

23. THE ROLE OF COGNITIVE FACTORS AND RESPIRATORY DYSFUNCTION IN CHRONIC PAIN



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Introduction. In the last two decades the thorough study of cognition and breathing in the context of chronic pain have found a crucial role in the adaptation of new therapies for the management of CP (chronic pain). The cognitive-evaluative variables (such as the presence of catastrophic thoughts or the role of self-efficacy expectations) and respiratory (hyperventilation syndrome) negatively influence the dynamics of patients with chronic pain, being predictors of the persistence of the pain syndrome, as a result leading to the impairment of both physical health and and psychic.

Aim of study. Study and analysis of modern scientific publications to identify the role of the cognitive component and respiratory dysfunction in the clinical manifestations of chronic pain.

Methods and materials. In order to achieve the proposed goal, a narrative synthesis of the publications and articles in the Google Scholar databases was carried out, which in the last 5 years have investigated the peculiarities of cognitive and respiratory functioning in patients with chronic pain and, last but not least, how by manipulating them can obtain lasting therapeutic results.

Results. Studies show that there is a relationship between cognition, breathing and pain. In the context of the cognitive component (for example attention) it would have been proven that the distraction from pain is accompanied by a decrease in the activity of ascending nociceptive pathways and systems, therefore the shift of attention from the current focus to another adapts the subject's behavior in the event of sudden onset of a potentially dangerous stimulus (painful stimulus). In the context of the respiratory component (pathological respiratory pattern) such as hyperventilation, which results from the excitation of the limbic system, causes hypocapnia with the development of hypoxia. At the level of the CNS (central nervous system), hypoxia activates the components of the limbic system. It follows that hyperventilation leads to neuronal hyperexcitability, and this plays a key role in the generation of pain by altering somatosensory information.

Conclusion. Chronic pain still remains a major health problem that needs to be eradicated or cured not only by managing the pain phenomenon, but also by applying new management therapies such as: attention manipulation, which results in the voluntary control of attention because susceptibility to painful stimuli is so great that attention is involuntarily drawn to them. Another type of therapy would be breathing techniques that could help improve chronic pain management.