

## Simulator 'conquers quake stress'

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Earthquake simulators can greatly reduce post-traumatic stress symptoms in people who have survived the real thing, according to a study, writes BBC News, Sunday, 25 February 2007 at <http://news.bbc.co.uk/>.

Forwarded by Budhi Mulyawan 260207.

The simulator is designed to resemble a small house. UK and Turkish researchers developed a simulator, which users control themselves, and said it reduced stress symptoms more than counselling.

Writing in *Psychological Medicine*, the researchers said the simulator could be used in countries prone to quakes.

A UK expert said it was a hi-tech take on an old psychological theory.

This is an elegant refinement of an old psychological model

Leslie Carrick-Smith, psychologist

The simulator is a small prefabricated house which sits on top of a "shake table" - a motorised mechanical platform.

A computer is programmed to control the earthquake simulation, but participants can determine the speed and intensity of the tremors - and stop the simulator at any point - using a remote control device.

An early study showed eight out of 10 earthquake survivors of the 1999 earthquake in north-west Turkey who used the simulator showed reduced post-traumatic stress disorder (PTSD) symptoms three months later.

'Cost-effective'

In this second study, 31 survivors of the same quake who had PTSD were either given a single session in the simulator or a series of appointments with a psychologist.

Those who saw the psychologist were advised on ways to cope with situations they found difficult, which sometimes included simply being inside a building or sleeping at the same time as the rest of their family, rather than staying awake to be alert for any potential tremors.

Participants' PTSD symptoms were assessed for up to two years after the study.

It was found that symptoms in those who had experienced the simulator session improved by 20% more than those who were given the counselling sessions.

People using the simulator can control the "tremors" themselves

Dr Metin Basoglu, who led the study, devised the idea of the simulator.

"I observed that people who had survived earthquakes were afraid of being in situations where there was a shaky environment, such as being in a prefab building which shook in high winds or when a truck went by."

He discovered simulators were available - but for a cost of around \$500,000 (£257,000), so decided to develop his own which he estimates would cost around \$100,000 (£51,000).

Dr Basoglu, who works at London's Institute of Psychiatry and the Istanbul Centre for Behaviour Research and Therapy in Turkey, said his work showed the simulator was "a potent treatment".

He added: "It might seem to be an expensive piece of equipment, but it is cost effective - you can treat five to 10 people in one session, and in the long-term is very effective.

"In the future, this should be part of the mental health care offered to people who have been through earthquakes."

Resilience

Dr Basoglu said his research also suggested people who had experienced a real earthquake after using the simulator appeared to cope better.

"It increases resilience. When a quake occurs people are prepared."

Leslie Carrick-Smith, a Chesterfield-based psychologist, said: "This treatment is based on an old technique called progressive desensitisation - where you gradually reintroduce someone to a situation they are uncomfortable with.

"This is an elegant refinement of an old psychological model and could be a very powerful high-tech treatment of PTSD."