Editorial Statement

The Importance of Nutrition Information System for Improving Patient Care

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Access to diverse and healthy foods is a fundamental right for every human being [1] and good nutrition is important for the health of everyone, whether healthy or sick [2]. In hospitals, adequate food service and nutritional care improves quality of patient care and their quality of life [1]. Of course, providing proper nutrition in the hospital environment is a remarkably challenging task for the diverse dietary needs of the people. Food needs to be appropriate for different age groups, religious, cultural and social backgrounds as well as for different medical conditions. It needs to meet individual nutritional requirements [1-3].

In comparison with many clinical activities, the significance and relevance of patient food service, is not always valued and is usually considered as a domain where budgetary cuts will have the least impact on. Development of a food service system is very essential if optimizing patient meal and nutrient intake in conducted via the most cost effective manner [4].

Nutritional care is not just the preparation of meal and fluid to patients. It requires effective multi-disciplinary team working to ensure that the dietary needs of all patients are met. The majority of patients are dependent on usual hospital food to improve their nutritional state for their recovery while many patients have poor appetite or are not able to eat which may lead them to confront the risk of developing malnutrition [3].

Malnutrition is common among inpatients who have a prolonged hospital stay and a greater risk of developing complications and infections. Furthermore, hospital meal can provide an example of healthy eating to the public that helps them to model their eating behavior. Contrariwise, improper hospital meals can cause a considerable threat to patient's health [5].

Customer satisfaction is an essential component in successful catering management; however, in a hospital setting, this is a complex phenomenon and is influenced by many factors [4,6].

The negative imagination of hospital meal is current and is thus not necessarily related to the food itself. Food variety, food presentation and physical setting were the primary factors contributing to consumers' negative perception and attitude towards institutional especially hospital food [7,8].

Effective menu planning is necessary to meet the dietary and nutritional needs of the hospital population and requires the gathering of a wide range of data from numerous groups [2,9].

Designing and implementing a nutrition information system as one of the subsystems of Hospital Information System (HIS) can help the hospital achieve its goal (providing high quality services to patients for promoting their health status). Such a system, due to the ability to communicate with the medical records (EMR), can process the data related to the patient's medical condition [10,11].

The nutrition information system has a variety of databases which add to its processing capabilities such as, a database of properties and food harms. Access to pharmaceutical databases, and the possibility of examining drug interactions with foods are among the features of this system [12].

The nutrition information system, benefiting from the electronic food order system, has extended its service range from care providers and food management staff to patients as a tangible and accessible service for patients. Patients can order foods from their food list (which is in line with their medical condition) through the system [13].

Having a medical decision support system based on medical guidelines applicable in the field of nutrition is the other features of the system. The nutrition information system through using artificial intelligence can also be included as a different kind of nutritional care decision making system [14].

Such a system, based on the heuristic method, finds answers and solutions to questions and various problems including: food and medication interactions, patient's malnutrition reasons, how to prepare healthy and cost-effective foods based on the satisfaction of all patients, the causes of food-borne infections and their prevention [15].

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