

**smh.com.au**  
*The Sydney Morning Herald*

Belinda Tasker  
June 28, 2011

## *Tech Toys help brain injury patients*

Smartphones and tablet computers might be the latest playthings for tech fans but they could also play lifesaving roles for brain injury patients.

After suffering a brain injury many people struggle to remember anything for more than a few minutes.

They have to rely on writing endless notes in diaries or on having carers, relatives and friends to remind them to do a range of tasks including taking vital medication or shopping.

Some also have problems remembering their family, friends and carers.

But a new study has found that tablet computers, smartphones and other handheld digital devices can improve their memories.

Researchers from the Royal Rehabilitation Centre in Sydney spent eight weeks training a group of 21 brain injury patients to use personal digital assistants (PDAs) - palmtop computers - so they would no longer have to rely on nagging or diaries.

The calendars featured on the devices were used to help participants keep track of appointments, medication times or daily tasks like doing the washing.

An alarm would sound each time they were meant to carry out a task, while names were attached to pictures of people they often struggled to remember.

Small laminated cue cards were also stuck to the PDA cases as reminders for how to use the devices.



*Therapist Carly Adams and Stephen Shaw*

Another group of 21 patients used traditional paper diaries to act as their memory banks.

By the end of the two months, the researchers found improved memory function among those using the PDAs.

"We found that their levels of forgetting were reduced and their carers reported the amount of memory failures were less," the centre's occupational therapy leader Belinda Carr, who led the research, said.

"I think the alarm system was a big thing to do with it [the success]."

"Having that sound and alert to prompt someone to do something rather than having a family member saying, 'You have to take your medication now', I think that probably made a huge difference."

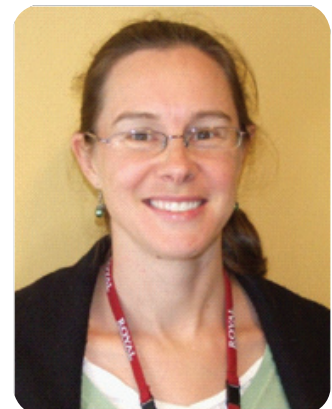
Ms Carr said that based on the success of the PDAs she believed smartphones and tablet computers would be just as useful as they had similar features.

The traditional training for people with memory problems was a diary system," she said.

"Research that had been done previously said they were effective, but most people we see with brain injuries are young guys who don't like carrying around diaries.

"PDAs and smartphones were something they were much more interested in using."

Ms Carr, who will present her findings at the Occupational Therapy Australia Conference on Friday, hopes to convince insurance companies to fund the devices for brain injury patients through the NSW Government's Lifetime Care and Support Scheme.



*Belinda Carr  
Professional Leader  
of Occupational Therapy  
Royal Rehabilitation Centre*