universität wien

Faculty of Psychology

Colloquium lecture by Dr. Claire Howlin

Understanding the Science of Music, Pain and Wellbeing: The Cognitive Vitality Model and Its Mechanisms

Music and arts have been used to promote health and wellbeing for centuries but we have little to no understanding of how they might work. Previous research in arts and health sometimes lacks the level of scientific rigour that we are used to seeing in other areas of health and medicine, such as control groups, blinded assessors, longitudinal designs and representative samples. Crucially, many studies also lack a theoretical rationale of the mechanisms underpinning what they do, making it difficult if not impossible to create suitable controls and designs. In this talk I will introduce the cognitive vitality model as a theoretical framework for understanding how music can reduce pain. The cognitive vitality model highlights five cognitive processes from lower level perception based on an orienting response to full musical absorption that are required to elicit wellbeing benefits from music engagement. So far the role of cognitive agency or perceived control over how they choose the music, has been identified as a key factor in mediating the analgesic benefits of music, in both experimental pain contexts and acute pain contexts, and has recently been extended for use in Visual Art, and Virtual Reality Contexts. Additionally, I will highlight additional mechanisms, such as the role that social identity plays in group interventions for depression and wellbeing. To conclude I will talk about an ongoing music therapy study for autistic children, and plans for further experimental work to understand if enhanced agency is an important factor to support mental health from music listening for autistic people.

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This lecture takes place at Liebiggasse 5, 1010 Vienna, Lecture Hall G 2nd floor and will be streamed.
Thursday, 26 June 2025; 3pm