

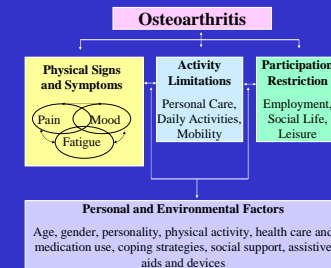
Determinants and Consequences of Pain and Fatigue in Osteoarthritis Using a Biopsychosocial Approach

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Overview

This program has established, for the first time, a talented, experienced multi-disciplinary team of health researchers to address gaps in the knowledge of pain and fatigue in osteoarthritis (OA). The objective of this New Emerging Team is to reduce the impact of OA in people living with this condition by increasing our understanding of the cause, consequences and time course of pain in OA, which a focus on the inter-relationships among pain, fatigue and mental health.

This program provides the infra-structural support to a team of researchers from a variety of disciplines: rheumatology, orthopedic surgery, sleep and pain medicine, mental health, epidemiology/health services research and the behavioural sciences. Our team fosters multidisciplinary collaborations on both qualitative and quantitative research and emphasizes training for young investigators. Consumers are actively involved in our all research efforts. Our research is identifying the complexities and consequences of living with osteoarthritis.



Team Members

Investigators

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Our Research

Study of Arthritis in Your Community

This CIHR-funded study aims to evaluate the relationships between osteoarthritis (OA) pain, fatigue and mood and understand how the symptoms of OA impact those living with OA physically, psychologically and socially. In Phase 1 of this two phase project, we used focus groups to expand our understanding of the experience of pain and fatigue in OA and people's perceptions of the relationships between pain, fatigue and mood. Phase 2 is a three-year prospective cohort study to examine the relationships over time between pain and fatigue, mood and OA outcomes (such as activity limitation on participation restriction) taking into consideration important factors such as age, gender, social support, arthritis treatments and coping strategies.

Sleep and OA

Many people may not have considered the possible contribution of sleepiness and nighttime sleep disruption to arthritis related aches and pains. To learn more about the physiological aspects of sleep and sleepiness in OA, a number of volunteers have participated in daytime sleepiness and overnight sleep assessments. In addition, we have embarked on the development of a new sleep quality measure, appropriate for use both in clinical practice as well as an outcome measure in clinical studies. The new *Common Sleep Habits Questionnaire* is currently being tested and will be used in our subsequent research to examine the relationship among pain, fatigue and sleep in OA.

Enhancing the Measurement of Pain in Individuals with OA

This international study used focus groups and one-on-one interviews to increase our understanding of the natural progression of pain in OA and to determine which aspects of the pain experience are most distressing. From data collected in this study, we developed a new hip/knee OA pain assessment measure suitable for use as an outcome measure in clinical trials of OA and as an evaluation tool to assess need for total joint replacement surgery of the hip and knee.

OA and Mood

Hypothesis-generating cross-sectional analyses of our cohort data have been performed to examine the associations between pain and depressive symptoms (using the CES-D). These analyses have confirmed prior reports of a high prevalence of depressive symptoms among people with OA, as well as a strong positive correlation between pain scores and depressive symptoms. Furthermore, these analyses indicate that coping behaviours and coping efficacy may be important mediators of the relationship between pain and mood. These relationships are being evaluated prospectively in our cohort study. Research is also underway to examine the prevalence of prescription medication use for mood disorders among elderly individuals with OA using our cohort data linked with administrative databases.

Patterns of OA Medication Use

We have a unique opportunity to study the patterns of medication use over time among a sample of older adults with OA. This research seeks to describe and explain patterns of medication use in this population, focusing specifically on the inappropriate under- and over-utilization of pain medication, and potentially high-risk drug-drug and drug-disease combinations. We have also completed research that revealed people with OA tend to treat their OA medication use differently than other medications.

Fatigue and Osteoarthritis

Fatigue in OA is not routinely evaluated and has only been considered in a limited number of studies. This does not negate the significance of fatigue in OA. In order to thoroughly understand fatigue in OA, it is necessary to consider the multi-dimensional nature of fatigue and to determine if pain, fatigue and depression represent distinct or hybrid constructs. This project is evaluating the relationship between pain, depression and fatigue with osteoarthritis disability.

Knowledge Transfer and Exchange

Various methods have been used to disseminate results of our research program, including a website (www.osteoarthritisresearch.ca), newsletters (such as OA and You), public forums, scientific conferences and publications in peer-reviewed journals.