



CHALLENGES FACED BY THE KITCHEN STAFFS DURING PANDEMICS IN TERTIARY CARE HOSPITAL OF JHARKHAND: A DISCRIPTIVE STUDY

Dr Anju Prabha Kumari

Specialist Medical Officer, Department of Medicine, SBMCH Hazaribag.

Dr Soma Oraon*

Assistant Professor, Department. of Medicine, SBMCH Hazaribag. *Corresponding Author

Dr Dilip Kumar Paswan

Senior Resident, Department of PSM, RIMS Ranchi.

ABSTRACT

Introduction: Providing appropriate nutrition in the hospital settings is a challenging task due to diverse dietary need of the population. **Objectives:** (i) to assess different dietary package in the kitchen (ii) to find out the challenges due to increasing patient load during pandemic. **Methodology:** This was a record based cross sectional study conducted in the Central kitchen of Rajendra Institute of Medical Sciences (RIMS), Ranchi for a period of four weeks (1st August to 28th August, 2020). Collected Data was entered in Microsoft Excel Sheet and was analysed using SPSS software version 20. **Result:** The mean (SD) population that was served by the hospital kitchen 838.86(75.60). The proportion of total patient with respect to total patient was 0.256. The main dietary difference for pandemic patient was found in terms of high protein content, change in rice quality and use of butter to increase palatability. **Conclusion:** Due to limited human resource and increasing pandemic patient kitchen staffs were pressurized. The hospital administration must get prepared for unpredictable exponential load due to pandemic or any outbreak.

KEYWORDS : Hospital Kitchen, Pandemic covid-19 and challenges

INTRODUCTION

Since December 2019, the world had confronted with the outbreak of the coronavirus disease 2019 (COVID-19) pandemic, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). [1,2] The WHO declared it a global health emergency on the 30 January 2020, because of increasing number of cases. [2] To prevent the spread of COVID-19, the governments of many of the affected countries decided to impose strict containment measures such as ban on public gatherings, closure of public places.[3] During the first wave of pandemic, when vaccination was not available, a strong emphasis was placed on maintaining an optimal nutritional status to improve immunity and recovery of the patient.[4] Healthy nutrition including an adequate supply of essential and bioactive nutrients is not only vital for human health and well-being but also has an important protective impact for respiratory infectious diseases such as COVID-19 [5-11].

RIMS, Ranchi being a super-Specialty hospital of Jharkhand welcomed huge number of local patients, referral patients and the migrants as well. For the covid-19 patients' treatment, primary focus was on food services. Therefore, this study was conducted (i) to assess different dietary package in the kitchen (ii) to find out the challenges due to increasing patient load during pandemic.

MATERIAL AND METHODS:

This was a record based cross sectional study conducted in the Central kitchen of Rajendra Institute of Medical Sciences for a period of four weeks (1st August to 28th August 2020). Collected Data was entered in Microsoft Excel Sheet and was analysed using SPSS software version 20. Descriptive statistics was used and result was expressed in mean, standard deviation, proportion, frequency and percentage.

RESULT:

The mean (SD) population that was served by the hospital kitchen 838.86(75.60) every day with a range of 529 to 727. The proportion of total patient with respect to total patient was 0.256. The details of human resource are shown in Figure 1.

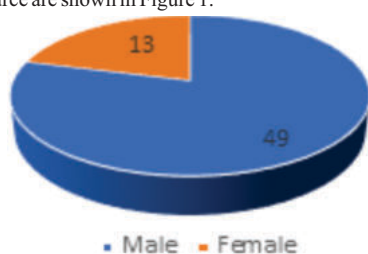


Figure 1 Manpower Of The Kitchen Staff (n=62)

The different dietary packages are presented in Table 1.

Details of the weekly serving of covid-19 special diet is depicted in Figure 2.

Table 1. Types Of Diet Prepared In The Hospital Kitchen

Types of Diet	Mean	Standard Deviation	Minimum	Maximum
Normal	595.07	57.965	529	727
Liquid	79.75	25.384	45	121
Diabetic	142	32.638	89	217
Soft	25.21	7.104	11	38
Covid-19 Special	218	30.478	177	276
Total	838.86	75.602	714	987

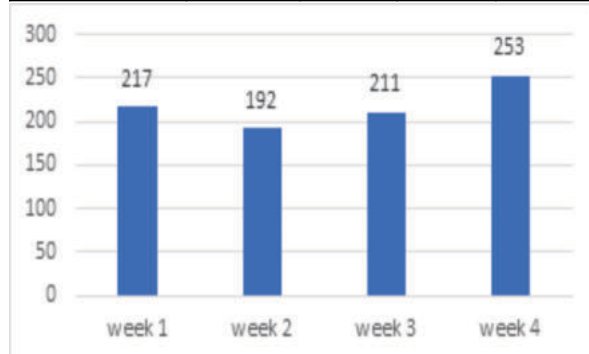


Figure 2 Average servings for Covid -19 patients

DISCUSSION:

Paying attention to food services quality in improving patient health is inseparable part of treatment process. Diet of an individual varies as per age, sex, state of health and medical condition such as hypertension, diabetes, hyperlipidemia, congestive heart failure, chronic kidney disease, post operative period and food allergies. The hospital kitchen plays a vital role in health care by providing nutritious and tailored meal to the patient, without compromising the taste and quality.

The study showed that there were six different dietary packages that were prepared including Covid 19 special diet. Renal and cardiac diet was not found in the menu during study period.

There was gradual increase in the number of Covid 19 patients. In view of lock down and clinical presentation like loss of taste and loss of

smell some modification done in the usual diet for Covid 19 patients as follows:

- *Attention paid to add more protein (two boiled eggs or paneer),
- *Increase in the number of chapatti and use of butter to increase palatability
- *Change in rice quality
- *Banana shake was avoided
- *Changes in serving plate- All disposable (Plate, cup, spoon & glass)

This study revealed that manpower was less as compared to the work load. Managing three serving meals with different dietary requirement along with increasing number of Covid 19 patients was really challenging. Staffs had to work extra hours with pressure and fear of contracting infection.

Limitation of the study: Very short study duration, and solely dependency on records and information provided by Kitchen Manager. Due to quarantine, it was difficult to contact with the individual Kitchen staff.

CONCLUSION:

In conclusion our study suggests that due the increasing pandemic patients and limited human resource and, kitchen staffs were pressurized. Appointment of adequate manpower to be considered. In view of unpredictable outbreak, disaster and pandemics, preplanned organized, extra back up is highly recommended. In addition, an extensive national nutrition program will result in enhanced health, reducing the burden of the health system.

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