CHAPTER 79

Stratification and proper pain management

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ABSTRACT
Pain is a potential risk to public health, it is characterized by a multidimensional experience associated with physical and emotional aspects. Pain warns of danger and avoids organic damage, but when it is impossible to perform daily activities and impacts the patient's life quality, it is classified as pathological and requires medical interference. The following article aimed to describe, through a narrative literature review, aspects related to pain and its proper management. Pain is a broad complex that is classified according to location, type, intensity, and periodicity. The categories referring to pain are nociceptive, neuropathic, and psychogenic. In addition, pain syndromes are diverse and can affect any system of the body. Emphasizing that it is essential to categorize as much information as possible to properly conduct the treatment of these diseases.

Keywords: Health education, Pain, Painful syndromes.

1 INTRODUCTION

Pain is an unpleasant sensory and emotional experience adjacent to any actual or potential tissue damage. Classified as subjective and personal, and associates sensitive and cultural factors that can be modified by sociocultural variables and psychic aspects of being and the environment (Azevedo, 2018).

The painful sensation should not be synonymous with harm, but an alarm that something in the body is not right. Pain is an adaptive mechanism that enables that eventual disorders are avoided and identified before they result in sequelae and progress to chronicity. However, when the pain persists, it becomes unbearable and reaches a state of hampering daily activities must be properly investigated and treated more intensively (Camilo, 2020).

The following article aimed to describe, through a narrative literature review, the main aspects related to pain and its proper management.

2 METHODOLOGY

This is a qualitative narrative review study, appropriate to discuss the state of the art of a given subject. It consists of a comprehensive analysis of the literature, without establishing a rigorous and replicable methodology at the reproduction level of data and quantitative answers to specific questions, as explained by and (2014).

This methodology was chosen because it is fundamental for the acquisition and updating of the knowledge on a specific topic, highlighting new ideas, methods and subthemes regardless of the emphasis in the selected literature.

Because it is a bibliographic analysis on the theory of mind and the understanding about of this competence in the adult individual, articles indexed in the of data Brazilian Society for Pain Studies (SBED),9 Scientific Electronic Libraryr Online (SciELO), Capes Periodicals, Virtual Health Library (VHL), Literature Latin America in Health Sciences (LILACS), Medical Literature Online (MEDLINE), Education Resources Information Center (ERIC), Brazilian Society of Anesthesiology (SBA) and Brazilian Society of Neurology (SBN) during the month of July 2022, with the last 5 years as the reference period.

The indexing terms or descriptors were used: signs and symptoms, pain, pain clinics, alone or in combination, without delimiting a time interval.

The criterion used for the inclusion of publications was to have the expressions used in the searches in the title or keywords, or have it explicit in the abstract that the text relates to the association of theory of mind with aspects linked to the adult individual. the articles excluded did not meet the established inclusion criteria and/or had duplication, that is, publications retrieved in more than one of the databases. Dissertations and theses were also excluded.

After the target information had been retrieved, initially, the reading of titles and abstracts, with no exclusion of publications at this stage. Subsequently, the complete reading of the 31 texts was carried out. As axes of analysis, initially sought to classify the studies as to the particularities of sampling,

bringing together those whose samples approach concepts and physiological with development normative or neurotypical; and those whose samples are clinically affected, symptomatological and therapeutic picture. From there, the analysis of the theoretical foundation of the studies, as well as the observation of the general characteristics of the articles, such as year of publication and language, followed by their objectives. Finally, performed if the appreciation of the applied methodology, results obtained and discussion. Specifically, to analyze the scientific production identified, qualitative techniques were not used and/or specific quantitative data processing, with the analysis of each one of the texts.

3 RESULTS AND DISCUSSION

The search for the articles that composed this study identified 255 references about stratification and adequate pain management in the aforementioned databases, of which 31 publications were included in the review. Among the selected studies, 28 articles present theoretical approach, 3 are case studies. There was a prevalence of publications in the English language, representing 84% of the total, when compared to the languages Spanish (9.6%) and Portuguese (6.4%).

During the present study, numerous review articles were found who discussed aspects related to stratification and adequate pain management. This one This fact possibly reflects the importance that this topic has for clinical medicine and the prognosis of the patient, which group the existing research related to the topic, a since these publications are very numerous, it allows for greater dissemination of information for the community and health professionals.

4 PAIN PHYSIOLOGY

A stimulus is detected from the sequence of four processes: transduction, transmission, modulation and perception. Transduction takes place at peripheral endings of primary afferent neurons, where different forms of energy (mechanical, thermal or chemical) are transformed into electrical action. The transmission is based on the direction of the electrical stimulation by the nervous system. Modulation is the phenomenon to which neural action can be modified along the transmission, and occurs preferentially in the column back of the medulla. Then perception takes place in supraspinal structures related in somatosensory chaining (Ferrari, 2021).

5 COMPONENTS OF PAIN

The phenomenon of pain encompasses four compounds which are nociception, pain, suffering and typical behaviors. Nociceptors are sensory nerves, which contain specialized free nerve endings. They are located in the skin, muscle, joints, viscera and dura mater, in addition to the fascia and adventitia of blood vessels (Azevedo, 2018).

Initially, tissue injury is detected by transducers associated with the A delta and C fibers that send signals to the dorsal horn, a process called nociception. This is usually triggered by sufficient mechanical, thermal or chemical forces. to cause some damage (Azevedo, 2018).

The reaction to nociception is pain. It is produced in the spinal cord and in the brain by nociceptive afferents. Neuronal bodies synthesize neuropeptides, substance P and CGRP (Calcitonin Related Peptide Gene), these induce vasodilation, plasma extravasation, macrophage recruitment, mast cell degranulation or other events that trigger inflammation neurogenic (Matias, 2022).

The conscious perception of pain takes place in the reticular formation of the brainstem, thalamus and other parts of the brain. Emphasizing the essential role of the cortex in interpretation of the painful quality. The primary somatosensory cortex points to location and level, while the secondary is associated with the

recognition of stimuli pain and thermal pain, experience related to pain and aggregation between tactile and nociceptivos (Cardinot, 2020).

Suffering in the face of pain leads to typical painful behaviors that are grimaces, groans, changes in gait, indisposition and the search continues for medical assistance.

This behavior is the result of environmental antecedents and implications. That is, these are important, but the investigation of the base factor should be prioritized (Azevedo, 2018).

The modulation process is descending connections between brain centers upper limbs and the spinal cord, which can amplify or inhibit the impulse of signals painful. This event justifies why pain is characterized as something subjective and individual. Emphasizing that triggers such as attention, sociocultural beliefs, state Cognitive and emotional can determine how each person describes their own pain condition (Cardinot, 2020).

6 TYPES OF PAIN

Clinical concepts that help define the quality and character of pain are acute or chronic; diffuse or localized; pulsatile or continuous; deaf or colicky; in burning, tingling, stabbing, searing; sharp or painful; constant or intermittent; emergent or incident (Matias, 2022).

The acute pain is the result of an organic deterioration, of short duration, of nociceptive transducers at the site of injury. The local lesion modifies the way in which the regional nociceptors react to this phenomenon, which are processed in the horn dorsal and transmit painful information when the upward projection systems arrive in the brain. Usually, it is common after surgery and trauma, being necessary wound care, such as immobilization, skin sutures, and analgesic promotion until the restoration of nociceptive functionality (Azevedo, 2018).

Transient pain is generated by nociceptive activation, in the absence of tissue damage. It is commonplace and does not require intervention, exemplified with a prick of a needle, with importance focused on therapeutic regimens (Cruz, 2021).

Chronic cancer pain is associated with continuous tissue damage, justified by the pathological process and its therapy. The influence of these factors is relevant, but these do not comprise the exclusive and predominant causes of pain sensation in the patient oncology (Silva, 2021).

Chronic pain from non-oncological factors is attributed to injuries or pathologies previously existing, which many times have already been cleared, but the pain remains etiologies other than the pathophysiological mechanisms that caused the injury. This one that occurred is possibly a rearrangement of the spinal and brain, after original peripheral traumatic events, the anomaly may have a direct effect in the nervous system followed by disorder in the normal pathways or also by means of compensation that maintains the pain (Cardinot, 2020).

Diffuse type pain indicates a central process or an inflammatory process. THE Localized pain is adjacent to a delimited lesion, peripheral nerve injury, or an immediate postoperative situation (Silva, 2021).

The pulsatile type is a high indicator of bone pathology such as bone metastases, muscle strain and soft tissue injury. The deaf and colicky expressions refer to painful situations involving the viscera, such as irritation, inflammation and intestinal syndromes. Reports of burning, tingling, stabbing or stabbing are consistent with nerve damage or pathological changes correlated with the nerves (Carvalho, 2022).

The concepts constant or intermittent refer to a temporal period of pain.

Constant indicates continuity of existence, responds satisfactorily to medications at time intervals throughout 24 hours. In contrast, the flashing is not so predictable and drugs are applied as needed (Vieira, 2021).

Emerging pain is based on a picture of pain exacerbation that exceeds abruptly the analgesia regulated by targeted therapy. requires intervention immediate relief from this. The incident type follows specific acts such as coughing, walking and weight lifting, therapy is prior to performing such activities (Carvalho, 2022).

7 CLASSIFICATION

Pain is a complex that is classified according to the pathophysiological mechanism, being typified as nociceptive pain syndromes, inflammation and neuropathy. At other pain syndromes comprise this triad or are characterized in terms of of pain due to a comprehensive diagnosis, such as cancer-related pain (Vieira, 2021).

Nociceptive pain requires ascending stimuli propagated by normal nerves, in the course of sensory neurons, and which ascend through the spinothalamic pathways of the spinal cord spinal. It covers somatic and visceral pain (Cruz, 2021).

Somatic pain is localized to the skin surface or intensely in the skeletal muscle. Visceral pain is poorly localized and usually related to organs deeper, such as the intestines (Rodrigues, 2022).

Inflammatory pain is due to the activation of acute inflammatory mediators and chronic, through tissue injury, trigger the painful process (Carvalho, 2022).

Neuropathic pain appears in an abnormal region in neural perspective, being result of damage to the central or peripheral nervous system. The pathophysiology is nonspecific, but the main ones are incisional injury, compression of neural tissue and dietary, chemical, ischemic, metabolic, neoplasm or paraneoplastic (Rodrigues, 2022).

The main sensory alterations in patients with neuropathic pain are allodynia, dysesthesia, hypoalgesia, hyperalgesia, hypoesthesia (Carvalho, 2022).

The sensation is identified as an electrical particularity or associated with paresthesia or abusive temperature changes. The involved portion has a change in sensitivity which is covered by pain. Therefore,

simple and light stimuli such as touch, pressure and temperature are amplified so as to generate intense pain or numbness. the pain neuropathic pain is exemplified by postherpetic neuralgia, phantom limb pain, thoracic post-thoractomy ea typical diabetic neuropathy (Kanematsu, 2022).

8 PAIN ASSESSMENT

The most relevant data to be investigated regarding pain are onset and duration; localization; severity or intensity, which must be stratified by some object or measurement; quality or character, worsening and improving factors, and reactions to any previous treatment (Kanematsu, 2022). It is essential to distinguish localized or diffuse pain, verifying that it occurs irradiation of this. Localized pain has a cutaneous, mucosal and nervous system origin. In In contrast, diffuse pain derives from deep somatic or visceral structures. You types of pain are: localized pain, which does not cost with irradiation; projected pain follows the nerve pathway, which may completely involve the segment, as in herpes zoster, or just on the periphery; referred pain stems from a somatic structure that causes pain in another region of the same nerve segment, seen in back pain resulting from the abscess subphrenic; psychogenic is not categories in the neuroanatomical perspective, and has underlying factor an emotional disorder (Carvalho, 2022).

The physical examination investigates the existence of semiological aspects that are consistent with the pathophysiological mechanism of the underlying pain. The signs are possibly altered by acute pain, or regular in patients with persistent pain. To analyze the painful region includes a search for anatomical distortions, color changes, or skin consistency, spasms or muscle fasciculations. Palpation starts from light mode, advancing in intensity, to analyze the situation more accurately and to ascertain painful reproducibility (Kanematsu, 2022).

The triggering or aggravating factors cause the pain to increase, which the Eating acidic and spicy foods intensifies the pain of gastritis and peptic ulcer. You improvement factors are occasions that generate pain relief, such as postures that protect the structure in which the pain originates, or by the use of medications (Meireles, 2021).

Nociceptive somatic pain is precipitated by palpation of a region established. Pain that increases with action may indicate an injury or irregularity bones. Situation exemplified by abdominal discomfort, correlated with nausea, and the beginning of the inflammatory process results in pain intensification, through the palpation (Carvalho, 2022).

Nociceptive visceral pain has the classic sudden-onset retrosternal pain that radiates to the mandible, a result of myocardial ischemia, which touch does not interfere with in the characteristics of pain (Matias, 2022).

Inflammatory pain is driven by deep inspiration; the increase by Sudden abdominal decompression predicts inflammation. The existence of intensification pain together with lung sounds or irregular friction is consistent with pleuritic inflammation. Already the association of pain and reddened, swollen joints instill arthropathy inflammation (Silva, 2021).

Neuropathic pain courses with allodynia, characterized by painless stimuli if become highly unbearable; hyperalgesia, in which mild factors have high reactivity; causalgia, based on abrupt alliterations of temperature and color of the skin, when equated with surrounding regions; atrophy and alopecia of the regions involved; muscle fatigue correlated with pain; paresthesia by provocation of sensitized areas (Matias, 2022).

9 PAIN SYNDROMES

Cancer pain can be a result of the disease itself or of aggressive therapy.

Emphasizing that other diseases, such as arthritis or migraine, which is sharpened in the during the diagnosis and treatment of the primary neoplastic event (Tavares, 2021).

It does not have a single and isolated pathophysiological environment; this simultaneously can be acute, chronic nociceptive, inflammatory and neuropathic pain. still highlighting more the emergency in relieving this exuberant picture of pain, as it interferes significantly on the patient's quality of life and healing (Lima, 2020).

Functional pain has no recognized organic substrate, being correlated to persistent pain. The main symptoms are irritable bowel syndrome, tension-type headache and migraine and myofascial pain syndromes (Lima, 2020).

Complex Regional Pain Syndrome (CRPS) is chronic, possibly of neuropathic character, with disautonomous signs. It is characterized by the feeling of burning, intermittent paroxysms and addresses two categories. SDRC type 1 courses with ongoing pain, allodynia, or hyperalgesia in which the pain is not trigger-matched, edematous, along with variations in blood flow and abnormalities of the motor functionality in the affected area. Type 2 CRPS is based on pain, allodynia hi hyperalgesia. In the aftermath, it is not restricted to the area of the injured nerve (Silva, 2021).

Phantom pain is a common chronic painful event after amputation of member. Even if the limb is not present, it causes pain, which can be severe and debilitating. It usually involves neuropathic pain and central sensitization from the peripheral nerve (Cruz, 2021).

Bone pain has the particularities of being deaf, painful and constant. It is located in pathological area, with delimitation in the irradiation. The aggravating factors are flexion, extension or even percussion (Carvalho, 2022).

Plexopathies are syndromes associated with a defined peripheral nervous plexus. from an anatomical perspective. Neural disorders address multiple nerves in the plexus. THE brachial plexopathy, pain is magnified by deep breathing or neck mobility and shoulder. Intense shoulder palpation may reflect pain or suggest a distension internal. Brachial plexopathy causes pain due to neoplastic infiltration of nerves, adhesions and compressions after infection, surgery or radiotherapy (Camilo, 2020).

10 ANALGESIA

Refers to the absence of painful sensitivity to stimuli, which is free from pathological conditions would not cause pain and without suppression of the other modalities sensitivity or loss of consciousness. The main forms of sensitivity are tactile, thermal, painful, vibratory, compression, stereognosis and propion (Rodrigues, 2022).

Anesthesia is a procedure to reversibly block all types of sensitivity. The purpose is based on allowing patients to go through processes invasive surgical procedures without pain. There are two categories of pain which are the site, which blocks the production and conduction of the electrical impulse in excitable tissues,

being able to locally abolish motor action and sensitivity; the general is a technique that generates complete hypnosis, anesthesia, analgesia and relaxation (Vasconcelos, 2018).

11 PAIN THERAPEUTIC

According to the World Health Organization, pain management follows some general principles that include intake, dose intervals, individualization of therapeutic regimen analgesic ladder, use of adjuvants and attention to detail (Carvalho, 2022).

Administration by oral route is chosen to apply analgesics. You are have the purpose of depriving the patient of the discomfort of more invasive means such as injections, pronoun autonomy and control of the situation. Regular time intervals should be established, as the fixed schedule allows the next dose to be offered before the effect of the former has ceased (Carvalho, 2022).

The selection of analgesic treatment should be in accordance with the history patient clinic. Which urges a different dose to regulate pain and alleviate effects collaterals (Rodrigues, 2022).

The analgesic ladder was created by the WHO to promote assistance in the treatment in proportion to the intensity of pain felt by it. From a ladder with three steps, which are based on weak pain and non-steroidal analgesics are administered. opioids (non-steroidal anti-inflammatory drugs and other analgesics). The intermediary is find weak opioids that can be combined with non-opioid analgesics or anti-inflammatories. At the top are strong opioids, which may or may not be associated non-opioid analgesics or anti-inflammatory drugs (Vorpagel, 2022).

Adjuvant drugs have side analgesic effects. These does not hold instant relief, some have their effects after weeks of use (Kanematsu, 2022).

Non-steroidal analgesics have a triad of particularities that address analgesia, antiphlogistic and antipyretic. Ibuprofen is indicated in processes rheumatic, trauma of the musculoskeletal system, especially when they have the typical features of inflammation. In addition, for the relief of post-surgical pain. O diclofenac is reserved for the treatment of degenerative presentations and rheumatic inflammation. Situations exemplified by rheumatoid arthritis, spondylitis chylous, osteoarthritis, spinal pain syndromes,

infections and inflammation. The other drugs in this class are ketoprofen, dipyrone sodium, paracetamol (Vieira, 2021).

The most commonly used weak opioid analgesics are tramadol and codeine. O Tramadol acts on the central nervous system, which is useful to treat severe pain intensity. There is association with other anti-inflammatory analgesics (Olivencia, 2020).

Strong opioid analgesics are morphine and nalbuphine. both are prescribed for the relief of severe pain and in Acute Myocardial Infarction (AMI) (Carvalho, 2022).

12 CONCLUSION

Given the existing information in the scientific literature on stratification and pain management can be clarified to be a broad topic, which all subtopics addressed help in understanding the painful involvement. does not come,

It is noteworthy that even with the advancement of medicine, there is a diagnostic deficit of pain, consequently remaining without proper treatment. Then, it is necessary to carrying out more in-depth research and studies that contemplate ways of arrive at a more targeted clinical hypothesis, fulfilling the purpose of depriving the patient from any pain and discomfort. .

REFERENCES

Azevedo, PM (2018). The Science of Pain: About Fibromyalgia and Other Persistent Pain Syndromes and Human Nature. São Paulo: Unesp Digital Publishing.

Camilo, FAS et al. (2020). A Back School program is able to reduce pain and improve flexibility and quality of life in workers with musculoskeletal dysfunction. Research, Society and Development, 9(7), e114973806.

Cardinot, TM et al. (2020). Shoulder Pain: What Does The Acromion Have To Do With It? Multidisciplinary Scientific Journal Núcleo do Conhecimento, 10(15), 5-20.

Carvalho, LC et al. (2022). The importance and proper management of diuretics in clinical medicine: a pharmacological approach. Research, Society and Development, 11(9), and 49811932229.

Carvalho, LC et al. (2022). The importance and significance of the rheumatoid factor in clinical medicine. Brazilian Journal of Health Review, 5(1), 2860-2866.

Carvalho, LC et al. (2022). The importance of vitamin D in autoimmune diseases: a clinical approach. Brazilian Journal of Health Review, 5(2), 5556-5561.

Carvalho, LC et al. (2022). The importance of radiography in the acute abdomen: a narrative review. Electronic Journal Medical Collection, 3, 9641.

Carvalho, LC et al. (2022). Key clinical considerations of osteoporosis for public health. Research, Society and Development, 11(7), e36411730215.

Carvalho, LC et al. (2022). Inflammatory bowel diseases: a general approach. Electronic Journal Medical Collection, 2, e9650.

Carvalho, LC et al. (2022). Infective endocarditis: an approach to microbiological variance in the face of different factors. Brazilian Journal of Health Review, 5(1), 2867-2874.

Carvalho, LC et al. (2022). The clinical profile of the patient with bacterial meningitis: a neurological approach. Electronic Journal Medical Collection, 2, e9685.

Cruz, MFR et al. (2021). Evaluation of nociception comparing analgesia protocols in cats undergoing elective ovariohysterectomy. Research, Society and Development, 10(10, e564101019148.

Ferrari, MFM et al. (2019). Pain as the fifth vital sign, challenges for incorporation in health education. Revista Mineira de Enfermagem, 23, e1223.

Lima, V. et al. (2020). The use of the pain scale by nursing professionals in the context of urgency and emergency: an integrative review. Research, Society and Development, 9(11), e079119403.

Kanematsu, JS et al. (2022). Impact of pain on the quality of life of patients with chronic pain. Journal of Medicine, São Paulo, 101(3), e192586.

Matias, GFS et al. (2022). Cannabis use for the treatment of chronic pain: a systematic review. Research, Society and Development, 11(3), and 25411326586.

Meireles, GA et al. (2021). Pain perceptions in breast cancer patients.
Research, Society and Development, 10(7), e58910716938.

Olivência, SA et al. (2018). Pharmacological treatment of non-cancer chronic pain in the elderly: Integrative review. Brazilian Journal of Geriatrics and Gerontology, 21(3), 383-393.

Rodrigues, VC et al. (2020). Chronic pain in arterial hypertension in adults: a bibliometric study. Research, Society and Development, 9(12), e37191211033.

Silva, AE et al. (2021). Social pain in cancer patients eligible for palliative care in home care: Integrative review. Research, Society and Development, 10(5), e17510513847.

Silva, EC et al. (2021). Medication use and pharmaceutical follow-up in the treatment of patients with fibromyalgia. Research, Society and Development, 10(16), e104101623355.

Tavares, ATA et al. (2021). Management of cancer pain by the nursing team.
Research, Society and Development, 10(11), e472101119854.

Vasconcelos, FH et al. (2018). Prevalence of chronic pain in Brazil. Brazilian Journal of Pain, São Paulo, 1(2), 176-179.

Vieira, F. et al. (2021). Comparative analysis of sedative consumption during COVID-19 ICU stay. Research, Society and Development, 10(13), and 416101321371.

Vorpagel, KM et al. (2022). Pain assessment in critically ill patients: an experience report.
Research, Society and Development, 11(5), e19211527918.