

# Shifting chronic pain perspectives: Fostering biopsychosocial attitudes in healthcare professionals

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PUBLIC PHD DEFENCE FOR THE DEGREE OF **DOCTOR IN REHABILITATION SCIENCES AND PHYSIOTHERAPY (VUB)** &

DOCTOR IN SCIENCES DE LA MOTRICITÉ (UNIVERSITÉ DE LIÈGE)

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### ABSTRACT OF THE RESEARCH

#### **Background**

Chronic pain is a common condition, affecting around 23% of the Belgian population. It imposes a significant burden on patients, healthcare professionals, and society, being a leading cause of disability, work absenteeism, and productivity loss, and significantly reducing the quality of life for those affected. Advances in clinical science have highlighted the necessity for a paradigm shift from a biomedical approach to a biopsychosocial one, taking into account that biomedical, psychological, and social factors significantly influence chronic pain and pain-related disability. However, translating clinical science into practice remains challenging, in part due to educational programmes that often fall short in fostering biopsychosocial perspectives among healthcare providers in chronic pain management. As a result, both healthcare professionals and patients with chronic pain often find chronic pain management to be inadequate.

This dissertation aims to contribute to understanding healthcare professionals' perspectives on chronic pain management, provide insights into developing an educational programme for healthcare professionals, and assess the impact on healthcare professionals' perspectives towards chronic pain management.

**Chapter 1** compares undergraduate physiotherapists' perspectives and clinical recommendations regarding chronic pain management between 2013 and 2020. The findings suggest a small but positive shift towards a more biopsychosocial approach between 2013 and 2020. However, the shift was institution-dependent, and many clinical recommendations still did not align with clinical guidelines, indicating substantial room for improvement in fostering biopsychosocial perspectives in undergraduate physiotherapists.

Chapter 2 focuses on translating the Knowledge and Attitudes about Pain (KNAP) questionnaire into French to assess healthcare professionals' perspectives on modern pain science comprehensively. The resulting French version of the KNAP questionnaire, demonstrated good validity and reliability in assessing pain knowledge and attitudes among both graduated and undergraduate medical doctors and physiotherapists in Belgium and other French-speaking regions.

Chapter 3 offers insights into developing and implementing an interdisciplinary training programme about chronic pain management for various healthcare professionals. It identifies various barriers and facilitators to chronic pain management and educational programmes. Considering these, an interdisciplinary training program was implemented to enhance healthcare professionals' competencies to integrate biopsychosocial chronic pain management with a cognitive behavioural approach into clinical practice.

Chapter 4 examines the short- and mid-term changes in perspectives and clinical recommendations among healthcare professionals who participated in the developed interdisciplinary training programme. The results show stronger biopsychosocial pain perspectives and more guideline-adherent recommendations both immediately after the programme and six months later across the various disciplines. However, some biomedical perspectives persisted. The findings emphasize the need for adequate training programmes to foster biopsychosocial perspectives and ongoing refinement of educational programmes to shift these perspectives further.

#### Conclusion

Over the past decade, there have been modest improvements in biopsychosocial perspectives towards chronic pain among Belgian undergraduate and graduate healthcare professionals across various disciplines. Many still adhere to traditional biomedical perspectives, such as recommending bed rest and restricting activities and work. The development and implementation of interdisciplinary training programs hold promise in addressing these misconceptions and fostering a more comprehensive biopsychosocial understanding of chronic pain management. However, persistent biomedical perspectives underscore the importance of continuing to implement, evaluate and refine educational initiatives for both undergraduate and graduated healthcare professionals to improve biopsychosocial approaches to chronic pain management further.

#### **CURRICULUM VITAE**

Wouter Munneke is a doctoral researcher with a strong commitment to implementation science and projects aimed at reducing the gap between scientific literature and clinical practice. Born on October 26, 1989, he graduated as a physiotherapist from Rotterdam University of Applied Sciences in 2016. He obtained his Master's degree in Clinical Epidemiology from Amsterdam University Medical Center – University of Amsterdam in 2019 while working as a physiotherapist in clinical practice. In 2020, he enrolled as a PhD researcher at the Vrije Universiteit Brussel and University of Liège on the project "Implementation of the Belgian recommendations regarding the treatment of chronic pain". He developed and implemented an interdisciplinary chronic pain course for healthcare professionals throughout Belgium, (co-)authored 9 publications in peer-reviewed journals, and presented at (inter)national congresses. Committed to promoting "Interdisciplinary approach as a fundament to bridge the gap between theory, clinical practice, and society", Wouter believes that scientists must collaborate with the general population, patients, healthcare professionals, and policymakers to create more rational and real-world-based research and impact.



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