

Quality and standards of hospital food service; a critical analysis and suggestions for improvements

Fernando GHS¹, Wijesinghe CJ²

¹Post Graduate Institute of Medicine, University of Colombo, Colombo, Sri Lanka.

²Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.

Correspondence: Dr. G H S Fernando
e-mail: ghsfernando@gmail.com

ABSTRACT

Hospital meals are an integral component of the care given to inward patients and it facilitates recovery and contributes to patient satisfaction regarding the overall treatment experience. Providing nutritionally appropriate and microbiologically safe food that satisfies the patient's appetite should be the aim of every hospital food service. However, scant attention is given to food service in many health care settings, resulting in meals of inferior quality, excessive food wastage and even health risks for patients. This paper presents a brief review of the importance of nutritional care and hospital food services, challenges faced by the hospital food services, different mechanisms of operation and the key indicators of food service quality and standards. The limitations in the current food service system in Sri Lankan health care settings and possible areas for improvement are also outlined.

Introduction

Hospital meals are a critical component of care given to inward patients and it improves the well-being of patients (1, 2). Provision of meals is a part of the routine in-patient care worldwide, adding more 'hospitality' to the services. It has been shown that much of the overall satisfaction of hospital stay is linked with the hospital diet. A proportion of hospitalised patients are dependent solely on hospital food for their nutritional requirements (3). That requires hospitals to maintain the quality and nutritional value of the food being served.

Malnutrition is common among hospitalised patients (4, 5). These patients have a prolonged hospital stay and a greater risk of developing complications and infections (5). In addition, hospital food can provide an example of healthy eating to the public that helps them to model their eating behaviour. On the contrary, inappropriate hospital meals can create a significant threat to patient's health (6). The food provided by the hospital may not meet individuals'

specific nutritional needs or a wrong therapeutic diet could be assigned to the patient, resulting in malnutrition and poor control of the disease status. Also contamination of food with pathogenic organisms can pose potentially serious health risks.

Notwithstanding this essential role of improving health of the patients and facilitating a fast recovery, nutritional care and food services are an underdeveloped aspect of care provision in many health institutions (7). However, existing evidence also suggest that notable improvements can be achieved in these services, while keeping the costs stable (6).

The challenges faced by hospital food services are multi-faceted due to the wide range of dietary needs of the patients. Dietary needs vary based on age, religious and cultural practices and medical problems. Health care institutions in a competitive environment are seeking novel approaches to meet these challenges through constant upgrading of their meal distribution services.

Food service systems in health care settings

A number of food service systems are used for provision of hospital meals (8). The variation is based primarily on the methods of preparation and distribution / delivery of meals. The traditional food systems are based on delivering 'freshly cooked meals' prepared in the hospital kitchen using locally sourced ingredients. There are newer methods including the use of pre-cooked, frozen or chilled products which need to be re-heated upon delivery at the point of use or delivery of pre-assembled, microwavable plated meals (9). The two most common forms of food delivery are plated meal services and bulk meal services. Plated meals are served in the kitchen on plates and the bulk meal system delivers food to the wards. In addition to patient meals, some hospital catering systems may provide food for employees and visitors as well (5).

The traditional hospital food services have the disadvantage of not being 'efficient and patient focused' (1) as meals are distributed according to set-schedules, disregarding patient preferences. As a solution, health care institutions aiming for higher service standards have moved to more patient-driven meal systems such as using a 'room service' approach where patients can order meals from a diet specific menu. 'Snacks between meals' and 'out-of-hours' services for patients who could not have a meal during normal meal times are some other steps used to provide choice meals for patients (6).

The hospital 'food chain' which includes all the processes involved in provision of patients' meals - from ordering of raw materials / food to waste management - is a team effort. Careful consideration given to nutritional quality and safety of the meals, from the point of medical officer ordering the diet down to the level of the food suppliers, administrative staff responsible for procurement and quality control of raw materials, kitchen staff and staff of wards, can contribute towards patient satisfaction and fulfillment of the objectives of prescribing a meal.

Patient satisfaction with hospital meals

The contribution of hospital meals towards patient well-being depends ultimately on whether the patient has consumed the meals provided. Studies

worldwide suggest that plate wastage is a common problem faced by hospital catering (1, 10) and any food left uneaten fails to achieve its intended benefits. Customer satisfaction has been identified as an essential component in successful operation of hospital food services (8).

Hospital food is generally regarded as unappetizing due to many reasons (11). Patients consider hospital meals to be undesirable due to issues related to quality of food such as menu items, portion size, taste, temperature, texture and variety of food as well as poor service standards such as tray presentation, sanitation, availability of nutritional information and responsiveness to food problems (12-20). Attitudes of staff serving food and absence of disturbance are also related to satisfaction with food service (21) .

Research has proven that patient satisfaction on hospital food service can be improved by interventions that improve meal delivery (1,2) and quality of food (21). Such measures will improve consumption of the complete meal, with the additional advantage of reducing food wastage.

Key components of hospital food standards

With rising competition in the health care industry, improvement of hospital catering could be one aspect in improving patient satisfaction on overall hospital stay. It has been suggested that food and nutritional care quality in a hospital must be evaluated and deemed fit to enhance the efficacy of its services (7). Hospital food standards can form a part of the overall service quality standards along with other supportive services (11, 22). This requires development of guidelines and qualification and assessment of food services on a regular basis.

An independent panel established by the Department of Health, United Kingdom identified potentially relevant hospital food standards and assessed them for their applicability to hospital food and catering services in National Health Services (NHS) hospitals (5). The Panel identified several key characteristics of good nutritional care for hospitalised patients based on recommendations of the Council of Europe Alliance (UK). According to these recommendations, everyone using healthcare and care services should be screened to identify the presence or the risk of malnutrition, should have a

personal care support plan to identify their nutritional needs and mechanisms for meeting these needs. The care provider must include specific guidance on food and beverage services and nutritional care in its service delivery and accountability arrangements. The committee emphasizes that the people using care services be given the opportunity in planning and monitoring of arrangements for food service. In addition to above, it is important to provide an appropriate environment enabling patients to enjoy their meals and safely consume their food and drinks (known as protected mealtimes). The staff must have the appropriate skills and competencies needed to ensure that the nutritional and fluid needs of patients are met, preferably through regular training on nutritional care and management. The food services and facilities need to be flexible and the care-providing organisation should have a policy for food service and nutritional care, which is centered on the needs of the consumers. Finally, the food service and nutritional care is provided safely and the contribution of consumers and all others in the successful delivery of nutritional care should be valued by everyone working in the institution. These guidelines can be adopted to suit the needs of different local health care settings.

In addition to the nutritional care aspects, it is important to emphasize the necessity of ensuring optimal consumption through careful planning and delivery of meals tailored to the needs of individual patients as well as minimising of hospital food waste and adopting good buying practices to ensure sustainability of the catering services (5, 9).

Improving food service standards in Sri Lankan health care settings

According to the Hospital Manual published by the Ministry of Health, Sri Lanka, a patient's diet for a day is the entire requirement of food for a period of 24 hours, starting from 12 noon of a particular day up to 12 noon of the following day (23). The nature of patient's diet is determined by the medical officer, as it is regarded as a part of the treatment and the Head of the institution is expected to pay a special attention in ordering, accounting, controlling and economising diet.

According to Hospital Manual of the Ministry of Health, the role of hospital diet extends into many areas. These include providing relevant diet depending on illness, provision of hygienically prepared, balanced diet and preventing unhygienic food from coming to hospital, serving patients meals at a fixed time to avoid disturbance to other patient care activities, facilitating poor patients specially from distant areas and restriction of unauthorised persons coming to the wards under the pretext of bringing food to patients (23). Although all government hospitals in Sri Lanka provide diet for the patients free of charge, only a minority of patients opt to have meals through hospital food service. A situational analysis involving four major hospitals in Galle and Rathnapura districts revealed that only 30% or less of the inward patients consume hospital meals (unpublished data). A study conducted at Teaching Hospital Karapitiya found that only 27% of inward patient consumed hospital diet (20). The major reasons for poor consumption were the tastelessness, unpleasant aroma of food and shyness to eat hospital food. The Ministry of Health has issued a new circular in 2015 to improve the quality of hospital diet in government hospitals, which will hopefully resolve some of these deficiencies.

In reviewing literature, Hartwell et al. concluded that the 'cost' of providing meals and the method of food service adopted do not show any association with the patient satisfaction with regards to hospital meals (8). Although providing choice meals for patients may be an unattainable target in the context of free health care, a number of other steps can be taken within the current system that will enhance the quality of nutritional care and food service standards. The conventional food service practiced in Sri Lankan hospitals can be further improved without radical changes to the system and additional costs, simply by paying a little attention to the key characteristics highlighted above.

The meal quality and food safety aspects of the food service in Sri Lankan health care settings can be far from optimal. A recent study on assessment of quality of food service at a tertiary care hospital revealed that the general cleanliness, availability of physical and human resources, hygienic practices of staff and the quality, quantity and diversity of the hospital meals were unsatisfactory (24). None of the

staff had undergone any training on food safety and hygiene after initial training before recruitment. Periodic training of the kitchen staff on food safety and hygiene and better cooking methods can be implemented to improve the unsatisfactory aspects of the food service. Regular supervision and surprise observations at the kitchen by the area public health inspector or higher authority can further ensure the standards of food safety and hygiene.

The standard diet in a Sri Lankan government hospital can be adjusted to cater to the specific nutritional needs according to patient's disease. Provisions for a special diet offered to patients with tuberculosis, leprosy, cancer and mental illness, staying in respective specialized hospitals are already in place (23). However, patients with malnutrition and other diseases requiring specific dietary management often depend on other sources for their meals, which could make them nutritionally vulnerable. The hospital diet can be a model for the patients to follow after discharge, thus a golden opportunity for patient education is available through the hospital food service, which should be utilized to the fullest benefit of patients.

The services of dietitians can contribute to the success of hospital food service. Their services range from menu planning and recipe development to nutritional analysis of hospital meals that match the patients' needs (9). In the absence of such services, the recent appointment of medical officers qualified in human nutrition and dietetics to major hospitals may bridge this gap to a certain extent, by ensuring the nutritional standards of the meals provided at the hospital. Nutritional assessment and nutritional counseling on discharge (if necessary) can be incorporated to routine care of all patients. However, lack of widespread availability of nutritionists / dietitians in all hospitals to guarantee such standards is a limitation.

One of the main reasons for refusal of hospital food by the patients is the timing of meals, which sometimes are interfered by external factors such as ward activities. When there is no designated dining area within the wards, the crowded and confined surrounding can inhibit any desire for eating. 'Protected meal times' can be introduced with a suitable environment for dining to make meal times pleasant. No ward activities should be scheduled

during meal times. The availability of a separate dining area will prevent the embarrassment of having to consume meals in public.

Training the health personnel in interpersonal skills and communication is believed to be more cost effective than developing technical facilities in improving patient satisfaction (25). Such training can resolve issues related to staff attitudes and behavior in providing food services. Regular monitoring of the quality of nutritional care of hospitalised patients in relation to the key standards and the appraisal of the standards of hospital food service including consumer satisfaction are of paramount importance to optimize the overall in-patient care. Such attempts will not only improve the efficient use of available resources, but will be cost-effective in the long run through minimizing food wastage and preventing food borne infections.

References

1. McLymont V, Sharon C, Stell F. Improving patient satisfaction with room service meal delivery. *Journal of Nursing Care and Quality* 2003; **18**(1): 27-37.
2. Williams R, Virtue K, Adkins A. Room service improves patient food intake and satisfaction with hospital food. *Journal of Paediatric Oncology Nursing* 1998; **15**(3): 183-9.
3. Stanga Z, Zurfluh Y, Rosselli M, Sterchi AB, Tanner B, Knecht G. Hospital food: A survey on patient's perception. *Clinical Nutrition* 2003; **23**(3): 241-6.
4. McWhirter JP, Pennington CR. Incidence and Recognition of Malnutrition in Hospitals. *British Medical Journal* 1994; **308**: 945-8.
5. Department of Health, United Kingdom. The Hospital Food Standards Panel's report on standards for food and drink in NHS hospitals 2014.
6. The Scottish Government. Food in Hospitals: National Catering and Nutrition Specification for Food and Fluid Provision in Hospitals in Scotland 2008; Edinburgh: The Scottish Government.
7. Diez-Garcia RV, de Sousa AA, da Costa Proença RP, Leandro-Merhi VA, Martinez EZ. Gauging food and nutritional care quality in hospitals. *Nutrition Journal* 2012; **11**: 66.

8. Hartwell HJ, Edwards JS. Hospital food service: a comparative analysis of systems and introducing 'Steamplicity' concept. *Journal of Human Nutrition & Dietetics* 2006; **19**(6): 421-30.
9. British Dietetic Association. The Nutrition and Hydration Digest: Improving Outcomes through Food and Beverage Services 2012; Available from <https://www.bda.uk.com/publications/professional/NutritionHydrationDigest.pdf> [Accessed on 19th December 2015].
10. Pinto MVG, Dikowita DD, Perera SADCB, Wijethilaka ATK, Kurukulaaratchy DJNM, De Silva WSL. An Evaluation of Patients' Attitudes on Hospital Meal Service. Proceedings of the Peradeniya University Research Sessions, Sri Lanka 2011; (16).
11. Alford L. Hospital Food Review: Sourcing more local and sustainable food. 2010. Available from <http://www.soilassociation.org/LinkClick.aspx?fileticket=qf0jvMzz26U%3D&tabid=131> [Accessed on 12th December 2015]
12. Theurer VA. Improving patient satisfaction in a hospital food service system using low-cost interventions: Determining whether a room service system is the next step. All Graduate Reports and Creative Projects 2011; Paper 32, pp6.
13. Wright OR, Connelly LB, Capra S. Consumer evaluation of hospital food service quality: an empirical investigation. *International Journal of Health Care Quality Assurance Incorporating Leadership in Health Services* 2006; **19**(2-3): 181-94.
14. Fallon A, Gurrs S, Hannan-Jones M, Bauer JD. Use of the Acute Care Hospital Food Service Patient Satisfaction Questionnaire to monitor trends in patient satisfaction with food service at an acute care private hospital. *Nutrition & Dietetics* 2008; **65**: 41-6.
15. Jung SH, Yeom HS, Sohn CM. The improvement of hospital food service in quality and customer satisfaction by using 6-sigma strategy. *Journal of the Korean Dietetic Association* 2007; **13**: 331-4.
16. O'Hara PA, Harper DW, Kangas M, Bubeau J, Borsutzky C, Lemire N. Taste, temperature, and presentation predict satisfaction with food services in a Canadian continuing care hospital. *Journal of American Dietetic Association* 1997; **97**: 401-5.
17. Lim HS, Yang IS, Cha JA. Analysis of patient satisfaction and factors influencing satisfaction on hospital food service quality. *Journal of the Korean Dietetic Association* 1999; **5**: 29-47.
18. Kim YS, Lyu ES. Evaluation of patients' satisfaction with foods service of mid-size hospitals in Busan area. *Journal of the Korean Society of Food Science and Nutrition* 2003; **32**: 1153-6.
19. Kim MY, Kim KJ, Lee KE. In-patients' food consumption and perception on food service quality at hospitals. *Journal of the Korean Dietetic Association* 2008; **13**: 87-96.
20. Fernando GHS, Wijesinghe CJ. Patient perception on hospital food service at Teaching Hospital, Karapitiya. *Galle Medical Journal* 2015; **20**(2): 13-20.
21. Abdelhafez AM, Qurashi LA, Ziyadi RA, Kuwair A, Shobki M, Mograbi H. Analysis of Factors Affecting the Satisfaction Levels of Patients Towards Food Services at General Hospitals in Makkah, Saudi Arabia. *American Journal of Medicine and Medical Sciences* 2012; **2**(6): 123-30.
22. Ministry of Health, Republic of Turkey. Institutional performance and quality application in health care. 2009; Ankara: Ministry of Health, Republic of Turkey. Available from https://kalite.saglik.gov.tr/content/files/yayinlar_yeni/institual_performance_and_quality_applications_in_healthcar_tr_ceviri.pdf [Accessed on 19 December 2015].
23. Ministry of Health. Manual of management of teaching, provincial, base, and special hospital, Ministry of Health: Diet service 1995; Colombo: Ministry of Health.
24. Fernando GHS, Wijesinghe CJ. An assessment of the quality of food at Teaching Hospital, Karapitiya. *Sri Lanka Journal of Medical Administration* 2015; **17**: 27-33.
25. Dayasiri, MBKC, Lekamge ELS. Predictors of patient satisfaction with quality of health care in Asian hospitals. *Australasian Medical Journal* 2010; **3**: 739-44.