

LEFT OVER FOOD IN TRAY BY INDOOR PATIENTS

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Abstract : Hospital diet plays important role in recovery from illness amongst indoor patients. Usually hospital diets are not well accepted. The refusal of food served, partly or whole may be due to many reasons. The refusal pattern of breakfast differs from lunch. The study conducted at SGPGIMS revealed that the refusal may be as high as 15.75% in case of breakfast and 19.50% in case of lunch. The major factors for refusal of breakfast were anorexia / vomiting (32%), hospitalization (17%), fasting for tests (12.25%), feeling of satiety (8%), fever (7%) etc. Whereas in case of lunch, salt free diet (27%), cyclic menu (18%), anorexia /vomiting (11%), taste of food (10%), hospitalization (7%) were the major factors. Majority of factors have administrative background and some have disease related for which little can be done, as they can only be overcome with recovery. But administrative reasons can be removed gradually by putting in efforts and acceptance of food can be improved. Still some amount of food will go waste.

INTRODUCTION

The life cannot be sustained without adequate nourishment Man needs adequate food for growth, development and to lead active and healthy life importance of good diet could have on their recovery is well established¹. But one can see physiologic stress like in many hospitalized patients as a consequence of infections, fever, surgery, anorexia, nausea, vomiting, food aversions, burns, or other traumas all which adversely affect oral Intake². Therefore these patients are unable to ingest sufficient food to meet the increased needs . It is the prime responsibility of the hospital to take care of the adequate quantity and quality of the food served to the patients This can be achieved by keeping in mind the aspects like portion size, seasonal foods, ingredients, storage, preparation, cooking methods palatability, holding and service methods so as to provide and maintain good nutritional quality of food. For proper acceptance of food one should also consider, the appearance colour, flavor, and texture of food. But usually hospital diets are not well accepted.

There is a great wastage of food portions since many of the meals prepared for patients are not eaten³. This may be due to many reasons like different meal timings, unfamiliar hospital environment, bland diet, taste of food, due to cultural difference, repeated menus, fasting due to tests, nausea, vomiting, constipation, poor quality of food and many more. As a consequence one can see left out food in trays in hospitals Food wastage is a problem in many hospitals and the problem may be due to number of reasons as mentioned above⁴. As such it was thought to conduct this study with the following objectives: (1.) To find out amount of breakfast and lunch consumed and not consumed by the patients; (2.) To find out the reasons for the food left over in trays of hospitalized patients, it breakfast and lunch; (3.) Based on above to make recommendations for better acceptance of food to reduce the wastage of food.

MATERIAL AND METHODS

Survey was concluded at SGPGIMS Hospital between 10-04-2004 to 19-04-2004 to ascertain the information on the followings –

- amount of food consumed by the patients.
- Reasons for the food left over in trays.

Selection of subjects : 20 patients per ward per day for 10 consecutive days (total 400) were randomly selected from indoor patients of Nephrology and Medical Gastroenterology wards of SGPGI Hospital.

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Development of questionnaire : For obtaining the required information a questionnaire was formulated. It consist of the following information.

- Breakfast or lunch taken or not taken
- Amount of breakfast or lunch consumed
- Reasons for the food left over in trays.

Collection of data: After the development of questionnaire, interview method was followed to collect the data for the present study. For reference intake the consumption in the patients attendant was also taken.

RESULTS

After the data was collected, tabulation was done and the respective percentage for left over food with reasons were calculated

(i) Break fast Consumption

Respondents : 84.25% of the respondents take their breakfast, where as 15.25% of them skips their breakfast.

Amount of Breakfast consumed

Figure 1 shows that out of 84.25% of the respondents who were consuming their breakfast only 46.29% of them consumed 3/4th of their breakfast. 17.21% ate 1/2 of their breakfast and the rest 9.29% ate only 1/4th of their breakfast; 27.29% who did not have any breakfast

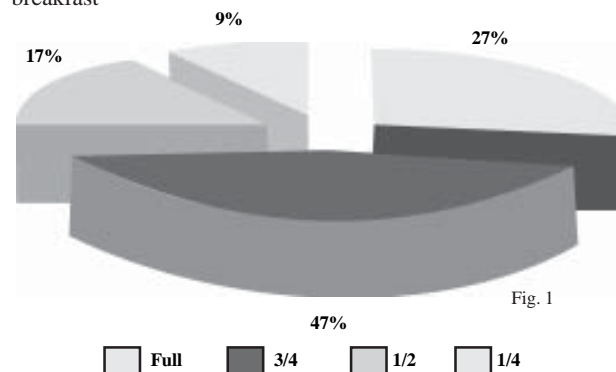


Fig. 1

Reason for left over Breakfast

Food was usually seen left out in trays of hospitalized patients due to various reasons (table 1), major reason in 31.75% was to anorexia and vomiting, whereas 17.75% of them did not take their full breakfast because of hospitalization; 12.25% each did not take due to fasting for test and abdominal distension; 10.25% due to constipation; 6.75% had fever; 8% of the patients reported

actual appetite; 6% did not eat because the taste of food was not good and remaining 4% meal timing were different from their daily schedule.

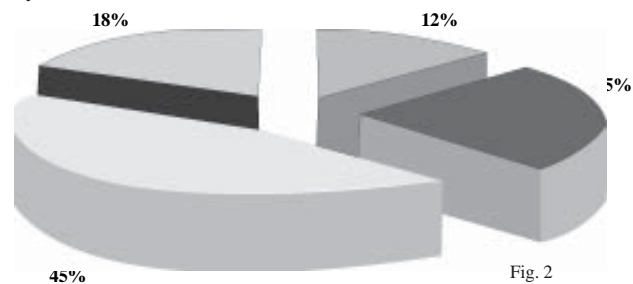
Table 1: Distribution on the basis of reasons for left over breakfast

Reasons	No. of Respondent (n=400)	%-age
Fasting for Investigations	49	12.25
Different meal time	16	04.00
Taste of food	24	06.00
Constipation	41	10.25
Anorexia/vomiting	127	31.75
Hospitalization	71	17.75
Feeling of satiety	32	08.00
Fever	27	06.75

Lunch Consumption

(i) *Respondents:* Analysis revealed that 80.5% respondents took their lunch, remaining 19.5% did not take lunch.

(ii) *Distribution on the basis of lunch consumed:* Fig 2 shows that out of 80.5% of the respondents who were taking lunch 44.45% of them consumed 1/2 of their lunch followed by 25.15% who were taking 3/4th of the lunch; 18.32% ate 1/4th of their lunch and the rest of them did not have any lunch.



Legend: Full (lightest), 3/4 (dark), 1/2 (medium), 1/4 (darkest)

(iii) *Reasons for left over lunch (table 2):* In 29% salt free diet was main cause for left over lunch; 18% disliked because of cyclic menu (especially vegetables); 11% to anorexia and vomiting; 7% of them because of were depressed due to hospitalization; 8% did not eat properly due to fasting for various tests/dialysis. 4% of the patients had conditipations; 3% had actual appetite loss. In 3% each reason was high fever and food fads; respectively.

Table 2: Distribution on the basis of reason for left over lunch

Reasons	No. of Respondent (n=400)	%-age
Fasting for Investigations	32	8
Different meal time	16	4
Taste of Food	40	10
Constipation	16	4
Anorexia/Vomiting	44	11
Hospitalization	28	7
Feeling of Satiety	12	3
Food fads	12	3
Fever	12	3
Cyclic menu	72	18
Salt free diet	116	29

Relative's response to left over food

Amongst the 63 respondent patient's relatives, all (100%) took the breakfast when whole of it was left over, none of them ate 3/4, 1/2, or 1/4 the breakfast left over by the patients. In the case of lunch, 88.25% of the 68 respondent relatives took left over lunch; only 11.75% took when 3/4th lunch was left over; none of the relatives took 1/2 or 1/4th left over lunch.

DISCUSSION AND CONCLUSION

The present study conducted on 400 indoor patients revealed that most of the patients consumed their breakfast and lunch i.e., 84.25% and 80.50% respectively. Out of these, 46.29% of the subjects consumed 3/4th of their breakfast followed by 27.29% who ate full amount which was served. The rest of them ate 1/2th and 1/4th of the breakfast served. As far as lunch was concerned, most of the patients i.e 44.72% ate only 1/2 the amount of the lunch followed by the 25.15% who ate 3/4th of the amount 18.32% ate 1/4th of the lunch and only 11.8% ate full amount served to them; in most of the cases the left over food was in the form of vegetables.

The study revealed that: (i) breakfast intake by the patients was slightly better (84.25%) as compared to lunch (80.50%); (ii) The major reasons contributing to over lunch were: salt free diet (29%), cyclic menu (18%), anorexia & vomiting (11%), personal taste (10%), hospitalization; (iii) The major factors contributing the left over lunch were anorexia & vomiting (31.75%), hospitalization (17.75%), The acceptance of left over food by the relatives was good (breakfast 100%, lunch 88.25%).

There were valid administrative reasons which could be removed. It is apparent that the total quality of food to be served to patients should be reduced only marginally.

Major Recommendations includes:

- The food prepared in hospital kitchen should be divided into two portions - salted and unsalted .
- Long term cyclic menu should be used so that weekly repetition of food item is avoided.
- There should be a provision for hot case tiffins or facility of reheating of food in the ward pantry for the patients who skip their meals because of tests.
- The standardization of each recipe should be done under strict supervision; food served should be palatable and attractive.
- Counselling is important in case of the patients who do not eat due to some food fads or dietary regime, related particularly to underlying diseases.
- There should be provision for specific therapeutic, attractive and palatable snacks.

RECOMMENDED READING

- 1) Peter Kandela; Hospital food; Lanchet, Feb. 27, 1999
- 2) Ruth Williams et al; Room service improves patients food intake and satisfactions with hospital food; Journal of Association of pediatric oncology nurses, 1998,
- 3) Michael Bezzina; An evaluation of the food service system of Goza general hospital: Health measures, Mar 1997.
- 4) L Kelly; Audit of Food wasteage; Differences between a plated and build system of meal provision: Journal of Human nutrition and dietetics, 12: Oct. 99, 415-424.