

Pain neuroscience education in clinical practice applied to surgical, pediatric, and post-cancer pain.

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Learning objectives:

Upon completion of this course, attendees will:

1. understand the main concepts of PNE and its importance in clinical practice;
2. be able to provide pain neuroscience education to patients with chronic pain;
3. be able to adapt pain neuroscience education to specific target populations such as surgical patients, cancer survivors, and children with chronic pain.

The price of the total program including lunch and drinks:

Content of the program:

Chronic pain represents a biopsychosocial problem, with maladaptive changes in the mind, body and brain. Besides exercise therapy¹ and physical activity interventions², education³ stays a corner stone of the therapy. Although the clinical benefits of education in chronic pain populations are well established, clinicians experience difficulties applying this during their treatments.

Patients who are misinformed about pain, consider pain to be more threatening, present lower pain tolerance, have more catastrophic thoughts and less adaptive coping strategies, resulting in worse treatment outcomes⁴. The latter can be captured by Pain Neuroscience Education, which helps patients to understand their pain and teach them a way to function with pain during their daily life. Pain neuroscience education explains the normal and abnormal pain mechanism and the influence of cancer treatment, stress and emotions on their pain experience. It is effective in decreasing pain intensity, pain catastrophizing and increasing quality of life in several populations with pain, such as chronic low back pain, osteoarthritis and chronic whiplash associated disorders⁵⁻⁸

One of the reasons why clinicians experience difficulties in applying evidence in practice is that they experience various barriers. During this course we will learn the participants in detecting which patient can be helped with pain neuroscience education, next we will train them in applying pain education with practical exercises. We will tackle the barriers by challenging the beliefs and cognitions of our participants and providing them with case examples.

Specific patient groups demand pathology tailored education. General pain neuroscience education needs to be adapted when it is used in the treatment of patients before or after surgery, or patients with cancer related pain. These changes are nothing compared with the complete change in approach

if a child with pain is the patient. In this second part of this course, participants will learn how they can match the principles of pain neuroscience education with the practical use for these specific patient groups. This will enable the participants to enlarge their scope and be able to apply the learned techniques in various situations.

Program:

- 90min Pain Neuroscience Education: state of the art and implementation in clinical practice (MDK)
- 90min Pain Neuroscience Education for people with chronic pain: demonstration (AW)
- 45min Pain Neuroscience Education for people with chronic pain: skills training (MDK, AW)
- 60min Adapting pain neuroscience education for people with cancer-related pain: demonstration and skills training (MDK and RP)
- 60min Adapting pain neuroscience education for people undergoing surgery: demonstration and skills training (EH)
- 90min How to explain pain to children? demonstration and skills training (RP)

Intended audience:

Physiotherapists and health practitioners working in a clinical setting with chronic pain patients.

Key references

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3. Nijs J, Paul van Wilgen C, Van Oosterwijck J, van Ittersum M, Meeus M. How to explain central sensitization to patients with “unexplained” chronic musculoskeletal pain: practice guidelines. *Man Ther.* 2011;16:413-418. doi:S1356-689X(11)00073-7 [pii] 10.1016/j.math.2011.04.005
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5. Louw A, Zimney K, Puentedura EJ, Diener I. The efficacy of pain neuroscience education on musculoskeletal pain: A systematic review of the literature. *Physiother Theory Pract.* 2016;32(5):332-355. doi:10.1080/09593985.2016.1194646
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