The introduction of trained volunteer mealtime assistants on an acute medical ward for older people: The Southampton Mealtime Assistance Study

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Outline

- Malnutrition in older hospital inpatients
- Southampton Mealtime Assistance Study
- Southampton Mealtime Assistance Roll-out Trial
Malnutrition in hospitals: a common problem

- In 2011, 28% over 65s admitted to hospital were ‘at-risk’ of malnutrition
  - 34% admitted to Medicine for Older People
  - 41% admitted from a care home
- International literature confirms a similar picture
- 25-75% patients then lose weight during their admission
- Significant associations between malnutrition and longer length of stay, infectious morbidity, pressure ulcers, slower rehabilitation, readmissions and death

Russell, CA, Elia, M. BAPEN, 2012
Barriers to good nutrition in hospital

- Acute illness
- Poor appetite
- Low mood
- Cognitive impairment
- Organisational barriers
- Mealtime interruptions
- Physical barriers and lack of assistance
- 12% hospitals did not meet CQC legal standard for mealtime care of older people in Dignity and Nutrition Inspections, 2011
Additional mealtime assistance: current evidence

- Some evidence demonstrating benefit of employing additional members of staff, but questions over financial viability
- Several published reports of small scale use of volunteers in hospitals at mealtimes
- Formal evaluation limited to a few small studies, with evidence of benefit in small, targeted patient populations
The Southampton Mealtime Assistance Study
A nutritional intervention in hospitalised older people

Objective
2 year study (2010-12) to evaluate the feasibility, acceptability and impact of training volunteers to help with the mealtime care of older female in-patients

Design
Data collected in two female wards in baseline year and intervention year, during which trained volunteer mealtime assistants worked on one ward
Outcomes: interviews with patients, relatives, staff and volunteers; dietary intake

Roberts et al. BMC Geriatrics 2013 13:5
Methods

- Data collected one year before and after introduction of trained volunteers to one intervention ward with contemporaneous comparison with a control ward
- Participants: female, aged 70 years + and not tube fed / dying
- Intervention: trained volunteers on weekday lunchtimes on intervention ward, usual care by ward staff on control ward
- Primary outcome: energy and protein intake over 24 hours
- Patients’ clinical characteristics, mealtime assistance given
- Experience of patients, relatives, staff and volunteers obtained through interviews and focus groups

Roberts et al. BMC Geriatrics 2013 13:5
Intervention: trained volunteer mealtime assistants

- Classroom based half day training by dietician and speech therapist followed by 1-1 assessment
- Clean patients’ hands and tables
- Prepare food trays and open packaging
- Encourage eating
- Cut up food
- Help guide food from plate to mouth
- Feed patients
- Complete food and fluid charts

Data collection and analysis

- Age, height, weight, BMI, MUST score were recorded
- Assistance required at lunchtime and levels of confusion were directly observed
- Individual patients’ energy and protein intake recorded on 26 days during the study: 7 drinks rounds, 3 mealtimes, oral nutritional supplements (ONS) and snacks
- All uneaten items of food, drinks and ONS were weighed
- Energy & protein intakes calculated from known weight and nutritional content of all food and drink items
- Sample size: 100 subjects/ward each year would detect a difference of 218 kcal/day energy intake with 80% power at 5% level
Data analysis

- Summary statistics to describe the patients and their energy and protein intake in each ward in both years
- Differences between wards and years analysed
- Planned sub-group analysis of factors likely to identify patients with poor nutrition: high MUST score, confusion, prescribed a soft diet or oral nutritional supplements
- Linear regression analysis to assess the association between these factors and mealtime assistance received with patients’ dietary intake of energy and protein
Results: Participants

- 29 volunteers helped 3,911 patients during 229 lunchtimes
- 407 female patients recruited (77% total ward population)
- Mean age 87 years in both wards and each year
- Patients’ clinical characteristics did not differ significantly between wards in the baseline or intervention years
- 60-70% low MUST score, normal BMI
- 50-60% had some confusion (delirium /dementia)
- 28-38% soft diet
- 22-25% oral nutritional supplements
- 50-60% needed mealtime assistance
Qualitative study

- To determine views about nutritional care in hospital
- Before and after introduction of volunteer mealtime assistants

- Individual and small group interviews on both the control and intervention wards
- Volunteers participated in one of four focus groups during their first year in post

17 Nurses (differing levels of seniority)
25 Patients (range of ages, living arrangements & nutritional status)
10 Patients’ relatives (of patients too confused to participate)
12 Volunteer mealtime assistants

Baseline year: nurses’ perspectives

Nurses highlighted....

- time required to help the frail or confused at mealtimes
- the coincidence with other nursing priorities
- feeling stressed, struggling to assist everyone at mealtimes

“There are so many pulls and demands on your time. You know it’s important everybody gets fed but you also know it’s important they get their observations done, they’re turned, their dressings are done, their relatives are spoken to... They’re all important, but they’re not as important as someone who suddenly becomes acutely unwell, because you can’t feed a dead patient.”

[ID SB6 Nurse]
Intervention year: nurses’ perspectives

- Initial concerns the ward would seem ‘overcrowded’.
- Relationships and sense of teamwork developed.
- Respected volunteers for their commitment and good attitude.

“I think they needed to find their feet and the staff needed to know what was expected of the volunteers... You get to know their names and faces, and they are like members of the team.”

[ID SB14 Nurse]

“I think it will be a massive blow if we don’t keep it going, because you get into that routine where you’re used to having them..... it’s just so much easier. When it comes to weekends you think, oh it’s the weekend, they’re not coming”

[ID SB16 HCA]
I think it just runs more smoothly. Because we’ve got support from the mealtime assistants we can do so much more. The patients are a lot happier because they are being fed.

Valued trained volunteers:

• as extra pairs of hands, enabling them to feed patients with swallowing difficulties & be available for other care

• for encouraging patients who seemed to have lost interest in food & providing social interaction

• for completing food charts giving accurate information about dietary intake & passing on concerns about patients.

Intervention year: nurses’ perspectives
Intervention year: patients’ & relatives’ views

- Appreciated help to prepare for mealtimes as well as help to eat
- Saw volunteers as ‘a fresh face’ on the ward
- Valued regular presence with potential to build relationships
- Relatives recognised the benefits for patients of volunteers providing encouragement and social interaction

There are some volunteers who come round and actually sit and spoon-feed people who need it. But one lady in particular she comes around to make sure you’ve got the cloths to wipe your hands with and your table napkins and so on. I was very impressed with that.

[Patient ID 47]
Intervention year: volunteers’ perspectives

Highlighted value of enabling those who might otherwise struggle to manage for themselves

That’s why I think patients like it. If they’re asleep you wake them up, they can clean their hands, you can wipe those tables...

You might not be feeding them but their trolley is in the right place, ready for them so when the meal comes, it’s not out of reach.

[Volunteer ID01 FG 1]

I’ve spent three quarters of an hour trying to persuade someone to eat half a meal. Although the staff are nice and they’re helpful, they don’t physically have that time to spend with one person

[Volunteer ID04, FG1]
Study Conclusions

Trained volunteers safely provided mealtime assistance and were perceived

- to **improve the quality** of patient’s mealtime experience and care
- to impact on staff morale by **relieving stress & pressure** on time
- as a **valuable** additional resource
- as **symbols** of a concerted effort to improve mealtime care

Patients had low mean energy and protein intakes despite assistance with meals
Aims:
- Feasibility and acceptability of volunteer mealtime assistants in five hospital departments
- Describe the differences in volunteer recruitment, profile and activity between departments
- Identify any differences in dietary intake and food choice between departments and before and after volunteers
- Be able to produce a “blueprint” of how to develop a volunteer mealtime assistance service for other hospitals
Methods

• Volunteers will be introduced in each department
• During the first 3 months, 50 patients will be recruited to characterise the patient population of the department
• Dietary intake and food choice will be measured before and after volunteers are introduced
• A qualitative study will again include interviews with patients and relatives and focus groups of nurses and volunteers
• Basic evaluation of the costs of setting up a mealtime assistance programme
Progress to date

- Study began August 2014
- 124 patients recruited
- Recruitment drive for volunteers, including local press, university fair, sixth form colleges
- 38 volunteers completed classroom training
- 26 volunteers completed 1-1 assessment
- 22 volunteers working regularly in 3 different departments of the hospital
Initial Findings

• Ward staff universally welcoming
• Recruiting volunteers for evenings is challenging
• Students are enthusiastic but can be less reliable
• Timing of training is crucial: volunteers lose interest if they don’t start soon after first contact
• Building relationships with the same patients is important for some, but not all, volunteers
The future of SMART

- Interim analysis ongoing
- Recruitment due to finish towards the end of this year
- Study will report next year
- Aim to publish a blueprint of how any hospital can set up a volunteer mealtime assistance programme
Any Questions?

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