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A Study on Analysis of Patient Food Delivery in a Multispecialty Hospital, Coimbatore

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Abstract: ***Dietary department within hospital sector is responsible for complete supply of foods and feeds to patient and their family members. Any error in this department will lead to delay in patient care. In this study, the researcher analyses the food delivery system and finds out whether right food is delivered for all patient at right time. This topic is an initiative to provide suitable suggestion to overcome errors and to improve the overall food delivery standards. The data collection method was used to find the patient food delivery to the right food, right time to the patient. Time delay is calculated throughout the study to find out the reason for food delay. The purpose of the study is to improve food delivery process at hospital.***
Keywords: Food error, Time delay, Dietary department, Solid food, Liquid food, Package food.

I. INTRODUCTION

Hospital food services department plays a major role in the management of all patients in hospital. Nutrition intake is critical for the patients' health as well as patient satisfaction. Food delivery is the right way of delivering food at right place, right time and it is the right service. Patient meals are the important part of every hospital treatment and the consumption of a well-balanced diet and it is crucial aid recovery. The dietary department is also known as food service department in every hospital. This also provides nutritional meals and adequate service to every patient in the hospital. So the dietary managers, dieticians, supervisors, catering employees are responsible for every meal which is provided to the patient. So they are also responsible for the work of nutritional personnel which include works and dietary aids. Patients' meals are important to treat the patients who are all in critical condition. In hospital food services plays an important role in the patient's recovery. So the hospital should provide food to every patient.

II. OBJECTIVES

1) To study on patient food delivery process at hospital.
2) To find out whether right food is delivered for all patient at right time.
3) To recommend to improve the food delivery process at hospital (right food, right time for patients).

III. REVIEW OF LITERATURE

According to Vanessa Trinca, Lisa Duizer, Shannon Paré, Heather Keller (2021), in this qualitative study 16 hospitals in Ontario were participated. Semi-structured and focus groups were conducted to find out the quality of food, organizational constraints and meal time provided by the hospital to the patient.

According to Stefanie Carino, Judi Porter, Shirin Malekpour, Jorja Collins (2020), in this qualitative study, semi-structured interviews were conducted with the experienced hospital staffs. As the result of this study, four themes were identified by the researchers such as initiating drivers such as municipal and environment, challenges such as staff fetters, influences and supporting enablers.

According to Jun Musnadi Is, Liza Sartika, Zakiyuddin Zakiyuddin (2020), in this study has given an effect to control the factors of food, equipment, people and places which causes the health problem. So analysis of food hygiene is done and qualitative study is conducted. So, developments have been made to provide good food which is hygiene. So, the hospital is recommended to pay more consideration to hygiene.

IV. METHODOLOGY

This research aims on patient's food delivery. A simple percentage analysis and average method was used to analyse the patient food delivery. A daily flow in dietary department is considered and analysed. For this purpose a checklist has been designed.

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A. Data Collection

Only primary data is used that is collected through Check sheet. The period of study was made from December 2021 to March 2022. The targeted population is employees in one of the leading hospital Coimbatore.

B. Sample Size

The sample size for the study is 450 data collected.

V. ANALYSIS AND INTERPRETATION

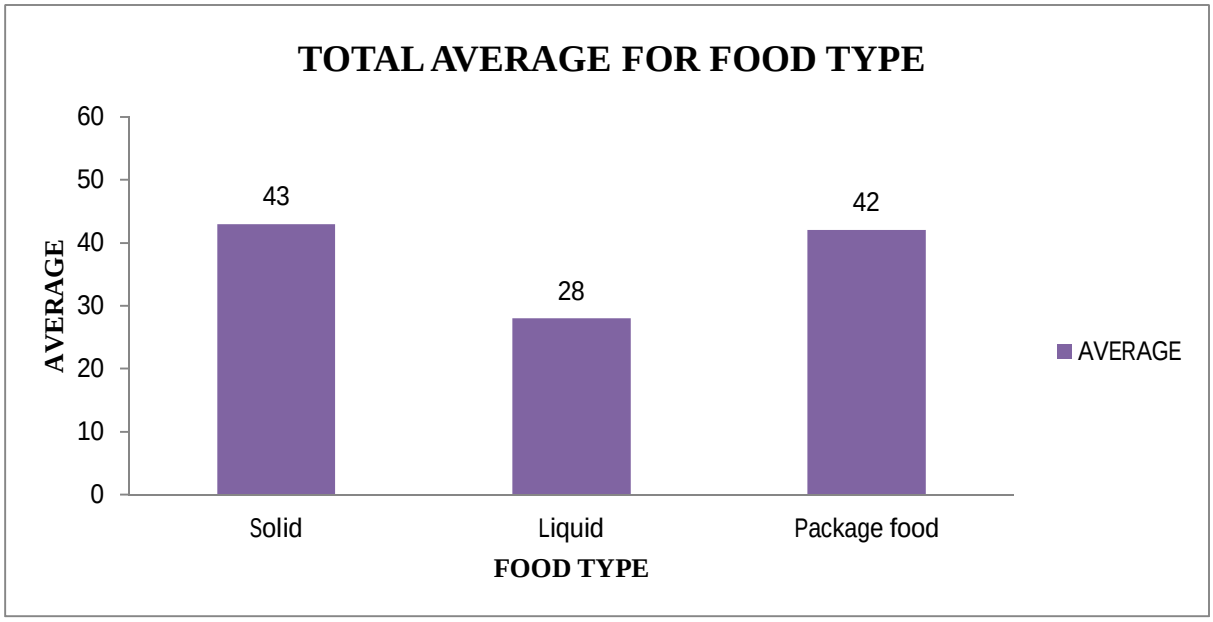


Fig 1: Total Average for Solid, Liquid and Package Food

Standard Time: 20 – 30 minutes

Average Time

Solid food: 43 minutes, Liquid food: 28 minutes, Package food: 42 minutes

S. No	Reason For Food Errors	No. of Occurrence
1	Food mismatch	63
2	Label missing	60
3	Food mistake	77
4	Patient's ward/room change	66
5	Patient's labour room change	64
6	Patients moved for other process	79
7	Normal diet change to tube feeding	6
8	Package Food mismatch	126

Table 1: Total No. Of Food Error Occurrence In 7 Floors

The Total no. of food error occurrence in all the 7 floors, the number of food mismatch is 63, the number of label missing is 60, the number of food mistake is 77, the number of patient's ward/room change is 66, the number of patient's labour room change is 64, the number of patients moved for other process is 79, the number of Normal diet change to tube feeding is 6, the number of Package Food mismatch is 126.

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VI. FINDINGS

1) Standard time: 20 – 30 minutes
Average time
Solid food: 43 minutes
Liquid food: 28 minutes
Package food: 42 minutes

2) The Total no. of food error occurrence in 7 floors, the number of food mismatch is 63, the number of label missing is 60, the number of food mistake is 77, the number of patient's ward/room change is 66, the number of patient's labour room change is 64, the number of patients moved for other process is 79, the number of Normal diet change to tube feeding is 6, the number of Package Food mismatch is 126.

VII. SUGGESTIONS

1) Finding "Delay in delivering solid, liquid and packed foods"- can be resolved by,
- Proper allocation of available recourses.
- Increasing manpower.
- Implementing tracking application such PORTZO to tracks the delivery staff's locations.
- Re-educating staffs about the importance food delivery at right time.

2) Finding "Food Mismatch"- can be resolved by,
- Proper supervision before delivery of foods.
- Having proper labeling system including name of patient name, IP number, and diet type.
- Proper communication between ward staffs and dietary staffs.
- Having separate food preparation area for each type of diet.

3) Finding "Label missing"- can be resolved by,
- Foods without label should not be delivered to patients.
- Proper supervision to rule out whether foods are supplied from dietary department with labels.
- Use an oil-based marker to label foods incase automatic labeling machine is out of order.

4) Finding "Food Mistake"- can be resolved by,
- Implementing standard protocols such as staffs wearing hair cap, mask, disposable paper gloves, proper hand hygiene.
- Following proper and clean method of cooking.
- Avoid mixing of non-edible items in patient's foods.
- Maintain proper display of foods.
- Using clean utensils for cooking and dispensing foods.
- Obtaining frequent feedback from patient and family members.

5) Finding "Patient ward/room change"- can be resolved by,
- Dietician should always be aware of their patient's ward location.
- Informing the nurses to intimate if the patient changes their ward/room.
- Food delivery staff should not delivery the food to the wards incase the patient is not present at that time.

6) Finding "Patient changes in labour ward"- can be resolved by,
- Dietician should always be aware of their patient's ward location.
- Informing the nurses to intimate if the patient is posted for emergency delivery
- Food delivery staff should not delivery the food to the wards incase the patient is not present at that time.

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7) Finding "Patient moved for other process"- can be resolved by,

- Nurse to inform the dietician incase patient is posted for any emergency procedure or patient is in NPO.
- Diet entry from ward side should be avoided if the patient is not available.
- In case of discharge/ AMA/ Declare, the dietary should be made aware of it.

8) Finding "Normal diet changed to feeds"- can be resolved by,

- Initiation of feeds or change of normal diet to feeds should be informed to dietary department/liquid section.
- Dietician should take responsibility to monitor diet changes.
- Reeducating dietary and wards staffs.
- Proper system entry from ward side through backbone.

9) Finding "Package food mismatch"- can be resolved by,

- Proper supervision before delivery of packed foods.
- Having proper labeling system including patient name, IP number, and diet type.
- Proper communication between ward staffs and dietary staffs.
- Having separate food preparation area for each type of diet.

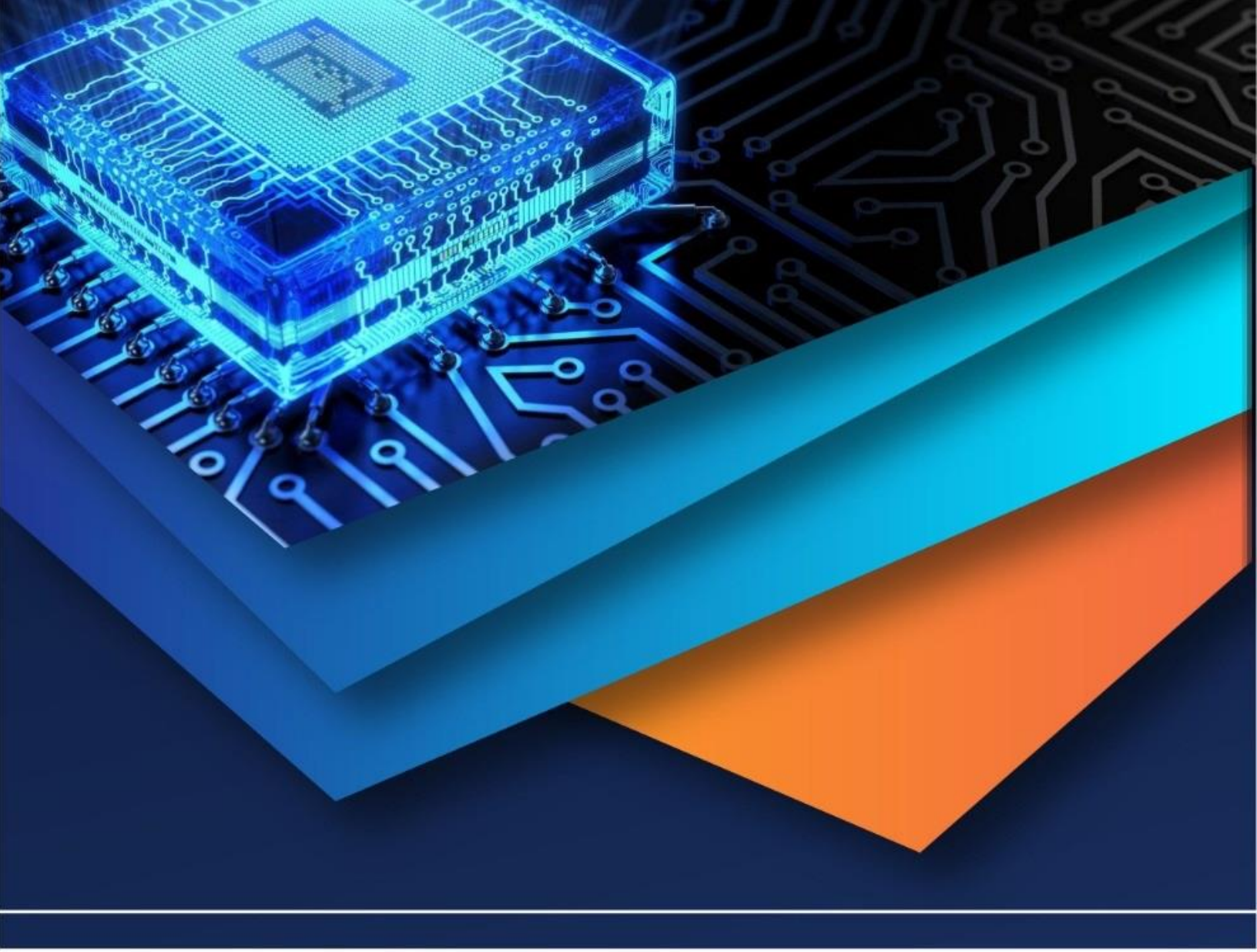
VIII. CONCLUSION

Dietary department is a patient supportive non-clinical sector within healthcare organization. Any errors or delay from this department will have a direct impact on patient's care. By analysing the food delivery process and interpreting the reasons for food error, the researcher is able to list the issue and find out the possible suggestions in this study. This study displays that, the total average time required to delivery solid, liquid and package foods to each floor is higher than the standard time allocated by the hospital.

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