

The Journal of Pain

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Critical Review

233 How Can We Best Reduce Pain Catastrophizing in Adults With Chronic Noncancer Pain? A Systematic Review and Meta-Analysis

Robert Schütze, Clare Rees, Anne Smith, Helen Slater, Jared M. Campbell, and Peter O'Sullivan

Pain catastrophizing, defined as an exaggerated negative orientation toward pain, is a strong psychological predictor of pain outcomes. While regularly included as a process variable in clinical trials, there have been no comprehensive literature reviews of how it can be modified. Here, 79 studies were included, and metaanalyses showed nine interventions had efficacy compared to waitlist/usual care or active control, though evidence quality was often low. The best evidence was found for Cognitive Behavior Therapy, multimodal treatment, and Acceptance and Commitment Therapy. The authors note that more research into theory-driven interventions matched to specific patient profiles is required.

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ON THE COVER

In conjunction with the Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (ACTTION) public-private partnership with the US Food and Drug Administration and the American Pain Society (APS), the ACTTION-APS Pain Taxonomy (AAPT) initiative strove to develop the characteristics of a diagnostic system useful for clinical and research purposes across disciplines and types of chronic pain conditions. Here, the authors present the proposed AAPT criteria for irritable bowel syndrome, the most common chronic, non-cancer abdominal pain condition. The AAPT's goal is to develop an evidence-based taxonomy for chronic pain based on a consistently applied multidimensional framework. See Zhou et al, page 257.

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Focus Article

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AAPT Diagnostic Criteria for Chronic Abdominal, Pelvic, and Urogenital Pain: Irritable Bowel Syndrome

QiQi Zhou, Ursula Wesselmann, Lynn Walker, Linda Lee, Lonnie Zeltzer, and G. Nicholas Verne

In conjunction with the Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (ACTTION) public-private partnership with the US Food and Drug Administration and the American Pain Society (APS), the ACTTION-APS Pain Taxonomy (AAPT) initiative strove to develop the characteristics of a diagnostic system useful for clinical and research purposes across disciplines and types of chronic pain conditions. Here, the authors present the proposed AAPT criteria for irritable bowel syndrome, the most common chronic, non-cancer abdominal pain condition. The AAPT's goal is to develop an evidence-based taxonomy for chronic pain based on a consistently applied multidimensional framework, and to encourage experts to apply this taxonomy to specific chronic pain conditions.

Original Reports

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Inflammatory Renin-Angiotensin System Disruption Attenuates Sensory Hyperinnervation and Mechanical Hypersensitivity in a Rat Model of Provoked Vestibulodynia

Anuradha Chakrabarty, Zhaohui Liao, Ying Mu, and Peter G. Smith

Vestibulodynia is characterized by peri-vaginal mechanical hypersensitivity, hyperinnervation, and abundant inflammatory cells expressing renin-angiotensin system proteins. This research developed a tractable rat model of vestibulodynia to further assess the contributions of the renin-angiotensin system. This study provides evidence that inflammation of the rat vestibule induces a phenotype recapitulating behavioral and cytological features of human vestibulodynia. The model confirms a crucial role of the local inflammatory renin-angiotensin system in hypersensitivity and hyperinnervation. Targeting this system holds promise for developing new non-opioid analgesic treatment strategies.

278 Patient-Reported Outcomes and Opioid Use by Outpatient Cancer Patients

Natalie Moryl, Vinnidhy Dave, Paul Glare, Ali Bokhari, Vivek T. Malhotra, Amitabh Gulati, Joseph Hung, Vinay Puttanniah, Yvona Griffio, Roma Tickoo, Alison Wiesenthal, Susan D. Horn, and Charles E. Inturrisi

This report sought to present a descriptive analysis of patient-reported outcomes and medical histories, including opioid medications prescribed and used by outpatients with chronic pain due to cancer. The authors describe outcomes and patient-related electronic health record data, collected from cancer patients at outpatient clinics at the Memorial Sloan–Kettering Cancer Center. Findings show that patients receiving opioids had higher pain interference scores, lower index of health state, and more physical distress than no-opioid patients. The results identify the need to consider opioid use and dosage when attempting to understand outcomes and factors affecting pain management.

291 The Influence of Social Threat on Pain, Aggression, and Empathy in Women

Kai Karos, Ann Meulders, Liesbet Goubert, and Johan W.S. Vlaeyen

Only one published study has investigated the effect of a threatening social context on the perception and expression of pain, demonstrating that social threat leads to increased pain reports but reduced non-verbal pain expression. This study aimed to replicate and extend these findings to further explore the effects of a threatening social context. Self-reported pain intensity, unpleasantness, threat value of pain, and painful facial expression were assessed. Social threat did not affect painful facial expression or self-reported pain intensity, but led to increased aggression; social threat also predicted the threat value of pain and reduced empathy. The authors were not able to replicate the previously reported dissociation between pain reports and expression as a result of social threat. However, in summary, social threat was associated with an increased threat value of pain, increased aggression and reduced empathy.

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Do Correlates of Pain-Related Stoicism and Cautiousness Differ in Younger and Older People With Advanced Cancer?

Kenneth Mah, Kim T. Tran, Lynn R. Gauthier, Gary Rodin, Camilla Zimmermann, David Warr, S. Lawrence Librach, Malcolm Moore, Frances A. Shepherd, and Lucia Gagliese

Age differences are not evident in pain-related stoicism and cautiousness in people with cancer pain. Little is known about factors associated with attitudes or age-related patterns. This report is the first to identify biopsychosocial correlates of stoic and cautious attitudes toward cancer pain in younger and older patients with advanced cancer. Medical correlates show age differences: younger patients displayed symptom-focused correlates, whereas older patients displayed aging-related correlates. This supports a biopsychosocial framework of cancer-pain adaptation incorporating a lifespan-developmental perspective. These findings can potentially inform interventions addressing challenges in cancer-pain adaptation in advanced cancer.

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Dimensionality and Reliability of the Central Sensitization Inventory in a Pooled Multicountry Sample

Antonio I. Cuesta-Vargas, Randy Neblett, Alessandro Chiarotto, Jeroen Kregel, Jo Nijs, C. Paul van Wilgen, Laurent Pitance, Aleksandar Knezevic, Robert J. Gatchel, Tom G. Mayer, Carlotta Viti, Cristina Roldan-Jiménez, Marco Testa, Wolnei Caumo, Milica Jeremic-Knezevic, and Juan V. Luciano

Central Sensitization (CS) involves the amplification of neural signaling within the central nervous system, which evokes pain hypersensitivity. The Central Sensitization Inventory assesses 25 overlapping health-related symptom dimensions that have been found to be associated with CS-related disorders. The purpose of this cross-sectional study was to thoroughly examine the dimensionality and reliability of the CSI with pooled data from 1,987 individuals, collected in several countries. The authors believe this is the first study that has examined the factor structure and reliability of the CSI in a large multi-country sample.

330 **Endogenous Pain Modulation Induced by Extrinsic and Intrinsic Psychological Threat in Healthy Individuals**

William Gibson, Penny Moss, Tak Ho Cheng, Alexandre Garnier, Anthony Wright, and Benedict M. Wand

The impact on endogenous analgesia of observing another's pain and of threat of pain to oneself was investigated. Forty socially-connected pairs of healthy volunteers were threat-primed and randomly allocated to experimental or control roles. An experimental pain modulation paradigm was applied, with non-nociceptive threat cues used as conditioning stimuli. Both extrinsic and intrinsic threat cues, in the absence of any afferent input, increased pain thresholds. This suggests that mere threat of pain may initiate analgesic effects in traditional noxious experimental paradigms.

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