

case study



Sector: Local Authority

Client: West Lothian Council

Application: Dementia Care

dilemma

Dementia affects 24 million people worldwide, and this figure is set to double over the next 25 years. How can health, housing and social work professionals best rise to this enormous challenge?

the need

Over 700,000 people in the UK are currently affected by dementia, an illness which robs sufferers of their short term and, in some cases, long term memory. It can affect verbal communication and alters their perception of the world around them, with often devastating effects for both the sufferer and their carers. Until now there has been little alternative to residential care, and this change of environment can actually be detrimental, as well as distressing, for people with cognitive impairments.

The McDermids' story*

Mr and Mrs McDermid are a couple in their eighties living in West Lothian, and Mrs McDermid has a tendency to walk about due to Alzheimer's Disease. Mr McDermid cares for his wife as best he can, but he is increasingly frail and has both visual and hearing impairments and therefore doesn't always notice her walking about immediately, especially at night. Although their daughter in law Janet lives nearby and provides enormous support to the couple, she cannot be there 24 hours a day.



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Council**

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As their geriatrician (Dr Suzanne Roscrow, St John's Hospital, Livingston) says, "If it wasn't for the technology, there is no doubt that the McDermids would no longer be able to live in their own home."

Kathryn McNab is the McDermid's Occupational Therapist and has been instrumental in the successful introduction of technology.

"The success in this case is due not only to the technology but also to the ongoing support of the Health and Social Care Team and the exceptional dedication of family members."

the economics

The cost of a technology package such as the one installed at the McDermid's home ranges from £600 to £1,200. It has now been installed for two and a half years. The cost of two places in residential setting for this period of time would be approximately £91,000 (£350 per week). Even taking account of the additional cost of ongoing care team support and monitoring costs, this represents a strong economic argument for supporting people in their own homes.

* names have been changed for privacy

Problems experienced



Walking about - particularly at night, which involved the police returning Mrs McDermid to her home.



Fires - the microwave would be accidentally set for long periods on high temperatures and the frying pan left unattended on the stove.



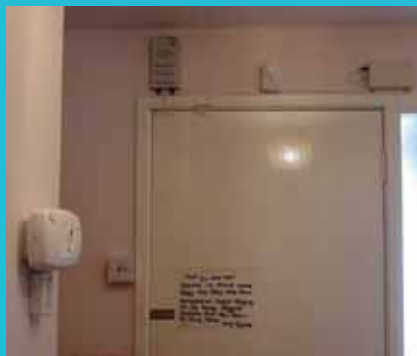
Floods - the washing machine would be opened mid cycle and the radiators tampered with.



Bogus caller incident - two men falsely claiming to be from a satellite television company tried to gain entry to the property.

The situation was becoming unmanageable for all concerned and, until their social work practitioner visited and suggested the use of technology, it seemed likely the couple would need to leave the family home for residential care.





A package of non-intrusive sensors was introduced which work in conjunction with a PERS home unit to raise an alert to the West Lothian Careline as soon as any problems occur.

the solution

During a visit from Kathryn McNab, their Occupational Therapist, in November 2000, the McDermids discussed their options, and it was decided that they would employ a package of new technology in order to remain at home.

What does the bed occupancy sensor do?

The bedroom light is automatically turned on at 8pm.



When the couple go to bed, the light goes off as it senses their presence in the bed by means of a pressure pad under the mattress. The bed sensor also senses if Mrs McDermid gets up in the night, turns a light on to minimise the risk of falls and sets a timer running.



If Mrs McDermid has not returned to bed within 20 minutes (an appropriate length of time to make a cup of tea or go to the bathroom), the bed sensor raises an alert to the PERS unit, which in turn raises a call to her daughter in law, Janet.



Janet answers her mobile and will hear 'bed wander' as a voice message.



The PERS unit next to the phone will then allow her to speak to her mother in law via its speaker to encourage her to return to bed.

However, if Mrs McDermid sounds distressed, as Janet lives close by, she will go to the house to check on her and help her safely back to bed. If for any reason, her daughter in law is unable to answer the call raised by the PERS unit, the call will divert to other family members or to West Lothian Careline, providing the reassurance that a response will always be given to any situation.

What does the property exit sensor do?

A contact on the door frame will raise an alert if broken by the door being opened within pre determined time parameters.

The contact works in conjunction with a PIR (Passive Infra Red) which detects if someone has walked out of the door but not returned.

At the McDermid's home, if the front door is opened after 10pm and before 9am, and Mrs McDermid exits but does not return it will raise an alarm.

A loud buzzer is also sounded to alert anyone in the house that the door has been opened. Carers use a key safe to enter the property, and the buzzer will also sound on their arrival to alert the McDermids that someone is entering the property so they are not approached unawares.

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the results

Benefits to Mr & Mrs McDermid Senior

Mr McDermid says that although he feels safe and protected, he doesn't find the technology intrusive or controlling, and that **"It has given us back a part of our lives we wouldn't otherwise have had."**

The technology supports their independence, not only by providing an alternative to residential care, but also by allowing the couple and their family to manage their own level of acceptable risk. Now if an incident, such as Mrs McDermid accidentally setting the microwave on a high heat for too long occurs, the temperature extremes sensor will alert the monitoring centre, and the trained staff can then talk Mr McDermid through the situation, usually avoiding the need to involve the emergency services.

As Janet says **"although my mum in law is very forgetful, she still has some awareness. She does know and understand that if an alert is going off in the night, it's going to get me out of bed."** This in itself can mean that Mrs McDermid often restricts her behaviour to safe activities that won't disturb Janet.



Mr and Mrs McDermid senior



Janet and Hugh McDermid

Benefits to the family

"I can't stress enough how it has released us. It's like a circle of safety in there." Janet McDermid

Janet and her husband Hugh are now free to go out for a meal or visit friends together, secure in the knowledge that if there is any problem they will be alerted. They have even been able to take a much needed holiday, by leaving the mobile with another family member for a short time. It also means that Janet no longer needs to ring their home several times a day to check on the situation, which both reduces the burden on her and preserves the McDermid's privacy and independence.

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