

Receptive music therapy intervention to stimulate the sympathetic nervous system of people with quadriplegia

Abstract

Receptive music therapy stimulation of the autonomous nervous system, with focus on the sympathetic system and under consideration of psychological aspects, in people with quadriplegia with music dedicatedly composed for this purpose - a feasibility study

In patients with a high injury to the spinal cord, as it is the case with quadriplegic patients, the antagonistic mode of operation of sympathetic and parasympathetic nervous systems becomes imbalanced. The parasympathetic nervous system prevails. Crucial animating stimuli of the sympathetic nervous system such as the increase cardiac activity, the elevation of blood pressure, blood circulation or metabolic activity are reduced or absent altogether. For affected patients, this can lead to unpleasant symptoms such as weakness, drowsiness, headaches, dizziness, etc. up to unconsciousness.

This thesis addresses the question whether a stimulation of the sympathetic nervous system of people with quadriplegia with music dedicatedly composed for this purpose could be possible and if the mentioned symptoms could be alleviated this way.

First results of the present feasibility study may give hints that such a stimulation of the sympathetic nervous system of people with quadriplegia by music could be possible.

Key words: Paraplegia, quadriplegia, autonomous nervous system, sympathetic nervous system, parasympathetic nervous system, receptive music therapy, stimulation sympathetic nervous system, 8D-music, binaural beats