

Patients' Satisfaction about Quality and Services of Food in a Tertiary Military Hospital

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DOI: <https://doi.org/10.3329/jafmc.v17i1.56711>

Abstract

Introduction: Patients' satisfaction has become a key criterion by which quality of health care services is evaluated. Quality of food and its services in a hospital is an important component of treatment process since it sometimes is a part of treatment and often affects the patients' satisfaction.

Objectives: To determine the level of patients' satisfaction about quality of food and services and to identify the factors affecting it.

Materials and Methods: This cross-sectional observational study was carried out from July 2018 to June 2019 in a tertiary military hospital, Dhaka. Structured questionnaires were used as data collection instruments and were analyzed by SPSS version 23.

Results: Out of 184 respondents' majority (60.3%) were satisfied with hospital food and food services. About 94%, 91.3%, 88%, 84.8%, 83.2% and 77.2% respondents were satisfied with amount, warmth, cleanliness of utensils, cleanliness of food servers, attitude and behaviour of food servers and food distribution time respectively. Relationship between overall satisfaction level and different aspects related to hospital food and food services was detected by chi-square and Fisher's exact test. In logistic regression analysis result showed that taste of food, food distribution time, cleanliness of food servers and cleanliness of ward/cabin were statistically significant and most important determinants of patients' satisfaction with the food served in hospital.

Conclusion: Improving taste of food, ensuring cleanliness of the food servers and ward and adjusting food distribution time are required to improve the level of overall patients' satisfaction towards hospital food and food services.

Key-words: Patients' satisfaction, Quality of hospital food, Hospital food services.

Introduction

Patients' satisfaction is the extent to which the patients feel that their needs and expectations are being met by the service provided¹. In the recent time, the quality of health care service is being evaluated by the patient satisfaction². The length of recovery and quality of life of a patient is affected by the food service in a hospital which is one of the important components

of treatment process³. Monitoring patients' satisfaction with food services in the hospitals is one strategy to prevent malnutrition, as research clearly reveals that when patients' satisfaction with the food and food services declines, the risk for malnutrition increases⁴. A comprehensive literature review reveals that number of studies took place in the health care facilities as well as other service providers, but studies on the satisfaction with food and food services in health care facilities is relatively low⁵.

Again, there is scarcity of study on patient satisfaction with food service in the context of military hospitals, especially in Bangladesh Army. Thus, this study is an endeavor to fill the existing knowledge gap on hospital food services and level of satisfaction of the patients in military hospitals. It is expected that this study is likely to identify the factors affecting patients' satisfaction towards food services and thereby likely to assess the level of satisfaction with food and food services of Combined Military Hospital, Dhaka. It is hoped that the result of the study will lead the hospital administrator for making sound and appropriate decisions about hospital food services to promote health and well-being of the patients.

Material and Methods

This cross-sectional observational study was conducted at CMH, Dhaka from July 2018 to June 2019 among the admitted patients whose hospital stay were at least 24 hours consuming 3 major meals, able to take food orally, aged 14 years and above in Medicine, Surgery, Gynaecology/Obs, ENT, Ophthalmology, Orthopedic and Officers' wards. Total sample size was 184. Informed written consent was taken from all study participants. Structured questionnaire and checklist were used as research instruments. Pretesting of research instruments were conducted at CMH, Savar. Data were collected with a pretested questionnaire by face to face interview and by checklist reviewing medical documents of the respondents. Questionnaire was prepared on logical sequence as per the variables and specific objectives. Collected data were analyzed by statistical package for social sciences (SPSS version 23.0).

Results

In this study majority (72.3%) of the respondents were male and 27.7% were female, the mean age of the participants was 38.6±16.6 years. Majority 27.2% were HSC qualified and maximum 40.8% were doing military service. Moreover 77.2% were married and majority 53.8% maintained nuclear family Out of 184 respondents 81% stated that they were admitted

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previously either in this hospital or in other hospitals prior to the study was conducted and 53.8%, 23.4% and 22.8% had a length of hospital stay of 1-7 days, 8-14 days and more than 14 days respectively (Table-I). It was found that 60.3% of the respondents were satisfied with the overall quality of the food and food services (Figure-1). In addition, 39.1%, 94%, 47.8%, 72.3%, 91.3%, 73.4%, 77.2%, 88.0%, 81.5%, 84.8%, 83.2%, 76.1% stated that they were satisfied with the taste, amount, appearance, variety, warmth, well cooked food, time of food serving, cleanliness of utensils, timely eating, hygiene of food servers, attitude & behaviour of food servers, cleanliness of ward/cabin respectively (Table-II).

Among the respondents, 96.7% said that there was no delay in withdrawal of meal and at the same time 94% stated that there was no rapid withdrawal of meals. Among the participants 82.6% said that there was no smell that would hinder their satisfaction towards meal. On the other hand, 39.7% stated that they have brought food at own arrangement in addition to hospital diet. The majority of the patients i.e. 50.3% were satisfied with food and food services who had prior hospitalization either in same CMH or other hospitals (Table-II). Multiple logistic regression analysis was performed to see the most important predictors of satisfaction with food services. The result showed that the variables- taste of food, food distribution time, cleanliness of food servers and cleanliness of ward/cabin were statistically significant and important determinants of patients' satisfaction with the foods served at the hospital (Table-III).

Table-I: Distribution of respondents by age, sex, religion, education, marital status, occupation and family status (n=184)

Variables		Frequency	Percentage
Age	14-30	75	40.8
	31-50	58	31.5
	>50	51	27.7
	Mean (\pm SD) = 38.6 \pm 16.6		
Sex	Male	133	72.3
	Female	51	27.7
Religion	Islam	177	96.2
	Hinduism	5	2.7
	Others	2	1.1
Education	Illiterate	12	6.5
	Primary	8	4.3
	Secondary	39	21.2
	SSC	44	23.9
	HSC	50	27.2
	\geq Graduation	31	16.8
Marital Status	Married	142	77.2
	Unmarried	37	20.1
	Widow	5	2.7
Occupation	Military Service	75	40.8
	Retired Military	38	20.7
	House Wife	39	21.2
	Civilian	21	11.4
	Student	11	6
Family Status	Nuclear	99	53.8
	Join	85	46.3
Previous Hospital Staying	1-7 days	99	53.8
	8-14 days	43	23.4
	>14 days	42	22.8

Table-II: Patients' satisfaction status in relation to quality of hospital food and food services (n=184)

Variables	Patients' Satisfaction		
	Satisfied (n,%)	Not Satisfied (n,%)	Uncertain (n,%)
Taste of food	72(39.1)	75(40.8)	37(20.1)
Amount of food	173(94.0)	7(3.8)	4(2.2)
Appearance of food	88(47.8)	69(37.5)	27(14.7)
Variety of food	133(72.3)	49(26.2)	2(1.1)
Warmth of food	168(91.3)	5(2.7)	11(6.0)
Is the food well-cooked?	135(73.4)	37(20.1)	12(6.5)
Time of serving	142(77.2)	30(16.3)	12(6.5)
Cleanliness of utensils	162(88.0)	6(3.3)	16(8.7)
Hygiene of food servers	156(84.8)	17(9.2)	11(6.0)
Food servers attitude and behaviour	153(83.2)	14(7.6)	17(9.2)
Cleanliness of ward/cabin	140(76.1)	20(10.9)	24(13.0)
Taking meal timely	150(81.5)	18(9.8)	16(8.7)
Taking whole meal	68(37.0)	84(45.7)	32(17.4)
Satisfaction with food warming (micro-oven)	11(6.0)	135(73.4)	38(20.7)
Satisfaction with food preservation (refrigerator)	15(8.2)	131(7.4)	38(20.7)
Hospital smells stop you from enjoying food	20(10.9)	152(82.6)	12(6.5)
Option to choose food	3(1.6)	175(95.1)	6(3.3)
Delaying in withdrawal of meal	4(2.2)	178(96.7)	2(1.1)
Rapid withdrawal of meal	9(4.9)	173(94.0)	2(1.1)
Taking food from own arrangement	104(56.5)	73(39.7)	7(3.8)
Does this hospital food services better than others	75(50.3)	67(45.0)	7(3.8)
Overall satisfaction on food of this hospital	111(60.3)	24(13.0)	49(26.7)

Table-III: Regression analysis of hospital food and food services related variables associated with patients' satisfaction.

Variables	P value	Odds ratio	95% CI
Taste of food	.014	3.8	1.31-10.75
Food serving time	.016	3.4	1.258 -9.39
Cleanliness of food server	.043	3.7	1.044 -13.22
Cleanliness of ward	.023	3.2	.346 - 24.3

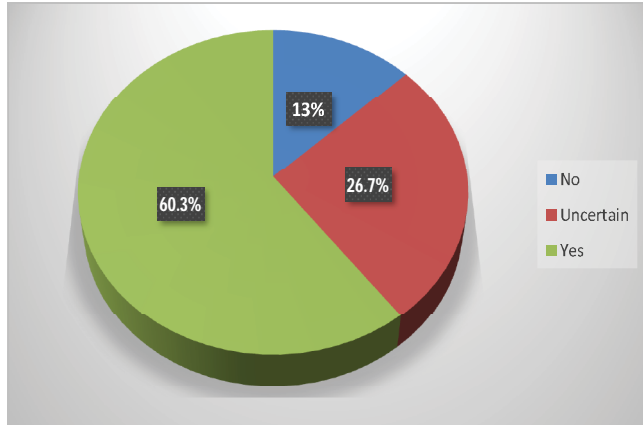


Figure-1: Distribution of the respondents' satisfaction level (n=184)

Discussion

In this study 60.3% respondents were satisfied with food and food services which is almost similar to the findings of the study conducted by Sahin et al⁶ where it was found 51.3% of the patients were satisfied to the food and food services in that hospital. The studies conducted by Abdul Hafez AM et al⁷ and Fernanda GHS et al⁸ had been found similarity with the present study. Present study revealed that 39.1% respondents were satisfied with the taste of the food which is similar to the study conducted by Sahin et al⁶. In this study, 77.2% respondents were satisfied with the food distribution time. This was similar to the study conducted by Abdelhafez AM et al⁷ and Sahin et al⁶. In another study conducted by Naithani S et al⁹ in India where 35% of the studied patients were not satisfied by the time of food distribution. In this study age was an insignificant variable in affecting overall satisfaction of the patients which was similar to a study conducted by Abdelhafez AM et al⁷. But this was in contrast to Sahin et al⁶ who found that satisfaction level was significantly higher in younger age groups. In addition, other previous studies reported that patients aged 70 and older gave higher overall food service rated when compared to younger patients⁹. In this study satisfaction level was higher among the respondents aged 50 year or more. Another study in Srilanka stated that the satisfaction level was significantly low for the age group 21-50 years¹⁰. According to the results the satisfaction rate was higher among the patients who had 1-3 days hospital stay compared to those patients who

had 8-14 days and more than 14 days hospital stay. This was same as the research conducted by Sahin et al⁶ and Stanga et al¹¹. An another study in which the length of hospital stay did not affect patients satisfaction, but study findings revealed that patient having longer stay gave higher food quality rating¹².

As far as the hospitals are concerned food services that satisfy the need of patients will primarily decrease food wastage and will contribute in making significant savings¹³. Another study conducted by Barton and colleagues¹⁴ found that 40% of the food delivered was not consumed and hospital resources was wastage. Whereas in this study only 37% respondents consumed the whole meal and 45.7% did not take whole meal and rest 17.4% take whole meal occasional. Personal contact with staff is beneficial because patients perceive emotional support¹⁵. In this study higher percentage of the patients (83.2%) were satisfied with the attitude and behaviour of food servers. Food service satisfaction was strongly associated with variety, temperature and taste of food (p<0.01) was found in a study conducted by Wright OR et al⁴. The results of logistic regression suggest that those patients' satisfied with taste, food distribution time, cleanliness of the food server and cleanliness of ward/cabin are 3.8 times, 3.4 times, 3.7 times and 3.2 times more likely to be overall satisfied compared to those patients who were dissatisfied with taste, food distribution time, cleanliness of food server and cleanliness of ward/cabin respectively.

Conclusion

The result of this study suggests that improving the taste of food, adjusting food distribution time, improving cleanliness of food server and cleanliness of the ward/cabin result in increased number of satisfied patient with food and food services. At the same time other important determinants affecting the satisfaction level of patients should be taken into consideration. A particular emphasis should be given on appearance, variety, well cooked food, use of head gear, mask, apron and hand gloves by food servers and discussion with dietician, clinician and patients on meal selection. It is hoped that the result of this study would be helpful in increasing the level of overall patients' satisfaction with hospital food and food services and in leading the hospital authority in making sound and appropriate decision about hospital food services.

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