

The Journal of Pain

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Critical Review

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Incidence and Severity of Chronic Pain at 3 and 6 Months After Thoracotomy: Meta-Analysis

Emine Ozgur Bayman and Timothy J. Brennan

For several decades, investigators have reported the incidence of postthoracotomy pain syndrome in both observational studies and trials, but attempts to prevent the development of this pain syndrome have yielded inconsistent results. This systematic review aimed to determine the incidence and the severity of chronic pain at 3 and 6 months after thoracotomy based on meta-analyses. Findings suggest that reported chronic pain rates are approximately 50% at 3 and 6 months and have been largely stable from the 1990s to the present. The severity of this pain is not consistently reported. Chronic pain after thoracotomy continues to be a significant problem despite advancing perioperative care.

Original Reports

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Widespread Hyperalgesia in Adolescents With Symptoms of Irritable Bowel Syndrome: Results From a Large Population-Based Study

Niklas Stabell, Audun Stubhaug, Trond Flægstad, Emeran Mayer, Bruce D. Naliboff, and Christopher S. Nielsen

Widespread hyperalgesia is well documented among adult patients with irritable bowel syndrome (IBS), but little is known about pain sensitivity among adolescents with IBS. This report examined pain sensitivity in 961 adolescents from the general population. This is the first report of widespread hyperalgesia among adolescents with IBS symptoms in the general population, with lower pain thresholds found to be independent of sex and comorbid pain. The results suggest that central pain sensitization mechanisms in IBS may contribute to triggering and maintaining chronic pain symptoms.

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ON THE COVER

Whiplash accounts for approximately 80% of the soft tissue injuries incurred in motor vehicle accidents. About 15 to 25% of individuals who sustain whiplash injuries remain permanently disabled. Some studies have reported that more severe pain following injury is associated with more severe disability. In this study, the authors examined whether measures of movement-evoked pain might account for unique variance in measures of disability beyond the variance accounted for by measures of spontaneous pain. See Mankovsky-Arnold et al, page 967. Cervical column cover image is courtesy of Andrew J. Holman.

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Soluble Epoxide Hydrolase Inhibition Is Antinociceptive in a Mouse Model of Diabetic Neuropathy

Karen Wagner, Jun Yang, Bora Inceoglu, and Bruce D. Hammock

Neuropathic pain is a debilitating condition with no adequate therapy. Despite decades of research investigating alternatives to treat chronic pain, few improvements have been made. There remains a critical need for efficacious therapies without severe side effects to treat the uniquely persistent and tonic pain of neuropathy. This report includes experiments that demonstrate antihyperalgesia in a murine chronic pain model mediated by inhibiting the soluble epoxide hydrolase (sEH) enzyme. The results indicate that inhibiting the sEH enzyme is a promising alternative for blocking chronic pain.

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Accountability and Empathy Effects on Medical Students' Clinical Judgments in a Disability Determination Context for Low Back Pain

John T. Chibnall, Raymond C. Tait, and Andres Jovel

Research demonstrates bias in the evaluation of patients with chronic pain, typically reflected in observer discounting of patient reports of severity or the attribution of symptoms to psychological factors. In this study, medical students read a vignette about a hypothetical patient referred for evaluation of severe low back pain. Results showed that empathy had strong associations with symptom validity and severity judgments, demonstrating that role demands can affect symptom judgments in complex ways, and that empathy may play both direct and moderating roles. Because physicians are the primary gatekeepers regarding disability determination in both consultative and treating roles, accountability may have significant mediating effects on such determinations.

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The Economic Costs of Chronic Pain Among a Cohort of Treatment-Seeking Adolescents in the United States

Cornelius B. Groenewald, Bonnie S. Essner, Davene Wright, Megan D. Fesinmeyer, and Tonya M. Palermo

This study sought to assess the economic cost of chronic pain among adolescents receiving interdisciplinary pain treatment. Information was gathered from 149 adolescents (ages 10-17) presenting for evaluation and treatment at interdisciplinary pain clinics in the United States. Total costs to society for adolescents with moderate to severe chronic pain were extrapolated to \$19.5 billion annually. The cost of adolescent chronic pain presents a substantial economic burden to families and society. Future research should focus on predictors of increased health services use and costs in adolescents with chronic pain.

934 Partners' Empathy Increases Pain Ratings: Effects of Perceived Empathy and Attachment Style on Pain Report and Display

Sarah Hurter, Yannis Paloyelis, Amanda C. de C. Williams, and Aikaterini Fotopoulou

Pain in everyday life often occurs in the presence of a partner. Partners may also be important support providers in medical settings, but pain can be influenced by its social context. Under controlled experimental conditions, the authors examined how empathy from a partner and personal attachment style affect pain report, tolerance, and facial expressions of pain. In conclusion, the authors report that believing that one's partner feels high empathy for one's pain may lead individuals to rate the intensity of pain as higher. Individual differences in attachment style moderate this empathy effect.

945 Comorbidity Among Multiple Pain Symptoms and Anxious Depression in a Dutch Population Sample

Lannie Ligthart, Corine M. Visscher, Caroline M. H. H. van Houtem, Lot M. Geels, Jacqueline M. Vink, Ad de Jongh, and Dorret I. Boomsma

Many studies on pain focus on specific disorders, making it difficult to compare characteristics across different types of pain symptoms. This large population-based study examined the prevalence and comorbidity patterns among pain symptoms across a wide range of anatomic sites in relation to anxious depression and a range of demographic, health, and lifestyle variables. A consistent pattern of comorbidity was observed: All pain symptoms were correlated with all other pain symptoms, as well as with anxious depression. Frequent and widespread pain was most strongly associated with anxious depression. These observations reflect important differences between specific pain symptoms, suggesting partly separate etiologies, but also highlight the importance of shared mechanisms underlying pain symptoms in general.

956 A Clinically Relevant Animal Model of Temporomandibular Disorder and Irritable Bowel Syndrome Comorbidity

Richard J. Traub, Dong-Yuan Cao, Jane Karpowicz, Sangeeta Pandya, Yaping Ji, Susan G. Dorsey, and Dean Dessem

Temporomandibular disorder and irritable bowel syndrome are comorbid functional chronic pain disorders of unknown etiology that are triggered/exacerbated by stress. The authors present baseline phenotypic characterization of a novel animal model to gain insight into the underlying mechanisms that contribute to such comorbid pain conditions. This new animal model is a powerful experimental tool that can be employed to gain further mechanistic insight into overlapping pain conditions.

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Measures of Spontaneous and Movement-Evoked Pain Are Associated With Disability in Patients With Whiplash Injuries

Tsipora Mankovsky-Arnold, Timothy H. Wideman,
Christian Larivière, and Michael J. L. Sullivan

This study examined the degree to which measures of spontaneous and movement-evoked pain accounted for shared or unique variance in functional disability associated with whiplash injury. The study also addressed the role of fear of movement as a mediator or moderator of the relation between different indices of pain and functional disability. Participants' pain ratings, provided after lifting a weighted canister, were used as the index of single-point movement-evoked pain. The findings suggest that approaches to the clinical evaluation of pain would benefit from the inclusion of measures of movement-evoked pain.

Letters to the Editor

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Methadone Safety Guidelines: A New Care Delivery Paradigm

David F. Katz and Mori J. Krantz

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Response to Katz and Krantz Letter to the Editor

Roger Chou

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