

## EDITORIAL

# Introducing the comprehensive pain management editorial series

## Chronic pain as a public health disease

Every day, pain is reported as a severely debilitating symptom by patients in physical therapy practices all over the world. This includes patients with a large variety of medical diagnoses, including low back pain, neck pain, whiplash-associated disorders, shoulder pain, temporomandibular disorders, osteoarthritis, rheumatoid arthritis, post-surgical pain, fibromyalgia, long-COVID, chronic fatigue syndrome, cancer survivors, Parkinson's disease, stroke, multiple sclerosis, diabetes, obesity, etc. Chronic pain is the most prevalent disease worldwide, leading to substantial disability and enormous societal costs, with costs exceeding those associated with cancer, diabetes, and heart diseases combined.<sup>1</sup> Chronic pain can thus be regarded as a public health disease and a major challenge to clinicians and scientists.

## The global pain science revolution

Two decades ago, when we started studying the role of central nervous and immune systems in patients with chronic pain,<sup>2</sup> we were especially inspired by the early work from Staud and Price.<sup>3,4</sup> This research area also fitted perfectly into the ground-breaking pioneering psychoneuroimmunology work by Watkins and Maier<sup>5</sup> about immune-to-brain communication and the so-called 'sickness behaviour'. Not much later, Lorimer Moseley published his first studies on explaining pain to patients with chronic pain.<sup>6,7</sup> At the same time, Paul van Wilgen (the Netherlands) was working on a very similar idea, as shown by his work entitled 'The sensitization model: a method to explain chronic pain to a patient'.<sup>8</sup> Back then, we could not imagine what massive, global impact pain science would have on our profession and health care for patients suffering from pain in general. Since, breakthrough neuroscience research lead to the recognition by the World Health Organization of chronic pain as a disease characterized by functional and structural brain changes,<sup>9</sup>

neuroinflammation,<sup>10</sup> and increased sensitivity of the central nervous system to sensory input ('central sensitisation').<sup>11</sup> Worldwide, the physical therapy profession has been and is at the forefront of implementing pain science in clinical practice. However, pain science continues to evolve, and clinicians often struggle to implement pain science in clinical practice. This inspired the Editorial Board of *the Brazilian Journal of Physical Therapy*, now one of the leading journals in our field, to dedicate an Editorial Series to pain science in clinical practice.

## Towards individually tailored multimodal lifestyle interventions for chronic pain

Topics that will be addressed in the *Comprehensive Pain Management Editorial Series* include the clinical implications of the term "nociceptive pain" as introduced in 2017 by the International Association for the Study of Pain (IASP) as a third mechanistic pain descriptor in addition to nociceptive and neuropathic pain. This leads to phenotyping patients with pain as predominant nociceptive, neuropathic, nociceptive, or mixed type of pain, and adapting pain management strategies accordingly.<sup>12,13</sup> In addition, cumulative evidence shows that lifestyle factors such as physical inactivity, sedentary behaviour, stress, poor sleep, unhealthy diet, and smoking are associated with chronic pain severity and sustainment. Yet current treatment options often do not, or only partly address the many lifestyle factors associated with chronic pain, or attempt to address them in a standard format rather than providing an individually tailored multimodal lifestyle intervention.<sup>14-16</sup> Therefore, the *Comprehensive Pain Management Editorial Series* will also address this gap by discussing how clinicians can concomitantly address various lifestyle factors into an individually-tailored multimodal lifestyle intervention for people with chronic pain. A paradigm shift from a tissue- and disease-based approach towards individually-tailored multimodal

lifestyle interventions should lead to improved outcomes and decrease the psychological and socioeconomic burden of chronic pain.

## Stretching the scope of our profession for the sake of patients with pain

Lifestyle factors that will be addressed in the *Comprehensive Pain Management Editorial Series* include physical activity as a key lifestyle factor in patients with chronic pain and the potential of exercise therapy and physical activity interventions to address this perpetuating factor. Sleep and diet are also key lifestyle factors in many patients with chronic pain, and what they have in common is that physical therapists often have the feeling that they fall outside the scope of our profession.

Based on compelling efficacy data, cognitive behavioural therapy for insomnia (CBT-I) is the gold standard treatment for insomnia,<sup>17</sup> but it remains underused and not readily available in community or clinical settings.<sup>18</sup> The accessibility to CBT-I is extremely limited due to several barriers,<sup>19</sup> including a shortage of CBT-I specialists and lack of clinician training about sleep.<sup>20,21</sup> This creates opportunities for physical therapists to fill this implementation gap, at the very least, in a stepped care model. The latter implies that an “entry level” treatment should be readily accessible, be delivered at the lowest level of therapeutic intensity, inconvenience patients the least, be provided at the lowest cost, and require the least amount of specialist time.<sup>22</sup> With limited training, physical therapists can provide such entry level sleep treatment by providing sleep hygiene education.

Likewise, in this era of evolving pain management strategies,<sup>21</sup> recent meta-analyses<sup>22,23</sup> support the use of nutrition care. Physical therapists, however, receive little guidance in providing nutrition care, and they may have concerns regarding the limits of their scope of practice.

To a lesser extent, this also applies to providing stress management. Stress intolerance is a cardinal feature of chronic pain,<sup>23</sup> and physical therapists have unique education in the comprehensive biopsychosocial assessment and treatment of chronic pain, making them perfectly skilled to include stress management as an evidence-based ingredient of individually-tailored multimodal lifestyle intervention for people with chronic pain.

The *Comprehensive Pain Management Editorial Series* aims at contributing to the implementation of pain science in clinical practice and facilitating clinicians around the globe to provide individually-tailored multimodal lifestyle interventions for the many patients suffering from chronic pain. Physical therapists around the globe, need to unite and combat the chronic pain pandemic!

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