

'Quake brain' affects memory and ability on simple tasks

March 29 2017, by Kim Thomas

Cantabrians' cognitive abilities – or their ability to do simple tasks – appear to have been significantly affected by exposure to earthquakes, new research from the University of Otago, Christchurch, has found.

The research by the campus' Department of Psychological Medicine found a [group](#) of people affected by the [traumatic events](#) of the February 2011 quake made 13 per cent more errors on tasks involving learning the way through a maze compared to those who had not experienced the disruptive and ongoing natural phenomenon.

Head of Psychological Medicine, psychiatrist Professor Richard Porter, says the 'quake-affected group' identified as having experienced a degree of trauma during the February 2011 quake, and included [emergency responders](#), those who were injured or had a family member injured during the quake or whose property or neighbourhood had been badly damaged. Despite having experienced trauma, this group of people all identified themselves as being 'resilient'.

They were tested two years after the February quake, and their results compared to a group of people who had done the same test but had no experience of quakes. The findings of the research are preliminary, meaning they have been analysed but results have not yet been published in any scientific journal.

Professor Porter says the research shows the ongoing impact of quakes even two years after the February event and that there is likely to have

been a significant effect on memory for a large percentage of the population, since many were exposed to these types of traumas. This problem was even greater for people who developed [post-traumatic stress disorder](#) after the earthquakes. The research emphasises that these problems are common and others should make allowances for these sorts of difficulties.

"We do not know how long this effect is likely to have lasted. We are currently seeking funding to re-test the group of people to see if their memory has now returned to normal," Professor Porter says.

Provided by University of Otago

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