

How to Assess a New Patient for a Multidisciplinary Chronic Pain Rehabilitation Program: A Review Article

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ABSTRACT

Background: Chronic pain is a debilitating condition that affects people all over the world. To effectively treat chronic pain patients, assignment to patient-centered functional restoration and psychological pain rehabilitation programs at an early stage is essential.

Methods: This article describes the initial patient screening and evaluation process for an interdisciplinary chronic pain rehabilitation program and highlights the relevant points that should be covered in each section of the initial assessment.

Results: A thorough, detailed history that includes an evaluation of the patient's pain, functional limitations, prior medications, prior procedures/interventions, substance abuse, and psychiatric disorders, as well as the patient's social, legal, and developmental histories, are key to the proper screening and appropriate treatment of patients with chronic pain.

Conclusion: Thorough initial evaluation of patients is essential for proper enrollment in a chronic pain rehabilitation program. Such programs allow early treatment and reduce unnecessary health costs. Future prospective studies are needed to identify additional screening methods and triage tools to allow early admission of appropriate patients to these rehabilitation programs.

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INTRODUCTION

Chronic pain is a debilitating condition that affects people all over the world. In the United States, the prevalence of chronic pain is estimated at 30.7%, and spine and musculoskeletal disorders account for nearly 70 million physician office visits annually and 130 million outpatient, hospital, and emergency room visits.¹ For persons under the age of 45, low back pain is the leading cause of disability.² Back-related disabilities are also the most prevalent cause of disability in the US military.³ To reduce treatment costs, as well as disability and absenteeism from work, acute pain cases (<6 weeks) must be prevented from becoming chronic pain cases (>3 months).

To address this challenge, the functional restoration treatment approach was developed in the 1980s in the United States.⁴ Economic aspects of chronic pain care were consequently addressed by a few studies. Gatchel et al clearly demonstrated the cost effectiveness of an early multidisciplinary intervention in acute low back pain patients who were identified as having a high risk for chronicity.² Schweikert et al found that the cost of adding cognitive behavioral treatment to standard therapy was largely offset by lower indirect costs.⁵ Evidence-based, novel, and cost-effective care pathways can be used to quickly and effectively triage the target-patient population at a central entry point. Treatment plans focus on a cross-disciplinary and multimodal approach to pain control utilizing evidence-based medical therapy, as well as on functional restoration and multidisciplinary pain rehabilitation programs that have been proven effective. Given the large population of patients affected by chronic back pain and the high and rapidly rising cost of treatment, comprehensive and multimodality delivery models are imperative for efficient triage, functional restoration, and pain rehabilitation.

CHRONIC PAIN REHABILITATION PROGRAM

An interdisciplinary chronic pain rehabilitation program (CPRP) is a partial-hospitalization program in which patients with chronic noncancer pain (CNCP) resistant to opiate management, steroid injections,

and surgeries receive a combination of interventions that can improve dramatically their quality of life and functional abilities.⁶ Patients are referred to the CPRP by physicians from a variety of specialties and subspecialties including pain medicine, neurosurgery, orthopedic surgery, neurology, and primary care. Potential patient candidates present for an initial CPRP assessment that includes a thorough history and physical examination performed by a pain specialist or any of the trainees in the specialties that overlap with pain medicine such as anesthesiology, psychiatry, physical medicine and rehabilitation, neurology, or internal medicine.

This review describes the initial patient evaluation for a CPRP with a focus on the history taking rather than physical examination of the patient. We highlight the relevant points to be covered in each portion of the initial patient assessment.

INITIAL PATIENT EVALUATION

The history taking includes a thorough documentation of several parameters, starting with the patient's description of his or her pain symptoms.

Pain History

The pain description has to cover the onset, location, radiation, and intensity of the pain. The character of the pain (radiating, intermittent, sharp, stabbing, etc), along with the previously listed findings, is important in helping the clinician determine the nature of the pain. The pain history can entail whole body pain, neck and upper extremity pain, back and lower extremity pain, headache, abdominal pain, and/or pelvic pain. Most of the patients referred to the CPRP have an established diagnosis; however, astute clinicians should seek correlations among the pain description, the physical exam, and the necessary imaging and use their judgment in determining the nature of the pain symptoms. The clinician should identify any evolving pathology that can be managed by another specialty and preferably refer the patient prior to enrollment in the CPRP. Unawareness of an underlying pathology, such as cancer, might limit the benefit from enrollment in a CPRP. Moreover, determining the nature of the pathology will help clinicians choose the appropriate medication for the patient and specify a combination of interventions tailored to maximize comfort and function.

History of Functional Limitations

Functional limitations must be clarified during the initial assessment. Preferably, clinicians should discuss the patient's expectations of the CPRP and explain that improvement in functional limitations and

a reduction in pain disabilities, rather than a complete resolution of pain, are the main goals of the program.⁷

Among the relevant questions used to clarify the patient's functional limitations are inquiries about significant absenteeism and time spent reclining (eg, time in a bed, recliner, sofa, etc). The evaluation should also include information about the patient's inability to perform or complete normal life activities, such as work, socialization, recreation, sex, and self-care. The Pain Disability Index (PDI) is a patient self-assessment tool designed to help patients measure the degree to which chronic pain disrupts their daily lives. The index measures 7 categories of life activity: family/home responsibilities, recreation, social activity, occupation, sexual behavior, self-care, and life-support activity. For each category, a score of 0 indicates no disability at all, and a score of 10 signifies that all of the activities in which the patient would normally participate have been totally disrupted or prevented by the pain. All categories combined have a maximum score of 70. The PDI is administered before admission to the CPRP and every day during the program. Daily scores are compared to assess improvement during the program until the CPRP is complete.

History of Prior Medications

One of the main goals of a CPRP is to wean patients off opiates so they avoid the short- and long-term side effects of chronic opioid management.⁸ The well-known side effects of opioids are respiratory depression (rare in chronic use), nausea, sedation, euphoria or dysphoria, constipation, and itching. With chronic use of opioids, most side effects subside, as patient tolerance to side effects seems to be greater than tolerance to analgesic effects.⁸ Constipation is an exception because no tolerance appears to develop to the opioid's direct slowing effects on the bowel. Preventing opioid-induced hyperalgesia is another main goal of weaning CNCP patients off narcotics.⁹ Other complications of chronic opioid use are complex and include hormonal effects (eg, testosterone deficiency), immune effects, and addiction. Clinicians can wean patients with CNCP who are experiencing minimal or no pain relief off high-dose opioids, as tolerated, while optimizing their adjunctive medications along with nonpharmacologic strategies (eg, physical conditioning, coping skills, and lifestyle modifications).^{7,10} A thorough history of prior medication trials, including opiates, nonsteroidal anti-inflammatory drugs, selective serotonin-norepinephrine reuptake inhibitors, anticonvulsants (eg, gabapentin and pregabalin), and tricyclic antidepressants should be gathered with detailed documentation of the highest doses reached, the time period of the

medication trial, and the response of the patient to a specific dose of that medication, as well as any reported side effects. Withholding opiates from a therapeutic opioid addict is not recommended; instead, the detoxification process should be integrated with a plan to relieve the pain.¹¹

History of Procedures or Interventions

Clinicians must obtain a history of the surgeries and procedures that the patient has undergone and thoroughly document the time of the procedure, the indication for the procedure, and the procedure's approach, such as surgical or interventional (eg, epidural steroid injections, facet injections/radiofrequency ablations, spinal cord stimulation, trigger point injections, celiac plexus blocks/splanchnic nerve blocks, and ketamine infusion). Attention should be paid to the number and frequency of the procedures that resulted in any improvement in the pain score or restoration of function for the patient and also to any history of treatment failure. Complications during or following the procedures are reviewed as well.

Substance Abuse History

A detailed substance abuse history must be obtained. Addiction is intimately involved with chronic pain and each condition complicates the diagnosis and treatment of the other.⁷ Many common causes of CNCP are associated with substance abuse; for example, low back pain is associated with nicotine dependence.¹² The clinician should screen for numerous substances, including nicotine, alcohol, cannabis, cocaine, narcotics, stimulants, benzodiazepines, methamphetamine, phencyclidine, mushrooms, and bath salts. The clinician has to screen therapeutic opioid patients for opioid abuse by inquiring if they run out of their prescriptions early and whether they abuse or misuse the medication. Records for these patients in the automated prescription-monitoring system must also be reviewed.

Clinicians should pay careful attention to whether the patient is a therapeutic opioid addict or a nonopioid substance abuser to properly design the patient's CPRP.¹³ Patients with therapeutic opioid addiction who are treated in an interdisciplinary CPRP that incorporates opioid weaning can be successful at long-term abstinence from opioids. In contrast, recreational opioid addicts usually require medication-assisted recovery to maintain sobriety. As previous studies have shown, stopping or reducing opioid medication does not worsen pain; on the contrary, the average pain intensity decreased by 24% within a few days of opioid withdrawal or dose reduction.¹³ Most of the patients who enrolled in a comprehensive pain

rehabilitation program and were weaned off opioids or reduced the dose did not reuse opioids or remained on a stable dose for 1 to 2 years without any considerable increase in pain intensity.¹³ Addiction alters the perception of pain and about 35% of patients on chronic opiate therapy have an addictive disorder.¹⁴ Therefore, the clinician should screen all patients for substance abuse to tailor each program to the individual patient, such as by employing a combination of interventions including detoxification or medication-assisted recovery.

Psychiatric Review of Systems

Chronic pain is a complex phenomenon that consists of biological, psychosocial, and social components. A psychiatric review of systems is necessary in the initial evaluation because many chronic pain patients also have an anxiety disorder, depression, or posttraumatic stress disorder (PTSD) and failure to detect and treat those underlying mood disorders can limit the outcome of a CPRP. The 4 most common psychiatric illnesses in pain patients are depression, anxiety, somatoform disorders, and substance abuse disorders. The average age of patients treated at multidisciplinary pain rehabilitation facilities is 44 years.¹⁵ Prior to pain onset, these patients have lifetime histories of conditions that could have started as early as childhood. Therefore, in this section of the evaluation, the patients' prior psychiatric histories are important in understanding how they respond to their symptoms. By listening to the patient, the clinician can attribute the pain onset to a specific stressor or event in the patient's life that could have triggered the mental illness. For this reason, open-ended questions are encouraged along with a supportive attitude from the clinician. If any psychopathology is detected, the clinician should assign the patient to a psychiatrist concurrent with the patient's enrollment in the program; the psychiatrist should work with the patient on managing the psychiatric symptoms pharmacologically and/or behaviorally. Individuals with chronic pain often have searched arduously for relief that remains difficult to achieve, an experience that can lead to feelings of hopelessness, demoralization, and depression. Unsurprisingly, a recent study examining the factors predicting opioid resumption among patients with CNCP and therapeutic opioid addiction treated in a CPRP incorporating opioid weaning found that only posttreatment depression increased the probability of resumption.¹³ The study showed that prolonged abstinence after completing a CPRP may depend upon the successful treatment of depression. Another study analyzing the cost of pain treatment with psychological interven-

tions indicated not only the clinical efficacy but also the cost effectiveness of such interventions.¹⁶

A structured psychiatric interview is one of the best tools for diagnosing a psychiatric disorder; however, this extensive interview can be conducted in a separate setting than the initial evaluation for CPRP. Non-psychiatrists can find it challenging to gather such a history, but delicate screening questions can help reveal some of the clinical signs of the most common psychiatric disorders associated with chronic pain, such as depression or anxiety. Chronic pain patients also frequently exhibit PTSD.¹⁷ Numerous psychological approaches, mainly cognitive behavioral therapy (CBT) that combines stress management, problem solving, goal setting, pacing of activities, and assertiveness, can be used in a comprehensive CPRP. CBT has been effective in treating various chronic pain disorders as demonstrated in various metaanalyses and reviews.¹⁸ Evidence also suggests that CBT can help restore function, as well as reduce pain and disability-related behaviors.¹⁸⁻²⁰ Other techniques also can be incorporated with CBT in the CPRP, such as biofeedback/relaxation techniques, motivational interviewing, hypnosis, and meditation.⁷

Social, Legal, and Developmental Histories

Social, legal, and developmental histories are other important aspects of the patient's life that must be explored during the initial CPRP interview. The transition from acute pain to chronic pain is determined at least as much by psychological and environmental factors as by medical ones.⁷

The social history inquires after marital status, employment (including nature of the job), income, living environment (living in an apartment/house/nursing home, family members living with the patient, and number of children at home), and the highest level of education attained. These details reflect the support the patient is receiving, his or her responsibilities, and his or her living conditions and quality of life.

Job dissatisfaction, underpaid positions, and low socioeconomic status are associated with patients seeking care for low back pain.¹⁵ Some investigations have shown that the first report of a back injury at work can be independently predicted by prior low back pain, physical work stress, and psychological intolerance of the job.⁷ Litigation is also believed to cause chronicity and might prolong disability; therefore, a legal history is relevant.^{21,22}

Extreme trauma is associated with somatic symptoms such as pain. Childhood trauma is considered to cause the most severe symptoms, followed by trauma from natural disasters and adult interpersonal trauma.⁷ A developmental history is therefore an impor-

tant component of the initial evaluation. The major factors promoting somatization, psychogenic pain, and psychogenic exacerbation of pain are believed to be abandonment, neglect, insufficient nurture, and physical and sexual abuse.⁷ Some evidence suggests childhoods that include physical and sexual maltreatment, poor emotional relationships with the parents, lack of physical affection, substance abuse in the mother, separation, and financial stress in the family are associated with somatoform pain.²³ Another study compared patients with persistent somatization and early loss (loss of a parent before the age of 17) to patients recently bereaved (a loss within the past 2 years) and to patients with no loss. The early loss was associated with the worst outcome—poor social adjustment prior to treatment—while bereaved patients responded best to treatment.⁷

CONCLUSION

Enrollment of patients with CNCP in patient-centered functional restoration and psychological pain rehabilitation programs at an early stage is essential for the management of chronic pain. Thorough initial evaluation of the patients through a comprehensive, detailed history is essential for proper enrollment in a CPRP. Such programs allow early treatment and reduce unnecessary health costs. Future prospective studies are needed to identify additional screening methods and triage tools to allow early admission of appropriate patients to CPRPs.

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