

An Interdisciplinary Perspective on Chronic Pain Management

Ana-Maria Dumitrescu¹, Claudia Florida Costea^{2*}, Raluca Alina Dragomir³,
Andrei Ionut Cucu⁴, Carmen Valerica Rîpă⁵, Mahwish Abdullah⁶, Ioan Gotcă⁷, Ingrith Miron⁸, Iuliana
Magdalena Starcea⁹, Anda Paulet¹⁰, Anca Sava¹¹

¹Department of Morpho functional Sciences I, Grigore T. Popa, University of Medicine and Pharmacy, Iasi, Romania

²Department of Surgery II, Grigore T. Popa, University of Medicine and Pharmacy, Iasi, Romania

³Department of Anesthesiology and Oral Surgery, Grigore T. Popa University of Medicine and Pharmacy, Iasi, Romania

⁴Department of Neurosurgery, Prof. Dr. N. Oblu Emergency Clinical Hospital, Iasi, Romania

⁵Department of Microbiology and Parasitology, Grigore T. Popa, University of Medicine and Pharmacy, Iasi, Romania

⁶Pakistan Air Force Hospitals, Islamabad, Pakistan

⁷“Dr. Ghelerter” Centre for Mental Health, Iasi, Romania

⁸Department of Mother and Child Medicine, Grigore T. Popa, University of Medicine and Pharmacy, Iasi, Romania

⁹Department of Pediatric Nephrology, Grigore T. Popa University of Medicine and Pharmacy, Iași, Romania

¹⁰Department of Emergency Medicine, Saint Spiridon Clinical Emergency Hospital, Iasi, Romania

¹¹Department of Morpho functional Sciences I, Grigore T. Popa, University of Medicine and Pharmacy, Iasi, Romania

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*For Correspondence

Claudia Florida Costea, Department of Surgery II, “Grigore T. Popa” University of Medicine and Pharmacy, Iasi, Romania.

Email: costea10@yahoo.com

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Abstract

Introduction: The study aims to reveal the importance and actuality of occupational therapy practice in the management of chronic pain, in an interdisciplinary context.

Methods: As research method, there was used an online international data base - PubMed Central, using the following search key words: “occupational therapy” “chronic pain”, “psychological coping”, “occupational therapy”, and “chronic pain management”, selecting 10 relevant articles from literature, published between 2011-2020, thus, providing the premises for a narrative review.

Results: There are highlighted several occupational therapy projects on chronic pain, in an international context, grouping the therapies, assessments, interventions and outcomes for this chronic pathology. There are given practical examples of occupational therapy rehabilitation processes from current literature.

Conclusion: The main focus stands on the possible outcomes in the case of these patients, such as raising clients’ self-efficacy and occupational performance. Further research projects on occupational therapy interventions and benefits for chronic pain are encouraged, regarding the increasing number of patients in need of daily activities’ optimization.

INTRODUCTION

Chronic pain represents a type of persistent pain with duration over 3 months with no response to available therapies. The International Classification of Diseases considers chronic pain to be more than a symptom, classifying it as a disease. Much other chronic pathology have been associated with this particular persistent and aggravating type of pain, which has been considered over the years a negative factor for healthcare systems and economy, as well. Its clinical implications usually manifest independently from the underlying pathology, through specific symptoms, incapacity and mental health problems, remaining a challenge to most healthcare professionals ^[1].

Considering the numerous types of chronic pain that should be taken into consideration by occupational therapists (OTs), doctors, psychologists and physiotherapists, in an interdisciplinary context: nociceptive pain, neuropathic pain, somatic pain, visceral pain, psychogenic pain and at last, but not least, idiopathic pain, the involvement of the patient in meaningful daily life activities becomes important, regarding their future evolution of symptoms and state of well-being ^[2] The OTs' role is to evaluate the impact of pain on a client's daily life activity and life quality and to create together the necessary skills and strategies for the pain management. Representing a matter of subjectivity, confidentiality and gaining clients' trust must play a major role in the therapeutic relationship. Therefore, it is desirable to adjust therapies and techniques to patients' attitudes and feelings towards their manifesting disease. According to current literature, occupational therapy (OT) would have the power to interfere with the diminishment of occupational performance in the case of chronic pain.

In a multidisciplinary context, the American Occupational therapy Association (AOTA), stated that OTs could intertwine activities like hypnosis, meditation and yoga with cognitive behavioural therapy, because relaxation and visualization techniques have been proven to redirect pain, at a cognitive level. Visualizing the organic cause of an intense level of pain could give patients certain control to make a change in the response given to it. A multidisciplinary team is usually composed of the patients' family practitioners, physical rehabilitation doctors, psychologists and physiotherapists. In this context, chronic pain could be managed both by medication (non-steroidal anti-inflammatory drugs (NSAIDs), antidepressants, anti-anxiety selective serotonin reuptake inhibitors (SSRIs), corticosteroids and opioids) and non-pharmacological therapeutically schemes like cognitive- behavioural therapy (CBT), physical therapy strategies and daily exercise. AOTA stated that CBT, on the other hand, could provide patients with better therapeutically outcomes, but it would require more therapy time ^[3].

The present study aims to highlight important aspects of the actuality of occupational therapy practice in the management of chronic pain, in a multidisciplinary context, in direct connection with up-dated psychological coping techniques used by clinicians. The paper focuses on the recent up-dates and arguments brought on this topic by several international medical studies. As part of the pioneer countries in the field of occupational therapy, both Canada and Sweden have developed very attractive occupational therapy associations and are very active currently, in an international context, through many occupational therapy projects. Through their important focus on occupational performance and occupational engagement, occupational therapists from Scandinavian countries and Canada make a unique contribution to pain prevention and management programs, worldwide ^[4-5].

MATERIALS AND METHODS

This As research method, there was used an online international data base - PubMed Central, using the following search key words: "occupational therapy", "chronic pain", "psychological coping", "occupational therapy", and "chronic pain management", selecting ten relevant articles from literature, published between 2011-2020, thus, providing the premises for a narrative review. There are given, as well, practical examples of occupational therapy rehabilitation processes from current literature.

RESULTS

Intertwining cognitive behavioural therapy (CBT) and occupational therapy (OT) in chronic pain management:

As a vast psychotherapeutic technique, CBT focuses on the interconnection between thoughts or cognitions, emotions and behaviours. As helping in the treatment of several chronic conditions, CBT has also been found useful in the case of chronic pain patients, either by itself or within interdisciplinary pain management programmes. According to the American Cognitive Behavioural Therapy for Chronic Pain Manual by Dr. Murphy, J.L, there are several steps to be taken into consideration during CBT in the case of chronic pain patients: exercise, activity pacing, relaxation training, cognitive restructuring, behavioural activation. The last 2 are particularly useful because of the possibility it gives to clients to identify harmful negative thoughts and to be able to find meaningful activities to engage into, as a goal to change and transform negativity into a balanced thinking. In the case of interdisciplinary pain management programmes or projects, several different therapeutically methods are intertwined such as meditation, physical therapy, nutritional support and group therapy. ^[6] The therapy sessions are structured in a short-term manner, aiming the development of certain skills: cognitive coping for feelings of frustration and despair, that could worsen the intensity of different pain levels felt by the patient. Therefore, a coping plan must be developed together with the therapist and understood by the patient, as well. Pacing the physical activities would be a second skill that could develop during or after CBT sessions. Another important aspect would be the involvement of relaxation training. Involvement in pleasant activities is a skill that patients could develop as well during CBT procedures, being very helpful for identifying the current or the head obstacles and for the implementation of problem -solving methods. A last skill would focus on sleeping routine. During the CBT sessions the patient learns to identify sleep interfering behaviours, to create positive sleep associations, and establish a consistent sleep-

wake schedule to achieve restoration. The main goal of CBT-CP is to help those suffering develop the belief that they can better manage and control pain. By implementing and practicing these essential skills, patients not only develop an increased sense of self-efficacy but can actually change the way they experience and interact with pain and ultimately improve functioning in all areas of life [7-8].

International projects on occupational therapy interventions for chronic pain

Both in the Scandinavian countries and the United Kingdom, there is an important highlight on return-to-work procedures, consisting mainly of psychological resilience and occupational therapy in addition to physiotherapy. The current review looks at and mentions some of the main international OT programmes and projects for chronic pain over the recent period. We mention the two British OT projects designated to chronic conditions and resilience including: Resilience-a key to happiness? From the Brighton University and the Hope Project, OT for cancer. Amongst therapies that focused on home based interventions for elderlies, we highlight the Swedish project -Focus on health (FoH) and the Norwegian Project-Regalement from 2016. Participants from all these OT projects, showed overall positive results and evolution, leading to clinical improvement. The performance of daily living tasks resulted in their wellbeing and self-management. From managing their own personal hygiene to certain more complex occupational tasks, the patients were implicated in a life changing experience, bringing them confidence that they would build up a better occupational performance over time [7-8]. In a recent Canadian scoping review on the OT's unique contribution to chronic pain, there are mentioned the OT roles in CP management. The study reveals the main roles of the occupational therapy in chronic pain management, these being organized on working activities and patient participation, body functions and structure and environmental factors [4]. The principal roles attributed to the occupational therapist are: enabling occupational engagement, the pursuit of occupational performance, providing vocation rehabilitation, promoting participation, functional independence, mobility and autonomy, addressing occupational balance, restoring the occupational identity. The second section focuses on OT models of practice-OT assessments in CP management, where there are mentioned the occupational based model/framework and several occupational therapy interventions for chronic pain patients. In occupational therapy for chronic pain, there are taken into consideration three main "FOCUSES"- "FOCUS on person", "FOCUS on environment", "FOCUS on education". As practical ways of coping : the training, the skills development and the education for the first "FOCUS", with a particular attention given to the body posturing and positioning, energy conservation and joint sparing techniques, stress management, fitness program, cognitive behavioural therapy (CBT), coping strategies and mindfulness, strengthening tasks, sensory and neuromuscular re-educations, mobilization techniques, biofeedback, functional splinting, breathing techniques, electrical and massage stimulation and mental imagery. The second "FOCUS" refers to environmental modification, support provision, and support enhancement and the last "FOCUS" to "task adaptation and occupation development [5]. Another recent article taken into analysis within this descriptive review is a pilot study with a patient-centered approach- Vulnerability and Resilience in Patients with Chronic Pain in Occupational Healthcare: A Pilot Study with a Patient-Centered Approach, mainly focusing on occupational therapy psychological coping techniques such as resilience and cognitive behavioural therapy for the management of chronic pain [5]. 36% of them were diagnosed with fibromyalgia, 33% suffered from chronic regional pain, 19 % were treated for chronic widespread pain, 10% were diagnosed with lumbago and 2% were suffering from whiplash trauma. Chronic pain evolution was analysed over a period of three months or longer and a follow-up was made after eight months. The applied psychological questionnaires to test the patients coping, vulnerability in front of disease and eventual resilience states within the follow-up (5). As medication, the patients were treated with no opioid drugs: Paracetamol, NSAID and low doses of Amitriptyline, antidepressants and Zopiclone or Zolpidem for those with sleep issues and depression states. At their disposition, there was a nurse and a physiotherapist to offer physical training and ergonomic advice (5). There were taken into observation and discussion four types of chronic pain patients in occupational therapy healthcare from the psychological coping point of view: the interpersonal distressed patient, with a fearful attachment pattern, high level of burnout and an older age, having a correlation with work at the follow-up ; the adaptive copper with a secure attachment pattern of older age, as well; two types of dysfunctional: cluster 1 dysfunctional with fearful attachment pattern, but having a younger age and cluster 2 dysfunctional with a secure attachment pattern, dismissing, having older age and no correlation with work at follow-up . Their psychological resilience and vulnerability may be better understood and highlighted through a patient-centered approach, combined with subgrouping of patient addressed the Multidimensional Pain Inventory (MPI), Sense of Coherence, anxiety, depression and HRQoL assessments.

The OT procedures will include soothing manual therapy techniques for the restoration of the soft tissue and joint movement, pain relieving procedures, and exercises to improve global strength.

Practical occupational therapy interventions for chronic pain

Amongst its numerous benefits and branches, occupational therapy could be a useful tool for preventing and reverse disabilities and pathology related to cancer or post-cancer. It is still underused in the adult oncology [12]. There are several strategies that can be used for energy preservation, psychological coping, relaxation techniques in managing chronic pain and fatigue or difficulty in sleeping associated with it. The physical exercise outdoor in open air spaces and the involvement in leisure programmes are used to improve general strength and mobility of joints. In order to become more work adapted there is certain use of assistive technology that optimizes performance in activities of daily living (ADL). Participating in these activities within a group would offer better outcomes, as well. The occupational therapist can help client redirect their pain and reduce its effect on daily life. Through CBT, patients become able to manage fatigue and pain through muscle relaxation, breathing exercises and guided imagery. Among relaxation activities OT engages yoga, tai chi, and biofeedback for healing emotional stress and

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physical pain. There can be provided therapeutic activities and exercises to improve motor, sensory, cognitive, fine and gross motor functions with daily tasks ^[13]. Muscle stretching exercises are proven to be very beneficial in the case of fibromyalgia, for fine and motor strength and mobility; alternative paths like dance-movement therapy focus on the sequencing, balance, proprioception, dexterity and teamwork ^[14] Grading or pacing the activities in OT practice help making activity easier or harder ^[15]. These interventions are very indicated and beneficial for clients with chronic pain such as the one from fibromyalgia, cancer, back pain, irritable bowel disease or other chronic conditions. There are also usually included in the therapeutically process several assistive devices for older adults or people with major disabilities such as steppers, kitchen trolleys, especially designed small tables, bathtub lateral supports. Even though different, occupational therapy and physical therapy complement each other.

CONCLUSION

The permanently increasing number of chronic pain patients in current medical practice would demand further research projects on the occupational therapy practical interventions and their efficacy in chronic pain. The treatment and psychological coping possibilities highlight their important role in the daily activities' optimization in these cases. It would be indicated the realization of additional pilot and centralized studies on the topic of chronic pain management in occupational therapy in order to lay the bases for the development of more advanced and complex studies like the full-scale project research. As well, the release of international occupational therapy and pain management programmers, by gathering international participants and clinical resources, in collaboration with professionals from the OT pioneer countries such as USA, UK, Canada and the Scandinavian countries, would create valuable connections and better outcomes ^[16]. These beneficial actions would be in the favor of chronic pain patients and should take place according to the latest assessments and guidelines. The implementation of certain national programs addressed to the patients suffering from chronic pain in the occupational therapy services would allow the obtainance of a better coping against chronic pain and frustration.

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