



Workshop:
Patient Centered (Health) Care Solutions

**Vibroacoustic Sound Therapy:
Case Studies with Children with Profound and Multiple Learning
Difficulties and the Elderly in Long-Term Residential Care**

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Abstract

Sound Therapy was developed during the 1990s in a special school for children with profound and multiple learning difficulties (PMLD), (Ellis, P. (1997)), and from 1997 in a home for the long-term care of the elderly where the vibroacoustic element was initially introduced. The subject of this paper is work with profoundly handicapped children and the elderly in long-term residential care and the elderly mentally infirm (EMI). The setting for the therapy requires a sonic environment which brings together:

- the variety of access and aural stimulation offered by specific items of music technology;
- the contemplative aspect of music;
- the notion of music as sound – or sound as music;
- an approach which is non-invasive;
- the phenomena of 'aesthetic resonance' – moments of 'innerness' in response to sound/vibration.

The aims in applying the technology through vibroacoustic sound therapy (VAST) include the development of interactive communication skills, independent physical movement and control and relaxation. Three items of (music) technology are central to this therapy. The first is a standard sound processor and microphone used for vocal interaction; the second is the Soundbeam, which generates sound from physical movement, and can help people to develop muscular control and ways of giving expression through sound; the third is a vibroacoustic chair. When sitting or lying on this chair, vibration resulting from the sounds produced in VAST can be felt in the chest, abdomen and legs. Playing specially recorded tapes which combine gentle music with low frequency sine tones can induce deep relaxation. This in turn can help ameliorate anxiety, stress and depression, as well as muscular aches and pains (Wigram, T. & Dileo, C. 1997)).

VAST research to date has involved people from the ages of 2½ - 103 years, with a wide variety of conditions. Evidence for the effectiveness of this approach comes mainly from qualitative methodologies. In order to bring as much clarity and objectivity into the observation and evaluation process a longitudinal video-based qualitative research tool was developed which I called Layered Analysis (Ellis, P. (1996)).

Four condensed video-based case studies, two from special needs, and two from work with the elderly will demonstrate the effectiveness of this therapy. Some of these case studies extend over four years (PMLD children) and clearly show progression and development. The two examples from work with the elderly will show the effect of VAST when working with an 86 year old lady who has had a stroke, and an 84 year old with extreme anxiety.

It seems that the use of this technology in very controlled ways can affect psychosocial aspects of patients' functioning in many ways. However, the technology itself cannot achieve anything, it is the way in which it is used that is crucial. Supporting intrinsic motivation and giving control to the participants is at the heart of VAST. The **aesthetic resonance** which results from this approach is its power. We hope to further develop quantitative and qualitative research tools to prove the effectiveness of the therapy for progression and development in special needs education and improvement of the well-being and quality of life for the elderly.

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International Congress on Medical and Care Compunetics

NCC, The Hague
2-4 June, 2004

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- Ellis, P. (1996) *Layered Analysis: A Video-based qualitative research tool to support the development of a new approach for children with special needs*, in the Bulletin for the Council for Research in Music Education, University of Illinois at Urbana-Champaign, USA, **130**, 65-74.

The Soundbeam Project: www.soundbeam.co.uk

Wigram, T. & Dileo, C. (Eds) (1997) Music Vibration. Jeffrey Books; New Jersey.