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The feasibility and acceptability of training volunteer mealtime assistants to help older acute hospital in-patients: the Southampton Mealtime Assistance Study

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Abstract

Aims and objectives—To determine the feasibility and acceptability of using trained volunteers as mealtime assistants for older hospital inpatients.

Background—Poor nutrition among hospitalised older patients is common in many countries and associated with poor outcomes. Competing time pressures on nursing staff may make it difficult to prioritise mealtime assistance especially on wards where many patients need help.

Design—Mixed methods evaluation of the introduction of trained volunteer mealtime assistants on an acute female Medicine for Older People ward in a teaching hospital in England.

Methods—A training programme was developed for volunteers who assisted female inpatients aged 70 years and over on weekday lunchtimes. The feasibility of using volunteers was determined by the proportion recruited, trained, and their activity and retention over 1 year. The acceptability of the training and of the volunteers' role was obtained through interviews and focus groups with 12 volunteers, 9 patients and 17 nursing staff.

Results—59 potential volunteers were identified: 38 attended a training session of whom 29 delivered mealtime assistance, including feeding, to 3,911 (76%) ward patients during the year (mean duration of assistance 5.5 months). The volunteers were positive about the practical aspects of training and on-going support provided. They were highly valued by patients and ward staff and have continued to volunteer.

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Conclusions—Volunteers can be recruited and trained to help acutely unwell older female inpatients at mealtimes, including feeding. This assistance is sustainable and is valued.

Relevance to clinical practice—This paper describes a successful method for recruitment, training and retention of volunteer mealtime assistants. It includes a profile of those volunteers who provided the most assistance, details of the training programme and role of the volunteers, and could be replicated by nursing staff in other healthcare units.

Keywords

Nutrition; older; hospital; volunteer; mealtime assistance; nurses; nursing

INTRODUCTION

Nursing staff recognise the importance of nutrition for their patients but competing tasks such as medicine distribution and other time pressures may mean that they are not able to prioritise mealtime assistance as they would wish (Dickinson *et al.* 2005). The issue of helping patients at mealtimes is particularly acute on wards with a high proportion of older people such as Medicine for Older People wards. The difficulty encountered by nursing staff in helping patients at mealtimes has been recently highlighted by the Care Quality Commission in the United Kingdom which reported that 15% of 100 hospitals surveyed were not meeting the minimum legal standards for mealtime care of older people, and a further 32% needed to improve (Care Quality Commission 2011). Inadequate help at mealtimes has also been reported as a problem in other countries such as Australia and the United States (Robinson *et al*. 2002, Xia & McCutcheon 2006).

BACKGROUND

Malnutrition among older hospital patients is common, with an estimated prevalence of 39% in a recent pooled analysis of data from 12 developed countries based on the Mini Nutritional Assessment tool (Kaiser *et al*. 2010). Malnutrition is associated with poor outcomes of hospital care including longer length of stay (Kerr *et al*. 2006), and higher mortality (Stratton & Elia 2006). The costs of disease-related malnutrition in the UK are estimated to exceed £7.3 billion (Elia 2009). Malnutrition in older people often antedates their admission to hospital, but further deterioration in nutritional status can occur; in one study this occurred in up to 60% of admissions (Stratton *et al.* 2003) The reasons for this are multi-factorial and include the effects of acute illness, cognitive impairment, low mood, co-morbidities and new medication leading to altered taste sensation and reduced appetite (Mudge *et al*. 2011). However the hospital environment may also contribute to poor dietary intake, with food placed out of reach, food going cold because of clinical care during mealtimes and a lack of help at mealtimes.

UK government policy requires healthcare organisations to have systems in place to ensure that patients' nutritional requirements are met, including any assistance required to eat (Department of Health 2007). Several initiatives have been widely implemented across the UK, aiming to improve the nutrition of older inpatients in line with these standards. These include serving food on red trays to patients who have a poor intake or need help with eating

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(Age Concern 2006), in order to alert nursing staff to offer help, record dietary intake, and not to remove the tray without confirming with the patient's nurse that the meal is finished. Protected mealtimes have also been implemented, defined as periods on a hospital ward when all non-urgent clinical activity stops such that patients are able to eat without interference and staff can offer assistance (Hospital Caterers Association 2004). However, an evaluation of the introduction of protected mealtimes to adult wards at two teaching hospitals showed few changes in either the mealtime environment or the patient mealtime experience, and no difference in the proportion of patients who experienced disturbance at mealtimes. Importantly patients' energy and protein intakes did not change (Hickson *et al*. 2011). This study was conducted on adult wards where only 20% of patients required help with eating, which may have minimised the impact of protected mealtimes, but of note, there was no increase in the number of staff assisting patients at mealtimes following its introduction.

Few studies have evaluated the use of additional mealtime assistants helping older patients and the need for high-quality research into the use of additional support for nursing staff in order to minimise under nutrition has been highlighted in a summary of systematic reviews (Munn 2008). The results of those existing studies are variable and the use of additional health care assistants has been reported to increase dietary intake among older female hip fracture patients (Duncan *et al*. 2006) but not older medical inpatients (Hickson *et al*. 2004). There is increasing interest in the use of volunteers to assist older inpatients at mealtimes (Green *et al*. 2011) and a small Australian pilot study reported increased protein intake among nine older longstay hospital inpatients receiving volunteer mealtime assistance (Walton *et al*. 2008). However, despite the development of several pilot schemes using volunteer mealtime assistants, the training and support volunteers require, and the assistance which they can safely give at mealtimes, has been little explored. Using data from a ward-level intervention to provide mealtime assistants over a one year period, this paper describes the feasibility and of training volunteers to provide mealtime assistance to older inpatients and assesses their acceptability to staff and patients.

METHODS

Study design

The Southampton Mealtime Assistance Study aimed to evaluate the impact of training volunteers to provide mealtime assistance each weekday lunchtime for one year to patients admitted to an acute female medical ward for older people at a teaching hospital (Roberts *et al*. 2013). Data collection was both quantitative (monitoring of volunteers' recruitment, training, activity and retention) and qualitative (interviews and small focus groups with volunteers, patients and nursing staff). The study received full ethical approval and was registered with ClinicalTrials.gov (NCTO1647204).

Patients eligible for mealtime assistance were unselected female emergency admissions aged 70 years and over, and they were only excluded from the study if they were tube fed, nil-by-mouth, or on the Liverpool Care Pathway for the dying. The selection of a female ward reflects the hospital policy of single sex wards and the recognition that the majority of older people are female. The volunteers were initially identified as suitable for the study by the

hospital voluntary services manager and the numbers recruited, trained, and the activity of all volunteers was recorded. We aimed to provide three volunteers on the ward each weekday lunchtime.

For the qualitative data collection a convenience sample of volunteers took part in four focus groups: six attended the first group (month 2), of whom five took part in the second group (month 7) and four in the third group (month 11). Six more volunteers who were recruited later in the study year participated in a focus group in month 9. Volunteers were asked about their training and preparation for volunteering, and their experience of offering mealtime assistance. The nine patients who were interviewed were selected purposively to capture a range of ages, nutritional status defined by BMI, and those who previously lived alone/with a relative /in a care home and did /did not require help at mealtimes. The patient interviews centred on appetite, making food choices, managing at meal times, food intake during this hospital admission and snacks, drinks and supplements. A purposive sample of 17 matrons, ward managers, staff nurses and health care assistants took part in a mix of small group and individual interviews, held with senior and junior staff separately, to reflect a range of experience and roles. Staff focus groups discussed what is involved in providing nutritional care to their patients, the challenges staff faced and how they addressed them, and what developments might improve nutritional care of older inpatients.

Development and delivery of volunteer mealtime assistant training programme

The training programme was developed by the hospital speech and language therapist (SdW) and dietitian (KP), based on existing literature (Lipner *et al.* 1990, Marken 2004) and a pilot study, and was delivered by them with the assistance of the nursing co-authors (GR, ND) in half-day sessions seven times during the year. Mealtime assistance included encouragement to eat, support with opening packets and setting up the meal tray, cutting up food, helping guide the food to the patient's mouth and actually feeding patients. The objectives of the training programme were to enable volunteers to gain an understanding of the importance of adequate nutrition and of safe feeding practices, to be able to identify signs of difficulty in swallowing, and develop an understanding of the practical tasks to be carried out as part of their role as mealtime assistants. Groups of up to eight volunteers attended each training half-day which included a taught session covering the key topics and roles outlined in Boxes 1 and 2. A practical session allowed the volunteers to experience both feeding and being fed, in order to highlight the importance of safe feeding and of considering individual patients' wishes and needs. Finally a video of simulated scenarios was developed to demonstrate safe and appropriate mealtime assistance in action.

Following training, the speech and language therapist observed each volunteer during a mealtime and recorded their competency in carrying out each of the roles and responsibilities of a mealtime assistant against the criteria in Box 2. Only when these criteria were met in full were volunteers allowed to offer independent mealtime assistance. The competency of each mealtime assistant was reassessed against these criteria at the end of the study.

Nursing staff were given initial guidance about the role of the volunteers through ward meetings and informal meetings during handovers, and the ward managers played an

important role in supporting the project and cascading information to ward staff. Informal support was provided through several coffee mornings attended by volunteers, members of the research team and the hospital voluntary services manager. These enabled volunteers to discuss concerns and suggestions for improvement of the mealtime assistance programme and to obtain peer support. The volunteers were provided with polo shirts with 'mealtime assistant' written on the back to identify their role. Hospital car park charges were waived for the volunteers, although they were responsible for their own transport costs.

Data collection and analysis

Feasibility—All data were collected between 1st February 2011 and 31st January 2012. The feasibility of delivering mealtime assistance over 1 year was evaluated, with reference to the numbers of volunteers identified who were recruited and completed training, the number who maintained competency, and the number who continued to deliver mealtime assistance throughout the year. The delivery and content of the training programme, and the mealtime activity of the volunteers was recorded along with any adverse events associated with feeding patients. Data were double entered and analysed using Stata statistical software package (StataCorp, Texas, 2010). Descriptive statistics – mean, median (IQR); number (%) - were used to describe the recruitment, training, characteristics, activity and retention of the volunteers.

Acceptability—The experience of recruitment and training, and the role of the mealtime assistants were captured through four focus groups with 12 volunteers during the year. Perceptions of their role were also obtained in nine semi-structured interviews and two small focus groups with patients and staff. The interviews and focus groups were conducted in a conversational style with an experienced qualitative researcher (JR). They were audio-taped with express consent and transcribed verbatim. Using the software package NVIVO9 (Bazely 2007) the data were managed and analysed thematically using Framework (Ritchie & Lewis 2003). Two researchers (JR and HR) working separately and then together, analysed the transcripts in detail to agree on key topics for the initial analytic framework. Participants' interviews were summarised onto charts based on the framework and the data analysed in detail in order to draw out the full range of experiences and views, looking for commonality and differences within and between the participants. Little new information was forthcoming when the interviews were discontinued. Results are presented with regard to recruitment, training, activity and retention of the volunteers.

RESULTS

Feasibility and acceptability of recruitment and training of volunteers

The hospital voluntary services manager, who reviewed all potential hospital volunteers during the study period, identified 59 people who had an informal discussion about the role of a volunteer feeding assistant with a member of the research team. 38 (64%) subsequently attended a training session, of whom 29 (76%) completed the training, had their competency assessed and delivered mealtime assistance during the year. Figure 1 illustrates the volunteers' recruitment and reasons for withdrawal during recruitment and training.

The 29 volunteer mealtime assistants comprised 28 women and 1 man, (age range 20 - 82 years). Only 24% had previous experience of volunteering but 55% had previous healthcare experience, mainly in nursing (Table 1). 11 (38%) were currently employed (8 part-time) but 59% were not working or retired. Reasons for volunteering included altruistic reasons, such as wanting to help (19 (66%) volunteers), as well as personal gain such as work experience to support applications for careers in healthcare (6 (21%) volunteers). Interest in the study was considerably enhanced by media coverage in the local press and television and the focus groups confirmed that the concept of taking part in a research project was also appealing. The volunteers were very positive about their contribution.

> And these are the people that presumably this research is, is trying to catch. …and sort of get them back on, on their feet again and then follow them up when they're home … and we could be the difference. [volunteer 04]

Training sessions were held at intervals throughout the year and were perceived by volunteers as being very valuable, particularly the practical session. The initial assessment of competency was important for volunteers' confidence in their role. All 29 volunteers were confirmed to be competent in each task (box 2) following training: this remained the case for the 17 volunteers still providing mealtime assistance and reassessed at the end of the study.

> And the first time on the ward we were supervised by somebody. You know we weren't just then said oh well you've done your training and off you go. Somebody was actually there… watching what we were doing the first time we did it, so I felt we got well supported at that point. [volunteer 02]

Feasibility and acceptability of providing mealtime assistance

22 (76%) of the trained volunteers delivered mealtime assistance one day each week, but seven (24%) volunteered on two days. Over the year the volunteers assisted on 229 weekday lunchtimes. Typically, their role included feeding two patients, encouraging and assisting another seven, and preparing tables and cleaning hands of all nine patients before lunch. In total 3911 (76%) patients on the ward received assistance over the year; most commonly they provided support and encouragement (Figure 2). There were no adverse events associated with feeding patients.

The focus groups revealed that the volunteers felt that their role could be initially challenging but grew more fulfilling with time.

> I'm enjoying it; every minute of it. I think it's got better from the beginning. …. I think we're more natural about it. We all know what we're doing now. [volunteer 05]

The volunteers did find it difficult at times if there were several patients to feed at the same time, or if the nurse was delayed in helping a patient with swallowing difficulties and the other patients were eating. They also found it upsetting when patients deteriorated, but appreciated that this aspect had been discussed in the training session and on-going support was offered by the research team: these aspects became easier to manage with experience. Similarly initial staff anxieties were dispelled by increasing familiarity with the volunteers

and their role, and the nursing staff recognised the opportunity the trained volunteers gave them to perform other tasks.

> I think it just runs more smoothly. Because we've got support from the mealtime assistants we can do a lot more, so much more. [nurse 16]

As the volunteers developed increasing confidence they began to arrive early to ensure they could prepare the patients and trays before the meals arrived, and have time to talk to the patients. Patients and ward staff valued the volunteers' contribution.

> I tell you what's very good here too –at lunchtime they have unpaid helpers who come and go around and they'll sit and feed, you know, which is very good. And it's somebody fresh on the ward. [patient 44]

> Now they've set up this mealtime assistance. And they come and ask you if you need any help. The same with the plastic pots, they open… the lids for you, because they're a nightmare some of them. [patient 55]

> I've seen the same lady twice, so I assume they're on a week by week thing, you know that they do one day a week here or something, but if you were in a long time you could have quite a good relationship with them. [patient 47]

> The caterer said it's so wonderful to be able to come in and put a tray down, because normally they have to move everything, and it's difficult. So at least they appreciate it. [volunteer 03]

Feasibility and acceptability of retaining volunteer mealtime assistants

The mean duration of mealtime assistance by volunteers was 5.5 months (range 1 to 11 months); seven (24%) volunteers had assisted for at least 10 months. The volunteers received on-going support from the hospital voluntary services team over the year as is usual practice. In addition a member of the research team attended the ward each lunch-time; help was mainly required if the patient coughed or needed further swallow assessment. 18 volunteers (62%) required little input, were confident in their role and able to support less experienced mealtime assistants. Eight (28%) were less confident, needed supervision and guidance on occasion and help with completing paperwork. Importantly only three volunteers (10%) needed guidance with assessing patients' needs and to be reminded not to help patients beyond their role as a mealtime assistant. The provision of on-going support was determined by the needs of individual volunteers and was not related to duration of experience as a mealtime assistant.

12 (41%) volunteers left the study during the year. This was due to a change in personal circumstances (3) or employment (4), and starting university (1); one volunteer found the clinical environment distressing and for three volunteers (who only assisted once or twice), the reasons were unknown. The four volunteers who assisted at over 50 mealtimes each were female, aged 50-70 years, volunteering for altruistic rather than personal reasons, either retired or working part-time and mostly with previous volunteer and healthcare experience.

In the focus groups the volunteers voiced a sense of achievement about the difference they were making to patients and pride in being part of a project. They felt a sense of loyalty to

the research team, whose support was valued, particularly for the clear information on which patients required assistance, allocation of volunteers to bays, and availability to answer queries. The support when patients deteriorated was important, especially to newer volunteers. The provision of a single phone number to call if unwell and early notification if the ward was closed to visitors was appreciated.

It was important to the volunteers that their regular days for volunteering were respected and they were not asked to swap or do extra sessions, allowing the volunteer work to fit in with their other commitments. The welcome and support given by ward nursing staff was very important. The volunteers valued the coffee mornings and focus groups as a mechanism for feeding back and sharing their experience of mealtime assistance.

> I think I really got a lot out of hearing other peoples' experiences and picking up what other peoples' good ideas are for instance… you don't see the people who aren't on, on your day, so I think it's very valuable that everyone can have opportunity to meet up. [volunteer 02]

DISCUSSION

This study has shown that it was feasible and acceptable to establish trained volunteer mealtime assistants in an acute hospital setting. The 29 volunteers assisted 3,911 (76%) of the patients on an acute female Medicine for Older People ward during 229 weekday lunchtimes over 1 year. The interview and focus group data indicates that the volunteers were valued by patients and nursing staff.

The success of this initiative was determined by several key features. The hospital voluntary services manager was central to the recruitment process and proactive at identifying suitable volunteers. The training programme which included practical sessions and competency assessment was highly valued by the volunteers. The subsequent support at lunchtimes, informal coffee mornings and the welcome from the nursing staff enabled the initiative to become embedded within the ward practice and to be sustainable after the study finished. Most volunteers helped once a week; those who were delivered most assistance were female, aged 50-70 years, with previous volunteer and healthcare experience but retired or working part-time, and volunteering because they wanted to help rather than for career progression.

No previous studies report details of mealtime volunteers' profile and activity in acute hospitals. In the UK Sneddon and Best (Sneddon & Best 2011) describe the introduction of trained volunteers on the acute wards of a district general hospital: they do not report a formal evaluation of the volunteers' activity or impact, but state that they were generally perceived positively by patients and staff. A national pilot study in Scotland in 2011, and the first Scottish study to include volunteers feeding patients, involved 17 volunteers with a similar profile to our study –mainly female, some with caring experience and some wishing to gain experience prior to a career in healthcare (Murray & Blackwood 2011). They were also recruited through the hospital volunteer manager to allow regulatory checks to be made most efficiently. However they worked on rehabilitation and continuing care wards and the

evaluation, although positive, was limited to feedback from patients and staff in the form of completed questionnaires.

The impact of volunteer mealtime assistants has been reported in other healthcare settings. Manning (Manning *et al*. 2012) studied a convenience sample of 23 patients (mean age 83 years) in a long stay community hospital in Sydney. The volunteers undertook similar roles to our study, including feeding patients, but there is no information on their training or profiles. An American trial of feeding assistance (preparation and encouragement, offering snacks but not feeding) for nursing home residents identified that the increased time taken at mealtimes would require better staffing levels and/or organisation of staff at mealtimes (Simmons *et al*. 2008). Studies using volunteers to help frail older hospital inpatients on modified diets (Brown & Jones 2009) or in an elderly care unit (Murray 2006) report anecdotal benefit, or satisfaction with volunteering (Steele *et al.* 2007). A recent American study of a volunteer mealtime assistance program reported the type and frequency of assistance given and estimated the economic cost savings due to the use of volunteers rather than staff (Buys *et al*. 2013).

Social aspects of the environment at mealtimes are recognised to be important in acute hospitals (Milne *et al*. 2006) but are often a low priority in busy clinical settings. In our study, the volunteers actively wiped hands, cleared bedside tables and prepared the patients for their meal which may be an important contributing factor to the patients' appreciation of the volunteers, in addition to their individual relationships with patients. The volunteers typically preferred to work in the same ward bay each mealtime and appreciated continuity in their relationships with patients.

This study has several strengths. Importantly it was a 'real-life' study with volunteers helping all ward inpatients, including those who were confused, rather than a convenience sample, although due to the single sex wards the study was limited to female patients. The mixed methods approach allowed insight into the impact of the volunteers from different perspectives. Although the study was limited to one hospital, it is typical of many large hospitals and has similar issues regarding poor nutrition among its older inpatients as those in other countries (Vanderwee *et al*. 2011, Tannen & Lohrmann 2013).

The study finished in February 2012 and the volunteers have continued to work on the ward on weekday lunchtimes. The hospital senior nursing, therapy and dietetics teams have released therapy time to continue the training and assessment of competency of volunteers. Importantly senior ward nursing staff have taken on the role of identifying suitable patients for assistance and supporting the volunteers, and their inclusion as part of the ward team is crucial.

CONCLUSION

In conclusion this study has shown that volunteers can be recruited and trained to help acutely unwell older inpatients at mealtimes, including feeding, and that the majority of inpatients will benefit from this assistance. The volunteers were highly valued by patients and nursing staff.

RELEVANCE TO CLINICAL PRACTICE

This paper provides a blueprint for nurses in clinical units, describing a successful method for recruitment, training and retention of volunteer mealtime assistants. It includes a profile of those volunteers who provided the most assistance to older inpatients, details of the training programme content and methods of delivery, the role of the volunteers, and details of the support which the volunteers required from ward staff. This model could be replicated by nursing staff in other healthcare units.

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Box 1

Topics covered in training session

1. the importance of nutrition and malnutrition
2. nutrition in the older person
3. signs seen around a patient's bed space
4. available diet consistencies
5. the hospital menu
6. nutritional supplements
7. the importance of safe feeding
8. feeding problems
9. swallowing difficulties
10. hand hygiene
11. the role of the meal time assistant (Box 2)
12. the role of the nursing team.

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Box 2

The role of the volunteer mealtime assistant

1. Report to the ward nurse on arrival
2. Attend a bay of patients as allocated
3. Clear, wipe and position bedside tables in preparation for the meal tray
4. Check for signs around the bed space indicating inappropriate for volunteer assistance
5. Wake patients in preparation for the meal and ensure they are in a safe position for eating and drinking.
6. Ask a nurse to re-position them if required
7. Assist patients according to written instruction from ward staff in a sensitive and respectful way.
8. Do not assist patients with known swallowing difficulties.
9. Accurately document the level of assistance provided and complete food record charts.
10. Report to the nurse prior to leaving the ward handing over essential information e.g. concerns regarding patients' dietary intake

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Summary Box: What does this paper contribute to the wider global clinical community

- A recruitment and training programme to establish skilled volunteers who can assist older people in hospital at mealtimes is both feasible and sustainable.
- These volunteers are highly valued by patients and nursing staff.

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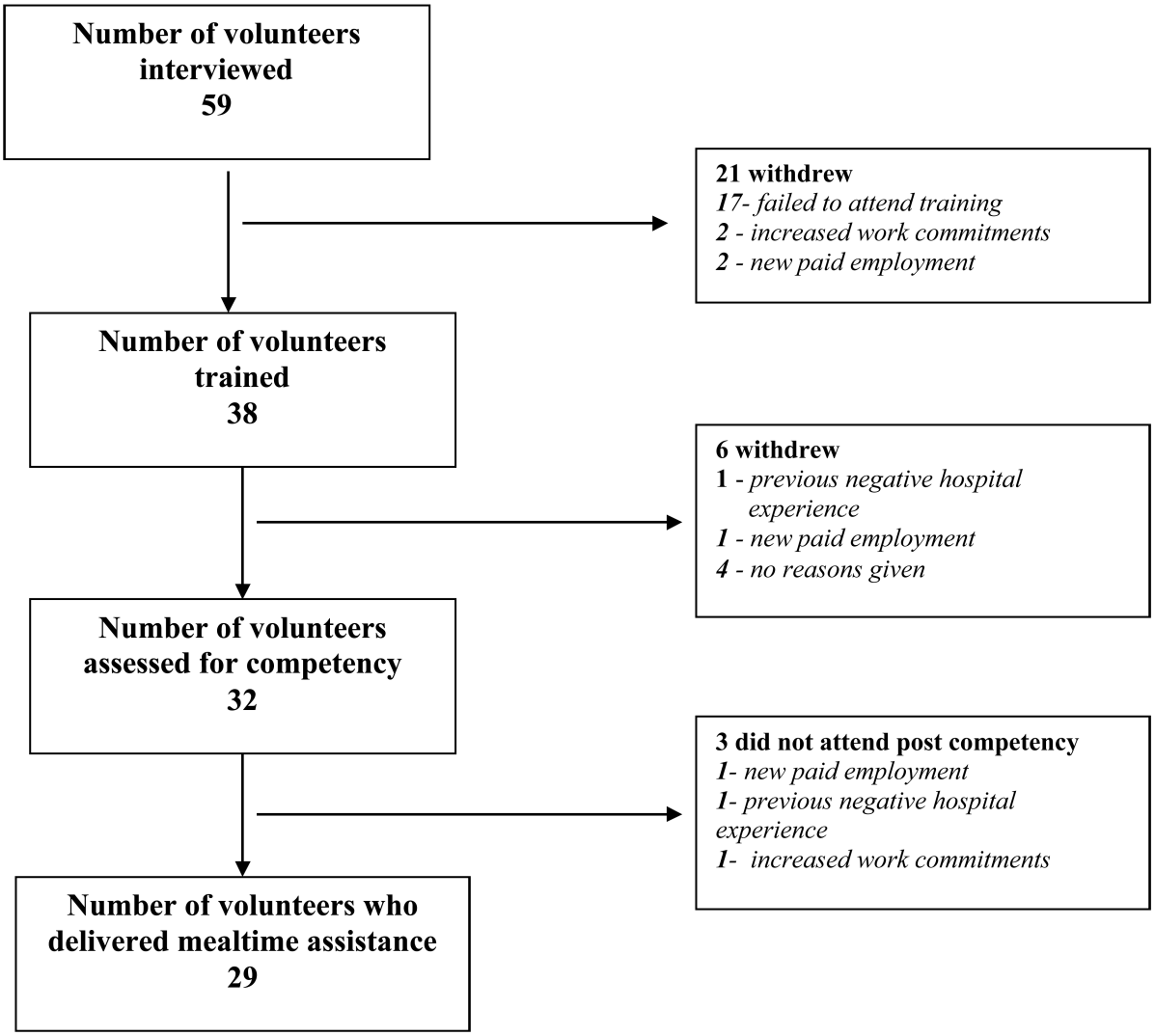

Figure 1. Recruitment of volunteer mealtime assistants

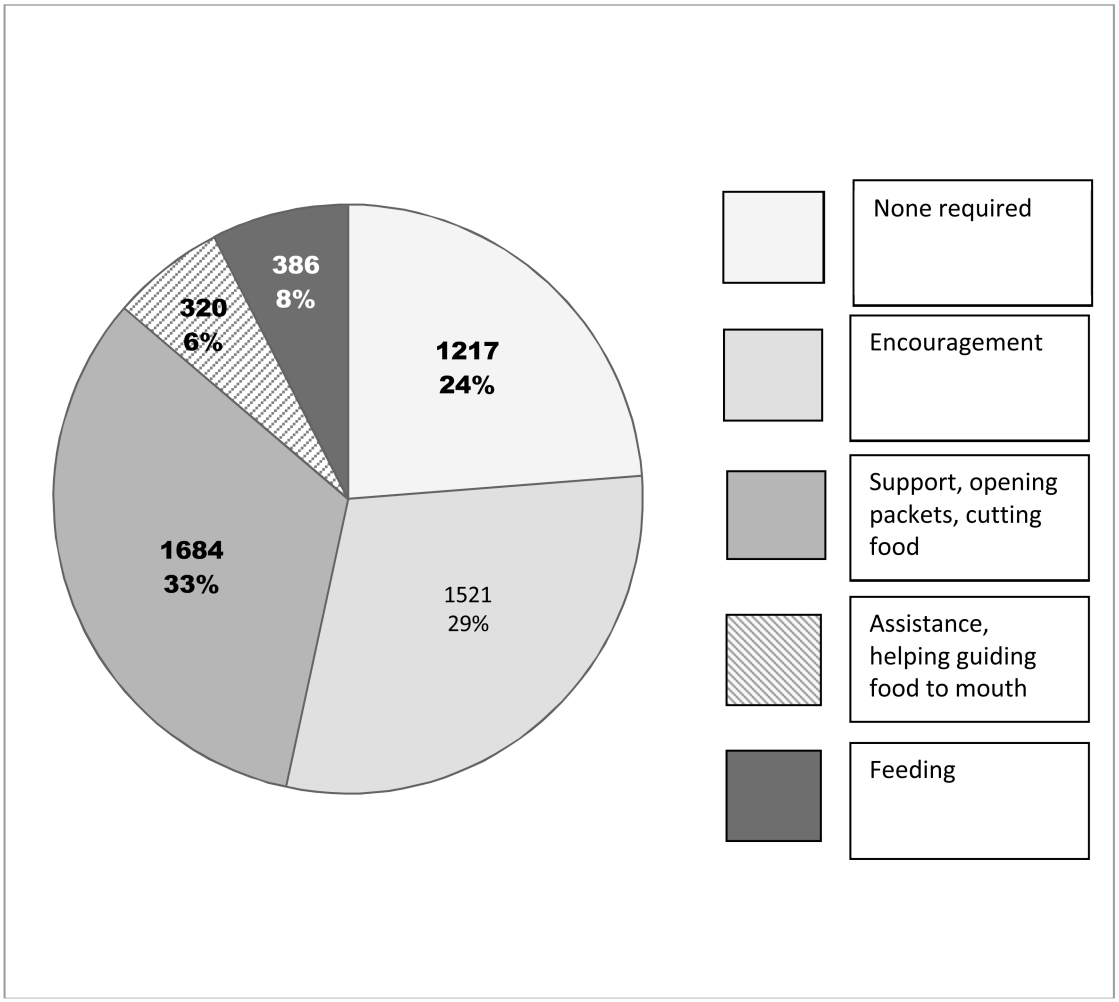

Figure 2. Proportion of patients requiring different types of mealtime assistance during the year

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Table 1

Volunteer Mealtime Assistant Profiles

Gender	**28 female: 1 male**
Age (years)	Median 61-70 (range 20-82)
Volunteer experience	7 (24%)
Healthcare experience	16 (55%)
Employment status:	
Student	1 (3%)
Employed	11 (38%)
Retired /not employed	17 (59%)
Reasons for volunteering:	
Personal experience	3 (10%)
Work experience opportunity	6 (21%)
Consider role important	10 (35%)
Wanted to help	9 (31%)
Unknown	1 (3%)