

YU DISSERTATIONS 95

**Vibroacoustic Treatment  
and Self-care for Managing  
the Chronic Pain Experience  
An Operational Model**

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Elsa A. Campbell

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Esitetään Jyväskylän yliopiston humanistis-yhteiskuntatieteellisen tiedekunnan suostumuksella

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## **ABSTRACT**

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Chronic pain – pain which lasts longer than three months – is a physiological, psychological, and social phenomenon affecting approximately 20-33% of the world's population. It contributes to disability, work absenteeism and presenteeism, as well as having economic ramifications. The psychological aspect of chronic pain manifests most commonly in comorbid mood disorders, namely depression and anxiety. They are individually difficult to manage due to their inherently subjective nature; as a combination they are pervasively under-treated. It is understood that chronic pain and mood disorders have a common neurological basis, which supports the use of psychological approaches, such as Cognitive Behavioural Therapy, or mood-targeted pharmacotherapy such as antidepressants, in the management of pain. Vibroacoustic (VA) treatment is both a physiological and psychological approach, beneficial in pain and mood management, however the effects are generally short-term. This dissertation addresses the question of whether practitioner-led VA treatment can be used to manage the psychophysiological symptoms of chronic pain, and whether an adjunct self-care phase is helpful in prolonging the effects. *Article I*, an interview study, describes the development, current knowledge, and future directions of VA treatment; *Article II* outlines the standard protocol followed at the multidisciplinary rehabilitation unit at Seinäjoki Central Hospital for multi-symptom patients; *Article III* explores the role of music listening within VA treatment in a clinical setting; lastly, *Articles IV* and *V* investigate the relevance and effects of an adjunct self-care phase to VA treatment sessions offered at the rehabilitation unit. A layered system of

outcome measures was also used in these mixed methods studies. Subjective reports were supported by quantitative scales which were further supported by the addition of exploratory physiological outcome measures. The comorbidity of pain and mood disorders was examined in addition to the impact this had on functioning and ability to work, a focal point of the rehabilitation unit featured in the work. Cumulatively, the findings from all five articles, as well as supporting literature, are the foundation upon which the proposed operational model of VA treatment with self-care is based.

Keywords: vibroacoustic treatment, chronic pain, depression, anxiety, functioning, operational model

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