EDITORIAL

The evolution of low back pain treatment: the biopsychosocial approach and multi-professional involvement

A evolução do tratamento da dor lombar: a abordagem biopsicossocial e o envolvimento multiprofissional

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Low back pain (LBP) is among the most prevalent and disabling chronic pain conditions in the world population. Full of myths and limiting beliefs, LBP is associated with high direct and indirect costs to health systems around the world[1]. The negative impact, with loss of quality of life and productivity, is a social and personal burden.

LBP classification can be based on different factors, such as time and pathogenesis. The classification proposed according to the duration of the symptom is: up to 6 weeks for acute LBP, 6 weeks to 3 months for subacute, and more than 3 months to be defined as chronic. The classification by pain pathogenesis (mechanism) establishes nociceptive pain (inflammatory or mechanical) and neuropathic or nociplastic pain[2]. Primary nociplastic LBP is the new nomenclature for non-specific LBP, which is the most prevalent type[3].

Until the 1990s, LBP was understood as inflammatory pain[4], aggravated by biomechanical, postural and ergonomic factors. Orthopedists and physiotherapists were therefore the main treatment professionals. Between the 1950s and the 1990s, the combination of anti-inflammatory drugs and rest was believed to be the treatment strategy for LBP. Rest was characterized by restricting and avoiding bending, squatting and other movements that exposed the intervertebral disc to mechanical overload that would increase local inflammation[4]. In the 1970s, posture schools emerged to teach patients about anatomy, biomechanics and ergonomics so that they could "take better care of their backs"[5].

The vision of nociceptive pain of mechanical cause of LBP motivates diagnostic investigation using imaging tests, as well as the search for structural alterations that justify the presence and persistence of pain. However, the association between imaging findings and LBP is low[6]. Thus, not all the alterations identified in the complementary exams represent "the cause" of the pain, as some structural changes are a natural part of aging and do not directly impact pain or disability. In addition, adopting the educational approach of explaining to patients the information contained in the reports and imaging tests can contribute to the nocebo effect, increasing the feeling of vulnerability, incapacity and fear of movement[7].

Comprehending the "posture problem" is not enough to solve pain. Various models of posture schools and pain education have been suggested in recent decades, but still without much change in epidemiological outcomes. Chronic low back pain (CLBP) persists as a musculoskeletal pain and disease with a high burden on society and the sufferer. The approach to CLBP is expanding into multidisciplinary or multiprofessional treatment. Clinical studies apply combined therapy along with progressive return to functional movement and pain education, bringing together the participation of different medical specialties, psychologists, occupational therapists, physical education teachers, among others[8].

In recent decades, the treatment of CLBP has evolved towards a more comprehensive and multidisciplinary model. This change brings a deeper understanding of the complexity of pain, which goes beyond the body segment, and the presence of a strong interaction between physical and emotional functionality and the perception of pain. For example, pain in the lower spine can trigger changes in the motor behavior pattern of the whole body. In addition to the emotional impact, such as vulnerability, catastrophizing of pain and kinesiophobia, there is also the impact on occupational performance, which negatively interferes with activities of daily living and social and occupational participation.

Pain can be incapacitating and can change routine and occupational identity. A worker who has to take time off due to pain can have their perception of productivity affected. A mother who is unable to care for her baby may question her maternal role, and a senior adult who is directed to restrict their movements may lose muscle strength and accelerate the process of frailty and dependence.

Beliefs about LBP vary. During pregnancy, it is believed that lower back and pelvic pain are natural consequences of pregnancy. In this context, pregnant women don't seek health care and believe that the pain will stop after the baby is born. Reports show how impactful it is when LBP persists after childbirth and makes it difficult for the mother to care for her child. Mothers question their maternal identity and choose not to have another pregnancy[9]. Receiving guidance that restricts common movements in activities of daily living, such as squatting to sit on a toilet, generates tension, fear and maladaptive behaviors. The fear of moving leads to loss of social participation, isolation, feelings of frustration and anxiety, factors which worsen the intensity of the pain, starting a never-ending cycle of chronic pain[10].

To understand the multidimensionality of LBP is to consider the inclusion of pain management and the impacts that it causes. Biopsychosocial and even spiritual factors must be considered and included in the treatment plan. Treatment with a biopsychosocial approach for LBP implies the importance of collaboration between various professionals. Respecting different competences is crucial when working in a multi- or interdisciplinary way. Discussions between team members are not intended to influence what the other

professional will do. The aim is to harmonize interventions with a focus on the therapeutic objectives set.

Adherence to treatment, including prescribed exercises, encompasses different aspects. Occupational engagement, an approach specific to occupational therapy, has already been shown to increase participation in physical activities and lead to improved sleep[11]. Mental health care aids health management, including the management of low back pain. Specific guidance on diet helps to improve quality of life and willingness to exercise. No matter how humanized, empathetic and understanding pain education may be, one professional alone cannot deliver effective results when it comes to LBP. It is considered reductionist for a single professional class to be responsible for caring for people with LBP, as this would be treating a complex and impacting condition in a shallow and superficial way. It takes studies and experience to treat LBP, but it also takes humility, respect and teamwork to really improve the lives of people experiencing this condition.

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