

## CAOT Column: Enabling the WORKability of Canadians

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# Coping with chronic pain: Current advances and practical information for clinicians

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### 1. Introduction

Musculoskeletal pain affects the lives of 1 in 4 adults and is the most common and serious reason for work absence and work disability [27]. Based on the high incidence of musculoskeletal injuries, the social cost of these disabilities is significant. For example, over 50% of lost time claims made in Ontario in 2007 were classified as musculoskeletal injuries, which cost the system hundreds of millions of dollars [28]. Clearly, helping injured workers to manage their pain is a priority both to maintain the health of workers but also to contain costs to employers and society in general.

The best method of managing chronic musculoskeletal pain is successful intervention during the acute phase [27]; this is not always done, however. In order to use resources effectively and efficiently, and to attain the highest level of health for injured workers, it is important that clinicians identify potential risk factors for the development of chronic pain and know how best to intervene. Recent research investigating pain behaviour and coping strategies may help clinicians in the early identification of clients who will develop chronic pain as well as identifying when a client is ready to adopt self-management of pain. The aim of this paper is to shed some light on evidence from the pain psychology literature about how clients cope and how they can change behaviour to take on self-management of chronic pain.

### 2. Current evidence on pain assessment and intervention

The effective treatment of chronic pain is tending to shift away from traditional medical models that focus on curing the pain to multidisciplinary biopsychosocial team approaches aimed at client self-management [13, 15, 18, 29]. Whether the clinician works directly in a multidisciplinary chronic pain management program or not, it is vital to understand what the results of various assessments indicate and how to use these results effectively and efficiently to attain the best outcome for the client. Effective multi-disciplinary intervention also requires that clinicians understand how important it is to communicate findings and are knowledgeable about the treatment each team member provides.

From a clinical perspective it is important to identify the specific pain coping strategies a client will use, since maladaptive or passive strategies are more likely to result in the development of chronic pain [1]. Pain coping strategies can be evaluated with psychometrically sound self-report questionnaires, but should also be observed during functional activities. Some commonly used questionnaires include the Chronic Pain Coping Inventory [11], the Coping Strategies Questionnaire [8], and the Vanderbilt Pain Management Inventory [2]. Although coping is a dynamic process and can change in different situations, not enough is yet known about how coping changes over time. It is suggested that pain coping strategies not be assessed until about

six weeks post-injury to allow time for the client to develop approaches to pain self management [4]. Assessing coping immediately after injury has not proven to have any predictive value.

The pain coping literature indicates that maladaptive (also termed passive or negative) forms of coping are predictive of poor outcomes [3–5,14,16,17,23–26]. Conversely though, the same studies fail to show that adaptive (also called active or positive) coping strategies lead to improved outcomes. This finding is pertinent, as many clinicians tend to teach clients to use positive coping strategies, yet the research fails to show that this approach leads to the desired outcome. Clinicians may ask why they appear to attain good results from teaching these adaptive strategies. It may be that the success of self-management programs is not necessarily because clients have learned adaptive strategies but because maladaptive or passive strategies have consciously or unconsciously been discouraged [9]. Clinicians may also be familiar with clients whose responses on questionnaires show a tendency towards adaptive coping, yet observations during functional activities demonstrate more passive and maladaptive coping forms. The explanation is likely related to the client's readiness to change coping behaviour, attitudes and beliefs. The client has received education on adaptive coping and understands it might lead to better results but has not yet been able to make the changes necessary [9,19,20].

Since there is little evidence that teaching a client to use positive coping strategies decreases disability, what does this mean for clinicians? Researchers caution clinicians not to use this information to exclude any client from treatment. If not already done, the client should be referred to a psychologist. Yellow flags such as endorsement of maladaptive coping strategies are often not identified early enough, and referrals to psychologists may not happen until chronic pain is deeply entrenched. Identifying coping forms within a month or two post-injury can save all parties from much distress. Research into coping readiness is shedding light on how the timing of some treatment can have a significant effect on successful pain management.

It is not enough to identify how a client copes with pain. Clinicians must also know if the client is open to changing behaviours. Self-management treatment programs focus on encouraging clients to take an active role in developing personal control of their pain, through which the client learns to manage pain through active, conscious actions. However, it is imperative that the client is ready to take on such an active role.

The concept that clients move through various stages of motivation or readiness to learn new pain coping strategies was first proposed by Kerns, Rosenberg, Jameson, Caudill, and Haythornthwaite [12], who developed the Pain Stages of Change Questionnaire (PSOCQ) based on Prochaska and DiClemente's trans-theoretical model of behaviour change [21]. The model proposes that individuals differ in how equipped they are to change a specific identified behaviour. The PSOCQ was developed as a means of assessing the readiness of clients to accept a self-management approach to pain control as a substitute to a medical or surgical approach. The stages of change adopted in the PSOCQ include precontemplative, contemplative, preparation, action and maintenance [12,22]. Subsequent pain management studies suggested that clients may not move through stages so sequentially [7,10]. Because pain treatment programs involve clients learning a number of different skills to manage pain, the adoption of one skill may not be at the same stage as another. For example, a client may adopt the strategy of pacing (action stage) but have not yet seen the advantages to exercise (precontemplative stage).

More recently Nielson et al. [19] developed the Multidimensional Pain Readiness to Change Questionnaire (MPRCQ2) to account for the complexity of pain management interventions. Based on coping behaviours typically encouraged or discouraged in treatment programs, the questionnaire consists of nine readiness to change domains. These include exercise, task persistence, relaxation, cognitive control (encompasses diverting attention, coping self-statements, reinterpreting sensations, avoid catastrophizing, ignoring pain), pacing, avoid pain contingent rest, assertive communication, and proper body mechanics. The MPRCQ2 consists of 69 questions, which the client rates on a 7-point scale. There are two sections. The first asks responders to rate their intention to start using the coping methods listed, which are positive strategies. The second part deals with the intention to stop using coping methods, which in this context include negative strategies. Scores are obtained for each of the nine domains to indicate the client's readiness to change. Higher scores on the domain correlate with action and maintenance stages of the PSOCQ, while lower scores would be associated with the precontemplative stage. A complete copy of the questionnaire is appended to the Nielson et al. article [19, pp. 563–565].

The MPRCQ2 creators caution against using the results of the questionnaire to screen clients for inclusion or exclusion in pain management programs based

on readiness to benefit from treatment as they feel further research is necessary [19]. Additionally, the tool has not yet been researched on clients with acute or sub-acute pain. However, use of this tool along with other coping questionnaires, and observation of clients during functional activity can help to direct treatment. Clinicians could also administer the questionnaire multiple times to monitor change and progress. Discrepancies between responses on the MPRCQ2 and observations can be identified and discussed with the client to enhance self awareness.

### 3. Discussion

Persistent pain is a major barrier to returning injured workers to productive employment, and chronic pain results in significant disability and reduced quality of life. Gaining a better understanding of how the client's own beliefs and attitudes affect his or her reaction to pain and treatment may help to make sense of this complex health problem.

Medical practitioners commonly offer a diagnosis of chronic pain only after all conventional medical treatments and investigations have failed to reveal a more serious underlying problem or cure [6]. Often there is no objective evidence supporting the search for an underlying problem, and the client's maladaptive coping strategies can be unintentionally supported by such an approach. Unfortunately, it is often not until medical avenues have been exhausted that the notion that psychological and behavioural factors are contributing to worsening pain and disability comes to light. By this time the client has often developed deeply entrenched maladaptive coping strategies, the result of which is disability and decreased functioning in a wide array of life activities. The chances of anyone being successful in unlearning maladaptive coping strategies at this stage are extremely slim.

Admittedly, far more research is needed in the area of pain management, particularly with regard to early intervention. For example, little is known about how coping strategies change over time, or if readiness to change results differ in acute and sub-acute stages. Hopefully this introduction to current pain coping research will inspire clinicians to become involved in gathering evidence and partnering with researchers in their communities.

### 4. Summary

Transferring knowledge and evidence from the pain psychology literature to all types of practitioners is one small but important step towards reducing the economic and personal cost of injuries. Through early identification of at-risk clients, it may be possible to prevent chronic pain from developing. Pain is a perception which is affected by physical, psychological and social factors, yet many health care professionals are only beginning to consider the relative contributions of each of these elements. It is essential that clinicians understand how a client's pain coping strategies impact progress and functional outcomes. For clients endorsing maladaptive methods of coping, one step is to refer the client to a psychologist; however, understanding of key underlying principles can also inform any type of treatment. All care providers involved with the client should discourage maladaptive strategies where appropriate and encouraging adaptive ones. Of equal importance is knowing whether or not the client is ready to adapt to change. Clinician knowledge of coping strategies and readiness may also help reduce the likelihood of clients withdrawing from treatment in frustration. The end result will hopefully be less disability and improved functioning of clients experiencing chronic pain.

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