Assessment of the Quality of Nutritional Care of the Hospitalized Patients in Ain Shams University Hospitals

Thesis
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List of Contents

List of Abbreviations

AIDS	Acquired immunodeficiency syndrome.
BUN	Blood urea nitrogen.
CCP	Critical Control Point.
CDC	Centers for Disease Control and Prevention.
CDM	Certified Dietary Manager.
COPD	Chronic obstructive pulmonary disease.
CQI	Continuous quality improvement.
DM	Diabetes Mellitus.
D.T.R	Dietetic technician Registered.
ESLD	End stage liver disease.
FDA	Food and Drug Administration.
FIFO	First in, first out.
FSD	Food service director.
GI	Gastro-intestinal.
HACCP	Hazard Analysis and Critical Control Points.
HFO	Hard foreign objects.
ICD	International Classification of Diseases.
I/O	Intake and output.
JCAHO	Joint Commission on Accreditation of Healthcare Organizations.
LMH	Lockport Memorial Hospital.
NASA	The National Aeronautics and Space Administration.
NNI	National Nutrition Institute.
NPO	Nothing by mouth.
PHF	Potentially hazardous foods.

PMo	Pathogenic microorganism.
QA	Quality assurance.
QAI	Quality assurance improvement.
RCPs	Risk Control Plans.
RD	Registered dietitian.
RDAs	Recommended dietary allowances.
REE	Resting Energy Expenditure.
SOPs	Standard operating procedures.
TPN/EN	Total Parenteral or Entral Nutrition.
USDA	U.S. Department of Agriculture.

List of Tables

List of Figures

Introduction

Healthcare food service touches almost every patient who is admitted to a hospital. The quality and service of the food have a significant impact on the health and happiness of the patient and the patient's family because of the importance of food in our daily lives. Nutritional intake is one of the critical elements in the recovery of the patient making the study of healthcare food service of great value **(Richard, 2007).**

Nutritional care is an organized group of activities allowing identification of nutritional needs and provision of care that meet these needs. The type of nutritional care provided for an individual depends on the presence of disease or potential disease, the environment, the stage of growth and development of the individual and socioeconomic issues. It may include an assessment of adequacy of nutritional intake, manipulation of the diet, provision of enteral or parenteral support, and intervention in the form of counseling or education **(Charney et al, 2008).**

Malnutrition continues to be an unacknowledged and under estimated problem in hospitals. It affects patients, by increasing complications, mean hospital stay and health related risks. Malnutrition not only increases the time of hospital stay, morbidity and mortality, but it compromise wound healing and immune function as well. Such malnutrition tends to be aggravated by hospitalization **(Padial et al, 2001), (Puckett, 2006).**

It is estimated that in academic hospitals in the United States, 25% of patients show some type of malnutrition, marasmus (generalized wasting), or protein depletion (kwashiorkor). Other studies show that approximately 50% of hospitalized patients exhibit signs of moderate malnutrition **(Charney et al, 2008), (Pfau and Rombeau, 2002)**.

Patient nutrition services include screening to determine nutrition risk, assessment and reassessment, education, and discharge planning. All of these are accomplished through the use of care plans **(Puckett, 2006)**. Regardless of what nutrition intervention or treatment is provided, the care must be fully documented in appropriate section of a patient's medical record. **(Phillips, 2004**).

All hospitals and healthcare institutes have basic, routine diets designed for the uniformity and convenience of service. These diets are based on the foundation of an adequate diet pattern, with nutrition levels as derived from the recommended dietary allowances (RDAs). The diet should be as realistic as possible and yet ensure that nutritional needs of patients are met **(Charney et al, 2008).**

Food safety is one of the important factors affecting the nutrition care process. Food service directors have a responsibility to ensure that their operations serve food that is safe and free of contamination. Foodborne infections have been estimated to cause 76 million illnesses, 325,000 hospitalizations, and 5000 deaths each year in the US. according to the Centers for Disease Control and Prevention (CDC). So, health care service operations should take particular caution to prevent food-born illness caused by microbial, chemical, or physical hazards **(Puckett, 2006).**

To ensure food safety in healthcare settings, food service operations are being encouraged to implement the Hazard Analysis and Critical Control Points (HACCP) system that serves two functions: control of food born-illnesses and monitoring of food for time-temperature **(Kenner, 2002).**

Patients' attitude towards hospital diet is one of the important factors determining the acceptance or rejection of the therapeutic diet. The patients' attitude is affected by duration of stay in the hospital, patient sex, and the diet prescribed to him. If the patient does not follow sound nutritional practices during hospitalization, he would hardly be able to keep his prescribed diet outside the hospital **(Stump, 2002).**

It is well recognized that food and other aspects of foodservice delivery are important elements of the patients' overall perception of the hospital experience. Provisions of foodservices that not only meet but exceed the expectations of the patient are considered essential for quality services. Along with the adoption of continuous quality management principles, there is recognition that measurement of patient satisfaction is needed to identify opportunities for foodservice process improvement**.** More over, monitoring patient satisfaction with foodservice in healthcare setting may be a component of a risk management strategy for malnutrition, as where satisfaction with food and service decline, the risk for malnutrition increases **(Wright et al, 2006).**

Aim of the Work

The main goal of the present study is to assess the quality of nutritional care offered to hospitalized patients and to evaluate the management of the dietary services in Ain Shams Hospitals.

Specific Objectives

1. Evaluation of quality of structure providing nutritional care.
2. Study of food service systems and management in Ain Shams Hospitals.
3. Measuring patient satisfaction towards hospital diets.

Nutrition Care Service

Nutritional care is an organized group of activities allowing identification of nutritional needs and provision of care meet these need. The type of nutritional care provided for an individual depends on the presence of disease or potential disease, the environment, the stage of growth and development, and socioeconomic issues. It may include an assessment of adequacy of nutritional intake, manipulation of the diet, provision of enteral or parenteral support, and intervention in the form of counseling or education **(Charney et al, 2008).**

Malnutrition continues to be an unacknowledged and under estimated problem in hospitals. It affects patients, by increasing complications, mean hospital stay and health related risks. Such malnutrition tends to be aggravated by hospitalization **(Padial et al, 2001)**. It is estimated that approximately 50% of hospitalized patients exhibit signs of moderate malnutrition **(Pfau and Rombeau, 2000)**. Malnutrition not only increases the time of hospital stay, morbidity and mortality, but it compromise wound healing and immune function as well **(Puckett, 2006)**. In academic hospitals in the United States, 25% of patients show some type of malnutrition, marasmus (generalized wasting), or protein depletion (kwashiorkor) **(Charney et al, 2008).**

With the continuous escalation of health care costs and demands for shorter lengths of stay, assessing and improving patients' nutritional status becomes even very crucial. Early nutrition intervention has been identified as a preventive measure for high risk populations such as women, children, and the elderly **(Sanrick, 2002)**.

For the uniformity and convenience of nutrition care service, all hospitals and healthcare institutes have designed basic routine diets. These foundations are based on the foundation of an adequate diet pattern, with nutrition levels as derived from the recommended dietary allowances (RDAs) **(Charney et al, 2008).**

In 1952 a study was applied in National Nutrition Institute about the system of feeding patients admitted to hospitals. The investigator found that the responsibility of hospital dietetics was given to some employee who left it in their turn to the laborers. These results initiated Abdou and his coworkers to unify the hospital diets. The first step was through issuing the administrative order No. 48 (1953) concerned with the diets offered to patients and the workers of the Ministry of Health **(Abdou et al, 1965).**

Second study in 1961 was carried out by the National Nutrition Institute in some Ministry of health and University Hospitals to study the situation of hospital dietetics in many hospitals in Cairo, Giza, Alexandria, Ismailia, and Port-Said. The results of that study showed that; food was supplied daily, but usually delayed and food was received by non specialized personnel forming a sort of committee headed by any doctor at the hospital. Food stores were in adequate, cold rooms were absent, the methods of food preparation was primitive and time consuming and the ovens were also primitive and were heated by kerosene or solar. Also, the system of meal delivery to patients was primitive and unhygienic and all utensils including plates, glasses were in a poor condition, unhygienic, primitive in shape and material and also were scanty **(Abdou and Said, 1968)**.