American Pain Society
RESEARCH
EDUCATION
TREATMENT
ADVOCACY
PUBLISHED BY
ELSEVIER

The Journal of Pain, Vol 16, No 7 (July), 2015: pp 676-681
Available online at www.jpain.org and www.sciencedirect.com

Psychometric Properties of the Centrality of Pain Scale

Benjamin J. Morasco,*,† Dennis C. Turk,‡ and Christina Nicolaidis§,¶

*Center to Improve Veteran Involvement in Care, VA Portland Health Care System, Portland, Oregon.
Departments of †Psychiatry and ¶Medicine and Public Health & Preventive Medicine, Oregon Health & Science University, Portland, Oregon.
‡Department of Anesthesiology and Pain Medicine and Center for Pain Research on Impact, Measurement, & Effectiveness, University of Washington, Seattle, Washington.
§Regional Research Institute, School of Social Work, Portland State University, Portland, Oregon.

Abstract: The Centrality of Pain Scale (COPS) is a recently developed patient-centered, 10-item self-report measure designed to assess how central, or dominating, in their lives individuals with chronic pain perceive pain to be. The COPS underwent initial development and validation previously; preliminary results suggested that the measure had excellent psychometric properties and that COPS scores were associated with important clinical factors. The purpose of the present study was to examine the psychometric properties of the COPS in a sample of individuals with mixed chronic pain diagnoses (N = 178) being treated at a U.S. Veterans Affairs Medical Center. Principal components analysis of COPS items revealed a single factor, and all items loaded highly. The COPS had high internal consistency (Cronbach's alpha = .902) and was significantly correlated with other measures of pain, mental health, psychological factors associated with pain, and chronic pain coping styles, suggesting convergent and divergent validity. Hierarchical linear regression analyses indicated that COPS score was independently associated with both pain severity and interference. Future research should evaluate the generalizability of the COPS in different samples, its responsiveness to treatment, and the extent to which pain centrality may be a focus of nonpharmacologic interventions for chronic pain.

Perspective:* *We conducted psychometric testing of the COPS, a recently developed patient-centered self-report measure designed to examine how central or dominating pain is to a person's life. Study results indicated a reliable and valid measure, which was significantly associated with pain severity and interference, even after controlling for demographic and clinical factors.

Published by Elsevier Inc. on behalf of the American Pain Society

Key words: *Pain centrality, chronic pain, biopsychosocial model, reliability, validity, patient-centered care.*

Chronic pain is among the most common reasons for seeking outpatient medical treatment.[9] There are many commonly utilized and well-validated self-report measures that assess pain intensity, function, and quality of life.[26] There are also well-validated measures of psychological constructs that are highly predictive of pain and functioning and that may potentially be the focus in nonpharmacologic interventions for chronic pain (eg, self-efficacy for managing chronic pain, pain catastrophizing, fear avoidance).[27,29] However, these measures address specific constructs and may not fully capture the patient's overall experience of chronic pain and its impact on his or her life. For example, some patients may have limited function or high pain intensity but believe that they have good pain control. Alternatively, other patients may feel their pain is out of control even though they have fewer functional limitations or lower pain intensity. Thus, many assessment questionnaires may need to be used in combination, which may increase patient burden.

The Centrality of Pain Scale (COPS) is a brief 10-item self-report measure designed to assess the centrality of pain.[19] "Pain centrality" is a term used to describe a patient-centered concept related to how central pain is to a person's life, that is, how much it dominates or "takes

Received November 4, 2014; Revised April 6, 2015; Accepted April 15, 2015.

This study was supported in part by awards 023467 and 034083 from the National Institute on Drug Abuse to B.J.M. The work was supported with resources and the use of facilities at the VA Portland Health Care System. During the past 12 months, D.C.T. has received consulting fees from Eli Lilly, Mallincrodt, Nektar, Orexo, Ortho-McNeil Janssen, Pfizer, Philips Respironics, and Xydinia and receives research support from the National Institutes of Health and U.S. Food & Drug Administration. No other author reports having any potential conflict of interest with this study. The content of this manuscript is solely the responsibility of the authors and does not necessarily represent the official views of the Department of Veterans Affairs or the National Institute on Drug Abuse.

Address reprint requests to Benjamin J. Morasco, PhD, Portland VA Medical Center (R&D99), 3710 SW US Veterans Hospital Road, Portland, OR 97239. E-mail: benjamin.morasco@va.gov

1526-5900/$36.00
Published by Elsevier Inc. on behalf of the American Pain Society
http://dx.doi.org/10.1016/j.jpain.2015.04.005

over" his or her life. The concept of pain centrality arose from the frustration that primary care providers report experiencing when trying to use existing pain measures to capture the patient's experience and to use as a basis for goal setting.[8] Patients' pain intensity scores or functional assessments may not correlate with patients' experience of pain.[14] Similarly, there may often be a disconnect between traditional pain measures and patient or clinician assessment of the effectiveness of pain control.[13,21] For example, some patients may feel that their pain control has greatly improved with treatment despite still having high pain intensity scores and significant functional limitations. What may matter most is how much pain is dominating their lives. The concept of the centrality of pain may explain how well patients are doing overall. Though multiple physical, psychological, and social factors may influence a patient's experience of pain, the COPS is intended to efficiently measure the *overall effect* of these various factors on the individual's own perception of how much pain is dominating his or her life. Pain centrality is not to be confused with the biological phenomenon of pain centralization.[2]

The COPS originally included 12 items, which were developed to assess a domain that has been hypothesized to be an important issue for patients and overcomes some barriers of other pain-related measures.[22,23,30] The original items were adapted based on input from colleagues and patients. The COPS was originally tested in a sample of 65 adult internal medicine patients with chronic noncancer pain. Cognitive interviewing was conducted to test construct validity, which revealed that patients' understanding of the items matched the intended concept and that patients felt the scale covered an important concept not captured by other measures of pain severity or function. Two of the original items were removed because responses did not show sufficient variability. The final 10-item scale had excellent internal consistency and convergent validity. COPS scores were significantly associated with self-reported pain intensity, disability, mental health, quality of life, and clinician assessment of how well the patient's pain was controlled.[19]

The purpose of the current study was to replicate the previous preliminary results by conducting additional examination of the psychometric characteristics of the COPS in an adult sample of patients with persistent pain who were being treated at a Veterans Affairs Medical Center. In addition to including well-validated measures of pain severity, function, and symptoms of depression and anxiety, we included measures of other factors that may be correlated with pain centrality (ie, self-efficacy for managing pain, pain catastrophizing, methods of coping with pain). As a final issue, given the problem of prescription opioid misuse and abuse,[6,31] we sought to examine potential associations between pain centrality and risk for prescription opioid misuse. We did not have preliminary data to guide this aim and viewed the relationship between COPS score and risk for prescription opioid misuse as exploratory.

Methods

Participants

Participants in this study were originally recruited for a larger examination of factors associated with chronic pain in patients with the hepatitis C virus.[17] Participants were recruited by notices posted throughout the medical center, letters sent to patients who had pending appointments in primary care clinics, announcements made in mental health classes, and referral from the hospital's hepatology clinic.

Participants were included in this study if they had been tested for hepatitis C (regardless of whether the results were positive or negative), were at least 18 years old, and spoke English. A total of 91 individuals were screened and excluded from participation. Exclusion criteria were pending litigation or disability compensation for pain (n = 28), advanced liver disease (n = 50), current suicidal ideation (n = 2), or other serious psychiatric condition such as untreated bipolar disorder or schizophrenia (n = 2), age more than 70 years (n = 1), a non-Veteran (n = 3), cognitive impairment that precluded participation (n = 2), and incomplete responses to eligibility screening questions (n = 3).

For inclusion in this analysis, participants must have endorsed a current chronic pain diagnosis and had medical record documentation of treatment for a pain-related condition within the past 5 years. A sample of 178 individuals met these criteria. This study was approved by the institutional review board of the VA Medical Center where the study was conducted. All participants signed informed consent to participate, were administered self-report questionnaires in a single one-to-one session with a research assistant, and received a $30 store gift card as compensation.

Data Collection

Demographic data were obtained directly by participants' self-report. These data included age, gender, race, marital status, years of education, and current annual income.

The COPS is a 10-item self-report measure designed to assess the extent to which pain dominates a patient's life.[19] Each item is scored on a 5-point Likert scale, where 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree. Three items are reverse scored. Total scores range from 10 to 50, with higher scores indicating greater pain centrality. As noted, the initial psychometric evaluation of the COPS indicated strong internal consistency and construct validity.

Pain severity and interference were assessed using 2 subscales of the Multidimensional Pain Inventory, a well-validated and frequently used measure.[11] Scores range on a scale from 0 to 6, with higher scores reflecting more severe pain or greater life interference. The Pain Catastrophizing Scale[24] is a 13-item self-report measure and was administered to assess pain catastrophizing, a tendency to misinterpret and exaggerate situations that may be threatening.[28] Higher scores reflect heightened distress responses to pain. The Chronic Pain Self-

Download English Version:

https://daneshyari.com/en/article/2731989

Download Persian Version:

https://daneshyari.com/article/2731989

Daneshyari.com