

Innovative Models and Design in Housing and Support for People With Severe Acquired Brain Injury

Kerry Stringer¹ and Di Winkler^{1,2}

¹ *Summer Foundation Ltd, Australia*

² *Monash University, Australia*

The \$244 million 5-year COAG initiative provides a tremendous opportunity to develop some innovative and pragmatic solutions to the issue of young people in aged care in Australia. The most common disability type of young people in aged care is brain injury (61%). The scale of development for housing for people with disabilities and high care needs is unique internationally. The aims of this paper are two fold. The first aim is to describe a housing development framework that will develop a range of housing options for this target group. The second aim of this paper is to present the findings of a project that aims to foster innovative design in accessible and affordable housing for this target group. The housing development framework involves collaboration with people with disabilities, government, housing associations and community service organisations to develop a range of integrated affordable housing for up to 100 people in aged care, at risk of admission to aged care or living with ageing parents in the community. The innovative design project examines state of the art design in relevant or comparable projects where the architectural organisation and image are driven by the concept of 'home'. This paper will describe design elements that support people's wellbeing and autonomy within their home, outdoors and in their local community. We will also outline future research such as post occupancy evaluations, which will further develop expertise in the design of the physical environment for this target group.

The Effect of Traumatic Brain Injury on Drivers' Hazard Perception

Megan H.W. Preece, Mark S. Horswill and Gina M. Geffen

School of Psychology, University of Queensland, Australia

Individuals recovering from traumatic brain injury (TBI) often experience perceptual, cognitive, and motor deficits that adversely affect their driving. However, many individuals with TBI return to driving, despite evidence that they are at increased risk. This study examined the effects of TBI on drivers' hazard perception, that is, the ability to search the road ahead and quickly identify potentially dangerous traffic situations. Slower hazard perception has been associated with higher crash rates (e.g., Quimby et al., 1986), but hazard perception has never been assessed after TBI. A convenience sample of adults recovering from mild, moderate and severe TBI was recruited from the rehabilitation unit of a tertiary level hospital. Uninjured controls were recruited from the community. Participants completed a hazard perception test, in which they viewed videos of genuine traffic scenes filmed from the driver's perspective and indicated as soon as they detected a potential traffic hazard (mean response latency was the main dependent measure). Participants also completed a simple spatial reaction time task, a digit symbol substitution task and several measures related to pre- and post-injury functioning. Preliminary results indicate that individuals with TBI were significantly slower to detect traffic hazards than controls. The findings may signify the need for hazard perception testing or training post-TBI before return to driving.