

Music brings memories back to the brain injured

December 10 2013

In the first study of its kind, two researchers have used popular music to help severely brain-injured patients recall personal memories. Ameer Baird and Séverine Samson outline the results and conclusions of their pioneering research in the recent issue of the journal *Neuropsychological Rehabilitation*.

Although their study covered a small number of cases, it's the very first to examine 'music-evoked [autobiographical memories](#)' (MEAMs) in [patients](#) with acquired brain injuries (ABIs), rather than those who are healthy or suffer from Alzheimer's Disease.

In their study, Baird and Samson played extracts from 'Billboard Hot 100' number-one songs in random order to five patients. The songs, taken from the whole of the patient's lifespan from age five, were also played to five [control subjects](#) with no brain injury. All were asked to record how familiar they were with a given song, whether they liked it, and what memories it invoked.

Doctors Baird and Samson found that the frequency of recorded MEAMs was similar for patients (38%–71%) and controls (48%–71%). Only one of the four ABI patients recorded no MEAMs. In fact, the highest number of MEAMs in the whole group was recorded by one of the ABI patients. In all those studied, the majority of MEAMs were of a person, people or a life period and were typically positive. Songs that evoked a [memory](#) were noted as more familiar and more liked than those that did not.

As a potential tool for helping patients regain their memories, Baird and Samson conclude that: "Music was more efficient at evoking autobiographical memories than verbal prompts of the Autobiographical Memory Interview (AMI) across each life period, with a higher percentage of MEAMs for each life period compared with AMI scores."

"The findings suggest that music is an effective stimulus for eliciting autobiographical memories and may be beneficial in the rehabilitation of autobiographical amnesia, but only in patients without a fundamental deficit in autobiographical recall memory and intact pitch perception."

The authors hope that their ground-breaking work will encourage others to carry out further studies on MEAMs in larger ABI populations. They also call for further studies of both healthy people and those with other neurological conditions to learn more about the clear relationship between memory, music and emotion; they hope that one day we might truly "understand the mechanisms underlying the unique memory enhancing effect of [music](#)".

More information: "Music evoked autobiographical memory after severe acquired brain injury: Preliminary findings from a case series," A. Baird and S. Samson, *Neuropsychological Rehabilitation*, [DOI: 10.1080/09602011.2013.858642](#).

Provided by Taylor & Francis

Citation: Music brings memories back to the brain injured (2013, December 10) retrieved 3 May 2024 from <https://medicalxpress.com/news/2013-12-music-memories-brain.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is

provided for information purposes only.