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Use of Volunteers for Mealtime Assistance to Hospitalized Older Adults: A Report on the SPOONS Program

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Abstract

Mealtime assistance may be necessary to prevent declines in hospitalized older adults' nutritional well-being. This paper reports on the implementation of the Support for and Promotion Of Optimal Nutritional Status (SPOONS) Volunteer Assistance Program. Patients were aged 65+, admitted to the Acute Care for Elders Unit at the University of Alabama at Birmingham Hospital, and in need of mealtime assistance. There were 236 documented patient-volunteer encounters at which social interaction (n=217; 91.9%), assistance with tray set-up (n=162; 68.8%), and prompting to eat (n=161; 68.2%) among other activities were performed. Mean time of interaction was 47.8 minutes, with an average estimated cost savings of \$11.94 per encounter had the service been provided by a Patient Care Technician and \$26.00 per encounter had it been provided by a Registered Nurse. This demonstration of the SPOONS program should be followed up with an evaluation of its effectiveness. .

Poor nutritional status among hospitalized older adults is an increasingly recognized risk problem. Heersink, Brown, Dimaria-Ghalili, and Locher (2010) published prevalence rates of undernutrition ranging from 12.2% to 72% upon hospital admission and as high as 49% upon discharge. In another study, 82% of hospitalized older adults had at least one eating difficulty (Westergren, Unosson, Ohlsson, Lorefält, & Hallberg, 2002). Nutrition-related deficiencies are associated with hospitalizations, emergency department and home health utilization, and mortality among Medicare patients (Yang et al., 2011). Because older adults are vulnerable to poor nutrition, efforts to address or prevent problems during hospitalization have included special dietary orders, consultation with a registered dietician and special attention at mealtime (Heersink et al., 2010).

A recent review on the use of volunteers to improve mealtime care of older adults (Green, Martin, Roberts, & Sayer, 2011) found that only one study in the United States had reported on the effects of volunteer mealtime assistance in the hospital (Robinson et al., 2002). In it, a larger portion of each meal (59% vs. 32%) was consumed by patients fed by volunteers compared to those fed by nurses. Further, feeding assistance interventions have been tested within nursing home settings in the US, demonstrating the feasibility of training nurse's aides to feed residents by showing that recipients of assistance required approximately 35-40 minutes per meal and had an increased caloric intake over 6 months (Simmons & Schnelle, 2006). These findings supported our development of a volunteer feeding program—Support for and Promotion Of Optimal Nutritional Status (SPOONS) addressing the unique needs of older hospitalized patients and modeled after a similar program from the Acute Care for Elders (ACE) Unit at the University of Texas Medical Branch in Galveston, Texas. The aims of this report are to: describe the SPOONS volunteer feeding assistance program, summarize and describe services provided by volunteers that may promote nutritional intake, and estimate time and cost savings associated with the SPOONS program.

Conceptual Basis of SPOONS

Multiple factors including prevalent or incident geriatric syndromes, acute illness or injury, and pre-existing or new eating difficulties may impact hospitalized older adults' nutritional status. Additionally, the hospital environment may exacerbate nutritional problems for older adults because of absent familiar caregiver presence, restrictive diets and food choices and lack of feeding assistance (Holmes, 2008). Therefore, the SPOONS program focuses on three important factors of the mealtime experience: socialization, functional assistance and staffing challenges.

Socialization

Older adults are susceptible to depression and cognitive impairment; both are associated with eating difficulties (Nieuwenhuizen, Weenen, Rigby, & Hetherington, 2010). Assistance with feeding tasks, along with socialization and companionship, may negate the effects of these impairments during mealtime (Holmes, 2008). In a study of homebound older adults, those eating with a companion consumed 114 more calories per meal than persons eating alone, an effect potentially attributable to caregivers prompting older adults to eat (Locher, Robinson, Roth, Ritchie, & Burgio, 2005).

Functional Assistance

Older adults have high rates of arthritis, vision impairment, and frailty, among other geriatric syndromes, that may impair their capacity to set up their meals and feed themselves (Holmes, 2008). Older adults also often experience diminished taste and olfaction sensations from medication side-effects, changes in taste buds, and poor dentition, impeding their ability to chew and swallow foods (Nieuwenhuizen et al., 2010).

Staffing Challenges

DiMaria-Ghalili and Amella (2005) propose that attending to staffing needs in hospitals during mealtime is important for ensuring adequate support for patients' nutritional needs. Similarly in nursing homes, Kayser-Jones and Schell (1997) found that inadequate staffing led to poor care and a lack of nutritional assistance. While mealtime assistance is the primary responsibility of the nursing staff, including Registered Nurses (RN) and Patient Care Technicians (PCT), recent research has demonstrated that feeding assistance is a frequently missed nursing task in hospital settings (Kalisch, Landstrom, & Williams, 2009).

With these challenges in mind, the SPOONS program aims to provide: assistance with meals to persons without known swallowing difficulties, socialization and cognitive stimulation during mealtimes, and support to nurses and patient care technicians caring for frail older adults.

Description of the Spoons Intervention

The SPOONS program was initiated on the ACE Unit at the University of Alabama at Birmingham (UAB) Hospital and designed to connect volunteers to patients in need of mealtime assistance. The Unit operates 26 beds focusing specifically on care for older adults and is led by a faculty-geriatrician and an ACE Unit coordinator, an RN charged with oversight of the care plans for ACE patients and interventions aimed at their unique needs.

The ACE model of care consists of routine patient screenings to identify geriatric syndromes, daily interdisciplinary team rounds focused on patient-centered care, medications, cognitive and functional status, early discharge planning, and communication of recommendations to appropriate care providers and patients/caregivers. The rounding team consists of a geriatrician, the ACE Coordinator, registered dietician, social worker, physical therapist, occupational therapist, pharmacist, and the patient's primary nurse (Flood, Brown, Carroll, & Locher, 2011). Clinical issues reviewed include patients' social and family support, their nutritional status, and their need for feeding assistance.

Essential Components and Features of SPOONS

Volunteer Recruitment

SPOONS volunteers are recruited from multiple sources, including the pool of existing hospital volunteers, flyers at community events, and through word of mouth.

Training

Volunteers are formally trained over three sessions before being placed with patients. First, the volunteers complete the standard hospital volunteer training course on issues of patient privacy, confidentiality, and safety. Second, volunteers convene in small groups led by the ACE Unit Coordinator and occupational therapists regarding SPOONS-specific skills such as hand washing and sanitation, adjusting beds and positioning patients for eating, techniques for feeding patients, what foods and condiments may be given to patients, protocols peripheral to feeding (e.g., do not transfer patients), and patient-communication skills (e.g., socialization and reminiscence for cognitive stimulation). Volunteers also observe a patient being assisted during mealtime. Finally, volunteers' feeding techniques and skills are validated through direct observation by an RN using a health-system standardized tool by which all staff are measured for feeding competencies. Records of volunteers training and competencies are retained for accreditation purposes.

Eligibility

Patients who would benefit from socialization, require assistance with tray set-up, prompting to eat, or feeding assistance and do not have dysphagia and are cognitively able to interact with a volunteer are eligible for the SPOONS program and are identified during the ACE daily rounds.

Assistance

SPOONS volunteers provide assistance with tasks including passing out or collecting trays, tray set-up, verbal encouragement and prompting to eat, and feeding the patient. The volunteer communicates with the patient during meal assistance—smiling, listening, and

speaking clearly to encourage the patient to finish the meal. At the conclusion of their visit, the volunteer completes a brief SPOONS Encounter Form documenting the types of tasks completed, the patient's response to the meal assistance, and the total time spent with the patient. Volunteers are not required to stay for a specific time each session. Precautions to prevent adverse events include: the thorough volunteer training process, avoiding patients with known swallowing difficulties, and immediate access to unit staff.

Evaluation Methods

Data collected on the Encounter Form from a period of 39 months (January 2008-March 2011) were analyzed. Variables included tasks completed by the volunteer, time spent with each patient, and comments left on the forms about the experience. Counts of tasks performed were calculated and potential saved staff time and costs for an RN and PCT, the staff who otherwise would have provided this service, was estimated. We used average and range of total compensation (salary + fringe) for RNs and PCTs at our institution for fiscal year 2010. The Institutional Review Board at the University of Alabama at Birmingham reviewed and approved this research.

Results

Services Provided

During the study period, there were 236 patient-volunteer encounters with an average of 3 different tasks performed per encounter (Figure 1). The most frequently performed tasks were social interaction (n=217; 91.9%), assistance with tray set-up (n=162; 68.8%), and prompting to eat (n=161; 68.2%). Additionally, 106 encounters (44.9%) included assistance with feeding itself, and 73 encounters (30.9%) involved passing out trays. There were no adverse patient events from volunteer assistance.

Costs and Time Saved

Table 1 summarizes potential resource savings. Volunteers spent a mean of 47.8 minutes at an average savings of \$11.94 per encounter had the encounter been provided by a PCT and \$26.00 per encounter had the assistance been provided by an RN. If the mealtime assistance for all encounters had been provided by a PCT, the average total cost would have been \$2,818; if all encounters had been provided by an RN, the average total cost would have been \$6,136.

The SPOONS program volunteer recruitment, training and placement is a component of the ACE Coordinator usual job duties requiring no additional staff nurse time or effort.

Discussion

This report demonstrates that volunteers can be recruited and properly trained to safely assist with mealtime tasks for hospitalized older adults, most of whom are at-risk for experiencing adverse nutrition-related outcomes. We believe that persons who do not have support from family or friends at mealtime will benefit most from this program. If expanded, this program could result in additional savings in staff time and costs. Having volunteers in place to assist with tasks such as feeding helps fill a needed gap in nursing care, which has been demonstrated to be frequently missing (Kalisch et al., 2009). Staff nurses and PCTs are then able spend time on other more complex matters of patient care. Finally, key to the success of this program has been having one person (the ACE Coordinator) designated to coordinate volunteers, plan their visits and place them with patients, thereby alleviating staff nurses of any programmatic logistics.

Limitations

This study is limited due to the nature of the data analyzed; the encounter documentation was designed for program evaluation and not research. We are unable to identify if patients or volunteers who participated in SPOONS multiple times. Additionally, we do not know volunteers' characteristics; however, the ACE Coordinator indicated that most volunteers were either retired persons or students from the affiliated University who were meeting the requirements of a service-learning curriculum. We do not know if encounter documentation was completed after each visit; therefore, this report may under-estimate numbers and types of encounters. We are also unable to offer a detailed description of what occurred during the SPOONS encounters and how the time was spent.

Future Directions

We are currently planning a prospective evaluation of the SPOONS program to more effectively describe the volunteer, patient, and staff experience with the program and to assess nutrient intake and measure quality of life and patient satisfaction among patients receiving SPOONS volunteer assistance versus control patients who receive usual care.

Conclusion

This report demonstrates the feasibility of recruiting volunteers and patients for the SPOONS program and helps clarify time and cost savings associated with this program. Future research should explore more comprehensively and systematically nutritional processes and outcomes of care in the hospital setting, including evaluation of feeding assistance programs.

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Figure 1. Percentage of Patient-Encounters Involving Specific Tasks

Table 1
Potential Time and Cost Savings of the SPOONS Program

Volunteer Time/Patient Encounter (minutes)	
Mean	47.8
Range	5 - 180
Cost Of Staff Time for Mealtime Assistance Provided by SPOONS (per encounter at 47.8 minutes each)	
Nurse	
Mean	\$26.00
Range	\$21.17 - \$35.14
Patient Care Tech	
Mean	\$11.94
Range	\$10.84 - \$15.76