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Nurse's perceptions of barriers to optimal nutritional therapy for hospitalized patients

Irina Papier [a, *], Jesse Lachter [b], Gila Hyams [c], Irit Chermesh [b]

[a] Nursing Division, Nutrition Support Coordinator, Rambam Health Care Campus, Haifa, Israel
[b] Gastroenterology Department, Rambam Health Care Campus, Haifa, Israel
[c] Director of Nursing, Rambam Health Care Campus, Haifa, Israel

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SUMMARY

Background & aims: Nurses have crucial roles in optimizing nutritional therapy for patients. The aim of this study was to explore nurses' perceptions regarding barriers to effective nutritional therapy.
Methods: Hospital-based nurses completed a questionnaire regarding various aspects of malnutrition/risk identification and barriers to effective nutritional treatment. The study was conducted at Rambam Health Care Campus with 100 nurses completing the questionnaire.
Results: Eighty-eight percent of those surveyed perceived identification of patients at risk for malnutrition as the nurse's responsibility. Significant differences were found when comparing head vs. bedside nurses regarding recognition of barriers to optimal nutritional therapy. More than 40% of the nurses found that the following issues were significant barriers to optimal patient treatment: the time it takes to prescribe nutritional therapy, lack of protocols, and awareness of the staff of the nutritional therapy. Overall bedside nurses found significantly more barriers preventing optimal nutritional therapy than did head nurses.
Conclusions: Barriers to optimal nutrition are often remediable. Head nurses set ward policies but had a significantly different perception of barriers to nutritional care than bedside nurses. Collaboration is imperative for all sectors and authorities involved in patient care, including bedside nurses, to ensure that workable policies are implemented for the patients' benefit.

1. Introduction

Malnutrition at the time of hospitalization and poor food intake are associated with adverse outcomes [1–10]. Hospitalization itself may promote further worsening of nutritional status due to both decreases in intake and in anabolism. Inflammation causes decline in appetite; and hospital environments may not be conducive to comfortable eating. Disease-related malnutrition (DRM) with inflammation, recently defined by the European Society for Clinical Nutrition (ESPEN) [11], considers the various mechanisms leading to decline in muscle mass including increased inflammation with decline in food intake. Studies have found about 30% of patients to be at risk for malnutrition in internal medicine departments [12], 40% in surgical departments, and as many as 80% in oncology departments [4–6,13,14].

Nurses have a pivotal role in identifying patients at risk for malnutrition and in ensuring the provision of optimal nutrition throughout hospitalization (and sometimes beyond). Although nutritional therapy is a basic part of medical care there are many barriers to achieving a well-established standard of care. The lack of any one or more of the following parameters could prevent efficient nutrition: knowledge of the medical and nursing staff, awareness that the patient is eating, implementation of a proper nutritional care plan and guidelines, nutritional documentation and monitoring, appropriate facilities, appealing food, the time needed to feed patients [15–19]. Practical aspects to identify patients at risk for malnutrition and in need of feeding can prove difficult as well. Screening and feeding patients is time-consuming, something not

Abbreviations: DRM, disease-related malnutrition; ESPEN, European Society for Clinical Nutrition; MUST, Malnutrition Universal Screening Tool; BMI, body mass index; CERU, Critical Care Nutrition at the Clinical Evaluation Research Unit.

* Corresponding author.
E-mail addresses: i_papier@rambam.health.gov.il (I. Papier), J_Lachter@rambam.health.gov.il (J. Lachter), ghyams@rambam.health.gov.il (G. Hyams), i_chermesh@rambam.health.gov.il (I. Chermesh).

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always appreciated when allocating the nurse's time. A major factor determining nurse priorities and workloads is the mindful involvement of hospital management [20].

Several barriers may prevent optimal nutritional treatment. Some problems arise in the first phase, the screening phase. Awareness and commitment on the part of medical and nursing management are needed to emphasize the importance of nutritional screening; this requires constant monitoring and striving for completion of performance of screening [20]. The second phase is assessment, followed by the prescription for appropriate nutritional treatment. Poor staffing, low prioritization from the head nurse or medical staff, or lack of nutritional needs awareness can all interfere with these initial phases of patient care. Thereafter the challenges of actual treatment despite any difficulties play a role in the success of providing optimal nutritional treatment. Local logistic factors such as availability of specific nutritional products and artificial nutrition in the wards can hamper treatment success. Diarrhea or vomiting may delay, postpones, or even prevent provision of nutritional treatment to a patient. Lack of protocols regarding what to do in each of various conditions may result in unjustified cessation of nutritional therapy.

Hence, it is clear that optimal nutritional treatment must be a multidisciplinary effort in close coordination between doctors, nurses, and dieticians.

The aim of this study was to identify barriers to optimal nutritional therapy as perceived by the nurses themselves.

2. Materials and methods

Rambam Health Care Campus is a 1000-bed hospital in Northern Israel. The study was conducted in coordination with the nursing management and the nursing staff of the involved departments.

Inclusion criteria: All nurses in the departments in which the head nurse was willing to participate, and who worked morning shift on the day the study took place in the specific department, were invited to complete a nutritional treatment questionnaire.

Exclusion criteria: Nurses working in departments not participating in the study and nurses working on shifts other than the morning shift on the day of the study were not offered the questionnaire.

All nurses employed during morning shifts in the departments of internal medicine, surgery, intensive care, orthopedics, dermatology, and gynecology were asked to participate in a study regarding nutritional treatment in their department; those who agreed were given a questionnaire. There were three parts to the questionnaire. Part 1 related to personal demographics, education, professional experience, and the nurses' job description (management (head) vs. bedside nurse). Part 2 related to how nurses perceived their role with regard to patient nutrition and part 3 related to nurses' perceptions of barriers to effective nutritional treatment. Closed-ended questions were listed with an option to elaborate on the subject at hand. The questionnaire was developed locally; however, it was based on the questionnaire established by the Critical Care Nutrition at the Clinical Evaluation Research Unit (CERU). In part 2, nurses were asked if they perceived nutrition as their overall responsibility (yes/no), and whether they found it important to be involved in decisions regarding nutritional treatment on a scale of 1–4 (1, not at all; 4, obligatory). Part 3 included statements regarding barriers to optimal treatment; the nurse was asked to indicate how often this served as a barrier to optimal nutritional treatment on a scale of 1–4 (1, never; 4, always). The statements included: the time it takes to identify a patient in need of nutritional therapy, presence/lack of feeding protocols, lack of awareness of the attending physician and nursing staff, the time it takes to provide a prescription for artificial nutrition, availability of a dietician, presence/lack of time to feed the patient, and availability of artificial nutrition on the ward itself.

Statistical analysis was made using the Chi square test to search for differences between head nurses and bedside nurses. The professional medical statistician of the medical center assisted with the design and analyses. A p-value of 0.5 or more was pre-defined as representing a significant difference.

The study did not contain patient data and was therefore exempt from formal institutional review board ethical approval.

3. Results

Of 118 nurses working morning shift in the participating departments, 100 agreed to complete the questionnaire; 22 head nurses and 78 bedside nurses. Eighty-six nurses were females, 69% had an academic degree, 52% had more than 15 years professional experience, 29% between six and 14 years, and 1% five years of experience or less. Eighty-six nurses fed patients at least once a week.

Most of the nurses (63%) perceived overall responsibility for nutritional care as one of their responsibilities. Ninety-three percent indicated that it was important for them to be involved in the nutritional treatment decisions of their patients. Eighty-seven percent of the nurses screened patients for malnutrition using the Malnutrition Universal Screening Tool (MUST) frequently or always when admitting a patient to the ward. Seventy-four percent of the nurses were involved in decisions as to whether the patient would need artificial nutrition (either enteral or parenteral); with 64% indicating that they contributed to the decision of which artificial nutrition would be most appropriate. Nurses reported being well-acquainted with the different artificial nutrition formulas (96%), and able and competent to indicate incompatibility of formulas (81%) for specific patients. Sixty percent of the nurses served food to patients on a regular basis with 41% feeding patients. Twenty-two percent of the nurses did not note the amount of food consumed and did not document nutrition in patient medical records.

Nurses were asked to refer to the barriers to optimal nutritional therapy. Results are summarized in Table 1. The most common obstacles to optimal nutrition were vomiting, nausea, and fasting prior to tests or procedures (~70–80% of nurses). Following these in decreasing order were: lack of awareness of the attending physician, the time it takes to identify the patient in need for nutritional therapy, the time designated to feed the patient, the time it takes to prescribe nutritional therapy, availability of a dietician, lack of nutritional treatment protocols, and awareness of the nursing staff for nutritional need of the patients (~40–60%). Only 28% of the nurses reported a problem with the availability of the artificial nutrition in the department. Significant differences were found in the perceptions of head nurses vs. bedside nurses regarding what was preventing optimal nutrition care. On the whole, bedside nurses found there were significantly more problems preventing optimal nutritional therapy than head nurses.

4. Discussion

Malnutrition is a major problem that can have major implications for hospitalized patients. The most important factor in preventing hospital malnutrition is the identification of malnourished patients and patients at risk, so as to provide them with adequate and appropriate nutrition. Such nutrition includes providing food to patients who are able to eat, and for those fully or partly unable to eat, providing artificial nutrition – either as supplements or as to

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