hospital Limited, Coimbatore. The sample of the study is 100. Descriptive research design and convenience sampling method have been used. Questionnaire has been used to collect the primary data. Simple Percentage analysis, chi-square analysis and correlation have been used as statistical tools to reach the finding of the study. It is found that 34.0 % of the respondents are highly satisfied towards the discharge advice by doctor and 43.0% of the respondents are satisfied towards submitting complete records of patient in via Medical Center and Hospital Limited, Coimbatore.

KEY WORDS
Discharge process, Inpatient department, KMCH Hospital, Patients perception.

I. INTRODUCTION

In hospitals, patient discharge is a complicated process that involves a number of parties. Thus, the standard of medical care is becoming increasingly crucial in today's competitive environment. The discharge process is one of the significant variables associated with patient satisfaction among the different factors affecting the health care system. The discharge process is defined as "The process of activities that involves the patient and the team of individuals from various disciplines working together to facilitate the transfer of the patient from one environment to another". In accordance with the National Accreditation Board for Hospitals and Health Care Organizations (NABH), "Discharge is a process by which a patient is shifted out from the hospital with all concerned medical summaries ensuring stability. The discharge process is deemed to have started when the consultant formally approves discharge and ends with the patient leaving the clinical unit.

II. REVIEW OF LITERATURE

1. (TakSwapnil, 2013)

A study was conducted on "A comparative time-motion study of all types of patient discharges in a hospital". The study's findings indicated the following goals: 1) To watch and note how long it takes to complete the discharge procedure for all discharge kinds. 2) To compare the average discharge process completion time for all discharge types to NABH guidelines. 3) To make suggestions based on the research's findings. A 350-bed tertiary care hospital in Pune conducted observational research on 354 discharged patients of various categories, including insurance patients (104), self-pay patients (227), and discharges against medical advice (DAMA) (23). When 1) There are short to long-term repetitive work cycles, 2) A wide range of diverse work is performed, or 3) Process control elements are a part of the cycle, time-motion studies are frequently used. Except for the time required to return unused medications to the pharmacy, the findings clearly show that there is a delay in all sorts of discharges in this hospital.

2. (Kumari, 2013)
A study was conducted on "A study on Re-engineering the Hospital Discharge Process". The study revealed the main goal is to analyse patient readmissions to hospitals and better understand the present hospital discharge procedure. These studies include failure mode and impact analysis, qualitative analysis, process mapping, probabilistic risk assessment, and root cause analysis. 26 We have gained valuable insight into the many patient safety concerns surrounding the discharge process thanks to a thorough, multifaceted process analysis. The techniques presented here have resulted in the re-engineering of the discharge procedure, enabling the organization of a clinical study and materially bettering patient care.

3. (AjamiSima, 2015)
An analysis of the typical waiting time throughout the patient discharge process was done in a study. The study's primary goal was to reveal 448 patients and 40 hospital personnel who made up the statistical population. There were people who worked in the accounting department, the social center, the cashier's office, and the preclinical wards of the hospital in addition to doctors, nurses, and secretaries. The number of patients discharged from Kashani Hospital over the same time period the year before serving as the basis for the sample size of patients. Checklists, questionnaires, and observations were used to gather the data. Methods from operations research (O.R.) were utilized to analyze the data. According to the findings, it took patients an average of 4.93 hours to complete the discharge process. Patients' financial difficulties and the distance between different wards were found to be the main factors affecting the average waiting time by the hospital staff involved.

4. (Kathleen M. Finn, 2015)
A study conducted on "A study on "Improving the Discharge Process by Embedding a Discharge Facilitator in a Resident Team" The study revealed main objective inpatient teaching service at Massachusetts General Hospital (MGH), a sizable, 907-bed metropolitan hospital in Boston, Massachusetts, on 2 of the 5 resident general medical teams. Statistical Evaluation With the aid of 2-sample t-tests or Wilcox on rank sum tests for continuous data and chi-square tests for categorical variables, patient characteristics across the intervention and control teams were compared.
Aside from saving residents' time, helping resident doctors with the discharge process enhances many elements of discharge communication and patient follow-up.

5. (El-Banna, 2016)
A study on "Improving Patients Discharge Process in Hospitals by Using Six Sigma Approach" was carried out. According to the study, the main goal of this work is to use the six-sigma methodology to reduce patient discharge times (for insured patients) to under 50 minutes. This improvement will also increase customer satisfaction, boost admissions and room turnover, and boost hospital profitability. This study took into account the female, male, and paediatric departments. In the hospital's paediatrics, female, and male departments, the Six Sigma approach and simulation have been used to cut down on the time it takes for patients to be discharged.

III. OBJECTIVE

➢ To study about the perception of inpatients towards the discharge process.
➢ To study various procedures of discharge process in inpatient department of Kovai Medical Center and Hospital Limited, Coimbatore.
➢ To identify the satisfaction level of inpatients towards existing workflow related to discharge process.
➢ To understand the factors that contribute to discharge process delays
➢ To obtain suggestions from the respondents to shorten the process delays in the discharge process

IV. RESEARCH METHODOLOGY

The research challenge can be approached methodically using research methodology. It can be viewed as a science that studies how scientific research is conducted. In it, we examine the many approaches typically used by a researcher to analyse his research challenge, as well as the reasoning behind them. The researcher must be knowledgeable about methodology in addition to research methodologies.

RESEARCH DESIGN

Employee surveys use research designs as the fundamental framework or plan that directs the gathering of data and data analysis. Using this descriptive research design, data is gathered and analysed.

DESCRIPTIVE RESEARCH DESIGN

With no control over the variables, descriptive research can be defined as a statement of the current state of affairs. Moreover, "descriptive research may be characterized as simply the attempt to determine, describe or identify what is, while

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analytical research attempts to establish why it is that way or how it came to be.

CONVENIENCE SAMPLING TECHNIQUES

Convenience sampling techniques were used for the study. Convenience sampling is a type of non-probability sampling that involves the sample being drawn from that part of the population that is close to hand. This type of sampling is most useful for pilot testing.

TOOLS USED FOR ANALYSIS

interpretation. It can be calculated as follows.

= No of Respondents favourable / Total Respondents *100

CHI-SQUARE ANALYSIS

Chi–square analysis in statistics to test the goodness of fit to verify the distribution of observed data with assumed theoretical distribution. Therefore, it is a measure to study the divergence of actual and expected frequencies. It makes no assumptions about the population being sampled. The quantity $\chi 2$ (chi-square) describes the magnitude of the discrepancy between theory and observation.

If $\chi 2$ is zero, it means that the observed and expected frequency completely coincides. The greater the value of $\chi 2$, the greater would be the discrepancy between observed and expected frequencies.

The formula for computing Chi–Square ($\chi 2$) is as follows.

$$\chi 2 = \sum\{(O-E)\text{^}2 /E\}$$

The calculated value of $\chi 2$ is compared with the table of $\chi 2$ for given degrees of freedom at a specified level of significance. If the calculated value of $\chi 2$ is greater than the table value then the difference between theory and observation is considered to be

Collected data were arranged as per the tabulation, chart, and satisfied tools such as,

- ➢ Percentage analysis
- ➢ Chi-square analysis
- ➢ Correlation analysis

PERCENTAGE ANALYSIS:

The percentage method was extensively used for finding various details as mentioned in the chapter of analysis and

significant. 39 On the other hand, if the calculated value of $\chi 2$ less than the table value then the difference between theory and observation is not considered to be significant. The degree of freedom is (n – 1) where 'n' is a number of observed frequencies.

CORRELATION ANALYSIS

Correlation analysis deals with the association between two or more variables. It does not tell anything about cause-and-effect relationship. Correlation is described or classified in several different ways. Karl Pearson's method is popularly known as Pearson's coefficient of correlation. It is denoted by the symbol 'r'.

Formula for Karl Pearson's coefficient $r = \sum xy / \sqrt{\sum x2 * \sum y2}$

The value of the coefficient of correlation as obtained by the above formula shall always lie between +1 and -1. When r = 1, it means there is a perfect positive correlation between variables. When r = -1, it means there is a perfect negative correlation between variables. When r = 0, it means no relationship between variables.

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V. DATA ANALYSIS

INCOME OF THE RESPONDANTS

Educational	No. of respondents	Percentage
Below Rs.2,50,000	26	26.0
Rs.2,50,000 – 5,00, 000	25	25.0
Rs.5,00, 001 – 7,50,000	36	36.0
Rs. 7,50,001 – 10,00,000	7	7.0
Above Rs.10,00,000	6	6.0
Total	100	100.0

FACTORS INFLUENCE TO SELECT THE HOSPITAL

Salary	No. of respondent	Percentage
Quality of service	46	46.0
Cost of treatment	10	10.0
Facilities & environment	23	23.0
Time spending with patients	12	12.0
Efficient administration	9	9.0
Total	100	100.0

TIME TAKEN FOR PROCESS THE INSURANCE CLAIM

Particulars	No. of respondents	Percentage
Highly satisfied	22	22.0
Satisfied	29	29.0
Neither satisfied nor dissatisfied	24	24.0
Dissatisfied	12	12.0
Highly dissatisfied	13	13.0
Total	100	100.0

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TIME OF EXPLAINING & HANDING OVER OF DISCHARGE FOLDER TO PATIENT/ATTENDANT

Particulars	No. of respondents	Percentage
Below 5 minutes	19	19.0
5 – 10 minutes	19	19.0
11 – 15 minutes	10	10.0
16 – 20 minutes	10	10.0
Above 20 minutes	42	42.0
Total	100	100.0

CHI-SQUARE ANALYSIS
RELATIONSHIP BETWEEN THE GENDER OF THE RESPONDENTS AND INPATIENT SATISFACTION IN EXISTING WORKFLOW RELATED TO DISCHARGE PROCESS
HYPOTHESIS TESTING

Null hypothesis (Ho):

There is no significant relationship between the gender of the respondents and inpatient satisfaction in existing workflow related to discharge process.

Alternative hypothesis (H1):

There is some significant relationship between the gender of the respondents and inpatient satisfaction in existing workflow related to discharge process.

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percentage	N	Percentage	N	Percentage
GENDER OF THE RESPONDENTS * SATISFACTION	100	100.0%	0	.0%	100	100.0%

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	84.721[a]	16	.000
Likelihood Ratio	109.086	16	.000

Linear-by-Linear Association	68.466	1	.000
N of Valid Cases	100		
a. 28 cells (82.4%) have expected count less than 5. The minimum expected count is .34.			

INTERPRETATION:

As per the above table, it is inferred that the P value is 0.000; it is significant to 5% (0.05) significant level. The minimum expected count is 0.34. Thus alternative hypothesis is accepted and it is finding that there is some significant relationship between the gender of the respondents and inpatient satisfaction in existing workflow related to discharge process.

CORRELATION ANALYSIS
RELATIONSHIP BETWEEN THE AGE OF THE RESPONDENTS AND INPATIENT PERCEPTION TOWARDS TIME FOR EACH COMPONENT IN THE DISCHARGE PROCESS

Correlations			
		AGE OF THE RESPONDENTS	PERCEPTION
AGE OF THE RESPONDENTS	Pearson Correlation	1	.165
	Sig. (2-tailed)		.102
	N	100	100
PERCEPTION	Pearson Correlation	.165	1
	Sig. (2-tailed)	.102	
	N	100	100

INTERPRETATION:

The Above table indicates that out of 100 respondents, co-efficient of correlation between the age of the respondents and inpatient perception towards time for each component in the discharge process is .165. It is below 1. So there is positive relationship between the age of the respondents and inpatient perception towards time for each component in the discharge process.

CHI-SQUARE ANALYSIS
RELATIONSHIP BETWEEN THE INCOME OF THE RESPONDENTS AND TIME TAKEN FOR PROCESS THE INSURANCE CLAIM

HYPOTHESIS TESTING

Null hypothesis (Ho):

There is no significant relationship between the income of the respondents and time taken for process the insurance claim.

Alternative hypothesis (H1):

There is some significant relationship between the income of the respondents and time taken for process the insurance claim.

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Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percentage	N	Percentage	N	Percentage
INCOME OF THE RESPONDENTS * TIME TAKEN FOR PROCESS THE INSURANCE CLAIM	100	100.0%	0	.0%	100	100.0%

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	162.957[a]	16	.000
Likelihood Ratio	144.357	16	.000
Linear-by-Linear Association	58.970	1	.000
N of Valid Cases	100		
a. 16 cells (64.0%) have expected count less than 5. The minimum expected count is .72.			

INTERPRETATION:

As per the above table, it is inferred that the P value is 0.000; it is significant to 5% (0.05) significant level. The minimum expected count is 0.72. Thus alternative hypothesis is accepted and it is finding that there is some significant relationship between the income of the respondents and time taken for process the insurance claim.

DISCHARGE OF PATIENTS IN A HOSPITAL

In hospitals, patient discharge is a complicated process that involves a number of parties. The transition of hospital care into other residential settings or institutions, such as nursing homes, is known as hospital discharge of patients. This means that patient discharge does not signal the end of treatment; rather, it marks a change in how care is being delivered. Respondents to a qualitative study among fifteen healthcare professionals in the United States highlighted the importance of the caregiver's involvement, the patient's home environment's safety, and accessibility to community resources for healthcare of the patients also results in the improvement of the patient health as it has homely environment and provides the comfort zone to the patient.

DISCHARGE PLANNING:

Planning for discharge is a standard component of healthcare systems in many nations. Discharge planning aims to shorten hospital stays, prevent unscheduled readmissions, and enhance service coordination once a patient leaves the hospital. The process through which the hospital team determines what assistance the patient might need in the community recommends the patient to these resources, and then works with these services to manage the patient's discharge is known as discharge planning. There are two different types of discharge planning. They are,

(1) Informal (ordinarily structured)
(2) Formal (specialized, structured)

VI. FINDINGS

- It is found that 50% of the respondents are Highly aware of the hospital.
- 40% of the patients suggest that the hospital provides good Quality of service to the patients.
- 34% of the patients are Highly satisfied by the prior information provided towards the discharge advice by doctors.
- It helps 40% of the patient as the hospital gives the intimation regarding discharge in advance.
- 43% of the patient suggest that the hospital provides complete record of the patient.
- It helps 30% of the patient as the hospital provides handover of the discharge summary to the patient.
- 42% of the patients are satisfied towards the time consumed for Insurance clearance

VII. SUGGESTION

Discharge process plays an important role for patients to go back to the ordinary life style. In that Situation if the procedure for the discharge process gets delayed, the patient as well as the Guardian may get Negative Impact towards the Hospital even though their Service for patient treatment was good enough. So, the hospital should give equal care of which they used to provide for the treatment and service provided for the patient to the Discharge Clearance process.

VIII. CONCLUSIONS

One of the longer processes is the hospital discharge process. Inpatient perception and satisfaction are crucial to the discharge process. Hospital discharge times are a key sign of the calibre of care and patient satisfaction. Even after receiving successful and satisfying treatment, the patient and his or her family are ready to get back to their regular lives as soon as possible, and any unjustified delay in the discharge procedure makes patients unhappy and harms the hospital's reputation. A defined time frame for finishing the discharge procedure has been established by the National Accreditation Board for Hospitals and Health Care Organizations (NABH).

REFERENCE

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