

Assessing Adherence to Protected Mealtime Guidelines in Iranian Hospitals

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ARTICLE INFO	ABSTRACT
<p>Article type: Original Article</p> <hr/> <p>Article history: Received: 17-May-2016 Accepted: 26-Dec-2016</p> <hr/> <p>Keywords: Hospitalized patients Malnutrition Negative interruption Protected mealtime</p>	<p>Introduction: Malnutrition is a prevalent problem in hospitalized patients, causing a wide range of negative clinical and economic challenges. Protected mealtimes (PM) aim to enhance the quality of mealtime experience, improve nutrient status in hospitalized patients, and limit all non-essential interruptions so that patients might eat in a clean, quiet, and safe environment.</p> <p>Materials and Methods: This study is a clinical audit and was conducted in Mashhad teaching hospitals in order to evaluate mealtime interruptions that occurred among non-nutritional staff and influenced their food intake. Data were collected by direct observation. Lunchtime was chosen for audit because medical interruptions were more likely to happen during this meal. Two researchers (one dietitian, student and one dietetic assistant) observed lunch mealtime. The mealtime environment was monitored, and every negative interruption was registered. Exclusion criteria included patients who were nil-by-mouth or received enteral or parenteral nutrition.</p> <p>Results: A total of 208 patients were involved in the audit. The recorded negative interruptions included medical round, educational round, nurses' change-of-shift, and activities of environmental service workers. Among interruptions, both medical round and nurses' change-of-shift were the most frequent. All mealtime interruptions summarized to medical round (2.5%) (including serum replace, drug injection, and IV replace), change-of-shift (2.5%), environmental-service-worker activities (2%), and educational round (2%).</p> <p>Conclusion: Our study demonstrated that non-urgent interruptions during mealtimes were not adhered to PM guidelines, indicating the importance of addressing mealtime related issues in hospitals.</p>

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Introduction

The problem of hospital malnutrition has been well documented as it is a common issue in hospitalized inpatients, resulting in a range of negative clinical, patient-centered and economic costs (1). About 25-34% of patients admitted to hospitals are at risk of malnutrition (2). Hosseini reported a 11% increase in the prevalence of malnutrition at discharge compared to admission in Iranian hospitals (3). Due to malnutrition, patients stay longer in hospital and are more likely to face poor clinical outcomes. Nutritional status continues to deteriorate by longer hospital stay and results in soaring hospital costs up to 60%, in addition to increasing economic burden (4). Nutrition must be considered an integral part of patients' treatment as it is crucial to hasten their recovery. Dietary intakes in hospitals can be influenced by many factors, including

medical conditions of patients, patients' appetite, food service facilities, the amount of food packaging, and the availability of assistance to help patients (5). Difficulty reaching their meal package, difficulty with food and beverage packaging, not always receiving enough assistance at mealtimes, and suboptimal social interaction to encourage unwilling patients to eat (5, 6) are other barriers contributing to poor dietary intake even when food is enough to meet patients' energy and protein needs (7). These findings imply that in addition to food needs and quality, more attention should be paid to other factors as well. Inadequate employees, having no training about nutrition and the urgency staff tasks can also hinder achieving sufficient dietary intakes in hospitals. There is an increasing rate of awareness among healthcare teams about the

therapeutic role of food within the healing process. In protected mealtime policy, food and the service of food are considered an integrated part of treatment. The aim of the policy is to: 1) create a calm environment and serving quality meals without interruptions and help patients enjoy their food as part of their treatment; 2) improve the quality of “meal time” without disruption; 3) ensure that patients are supported by the consumption of food; 4) ascertain that food service care is focused on the timely distribution of food; 5) make sure that staff members care about a successful meal; 6) encourage patients to eat; and 7) remove anything that interrupts the meals and reduces patients’ appetite. Protected Mealtimes Programme (PMP) was implemented in 5% of Australian and New Zealand hospitals surveyed in 2010, and 33% of trusts in England and Wales (8). The Protected Mealtimes Policy aims to advance a framework for mealtimes by focusing on the patient at the core of the mealtime experience. Mealtimes are not only a tool for providing patients with nutrition requirements but also a chance to facilitate social interaction amongst patients with any non-emergency interruption. The few studies conducted on this matter have suggested mixed results regarding the efficacy of [PMP?] in lowering mealtime barriers and boosting intake.

The aim of the present study was (1) to gain insight into ward practices at mealtimes under usual conditions where no protected mealtime policy was enforced and (2) to determine whether two large teaching hospitals of Mashhad University of Medical Sciences adhered to protected mealtime guidelines by focusing on non-emergency interruptions.

Materials and Methods

Audits were done between March and May, 2016.

Hospitals audited were two large teaching hospitals of Sheikh Paediatrics and Ghaem in Mashhad, Iran. Before starting data collection, the authors met the hospital managers to discuss the project and set an implementation date for a two-week trial. Lunchtime was chosen for investigation since it was the main meal of the day and medical interruptions such as radiology and x-ray were more likely to happen in this meal. The study was registered. Direct observations were undertaken using a form designed to assess probable interruptions that patients might experience during mealtime. Two researchers (one dietitian, student and one dietetic assistant) monitored lunch mealtime. Both performed the ward-level direct observations. The mealtime environment was observed and every negative interruption during the meal was registered on the sheet. The observation sheets were then reviewed to extract key observations and highlight negative interruptions in relation to food intake. Mealtime experience was measured for every patient except for those receiving enteral or parenteral nutrition. The ward managers had not been informed about the evaluation [research]. Patients who were nil-by-mouth or received

enteral or parenteral nutrition were excluded from the study.

Results

A total of 208 patients were observed for over 14 non-consecutive days by two observers. The observation records were summarized under four key interruptions (medical round, educational round, change-of-shift, activities of environmental service workers). Table 1 shows the negative interruptions on dietary intakes by patients. After observation sheets were reviewed, several ward routines that had a negative impact on mealtimes were extracted. These included medication rounds, educational rounds, changes-of- shift, and activities of environmental service workers. First, medical round interruptions including IV replace, serum replace, and drug injection covered 2.5% of total observations (28% of total interruptions). Second, change-of-shift was another factor that interrupted patients’ meal, accounting for 2.5% of total observations (28% of total interruptions).

Third, educational round was held for training new nurses and workers, covering 2% of total observations (22% of total interruptions). Fourth, patients also experienced interruptions at mealtime due to environmental service workers’ activities which explained 2% of total observations (22% of total interruptions); these activities included linen replace, replace of patient’s urine bag, and building repairs. In line with our achievements total of patients experiencing mealtime interruptions was 9% of total observations.

Table1: Observed interruptions influencing dietary intakes

Activity	Total interruptions	Total observations (%)	Total interruptions (%)	
Nurse's change-of shift	5	2.50%	28%	
Medication round	Serum replace	2	2.50%	
	Drug injection	2		
	IV replace	1		
Educational round	Training new workforce	4	2%	22%
Environmental service	Replacing lenine	2	2%	22%
	Replacing urine bag	1		
	Building repair	1		
Total	18	9%	100	

Total observation: 208 patients in 14 lunch meals

Discussion

The current study was carried out to attain a clearer perception of ward practices at mealtimes under usual conditions, where no protected mealtime policy was

maintained. Different interruptions occurring at mealtime were related to medical round (2.5%), change-of-shift (2.5%), environmental-service-worker activities (2%), and educational round (2%). All disturbances patients experienced in this study were non-emergency, so that they could be managed by a careful planning.

Change-of-shift was inevitable and related to hospital managers; therefore, staff's working hours should be set in a way they do not interfere with patients' meals. Government strategies usually have focused on the provision of adequate nutritional care to alleviate malnutrition; however, studies show that even when adequate food is available to meet patients' needs, some individuals experience poor dietary intake (7). This finding suggests that other factors, besides nutrition requirements and the amount of food, are effective on nutritional status of hospitalized patients (9). Although PM is considered an important policy to mitigate prevalence of malnutrition amongst inpatients, there is a lack of consistent evidence to demonstrate that it improves mealtime experiences and, importantly, increase food and nutrient intake (1).

Despite methodological limitations, some previous studies propose that PM lessens mealtime interruptions, although its impact on food intake is unclear (1). Chan, J executed a 4-month pilot "protected mealtime" program on the meal experience of hospitalized acute care patients. A pre- and post-observational audit was implemented to assess interruptions at lunch meal. The observational audit displayed a significant decrease of total interruptions.

He suggested that the program appeared to have improved patient mealtime experiences as well as patient care (10). In another study, Porter J recruited patients aged ≥ 65 years.

Participants were observed at mealtimes, and they were examined daily in terms of energy and protein intake, provision of mealtime assistance, and mealtime interruptions. The results showed an energy deficit about 4.8 kcal below the estimated requirements; half of the participants received positive interruptions, and the majority of them were given assistance when

needed. nevertheless, the prevalence of negative interruptions was high (11).

Huxtable and Palmer found that a protected mealtime program increased nursing staff availability at mealtimes, which though allowed the delivery of appropriate assistance, it led to increased mealtime interruptions (8).

The results of the study by Walton clarified that the most frequent factors negatively influencing patients' meal consumption included medication rounds (16.5%), unsuitable placement of tray (18.5%), and the difficulty involved in opening the package (33%) (5).

Observational audit of the present research demonstrated that the most frequent interruptions were associated with medical round (2.5%) and nurses' change-of-shift (2.5%).

However, this study was carried out in ordinary conditions where no special protected mealtime policy was in effect in the hospitals under question. In line with the literature, it appeared that by careful planning and training of hospital staff, non-emergency interruptions could be minimized. The limitations of the study are its small sample size and the short time of audit; furthermore, the authors examined just one of the objectives of PM protocol, i.e. non-emergency interruptions at mealtime and their influence on food intake. Even so, the observations were made on eligible inpatients in two large teaching hospitals.

Hence the findings may be useful for health professionals who work in a range of adult clinical settings.

Conclusion

This research demonstrated that non-urgent interruptions during mealtimes did not frequently adhere to protected mealtime guidelines, indicating the importance of addressing mealtime-related issues in hospitals. It is recommended that the authorities adjust staff activities in such a way that unnecessary interruptions in mealtimes are minimized. Hospital employees should also be trained with regard to the significance of mealtimes being consistent with the protected mealtimes plan.

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