

A dose of concentrated fear helps overcome anxiety

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Facing Fear Mice conditioned to 'unlearn' response with repeated exposures. A dose of concentrated fear helps mice overcome their anxiety about things they've been conditioned to dread.

That's the finding of a University of California, Los Angeles (UCLA) study in the October issue of the Journal of Experimental Psychology: Animal Behavior Processes.

The study results may help behavior therapists develop better ways of helping anxious humans with conditions such as panic disorder, social phobia and post-traumatic stress disorder to overcome their fears.

The UCLA scientists conditioned laboratory mice to fear harmless white noise. The scientists did this by administering a mild shock through the floor of the cage whenever the mice heard the white noise.

Eventually, the mice froze in their tracks (a fear response) for about 72 seconds when subjected to two minutes of white noise. The mice had learned to fear the white noise itself because it was sufficiently associated with pain.

In the next stage, the mice were divided into three groups. The mice in the three groups were assessed on how well they overcame their fear of white noise when they heard it in 20 two-minute sessions without being shocked.

One group had intervals of six seconds between each exposure to white noise, while the other groups had 60 or 600 seconds between each time they heard the white noise.

The scientists found the mice in the six-second group stopped showing significant freezing of motion after about 10 exposures to white noise while the mice in the other two groups never really stopped freezing in their tracks when they heard the white noise.

'This very strong finding is already inspiring a search for a similar pattern of response in human anxiety patients. It's part of a recent wave of important discoveries about fear extinction, findings that will transform both the practice of behavior therapy and the use of drugs as adjuncts to psychotherapy in the next few years,' study co-author Dr. Mark Barad says in a news release.

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