

Inpatient's Satisfaction of Therapeutic Diet at AL- Khor Hospital - Hamad Medical Corporation – State of Qatar

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Abstract

Background: A patient's level of satisfaction is considered an essential determinant for quality hospital food services, as it has been linked with nutrient intake and optimum nutritional requirements which contribute significantly to the care and recovery of patients. **Objectives:** This hospital-based cross-sectional study aims to evaluate the inpatient's level of satisfaction regarding their therapeutic diets in different wards at AL-Khor hospital - Hamad Medical Corporation (HMC) in the state of Qatar. **Methods:** The assessment of patients' satisfaction regarding therapeutic diets of main meals was performed over six months (April-September) 2019, for each patient, on different types of therapeutic diets, was carried out through face-to-face interviews to evaluate his/her response regarding satisfaction dimensions. Satisfaction was measured as general satisfaction, per meal satisfaction, and per satisfaction dimensions. **Results:** The findings of the study show that most patients (88.6%) were satisfied with their therapeutic diet. Main meals satisfaction was (88.8%,89.4%,87.7%) for breakfast, lunch, and dinner respectively. The highest satisfaction dimension was meal timing (93.2%) while food choices were the lowest satisfied dimension (72.0%). The major issue for the dissatisfaction among patients was food choice and texture (72.0% & 74.2%) respectively. **Conclusion:** Both patient satisfaction regarding therapeutic diet and the quality of food services at AL-Khor hospital – HMC- Qatar were extremely valuable. All satisfaction dimension's on dinner meals had the lowest satisfaction compared with breakfast and lunch meals, affecting therapeutic diet overall patients' satisfaction, which warrants improvement.

Keywords: satisfaction level; food choice; food quality; texture, dimensions.

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The term satisfaction can be defined as the experience of a customer using a service and can evoke positive feelings [1]. In health care service, patients' satisfaction can also be defined as an evaluation of a patient's experience of health care services via their cognitive and emotional reactions [2]. Usually, the quality of services is positively related to satisfaction. Thus, this indicates that a strong relationship exists between patients' satisfaction and health care service, especially food service [3]. The importance of patients' satisfaction with food service stems from its ability to influence overall satisfaction on patients' satisfaction with food services has an important influence on the overall care quality in a hospital setting [4]. Modernization of the healthcare industry has shown many improvements in almost every aspect of the component. In a hospital setting, to improve quality, as well as patients' satisfaction, the food service department often undergoes upgrading in almost every aspect and dimension. Hospital care quality is influenced by patients' satisfaction with food service [5]. Several studies have shown that satisfaction with hospital food service is influenced by different factors such as food quality, interpersonal dimension, and physical environment [6,7,8]. Patients' satisfaction measurements become an important indicator for the quality given to patients, patient satisfaction with hospital food or food service is considered one of these indicators. [9]. The Acute Care Hospital Foodservice Patient Satisfaction Questionnaire (ACHFSPQ) was the first reliable and valid questionnaire to measure patients' satisfaction with hospital food service. The questionnaire was initially developed to measure patients' satisfaction regarding food service relating to four factors describing food quality, meal service quality, staff/service issues, and physical environment [10]. Since then, the tool had been used widely to measure patients' satisfaction with hospital food service because it was a comprehensive and complete tool. Level of satisfaction towards hospital food service, as well as patients' perceptions towards hospital meals, can be assessed easily by using this tool. Dietitians can use the results obtained as a reference to improve or modify any part of the food service components to enhance the quality of hospital meals and to build positive behaviors among patients towards hospital meals which leads to improving food consumption. The actual food service dimensions that influence food intake may be recognized by this research and as a result, provide awareness among hospital food service personnel. Thus, the specific dimensions identified can ensure that the meals provided meet the requirement for patient recovery. Data from this study can be used as a baseline for further research regarding hospital food service systems. The tool used in this study was based on international studies and the questions were modified to fit the local hospital setting. There is no published evidence that the tool used

is valid and reliable for the hospital setting in Qatar. Hence, this study was conducted to evaluate patients' satisfaction with their therapeutic diets.

Healthy food is an important competent in medical care. Proper dietary service based on the production of optimum nutritional requirements contributes significantly to the care and recovery of patients. production of normal and therapeutic diets for patients is the responsibility of the dietetics and food service department as an integral part of the hospital's supportive services. the primary work of the dietetics department resulting in high satisfaction of patients and their caretakers is the Efficient delivery of a proper, high-quality therapeutic diet to each individual patient. overall patient satisfaction in a hospital setting is significantly correlated with food service quality [11]. It was found that patients' overall perception of the hospital experience was significantly affected by therapeutic diet and food service delivery. The greater patients' expectations are met, the more satisfied they seem to be [12,13]. Therefore, the provision of food services that not only meet but exceed patient expectations should be considered an essential determinant for quality hospital food services [14]. to understand patient expectations and promote health and nutritional status, patients' knowledge of the varied dimensions of hospital food service satisfaction is important [3,15]. patient satisfaction depends on several factors including food quality followed by customization and the attitude of the delivery menus staff. The perception of food quality can depend on several different attributes, including taste, variety, flavor, texture, temperature, and the perception of choosing a healthy meal [15]. Disease status, poor appetite, gastrointestinal intolerance, fatigue, early satiety, and taste alterations often affect intake in a hospital setting [16,17]. To encourage oral intake and meet nutritional needs, malnourished, hospitalized patients are often advised by clinical dieticians to consume 'small, frequent meals or snacks every few hours. Faster recovery times and reduced hospital costs can be achieved by promoting optimal nutritional status [18,19]. The goal of any hospital is to satisfy the needs of its patients. When patients visit hospitals, they have expectations that can either be met or not [20]. In both developed and developing countries, the quality of food in hospitals is a common problem that contributes to low diet satisfaction [21]. One of the major challenges facing hospital administrators is the provision of quality meals that meet the expectations of patients [22]. Inadequate food intake because of dissatisfaction with hospital meals is likely to develop malnutrition [23-24]. However, for too quick recovery of inpatients, improvement in the quality of food services strategy may be followed [25]. Treatment outcomes are directly related to improved food services which may influence nutritional status [26, 27]. Overall patient satisfaction is significantly associated with the quality of food in hospitals, as published in the literature [28]. patients' relationship with food IS one important predictor that contributes to satisfaction [29]. Studies report that the quality of hospital food can be assessed and affected by patient satisfaction [15, 25, 26]. The majority 78.8% of the patients were satisfied with the quality of hospital food as reported by a study done in Saudi Arabia [21]. In Malaysia, only 6.3% of the patients were not happy with hospital food, and more than 50% of them supplemented hospital meals with outside food as reported by Seng-Cheng et al., 2003[23]. While, in India, 38.3% of them were dissatisfied with a monotonous diet as reported by Ghanbari J et al., 2014 [25]. In Greece variety and quality of hospital meals were accepted by most of the patients as reported by Mentziou I et al., 2014 [27]. Despite levels of satisfaction with specific diet elements that may vary from country to country as reported by most studies elsewhere, the patients are satisfied with overall food services. There is a paucity of information in developing countries such as Gulf countries, particularly in the state of Qatar on therapeutic diet in patient satisfaction. Therefore, the purpose of this study was to evaluate therapeutic diet satisfaction among adult inpatients. to the formulation of policy aimed at improving the quality of hospital meals and identifying gaps in meal provision Results of this study may be useful.

2. Methods

This is quality improvement cross-sectional study was conducted over 6 months from April - September 2019, at AL-Khor hospital – Hamad Medical Corporation (HMC) – the State of Qatar to evaluate inpatients' satisfaction regarding their therapeutic diet. Moreover, this study did not manipulate independent variables to demonstrate a relationship between an independent and dependent variable. The patient's response was assessed through face-to-face interviews after each main meal by therapeutic dietetics coordinators. Demographic and social variables like age, sex, socio-economic status, ethics, and beliefs, were out of the scope of this study. To be a comprehensive evaluation seven satisfaction dimensions with menus were included mainly taste, texture, temperature, appearance, quantity, service timelines, and food choices. The current study had a sample size of 170 inpatients from different wards including medical, surgical, and orthopedic. Convenience sampling was used, because the number of patients who met the study's inclusion criteria, was limited. The inclusion criteria comprised being 18-65 years (adults), on a therapeutic diet, and able and ready for the interview. Exclusion criteria were being unable to participate, on a normal diet, or nil by mouth. All included patients were on a therapeutic diet, namely: diabetic, high-protein, low protein, renal, and low sodium diets, ... etc. Diabetic diets were provided to the type II diabetic patients only while Type-I and gestational diabetic patients were excluded. The satisfaction level was categorized into four categories: excellent, very good, good, and need improvement.

Excellent and very good patient response considered as satisfied, while good and need improvement response considered as not satisfied. Patient satisfaction was evaluated as overall satisfaction, satisfaction per meal, and satisfaction per each indicator.

3.4. Statistical Analysis

Data was gathered, managed, tabulated, and statistically analyzed to deduce results using SPSS (Statistical Package for Social Sciences, version 24, Chicago, IL, USA. Descriptive analysis (means and percentages) was used to describe general information. The t-test was conducted to highlight any significant differences ($P < 0.05$) in terms of patient satisfaction within nationality.

4. Results

In all, data was collected from 170 of the 182 patients included in this project with a response rate of (93.4%). All 170 responses were included in all analyses conducted in this study. The mean age of the respondents was 39 years, and ages ranged from 18 to 65 years. Three fourth of the participants were non-national 127(74.6%), while national patients were only 43 (25.4%). The results of overall satisfaction indicated that most patients were satisfied with the hospital therapeutic diet (88.6%), while (11.4 %) were unsatisfied figure 1. The findings revealed that meals were served based on standard nutritional requirements of patients, which are then translated into predetermined portion sizes on the main menu. Most of the patients were satisfied with all main meals (88.8%,89.4% & 87.7%) for breakfast, lunch, and dinner respectively figure 2.

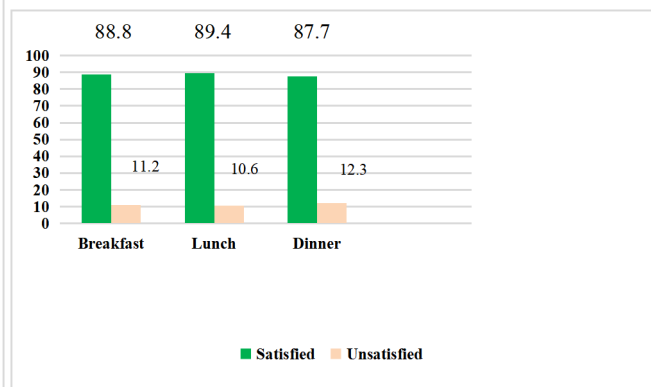
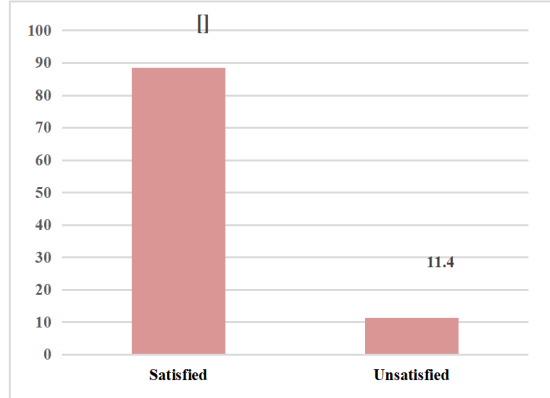


Figure 1. overall satisfaction of therapeutic diet

Figure 2. Therapeutic diet satisfaction based on meal type

The results of the study showed that meal timing has the highest satisfaction 86.7% followed by food temperature, food choices 86.5and 84.9% respectively while food appearance has the lowest satisfaction 80% followed by food taste and food texture 80.3 & 82.6% respectively figure 3

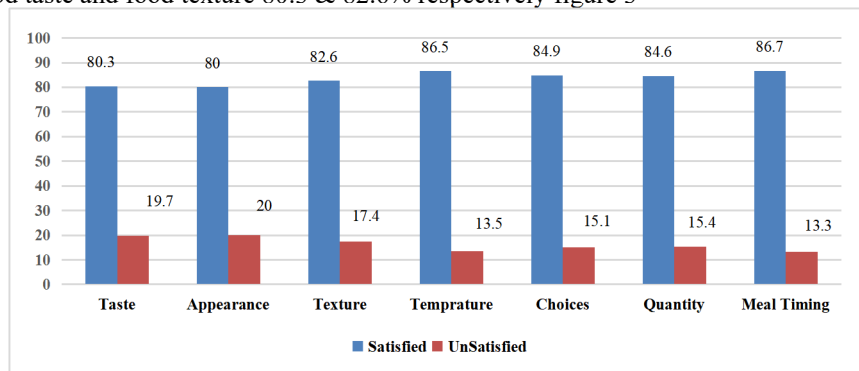


Figure 3 overall patient satisfaction with each indicator

The data from figures (4 a,b,c) revealed that 93.2%, 89.9% & 77% of patients were satisfied with the timing of meals delivery, for breakfast, lunch & dinner, while 6.8%,10.1% & 23% were not comfortable (unsatisfied) with the serving time of meals delivery on breakfast, lunch & dinner respectively. Based on satisfaction indicators, the data revealed that patient's satisfaction ranged from (81.4 %) for food appearance to (93.2 %) for meal timing on breakfast and lunch meals, which means the majority of patients were satisfied with all satisfaction measured indicators figure (4 a & b), while it ranged from (72% to 77 %) for food choices and meal timing respectively on dinner meal figure (4 c), that means almost quarter of patients were unsatisfied with all indicators of the dinner meal. On breakfast meals, 6.8 % to 18.7% were unsatisfied with meal timing and appearance respectively. While on lunch meal the unsatisfaction indicators ranged from 8.0% -16.9% for temperature and food appearance respectively. Furthermore, one-fourth of patients were unsatisfied with all

indicators on dinner meals.

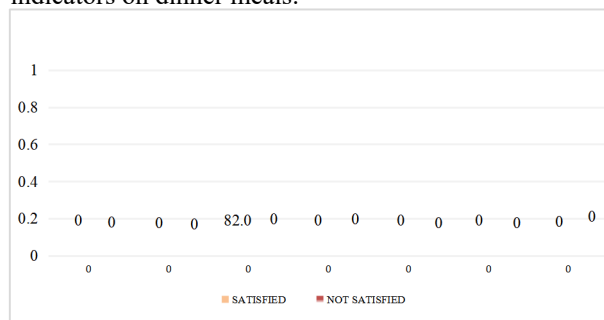


Figure 4a. satisfaction of therapeutic diet on breakfast meal based on indicators



Figure 4b. satisfaction of therapeutic diet on lunch meal based on indicators

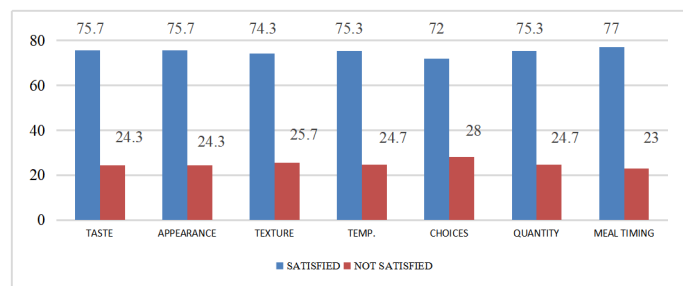


Figure 4c. satisfaction of therapeutic diet on dinner meal based on indicators

Discussion

Overall, 91% and 87.2% of participants rated the hospital therapeutic diet as either excellent or very good. This was like studies carried out in other countries that indicated a good level of overall satisfaction, [21,23,30,31] but it must be acknowledged that 9% and 12.8% of patients rated hospital therapeutic diet as good or needing improvement. Moreover, the level of satisfaction found in this study was much better than that of another study in Malaysia. When patient satisfaction was analyzed, it became clear that the food choices (quality) dimension scored as very good (84.9%), this finding is the opposite of what has been widely reported [32-39]. This can be explained by the fact that therapeutic diet services at AL-Khor hospital followed a food selective menu, as the patient has the right to choose food items for the next meal (food selection menu), as a result, the patient receives food not only based on his diet order but on his preferences as well, that result to improve patient satisfaction and quality of food service as well. On the other hand, patients were not satisfied specifically with the food quality, because there was less variety in the menu as reported by different studies [32-39], menu repetition in hospitals, as well as the lack of selection menu, may explain patient dissatisfaction with food quality. Patients do not know what food items will be served for the next meal because the menu was not distributed before. Patients' therapeutic diet satisfaction on dinner meals was lower than 80% for all measured dimensions compared with breakfast and lunch. This finding raises attention to investigate the main reasons and find alternative solutions. This may be explained by the early service of dinner meal; dinner meal components were not matching with the ethnicity of most of the patients. Menu-related issues have been identified as influential factors on patients' food consumption, [3] and therefore, they should be improved. Apart from that, taste, flavors, and how the meat and vegetables were cooked also affected patient satisfaction with the dimension of food quality.

Conflict of Interest Disclosures

no conflicts of interest have been declared by the authors

Ethical Approval

This study obtained ethical approval from the hospital quality improvement department. upon receiving approval Data collection started

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Conclusion

The findings of this study are extremely valuable in highlighting both patient satisfaction regarding therapeutic

diet and the quality of food services at AL-Khor hospital – HMC- Qatar. All satisfaction dimension's on dinner meals had the lowest satisfaction compared with breakfast and lunch meals, affecting therapeutic diet overall patients' satisfaction, which warrants improvement.

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