A pilot study examining nutrition and cancer patients: factors influencing oncology patients receiving nutrition in an acute cancer unit.

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Introduction

There is national concern in the UK regarding the poor nutritional status of patients in hospital (NICE 2006, Department of Health 1999). The sequelae of cancer can be high levels of weight loss and malnutrition (Argiles 2005). Adequate nutrition is particularly essential in helping cancer patients cope with the demands of illness and treatment.

Much of the literature relating to nutrition focuses on the assessment of patient's nutritional status. Less attention has been paid to the wide range of factors that might influence nutrition within the hospital setting. There is therefore a lack of information about how to improve practice and ensure patients receive the nutrition they require while in hospital.

Aims

This pilot study aimed to:

1) identify factors that are barriers and facilitators to oncology in-patients receiving adequate nutrition in an acute cancer unit
2) pilot the use of observational techniques in exploring nutrition in the clinical setting
3) provide preliminary data to inform further more in-depth research of this topic

Methods

A qualitative, observational approach utilised overt, non-participant observation techniques within the 'natural' setting to meet the aims of the study (Bryman 2004).

Setting and sample

The study was carried out on two 30 bedded wards in a UK cancer centre. The wards were selected to provide a range of patients in terms of age, clinical condition, reason for admission and type of intervention. Patients and staff were informed about the study through information leaflets and posters. Participation was voluntary. Research governance and ethical approval was obtained for the study through the regional research ethics committee.

Data Collection

Five observations, each lasting three hours, were conducted on each of the wards. The timing of the observations ensured a mix of time of day and day of the week. Two researchers carried out the observations using a proforma to record their findings. The observation episodes took place on each ward at the same time with one researcher observing practice on one ward, while the other observed practice on the other ward. For the purpose of the study nutrition encompassed all potential sources including food, drinks and enteral/ parenteral nutrition.

Data Analysis

Framework analysis techniques were used to analyse the data. This involved a systematic process of sifting, charting and sorting the material into key issues and themes (Ritchie & Spencer 1994).

Results

The study revealed that nutrition was influenced by a complex interaction of factors relating to the both the physical and social environment. Themes relating to *the physical environment* were: disease related factors, the level of dependency of the patient, preparation for meals and the organisation of food delivery. *The social environment* described the interactions between patients, staff and visitors that related to nutrition. A summary of the findings in relation to the physical environment are contained in Table one and the social environment in Table two.

The physical environment

Factors were identified that had the potential to act as barriers or facilitators in relation to nutrition. Clear barriers that needed to be addressed to prevent their negative impact included disease related to factors that influenced the patients' ability to eat. Other factors were identified as facilitators – such as the patients' ability to make choices about food and control portion size at the time of eating. Others could act as either barriers or facilitators for example, where pre-meal preparation was carried out this facilitated nutrition, where it was not provided it acted as a barrier.

The social environment

This category described the characteristics of the interactions that took place between four groups of people that played an influential role in relation to nutrition – the meal server, the patient, the nurse and the visitors. Each of these interactions were characterised by three components: assessment, encouragement and individualised care; these are detailed in Table two.

A range of activities relating to nutrition were carried out across the groups. While each group made a unique contribution the nurse had the additional responsibility for ensuring that all of the essential activities relating to nutrition were met for all of the patients. This role was met in the majority of cases and nurses were observed to make a pivotal difference in ensuring that individual patents had some nutritional intake. However, nurses carried out nutrition related activity on an opportunistic ad hoc basis. The potential for patients needs not to be met was ever present due to this approach.

Individualised care emerged as an important factor in meeting patients nutritional needs. Where individual needs were met it was associated with a positive influence on nutrition. However, the ability to provide individualised care was shaped the practicalities of serving food to all of the patients on the ward in a timely manner, the "busyness" of the ward and the schedules of staff.

Discussion

Previous work relating to nutrition has focused on nutritional assessment. Within this framework the role of the nurse is seen as anticipating problems, carrying out assessments and making referrals to the dietitian (NICE 2006, Van Bokhorst 2005). The findings of the current study echo the importance of assessment in meeting patients' nutritional needs. However, additional factors emerged as potentially important.

Nutritional assessment has tended to be seen as the prerogative of the healthcare professional and is usually described in terms of structured written assessments (Green and Watson 2005). This study suggested that less formal ongoing assessments of the range of barriers and facilitators to nutrition may be important determinants of nutritional intake. It also identified that other people (meal servers, visitors and other patients) play a role in assessing patients' nutritional needs in the hospital setting.

This study emphasised that, alongside assessment, previously unidentified areas of activity may also be fundamental to nutrition. Encouragement was used to positive effect highlighting the need for a positive and proactive hospital culture regarding nutrition. Another important nutrition facilitator was staff being present in the clinical area at meal times to focus on, and take responsibility for, nutrition.

Non-participant observation was found to be a useful approach for exploring the actual care given in relation to nutrition. It was not found to be particularly obtrusive to ward staff, patients nor their families and enabled the identification of factors that had been overlooked in previous research. Future mixed method studies, incorporating observation, need to be conducted to explore the transferability of these results to other clinical settings.

Table one: The physical environment

Themes	Observation	Themes	Observation
Disease related factors	Physical constraints on nutrition included lack of appetite, fatigue, taste changes, difficulty swallowing, sore mouth and gastrointestinal disturbances. Many of these factors were directly related to cancer and/ or the effects of treatment	**Routines surrounding food**	Efficient systems were in place to ensure all patients received food in a timely manner. Meals were served by two members of staff – the ward hostess and usually a support worker. Qualified nurses did not have a clear identifiable role in relation to routines surrounding food.
Dependence on others for support with nutrition	Three areas of dependence that influenced nutrition were observed. These related to the ability of the patient to: i) feed themselves ii) get in a position unaided where they could eat easily and iii) be comfortable enough to eat. If the patient required help which was not provided, or was not effective, then this became a barrier to nutrition.	**Ward work and ward activity**	Interruptions to meals often acted as barriers to nutrition. While meals were being served and eaten ward work and routines continued. On some occasions mealtimes were interrupted by activities not related to nutrition. The most frequent interruption from the ward nursing staff was the drug round.
Preparation for meals	Preparation for nutrition included positioning the patient for eating, meeting toileting and hygiene needs (including the provision of pre-meal hand washing facilities) and ensuring all utensils were present and could be reached. Effective preparation was a facilitator to nutrition.	**Food preparation, quality and presentation**	Food was freshly cooked in the hospital kitchen and served from hot plates allowing patients to make selections at the time of the meal and request a particular portion size. With one exception patients were overwhelmingly positive when they discussed the hospital food provided. Control over selection and availability of good quality food were clear facilitators.

Table two: The social environment

	Assessment	Encouragement	Individualised care
Meal server	Assessment related to eliciting patient selections. The way in which this was carried out influenced nutrition. Positive influences included a) offering alternatives if the menu options were declined b) ensuring patients who were asleep, or not present, at mealtimes were woken or provided with food later.	Encouragement was characterised by gentle persuasion using words that minimised the amount of food being offered and described it positively. For example, "a nice little bit of rice pudding". Frequently this resulted in the patient eating some food which they previously had declined.	Individualised care was characterised by ensuring individual requests were elicited and met. Encouragement played an important role in meeting individual needs.
Nurses (qualified and student nurses and support workers)	Nursing assessments covered a wide range of factors including: assistance required for positioning and eating, the amount and type of food requested and dietary intake. Nurses engaged with nutrition on an ad hoc opportunistic basis rather than as a planned activity.	Nurses used encouragement in three ways i) gentle persuasion to try something ii) attempting to meet individual preferences, for example offering foods not on the menu and/or supplement drinks and iii) praising patients for trying to eat.	Individualised care was shaped by the ability of the nurse to work flexibly so they were able to attend to patients nutritional needs as they arose. Barriers to this were the nurse being too busy with their primary activity or not being present at meal times.
Patients	Assessment covered three issues: i) the content and quality of the food provided ii) the ways in which illness had influenced their relationship to food and iii) the nutritional needs and preferences of other patients in the bay	Patients often provided encouragement to each other at meal times. This took the form of being positive about the food or menu and encouraging patients who were not going to eat to try a little of a recommended item.	Patients expressed their individuality in their opinions, choices and discussions about food. Many patients were also aware of the individual needs and preferences of other patients in the bay and offered encouragement and support.
Visitors	Visitors made assessments relating to two key issues – dietary intake and the assistance required for eating. Some visitors specifically visited at meal times to provide this assistance.	Visitors provided encouragement in three ways; persuasion, making positive comments about the quality of the food and bringing in favourite snacks and food from home	Visitors contributed to individualised care by providing favourite/requested food, helping with eating and providing encouragement. Their role was enhanced by their "inside knowledge" and focus on the patient.

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