Music therapy in dementia care

*Perspectives on clinical practice*

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Music therapy in dementia care: Perspectives on clinical practice

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Understanding dementia

“…dementia is essentially a strange and frightening situation that activates very deep fears and consequently a range of behaviours aimed at making the world less frightening.” (Cheston & Bender 2003, p. 145)

Personhood and a psycho-social approach (Kitwood 1997)

The human voice

Processing of the human voice is neurobiologically different from the processing of other acoustic signals (Porges 2001, p. 144).

This has an impact on social engagement via hippocampal function, stress-related responses and self-soothing behaviours.

Hippocampus and stress-related responses

- Hippocampus: impressions are turned to memories
- Alzheimer’s disease: damage to Hippocampus
- Hippocampal dysfunction: problems in creating meaning & coherence → the nervous system is stressed
- Hypersensitivity to stimuli → strong emotional reactions experience of chaos → anxiety

Stress and self-soothing behaviours

- Dementia. Two extreme states: either:
  - depression, avoidance, ‘vegetation’
  - anxiety, panic, aggression

- Parallel to two first phylogenetic stages in the polyvagal theory (Stephen Porges 2001)
  - Immobilization: freezing, paralysed, avoiding contact
  - Mobilization: mobilizing behaviours necessary for flight/fight
Stress and self-soothing behaviours

- Immobilization system: Depressed
  Parasympathetic nervous system
- Mobilization system: Stressed
  Sympathetic nervous system
- The social engagement system: Socially engaged
  The mammalian signaling system for motion, emotion, and communication.

(Porges 2001, p. 130; Hart 2006)

The therapeutic relation

- If the individual perceives the environment as safe, there is the neurophysiological possibility that the cortex could regulate the lower motor neurons of the social engagement system to promote communication and social behavior.
- Thus the perception of safety is the primary requirement for our intervention (Porges 2001, p. 143).

Attention

"...When the level of stimulation is more moderate, somewhere between the two extremes, his attention will be more easily captured and maintained" (Stern 1977).

Examples from case descriptions

Arousal regulation

Attention

Arousal regulation

Number of BS during session

Arousal regulation

Mean bpm

Week 1

Week 6

83.7

77.2

70

75

80

85

Fig. 07.2a (Electrode 14 dopamine is relatively high. This makes a jump in dopamine with the dotted line).
Arousal regulation

Songs in music therapy

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