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Special Issue

ONE DECADE OF THE "HEIDELBERG MODEL OF MUSIC THERAPY" IN OTOLOGY

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Abstract

The use of music therapy in otology has emerged to a main field of research and expertise at the German Center of Music Therapy Research (Deutsches Zentrum für Musiktherapieforschung DZM e.V.) Heidelberg. For the most prominent evidence based treatment options, research history and implementation into practice will be presented.

Background

During the last decade, the German Center of Music Therapy Research (Deutsches Zentrum für Musiktherapieforschung DZM e.V.) Heidelberg has concentrated on the investigation of music therapy approaches for otologic diseases.

Starting point was the known connection between musical experience and cortical plasticity. In order to perceive music, auditory processing is essential. Auditory processing abilities greatly affect musical comprehension but, contrariwise, these abilities can also be shaped by musical training. In terms of therapy, when auditory functions are impaired or compromised, musical stimuli can restore and improve

hearing capacities by influencing the auditory processing.

Manualized new treatment approaches

The DZM assumes the obligation to bridge the gap between research and practice according to the notion of evidence based practice. As a matter of principle, all treatment options are manualized, short in duration (max. 10 sessions) and consist of different modules but nevertheless can be adapted to the individual patients' needs. Therapeutic techniques consist of different kinds of music therapy with a focus on vocal interventions in the active music therapy and on listening comprehension as well as psychophysiological regulation in the receptive part.

Several novel treatment approaches have been evaluated in research projects and clinical trials so far. The most prominent therapy programs to be mentioned are "Neuro-Music Therapy in Tinnitus" (manualized treatments for both chronic and acute tinnitus) and "Hearing despite Deafness – Music Therapy for Cochlear Implant Users" (use of music therapy in early speech rehabilitation).

Scientific evaluation included a variety of outcome measures: individual feedback by the patients (questionnaires, interviews), psychological and musical testing but also objective examinations such as electrophysiological measurements or brain imaging procedures were used.

As a result of the positive research outcome, specialized outpatient departments have been founded as spin-offs offering scientifically proven treatments to patients in standard care. The music therapy in early rehabilitation for cochlear implant users is part of the official rehabilitation program at the ENT-clinic Heidelberg and acknowledged and covered for by the German health insurances.

Since 2013 advanced training courses for music therapists are offered by the DZM.

References

- Argstatter, H., Grapp, M., Hutter, E., Plinkert, P.K., & Bolay, H.V. (2012). Long-term effects of the "Heidelberg Model of Music Therapy" in patients with chronic tinnitus. *International Journal of Clinical and Experimental Medicine*, 5(4), 273-288.
- Argstatter, H., Grapp, M., Plinkert, P.K., & Bolay, H.V. (2013). "Heidelberg Neuro-Music Therapy" for chronic-tonal tinnitus - treatment outline and psychometric evaluation. *International Tinnitus Journal*, 17(1), 31-41.
- Grapp, M., Hutter, E., Argstatter, H., Plinkert, P.K., & Bolay, H.V. (2013). Neuro-Music Therapy for Recent-Onset Tinnitus: A Pilot Study. *SAGE Open*, 3
- Grapp, M., Hutter, E., Argstatter, H., & Bolay,

H.V. (2012). Heidelberg Model of Music Therapy for patients with tinnitus. Short term therapy with long term effects. *Musiktherapeutische Umschau*, 33(1), 23-35.

Petersen, B., Mortensen, M.V., Gjedde, A. & Vuust, P. (2009). Reestablishing speech understanding through musical ear training after cochlear implantation: A study of potential plasticity in the brain. The neurosciences and music III: disorders and plasticity. *Annals of the New York Academy of Sciences*, 1169, 437-440.

Philips, B., Vinck, B., De Vel, E., Maes, L. D'Heanens, W. et al. (2012). Characteristics and determinants of music appreciation in adult CI users. *European Archives of Otorhinolaryngology* 269, 813-821.

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