

Music 'can aid stroke recovery'

Listening to music in the early stages after a stroke can improve a patient's recovery, research suggests.

The researchers compared patients who listened to music for a couple of hours a day, with those who listened only to audio books, or nothing at all.

The music group showed better recovery of memory and attention skills, and a more positive general frame of mind.

Writing in journal *Brain*, the Finnish team who studied 60 patients said music could be a useful addition to therapy.

Music listening should be considered as an addition to other active forms of therapy

Teppo Sarkamo
University of Helsinki

Lead researcher Teppo Sarkamo, from the University of Helsinki, said music could be particularly valuable for patients not yet ready for other forms of rehabilitation.

It also had the advantage of being cheap and easy-to-conduct.

Quick action

The study focused on 60 stroke patients who took part in the research as soon as possible after they had been admitted to hospital.

'IT HELPED ME'

Dot Johnson, 60, had a stroke 15 years ago, and spent seven months in hospital. She had physiotherapy and other treatments, but she remembers that music and sound from the television were always on in her room. She thinks that stimulated her mind, and helped her get better. She said: "I genuinely think that music actually helped."

The aim was to offer music therapy before the changes in the brain that can take place in the aftermath of a stroke had a chance to kick in.

Most of the patients had problems with movement and with cognitive processes, such as attention and memory.

Patients in the music group were able to choose the type of music they listened to. All patients received standard stroke rehabilitation.

After three months, verbal memory improved by 60% in the music group, compared with 18% in the audio book group, and 29% in the non-listeners.

Focused attention - the ability to control and perform mental operations and resolve conflicts - improved by 17% in the music group, but not at all in the other two groups.

In addition, patients in the music group were less likely to be depressed, or confused.

Mr Sarkamo said: "Other research has shown that during the first weeks and months after stroke, the patients typically spend about three-quarters of their time each day in non-therapeutic activities, mostly in their rooms, inactive and without interaction, even although this time-window is ideal for rehabilitative training from the point of view of brain plasticity.

"Our research shows for the first time that listening to music during this crucial period can enhance cognitive recovery and prevent negative mood, and it has the advantage that it is cheap and easy to organise."

However, he admitted that further work was needed to confirm the study, and that it should not be assumed that music therapy would work all patients.

He said: "Rather than an alternative, music listening should be considered as an addition to other active forms of therapy, such as speech therapy or neuropsychological rehabilitation."

Possible theories

The researchers said it was possible that music directly stimulated recovery in the damaged areas of the brain.

Alternatively, it might stimulate more general mechanisms related to the ability of the brain to repair and renew its neural networks after damage.

Or it might specifically act on the part of the nervous system that is implicated in feelings of pleasure, reward and memory.

Dr Isabel Lee, of The Stroke Association, welcomed the research.

However, she said: "Further research into the effect of music on stroke patients needs to be undertaken before any widespread use, as presently the mechanisms of any effect remain unclear."

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