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Using a handheld computer to compensate for memory and planning difficulties after brain injury: Results from a Randomised Controlled Trial.

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Introduction

Previous studies have demonstrated the effectiveness of pagers and diaries to compensate for everyday memory and planning problems after traumatic brain injury. Mainstream technologies aimed at improving organisation, planning and memory skills in the general population, such as handheld computers (PDAs), are thought to hold great potential for individuals who have suffered a brain injury.

Objectives

To evaluate whether PDAs that have been individualized by occupational therapists improve independence in people with memory problems and executive deficits after traumatic brain injury.

Methods

Randomized controlled, assessor-blinded trial of 42 participants who had memory, planning, attention, and/or organization difficulties. The experimental group used a PDA for 8 weeks, while the control group did not. All PDAs were individualised by an occupational therapist, using existing and/or uploaded memory aids to support each participant (all had common features of alarm, diary, notebook and to-do list). Participants were assessed at baseline and at 8 weeks using Goal Attainment Scaling, Prospective Memory Questionnaire, and the Rivermead Behavioural Memory Test.

Results

At the time of writing this abstract (April 2009) the research team is carrying out the analysis of the completed study. Preliminary analyses suggest that participants who use an individualized PDA are successful in carrying out everyday activities (such as self care, self medication, and keeping appointments). Full results will be presented.

Conclusion

This study will provide the first-ever randomized controlled trial evidence to demonstrate that people with memory impairments from brain injury can use individualized hand-held computers.

Contribution to the practice/evidence base of occupational therapy

Using gold-standard research methodology, findings from this clinical trial will provide necessary guidance for occupational therapists working with adults after brain injury.