

Mobile device zaps anxiety with electric currents

Researchers have been shocked by the success in trials of a phone-sized gadget that boosts alpha waves via the earlobes

Andrew Gregory Health Editor

A handheld instrument that delivers mild electric shocks can relax people who have suffered for years with anxiety, a groundbreaking NHS trial suggests.

Half of patients went into remission after treating themselves with the battery-operated device. Researchers say it has the potential to revolutionise mental healthcare and could save the health service millions of pounds.

Generalised anxiety disorder (GAD) affects up to 5% of the UK population. It is a long-term condition that causes anxious feelings on most days. Sufferers often struggle to remember when they last felt relaxed. Nadya Hussain, the 2015 winner of The Great British Bake Off, recently discussed her struggles with anxiety. She has been crippled by panic attacks since childhood.

The main treatments are cognitive behavioural therapy (CBT) and drugs such as antidepressants. Medication can be harmful, and patients face long waiting lists for CBT.

In the NHS trial in Leicestershire, researchers assessed the clinical and cost effectiveness of the Alpha-Stim AID device. It delivers a treatment called cranial electrotherapy stimulation (CES).

The device is about the size of a mobile phone and sends small currents via the earlobes to increase "alpha waves" in the brain, promoting a more relaxed state.

Those in the trial had been diagnosed with GAD and had not responded to low-intensity treatment such as computer-aided therapy, in which patients are encouraged to change their thinking in interactive online sessions.

Each was given the device to use at home, clipping it to their ears for 60 minutes a day for six weeks. Some continued to 12 weeks. The results surprised the researchers. All of the 161 patients were examined after 12 weeks, and 72 had achieved remission, according to a research paper published in the Journal of Affective Disorders.

In total, 63% of those in the trial saw an improvement in their anxiety symptoms.

After 24 weeks, the number of patients in remission had increased to 77 – or 48% – even though they had not used the device for at least 12 weeks. The overall effectiveness was "comparable" to that of CBT.

There were limitations to the trial, such as the sample size and a lack of ethnic and gender diversity, though the patients lived in both deprived and affluent areas.

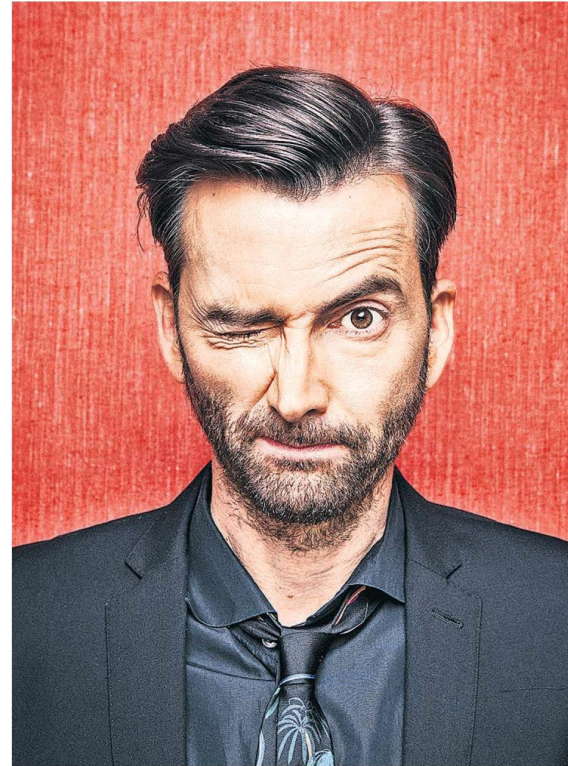
Richard Morriss, a professor of psychiatry at Nottingham University's NIHR MindTech centre, said: "Alpha-Stim CES was more effective at achieving remission than we expected. As well as improvements in anxiety, there were improvements in depression and insomnia, but further research is required in patients with depression and sleep problems."

The Alpha-Stim AID device costs about £600. Researchers said that because it could be rented to patients at a cost to the NHS of about £70, the therapy saved about £540 per patient compared with existing treatments.

The National Institute for Health and Care Excellence, which provides national guidance and advice to the NHS, is producing a briefing on the device to support NHS staff who are considering it.

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ALEX LAKE



David Tennant says a lack of security and self-confidence is common among actors

Tennant: worry is my fellow traveller

Andrew Gregory

David Tennant has suffered from anxiety since he was a boy and says he worries constantly about "not being good enough, about being found out".

The actor, who is best known for starring in Doctor Who, tells today's issue of The Sunday Times Magazine: "I don't think you would describe it as anxiety when I



The actor as a schoolboy

was in Paisley aged 10. It feels like a modern, London way of describing it. But I've always had insecurity, a lack of self-confidence, which is classic [for an actor]."

Tennant, who revealed this weekend that his wife, Georgia Moffett, is expecting their fifth child, gives anxiety as the reason he does not do social media. "I'd worry it wasn't witty enough, or didn't take the right moral standpoint. Worrying would consume so much of my time that it would paralyse me."

No more Mr Nice Guy, interview, Magazine

I've been traumatised for 15 years by an attempted rape. With this little device, at last, some relief

The victim of a serious sexual assault reveals how the Alpha-Stim is helping her cope



I am sitting in an uncomfortable chair, five small electrodes fixed to my head to monitor my brain waves, for my first session of cranial electrotherapy stimulation with an Alpha-Stim.

At first nothing happens. Then I feel the world pitch ever so slightly backwards and suddenly I'm aware of a warm, pulsing sensation at

the back of my neck. I burst into tears.

I have cried a lot in my lifetime. I have cried in public and in private. I have sat at my desk and leaked quiet, uncontrollable tears. I have welled up and wept to family and friends. I have howled a wounded, pitiful sound that shames.

Yet at that moment my tears were a vindication. There in front of me, on a

laptop screen, were lines that proved – as I was told by Lesley Parkinson, a clinical psychologist – that my brain was traumatised. Profoundly so.

And the Alpha-Stim, a cassette tape-sized hunk of plastic powered by two AAA lithium batteries, was going to make me feel better.

It had taken more than a decade from the moment a stranger brushed past me in

the dark, put his hand around my throat and banged my head on a wall before dragging me down an alley to rape me to prove I was not going mad. To prove I was damaged fundamentally on that dark night in 2003 when I lay on the ground pleading with him to get on with it so that the ordeal would be over. (He was interrupted by the sound of police sirens in response to several 999 calls.)

The man who attacked me served 12 years in prison. I have served 15 years in my head, constantly wondering what is and was so wrong with me.

I have seen two psychiatrists and five counsellors. I have tried antidepressants and cocktails of drugs to help with the diagnosis of post-traumatic stress disorder, anxiety and clinical chronic depression.

The Alpha-Stim has led to more change than I had expected. Every night I drop conducting fluid onto the ear pads and plug in for 20 minutes of a low dose of electro-cranial stimulation. Sometimes I feel nothing, other times a low thrumming or light-headedness.

I am sleeping better. I have spoken in public without shaking violently. I have been able to talk to colleagues and

feel (almost) at ease. I am no longer jumping at every shadow and sound.

I am not "cured" – there are still bad days, even worse days and moments when I cry. Yet, six months on, there is a sense of hope that I might be able to enjoy life a little bit more – and that I deserve to do so.

The writer wished to remain anonymous