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 impact of architectural design strategies on the quality, performance and efficiency of the TAC’s new and retrofitted accommodation for traumatic brain injury and spinal cord injury residents. Following on from the first phase of the study, which developed best-practice design principles for assisted living, this stage of the study looked at applying those principles for three participants with an acquired brain injury or spinal cord injury. The goal of the study was to identify potential improvements to the TAC’s home modification process.

WHAT WAS DONE IN THIS STUDY?

Three participants were recruited for the study, all of whom were living in their homes in the community when the study commenced and not in rehabilitation settings. Of the participants, two had sustained a spinal cord injury and the third an acquired brain injury. All three participants used wheelchairs and none of the three were compensable clients under the TAC scheme.

Researchers used a master planning design approach with each of the participants. The researchers collected information using semi-structured interviews with the participants and their relevant family members/carers to understand their housing needs, interests, values and goals for their future. Information was collected on the participants’ current housing arrangements to inform the modification process.

From the discussions, a design strategy and modification proposal was developed by the research team in close consultation with each participant. The participants’ occupational therapists were also consulted and final proposals for home modifications were developed and provided to the participants. This study was a theoretical exercise to assess the master planning process and did not include funding to complete the home modifications.

WHAT WAS FOUND?

Overall, researchers found that using a master planning approach was an effective strategy for the design of home modifications. The individualised design practice had a number of advantages, including:

- Allowing participants to think about their future needs and long-term housing options in relation to their goals and values. This in turn helped them to make informed decisions about their housing.
- Allowing time for reflection and processing of their new situation and experiences and could have some therapeutic benefit for participants.
- The technique empowered users through their participation in the process.
- Allowing the opportunity for user-specific rehabilitation activities based on the participants’ interests and goals.
- Ability to maximise opportunities for participants to have meaningful connections with the outdoors, neighbours and the wider community.
• Avoiding inadequate or dangerous housing modifications. Researchers found that participants were living with sub-optimal and, in one case, dangerous modifications that could have been avoided through the master planning process.

For the intervention to be successful, the master planning approach needs to consider:

• The thoughts of other residents in the household as well as their needs.

• The rehabilitation needs of the participant and how these can be incorporated into the design – both physical rehabilitation and ability to engage in previously enjoyed activities.

One risk to the approach that will need to be considered is the potential for participants to assume that such modifications will be funded by the TAC and/or Government agencies. In this case, no participants had trouble understanding that it was a theoretical exercise only, but this could be of greater importance if this approach is used by the TAC home modifications team and should be managed carefully.

WHAT ARE THE IMPLICATIONS OF THE RESEARCH?

• Using a master planning design approach to home modifications is a successful way to build participation and empower TAC clients in the design of optimal home modification. It should be done early in the home modification process.

• Capturing rehabilitation needs into the home modification design process benefits the participant and has the potential to assist in their recovery and quality of life.

• Home modification decisions that carefully balance user needs and other household pressures and requirements are more likely to succeed long-term.

• If the TAC choose to implement this approach as a first step in the home modifications process, consideration will need to be given to ensuring that clients have an understanding that by engaging with the TAC in this approach does not mean that all modifications will be funded.

PROJECT OVERVIEW

<table>
<thead>
<tr>
<th>Project title</th>
<th>Effective design strategies to improve accommodation outcomes for SCI and TBI users (ISCRR Project 094)</th>
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<tbody>
<tr>
<td>Themes</td>
<td>Traumatic brain injury, accommodation, spinal cord injury, client outcomes</td>
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</table>
| Researchers            | Professor Nigel Bertram, Monash Architecture Studio  
Helena Harry, Monash Architecture Studio  
Holly Board, Monash Architecture Studio |
| Relevant outputs       | 1. Best practice discussion paper: A comprehensive evidence base for innovative design methods that can improve accommodation outcomes for TBI and SCI residents  
2. TAC accommodation practices discussion paper  
3. Towards a holistic home modification design process: 3 case studies |