The science of pain and movement

Movement is fundamental and essential to life and to good physical, psychological and social health and well-being. Pain is the most frequent reason that movement and activity is compromised. For many years, movement and activity compromise was believed to be a direct result of actual or anticipated pain. Traditional research by pain or movements scientists narrowly focused on pain or on movement respectively and although substantial steps in understanding the complexities of these constructs were made, the lack of an integrated approach did little to contribute to a better understanding of the multi-level and bi-directional relationship between pain and movement and how pain and movement were mediated by the mind. Over the last couple of decades, an increasing amount of research has used a broader conceptual model to better understand various types of pain and its’ impact on mood and movement, as well as the reverse. It is now abundantly clear that the mind (both cognition and emotion) mediates both pain and movement expression and experience - as does the social environment. This talk will include a presentation of the state of the science of pain, mind and movement. Specifically it will include a discussion of contemporary research that: 1) Shows how pain is associated with generalized psychomotor slowing and movement inefficiencies; 2. Demonstrates how movement/activity can have health protective and analgesic effects and as such is especially beneficial for the emotional and physical health of individuals with chronic pain; and 3). Identifies and addresses bio-psycho-social factors that enhance mood and movement and decrease pain and its impact.

Biography

Maureen J Simmonds is Professor and Research Chair in Physical Therapy, a REACH Scholar in the Centre for Research to Advance Community Health, and Adjunct Professor in the School of Public Health at the University of Texas Health Science Centre, San Antonio. She is also an Honorary Professor at Wuhun Sports University, China. She has many years of clinical experience during which she developed an interest in the pervasive and complex problem of pain and its impact on mood, movement and performance across health disorders. Clinical questions and paradoxes have driven her consistently well-funded research which has included the development of physical performance test batteries to characterize and quantify the burden of pain, ill-health and aging on performance and to better understand, measure, and manage pain and the impact of pain on mood, movement, physical, and cognitive function as well as to assess the effectiveness of different rehabilitative approaches. She is on several international editorial boards, and scientific panels, has more than 100 publications and is a regularly invited speaker at national and internal conferences.