USING TECHNOLOGY IN SUPPORTED ACCOMMODATION TO IMPROVE OUTCOMES FOLLOWING NEUROTRAUMA

ISCRR
Institute for Safety, Compensation and Recovery Research

SUMMARY OF RESEARCH FINDINGS

This research summary provides an overview of a research project completed through the Institute for Safety, Compensation and Recovery Research (ISCRR). For more information, visit the ISCRR website at www.iscrr.com.au

This study investigated the extent to which electronic technology is being used by people living with disability in Victorian shared supported accommodation settings. The use of specialised technology such as communication aids, environmental control units and health monitoring technologies, as well as mainstream technology such as smart phones, computers and associated software were explored.

Clinical evidence indicates that the use of electronic assistive technology increases the independence of people in supported accommodation. The capacity of electronic assistive technology to influence the outcomes of people with disability has been acknowledged by many, including key stakeholders such as the TAC and National Disability Insurance Agency. However, there is limited research evidence regarding the types of technology used and the effect of devices and/or systems on health outcomes and cost of care. This study aimed to begin to address this gap.

WHAT WAS DONE IN THIS STUDY?

The study involved two phases:

Phase 1:
A telephone survey was conducted with 32 house managers, representing 52 shared supported accommodation settings that housed 254 people with disability in Victoria. Part A of the survey was designed to gather information about the accommodation settings (such as the total number of residents), the number of residents who used mainstream and specialised technology, reasons residents did not use technology and whether the accommodation provided internet access or shared technologies for residents.

The second part of this survey examined the types of technology used by residents. Resident demographic characteristics were recorded by the researchers and the Care and Needs Scale (CANS) was used to determine the type and amount of support each resident needed in daily life. Ratings on the CANS range from nil (Level 0 - 'totally independent'), through mid-range (Level 4 - 'can be left alone for part of the day and overnight'), to very high (Level 7 - 'cannot be left alone').

Phase 2:
An in-depth qualitative study documenting the types of technology used by adults with acquired brain injury who lived in shared supported accommodation was conducted. Researchers explored residents' satisfaction with, and the psychosocial impact of, technology use as well as the barriers and/or facilitators to uptake and ongoing use of assistive technologies.

Semi-structured interviews designed to elicit information relating to the participants' use of electronic assistive technology and its impact on day-to-day life were conducted. The 32 house managers surveyed in Phase 1 invited residents with acquired brain injury who used electronic assistive technology and were able to give their own informed consent to participate in Phase 2. Forty people were invited to participate and 16 subsequently agreed. Five further participants were recruited through occupational therapists who invited eligible clients. One participant independently contacted the research team resulting in a total of 22 participants. Additionally, participant demographic information

was recorded using the CANS, and two further published measures were used to assess the psychosocial impact of assistive technology and user satisfaction with the technology.

WHAT WAS FOUND?

Phase 1:

- Close to half (46%) of the residents used electronic assistive technology, most of whom had acquired devices themselves or through family. Most devices (86%) were mainstream technologies such as electronic tablets, smart phones, desktop computers, standard mobile phones and laptop computers.

- There were 30 specialised devices in use, the most frequent being epilepsy monitoring systems, augmentative speech aides and single switch control devices.

- There was no significant difference in technology use between those with home-based internet and those without; however, residents who accessed internet via at least one method (e.g. mobile data, community WiFi hotspots) appeared to use more electronic assistive technologies than residents who did not.

- More residents with acquired disability utilised devices than those with congenital disability.

Phase 2:

- While devices available in the mainstream market were most frequently used by participants in this study, specialised devices recorded a higher satisfaction rating. Overall, participants with acquired brain injury were satisfied with their electronic devices and believed they positively contributed to their overall psychosocial wellbeing by allowing them to communicate with friends and family and contributing to their sense of autonomy.

- Facilitators to the use of devices included knowledge and exposure to the device prior to injury, user interface design and the capacity of the device to support multiple functions.

- Barriers to use included insufficient planning and support received upon initial acquisition of the technology and limited ongoing support available over time. At times, residents were prescribed devices by health professionals that did not match the person's personal preferences, and use of these devices had since been abandoned.

- It appears that there was limited support and training offered to residents in the use of technology, with more participants satisfied with the device than the services they received in relation to the device (e.g. maintenance, information and continuing support).

- Some participants found their devices difficult to use and navigate, while unavailable or unreliable internet connectivity was also a barrier to electronic assistive technology use.

WHAT ARE THE IMPLICATIONS OF THE RESEARCH?

- Access to electronic assistive technology and internet in supported accommodation settings can lead to positive psychosocial outcomes for residents, including increased independence, autonomy and ability to participate in social and recreational activities.

- Electronic assistive technology appears under-utilised in Victorian shared supported accommodations settings. Capacity building of people with disability, and their informal and paid disability support networks, is required so that these groups can harness the opportunities presented by technology.

- Opportunities exist to review, implement and/or retrofit electronic assistive technology into shared supported accommodation to increase resident independence and reduce reliance on support services.

- Evaluation of the success of an assistive technology solution should be undertaken following initial device acquisition to assess use and changes in use over time. This will help build the evidence base for effective technologies.

PROJECT OVERVIEW

Project title Using technology in supported accommodation

Themes Traumatic brain injury, independence, client outcomes, technology

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