

Introduction

In 2006, Portsmouth City Council (PCC) commissioned the Centre for Healthcare Modelling and Informatics at the University of Portsmouth to evaluate PCC's introduction of telecare over 3 years. PCC addressed telecare using the Preventative Technologies Grant, provided by the Department of Health. Within PCC, the Health Improvement and Development Service (HIDS) created a steering group to manage the project.

Prior to the telecare project there was a widely implemented community alarms service (CAS) in the city but this requires the user to either pull a cord or press a button to request assistance. Modern wireless technology offers a similar service but without the user having to activate the call. This is of benefit in particular areas, such as falls, where the person who has fallen may not be able to summon help. There are now a wide range of sensors that can be added to the basic infrastructure of the community alarm service that can create a comprehensive telecare service.

The project's aim was to investigate the possibility of setting up the technology and the processes required to support the implementation of telecare. The outline project included raising awareness of telecare so that it could become a standard part of the care package with a single point of assessment. Once telecare has been prescribed as part of a care package, the technology is installed and connected to the existing call centre in Southampton that currently monitors the community alarm system. Finally there needs to be a response service within the city to attend to the person who has activated the alarm.

Research Method

The University of Portsmouth provided an independent evaluation of the telecare project through involvement in the steering group and by organising and evaluating two pilot studies using two of the main technologies being considered. This report discusses the findings from the evaluation, including identified problems and challenges in setting up the process of telecare. It provides an overview of the two pilot studies with outcomes and suggestions for mainstream implementation.

The study addresses 5 main research questions:

1. How does the introduction of telecare fit into the bigger picture of the provision of Social Care?
2. What are the views of the social care professionals involved in the project? How did their roles change with the introduction of telecare?
3. What are the views of the clients involved in the project? Did it improve their quality of life?
4. What are the views of other stakeholders (e.g. the voluntary sector and informal carers) involved in caring for the clients?
5. What quantifiable factors are affected by the introduction of telecare? Does it result in a measurable reduction in the number of falls, or the

number of clients who become recurrent fallers? Does it have other healthcare benefits (e.g. to mental health, learning disabilities)?

Results

Medication pilot results

The medication dispensers were prescribed to people with difficulty in remembering to take their tablets. These, by definition, are often people with mild to moderate dementia.

The results of the evaluation show that in cases where the devices do work without problem they become invaluable.

The benefit to carers is the clearest result, particularly family members. Knowing that "Mum" is taking their medicine properly means that they do not have to find some way to visit up to 4 times a day. In one particular case, where the family do not live close by, the option of admitting the client to a nursing home was being considered, solely due to the medication management issue. This client, however, still remains in their home. This person has accepted the dispenser and realises its importance, so much so that if she needs to go to bed early she will take the dispenser with her and put it under her pillow so that she can hear the alarm, but so it will not disturb the neighbours.

However, when problems occur there has to be an immediate response and even this may fail to reduce the concerns of the user enough for them to continue using the device. If use of the dispenser is to become commonplace and a mainstream service, it is essential that:

1. it is an effective solution for the recipient's problems
2. there is an effective response service
3. the device is monitored on a regular basis

Falls monitor pilot results

The falls monitor is a small electronic wireless device worn by the client. If the client falls, they press the button on the device and an alarm is sent to the call centre through the community alarm installed in their home. The call centre then telephone the client to check on the situation and appropriate response is put into action e.g. no action (because it was a false alarm or the client has managed to get up by himself or herself), call a key holder, or call an ambulance.

Recipients of the falls monitors provided very positive feedback on the concept of the monitor. All those interviewed agreed that the falls monitor had helped sustain their increased confidence in managing falls. Although the falls monitors have not led to an increase in the activities of the clients, they all maintain that they "do the same amount of activity as before their falls". It would not be reasonable to expect participants to increase their activity levels

given their age and general state of health. However, this is encouraging as serious fallers who lose confidence will often reduce or limit their activities for fear of falling¹

- What are the views of other stakeholders (e.g. the voluntary sector and informal carers) involved in caring for the clients?

Feedback from carers is that telecare can provide a sense of security for them knowing that they are not alone in providing the care. Like the rest of the country, Portsmouth can't afford the vast number of appropriately skilled staff to deliver these services by conventional means, and therefore will rely on technology to provide them on a large-enough scale to cope with the expansion of demand.

- What quantifiable factors are affected by the introduction of telecare? Does it result in a measurable reduction in the number of falls, or the number of clients who become recurrent fallers? Does it have other healthcare benefits (e.g. to mental health, learning disabilities)?

The Portsmouth pilots' results are currently too small to provide statistically significant evidence of savings or benefits; however, they have produced anecdotal qualitative data that supports findings from other published works. It is appropriate to conclude that should the Portsmouth pilots be extended, they would continue to support the findings of other pilot studies

- What are the views of the social care professionals involved in the project? How did their roles change with the introduction of telecare?

During the course of this study, we have spoken to many of the social care professionals involved with the Portsmouth telecare pilots. Overwhelmingly, they have been supportive and engaged thoroughly with the process. Their overall concern is the care and support of their clients. All the professionals interviewed have been open to new ways of providing this care, as long as it proves of benefit to the recipient.

These findings may not reflect the attitude of *all* social care professionals since those interviewed had all come into contact with telecare in some form or another, and we did not interview any who had not. However, there was no negative feedback at all from the ones we did interview.

Professionals in charge of identifying care packages did not see their role changing with the introduction of telecare. Their job is to identify the most appropriate help for their clients and this includes the use of telecare devices.

¹ Cumming R, Salkeld G, Thomas M, and Szonyi G, (2000) Prospective Study of the Impact of the Fear of Falling on Activities in Daily Life, SF-36 Scores, and Nursing Home Admission, The Journals of Gerontology Series A: Biological Sciences and Medical Sciences, 55.M229 – M305, <http://biomed.gerontologyjournals.org/cgi/content/abstract/55/5/M299>, Retrieved 08-October-2008

