




Beth Darnall

Associate Professor of Anesthesiology, Perioperative and Pain Medicine (Adult MSD) and, by courtesy, of Psychiatry and Behavioral Sciences (General Psychiatry & Psychology (Adult)) at the Stanford University Medical Center

 NIH Biosketch available Online

 Curriculum Vitae available Online

CLINICAL OFFICES

- **Stanford Pain Management Center**

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ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

Jesmin Ram - Administrative Associate

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Bio

BIO

Beth Darnall, PhD, is Associate Professor in the Department of Anesthesiology, Perioperative and Pain Medicine, and by courtesy, Psychiatry and Behavioral Sciences. She is a pain psychologist and scientist. Her primary interests are in developing and investigating brief, low-cost, low-burden, accessible treatments that empower patients and reduce acute and chronic pain and associated burdens. Her ultimate goal is to rapidly scale access to evidence-based behavioral medicine for acute and chronic pain.

Dr. Darnall is principal investigator with \$14M in current NIH and PCORI-funded clinical trials that broadly investigate behavioral pain medicine and self-management strategies and voluntary patient-centered prescription opioid reduction. Her single-session, skills-based behavioral medicine class (“Empowered Relief”) is the subject of NIH clinical trials and McGill researchers are studying its efficacy in primary care clinics (<https://empoweredrelief.com>). Her digital perioperative intervention (“My Surgical Success”) is being studied at Stanford Hospital and the Cleveland Clinic, and initial studies show the no-therapist e-intervention reduces opioid requirement after breast cancer surgery. Her research specifically investigates digital and in-person behavioral pain medicine treatments as opioid-sparing strategies after surgery and in for outpatient opioid tapering. The broad goal of this collective line of research is to dismantle barriers to effective behavioral medicine for pain.

She is principal investigator for the EMPOWER study, a 4-state pragmatic randomized controlled clinical trial that is investigating how to best help physicians and patients successfully and voluntarily reduce long term opioid use and chronic pain using patient-centered methods. The project is funded by the Patient Centered Outcomes Research Institute (PCORI) and involves 1,365 patients taking long term opioids; the goal is to reduce patient health risks without increasing pain. This research involves a 3-arm RCT comparative effectiveness trial of two evidence-based behavioral treatments, cognitive behavioral therapy for pain and chronic pain self-management, within the context of patient-centered opioid tapering. This research builds on her team's first report on “Patient-Centered Prescription Opioid Tapering in Community Outpatients with Chronic Pain” (Darnall et al, JAMA Int Med, 2018). Learn more about the EMPOWER study at <https://empower.stanford.edu/>

<https://bethdarnall.com/>

Twitter: @bethdarnall

<https://empoweredrelief.com>

ACADEMIC APPOINTMENTS

- Associate Professor - Med Center Line, Anesthesiology, Perioperative and Pain Medicine
- Associate Professor - Med Center Line (By courtesy), Psychiatry and Behavioral Sciences

HONORS AND AWARDS

- Risks Associated with High-Dose Prescription Opioids (invited speaker), U.S. Food and Drug Administration (2019)
- Pain and Opioid Crisis in America (invited speaker), U.S. Congressional Briefing (2018)
- Non-pharmacologic Treatment for Chronic Pain (invited speaker), National Academy of Science, Engineering and Technology (2018)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chief Scientific Advisor, appliedVR (2019 - present)
- Co-Chair, Behavioral Medicine Committee, American Academy of Pain Medicine (2019 - present)
- Opioid Guideline Task Force, American Academy of Pain Medicine (2019 - present)
- Opioid Advisory Committee, American Academy of Pain Medicine (2017 - present)
- Scientific Review and Guidelines Committee, American Academy of Pain Medicine (2017 - present)
- Annual conference planning committee, 2018 Kauai Pain Conference (2017 - 2018)
- Consultant, Pain psychology treatment program development, Cedars-Sinai Health Care (2017 - 2017)
- Education Initiatives Working Group, International Association for the Study of Pain (2016 - present)
- National Annual Conference Steering Committee, American Academy of Pain Medicine (2016 - present)
- Committee Member and Co-Author, ACOEM Chronic Pain National Guideline (2016 - 2017)
- Medical Content Advisor, online pain education materials, Arthritis Foundation (2016 - 2016)
- Co-Chair, Pain Psychology Shared Interest Group, American Academy of Pain Medicine (2015 - present)
- Scientific Advisory Board, Axial Healthcare (2015 - present)
- APS Clinical Resources and Guidelines Committee, American Pain Society (2015 - 2018)
- Co-Chair, Pain Psychology Task Force, American Academy of Pain Medicine (2015 - 2017)
- Co-Chair, 2016 Stanford Free Back Pain Education Day (2015 - 2016)
- Content Advisor, American Society of Pain Educators (2015 - 2016)
- Committee on the Principles of Analgesic Use in the Treatment of Chronic Pain and Cancer Pain, American Pain Society (2014 - 2016)
- Co-Chair, Membership Task Force, American Academy of Pain Medicine (2014 - 2015)
- Co-Chair, 2014 Pain Conference, Hosted by Stanford, Western Pain Society, American Academy of Pain Medicine (2014 - 2014)
- Ethics Council, American Academy of Pain Medicine (2013 - present)
- Section Editor, Ethics Forum, Pain Medicine (2013 - present)
- Chair, APS Ethics Shared Interest Group, American Pain Society (2013 - 2016)
- President, Pain Society of Oregon (2012 - 2012)
- Scientific Program Committee, American Pain Society (2011 - 2014)
- Conference Committee, "OHSU Pain Day: Scientific and Clinical Updates", Oregon Health & Science University (2011 - 2012)
- APS Ethics Committee, American Pain Society (2010 - 2017)
- Chair, Board of Directors, Pain Society of Oregon Portland Chapter (2010 - 2012)

PROFESSIONAL EDUCATION

- PhD Training: University of Colorado at Boulder (2002) CO
- Fellowship: The Johns Hopkins University (2004) MD
- Internship: Southern Arizona VA Healthcare System (2002) AZ
- MA, University of Colorado at Boulder , Clinical Psychology (1998)
- PhD, University of Colorado at Boulder , Clinical Psychology (2002)
- Post-Doc, The Johns Hopkins University School of Medicine , Rehabilitation Psychology (2004)

COMMUNITY AND INTERNATIONAL WORK

- Stanford Free Back Pain Education Day 2015, Stanford University
- Stanford 2014 Free Chronic Pain Education Day, Stanford University
- Mirror therapy certification workshops for physicians, trauma, and healthcare providers in Vietnam, Can Tho, Dong Ha, and Hanoi, Vietnam

LINKS

- Personal website: <https://bethdarnall.com>
- "Empowered Relief" certification workshops: <https://empoweredrelief.com>
- Division of Pain Medicine: <http://med.stanford.edu/paincenter.html>
- Twitter: <https://twitter.com/bethdarnall>
- My Lab Site: <http://snapl.stanford.edu/>
- Psychology Today: <https://www.psychologytoday.com/blog/less-pain-fewer-pills>
- EMPOWER voluntary opioid tapering study: <https://empower.stanford.edu>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Current Research Awards:

PCORI (Patient Centered Outcomes Research Institute) 2018 - 2023

“Comparative Effectiveness of Pain Cognitive Behavioral Therapy and Chronic Pain Self-Management Within the Context of Opioid Reduction.”

The EMPOWER study is a pragmatic 4-state RCT being conducted in primary care and pain clinics to help physicians and patients with chronic pain safely and effectively reduce opioid use and chronic pain. We are comparing two evidence based group behavioral treatments (cognitive behavioral therapy and chronic pain self management) to facilitate opioid and pain reduction. Total N = 1365 patients.

<https://empower.stanford.edu/>

Role: Principal Investigator

NIH / NCCIH 09/01/2015 – 08/31/2020

R01AT008561

Title: Single Session Pain Catastrophizing Treatment: Comparative Efficacy & Mechanisms

Role: Multi-PI - Darnall & Mackey

This project seeks to understand mechanisms of pain catastrophizing and optimize rapid delivery of targeted treatment. This comparative effectiveness trial studies the single-session 2-hour behavioral pain medicine class I developed ("Empowered Relief"; see <https://empoweredrelief.com>) (Darnall et al, J Pain Res, 2014; also see 'treatment' at en.wikipedia.org/wiki/Pain_Catastrophizing).

NIH / NICHD 09/01/2015 – 08/31/2020

R01

Title: Maternal Chronic Pain: Risk for Pain and Poor Outcomes in Children

(PI: Anna Wilson, PhD)

Role: Site PI for Stanford University

My primary interests are in developing and investigating brief, low-cost, low-burden, accessible treatments that empower patients with acute and chronic pain and reduce their pain and burden. The ultimate goal is to scale access to evidence-based behavioral medicine for acute and chronic pain.

EMPOWERED RELIEF: My 2-hour, single-session behavioral medicine skills-based pain class ("Empowered Relief"; <https://empoweredrelief.com>) may be embedded into care pathways and health organizations. "Empowered Relief" provides rapid access to evidence-based behavioral medicine at low cost -- up to 85 patients and family members have been treated in a single class. Certified instructors are delivering "Empowered Relief" in the U.S., Canada, and the U.K. Researchers at McGill University are studying "Empowered Relief" in primary care clinics in Canada. Results for our NIH-funded R01 clinical trial investigating the efficacy and mechanisms of "Empowered Relief" and longer-course CBT will be available in 2020.

MY SURGICAL SUCCESS: "Empowered Relief" was adapted to perioperative patients and digitized to create an e-health intervention called "My Surgical Success" (MSS) that requires no therapist involvement. Our randomized controlled pilot of MSS in breast cancer surgery revealed that patients who engaged with MSS stopped post-operative opioids 5 days sooner than those assigned to the health education control intervention (see Darnall, Ziadni et al 2019 Pain Med). We are conducting follow-on studies in orthopedic trauma surgery patients and at the Cleveland Clinic in spine surgery (Sara Davin, PI).

VOLUNTARY OPIOID REDUCTION: I have authored/co-authored 5 books for patients and clinicians on pain and opioid reduction. My national PCORI-funded patient-centered research investigates safe and compassionate opioid de-prescribing (<https://empower.stanford.edu>) and investigation of behavioral medicine to optimize taper response. Patients helped design the study and chose the name: Effective Management of Pain and Opioid-Free Ways to Enhance Relief; EMPOWER). We are investigating careful methods that empower patients through education, treatment, and ongoing supports to meet their pain care goals.

RECOVERY TOOLKITS: Stanford Hospital is testing the "Recovery Toolkit" program in inpatients. Recovery Toolkits are psychologist-delivered, nurse-delivered, and include multi-media treatment to learn about pain self-management after surgery.

CLINICAL TRIALS

- Cognitive Behavioral Therapy and Chronic Pain Self-Management Within the Context of Opioid Reduction: The EMPOWER Study, Recruiting
- Recovery Toolkits: Assessment of Pragmatic Behavioral Pain Medicine Delivered In Hospital After Surgery, Recruiting
- Stanford Center for Back Pain, Recruiting
- Development and Validation of a Daily Pain Catastrophizing Scale, Not Recruiting
- My Surgical Success: A Randomized Controlled Pilot Study of a Pre-surgical Psychological Intervention, Not Recruiting

- Patient-Centered Opioid Tapering Study, Not Recruiting
- Single Session Pain Catastrophizing Treatment: Comparative Efficacy & Mechanisms, Not Recruiting

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Pain Management (Fellowship Program)

Publications

PUBLICATIONS

- **Daily and bidirectional linkages between pain catastrophizing and spouse responses.** *Pain*
Martire, L. M., Zhaoyang, R., Marini, C. M., Nah, S., Darnall, B. D.
2019
- **"My Surgical Success": Effect of a Digital Behavioral Pain Medicine Intervention on Time to Opioid Cessation After Breast Cancer Surgery-A Pilot Randomized Controlled Clinical Trial.** *Pain medicine (Malden, Mass.)*
Darnall, B. D., Ziadni, M. S., Krishnamurthy, P., Flood, P., Heathcote, L., Mackey, I. G., Taub, C. J., Wheeler, A.
2019
- **Patient-Centered Prescription Opioid Tapering in Community Outpatients with Chronic Pain** *JAMA Internal Medicine*
Darnall, B., Ziadni, M., Stieg, R., Mackey, I., Kao, M., Flood, P.
2018; Feb 19
- **To treat pain, study people in all their complexity.** *Nature*
Darnall, B.
2018; 557 (7703): 7
- **Adverse Childhood Experiences in Mothers With Chronic Pain and Intergenerational Impact on Children** *JOURNAL OF PAIN*
Dennis, C. H., Clohessy, D. S., Stone, A. L., Darnall, B. D., Wilson, A. C.
2019; 20 (10): 1209–17
- **The National Imperative to Align Practice and Policy with the Actual CDC Opioid Guideline.** *Pain medicine (Malden, Mass.)*
Darnall, B. D.
2019
- **Managing Cancer Pain, Monitoring for Cancer Recurrence, and Mitigating Risk of Opioid Use Disorders: A Team-Based, Interdisciplinary Approach to Cancer Survivorship.** *Journal of palliative medicine*
Goodlev, E. R., Discala, S., Darnall, B. D., Hanson, M., Petok, A., Silverman, M.
2019
- **Adverse Childhood Experiences in Mothers with Chronic Pain and Intergenerational Impact on Children.** *The journal of pain : official journal of the American Pain Society*
Dennis, C. H., Clohessy, D. S., Stone, A. L., Darnall, B. D., Wilson, A. C.
2019
- **International Stakeholder Community of Pain Experts and Leaders Call for an Urgent Action on Forced Opioid Tapering** *PAIN MEDICINE*
Darnall, B. D., Juurlink, D., Kerns, R. D., Mackey, S., Van Dorsten, B., Humphreys, K., Gonzalez-Sotomayor, J. A., Furlan, A., Gordon, A. J., Gordon, D. B., Hoffman, D. E., Katz, J., Kertesz, et al
2019; 20 (3): 429–33
- **Conclusion** *PAIN MEDICINE*
Sullivan, M. D., Darnall, B. D.
2019; 20 (2): 212
- **Negative Affect-Related Factors Have the Strongest Association with Prescription Opioid Misuse in a Cross-Sectional Cohort of Patients with Chronic Pain.** *Pain medicine (Malden, Mass.)*
Gilam, G., Sturgeon, J. A., You, D. S., Wasan, A. D., Darnall, B. D., Mackey, S. C.

2019

- **Conclusion.** *Pain medicine (Malden, Mass.)*
Sullivan, M. D., Darnall, B. D.
2019; 20 (2): 212
- **Evaluation of Candidate Items for Severe PTSD Screening for Patients with Chronic Pain: Pilot Data Analysis with IRT Approach.** *Pain practice : the official journal of World Institute of Pain*
You, D. S., Ziadni, M. S., Gilam, G., Darnall, B. D., Mackey, S. C.
2019
- **Central mechanisms of real and sham electroacupuncture in the treatment of chronic low back pain: study protocol for a randomized, placebo-controlled clinical trial.** *Trials*
Kong, J., MacIsaac, B., Cogan, R., Ng, A., Law, C. S., Helms, J., Schnyer, R., Karayannis, N. V., Kao, M., Tian, L., Darnall, B. D., Gross, J. J., Mackey, et al
2018; 19 (1): 685
- **International Stakeholder Community of Pain Experts and Leaders Call for an Urgent Action on Forced Opioid Tapering.** *Pain medicine (Malden, Mass.)*
Darnall, B. D., Juurlink, D., Kerns, R. D., Mackey, S., Van Dorsten, B., Humphreys, K., Gonzalez-Sotomayor, J. A., Furlan, A., Gordon, A. J., Gordon, D. B., Hoffman, D. E., Katz, J., Kertesz, et al
2018
- **Characterizing chronic pain in late adolescence and early adulthood: prescription opioids, marijuana use, obesity, and predictors for greater pain interference.** *Pain reports*
Anastas, T., Colpitts, K., Ziadni, M., Darnall, B. D., Wilson, A. C.
2018; 3 (6): e700
- **The factor structure and subscale properties of the pain catastrophizing scale: are there differences in the distinctions?**
Cook, K., Darnall, B., Mackey, S.
SPRINGER.2018: S38
- **On the Importance of Using the Right Metrics for Patient Outcomes and Payment: Pain, Pain Interference, and Physical Function.** *Pain medicine (Malden, Mass.)*
Darnall, B. D., Sullivan, M. D.
2018
- **An experimental method for assessing whether marijuana use reduces opioid use in patients with chronic pain.** *Addiction (Abingdon, England)*
Darnall, B. D., Humphreys, K. N.
2018
- **Voluntary Opioid Tapering-Reply.** *JAMA internal medicine*
Darnall, B. D., Ziadni, M. S., Stieg, R. L.
2018; 178 (6): 875
- **CARE Scale - 7: Development and preliminary validation of a measure assessing factors that impact self-care in chronic pain** *Clin J Pain*
Ziadni, M., You, S., Wilson, A., Darnall, B.
2018; March
- **Patient-Centered Prescription Opioid Tapering in Community Outpatients With Chronic Pain.** *JAMA internal medicine*
Darnall, B. D., Ziadni, M. S., Stieg, R. L., Mackey, I. G., Kao, M. C., Flood, P.
2018; 178 (5): 707–8
- **The Impact of Perceived Injustice on Pain-related Outcomes: A Combined Model Examining the Mediating Roles of Pain Acceptance and Anger in a Chronic Pain Sample.** *The Clinical journal of pain*
Carriere, J. S., Sturgeon, J. A., Yakobov, E., Kao, M. C., Mackey, S. C., Darnall, B. D.
2018; 34 (8): 739–47
- **Comparative Efficacy and Mechanisms of a Single-Session Pain Psychology Class in Chronic Low Back Pain: Study Protocol for a Randomized Controlled Trial.** *Trials*
Darnall, B. D., Ziadni, M. S., Roy, A., Kao, M. C., Sturgeon, J. A., Cook, K. F., Lorig, K., Burns, J. W., Mackey, S. C.
2018; 19 (1): 165

- **CARE Scale - 7: Development and Preliminary Validation of a Measure to Assess Factors Impacting Self-care in Chronic Pain.** *The Clinical journal of pain*
Ziadni, M., You, D. S., Wilson, A. C., Darnall, B. D.
2018
- **Optimizing Placebo and Minimizing Nocebo to Reduce Pain, Catastrophizing, and Opioid Use: A Review of the Science and an Evidence-Informed Clinical Toolkit.** *International review of neurobiology*
Darnall, B. D., Colloca, L.
2018; 139: 129–57
- **Comparative Efficacy and Mechanisms of a Single-Session Pain Psychology Class in Chronic Low Back Pain: Study Protocol for a Randomized Controlled Trial** *Trials*
Darnall, B., Siadni, M., Roy, A., Kao, M., Sturgeon, J., Cook, K., Lorig, K., Burns, J., Mackey, S.
2018: 165
- **Comparative Efficacy and Mechanisms of a Single-Session Pain Psychology: Protocol for a Randomized Controlled Trial in Chronic Low Back Pain** *Trials*
Darnall, B., Ziadni, M., Roy, A., Kao, M., Sturgeon, J., Cook, K., Lorig, K., Burns, J., Sean, M.
2018; 19 (165)
- **The impact of perceived injustice on pain-related outcomes: A combined model examining the mediating roles of pain acceptance and anger in a chronic pain sample** *Clin J Pain*
Carrier, J., Sturgeon, J., Yakabov, E., Kao, M., Mackey, S., Darnall, B.
2018: 739–47
- **Development and Validation of a Daily Pain Catastrophizing Scale.** *journal of pain*
Darnall, B. D., Sturgeon, J. A., Cook, K. F., Taub, C. J., Roy, A., Burns, J. W., Sullivan, M., Mackey, S. C.
2017
- **Association between concurrent use of prescription opioids and benzodiazepines and overdose: retrospective analysis** *BMJ-BRITISH MEDICAL JOURNAL*
Sun, E. C., Dixit, A., Humphreys, K., Darnall, B. D., Baker, L. C., Mackey, S.
2017; 356
- **The Effect of Pain Catastrophizing on Outcomes: A Developmental Perspective Across Children, Adolescents, and Young Adults With Chronic Pain.** *journal of pain*
Feinstein, A. B., Sturgeon, J. A., Darnall, B. D., Dunn, A. L., Rico, T., Kao, M. C., Bhandari, R. P.
2017; 18 (2): 144-154
- **Pain behavior mediates the relationship between perceived injustice and opioid prescription for chronic pain: a Collaborative Health Outcomes Information Registry study** *JOURNAL OF PAIN RESEARCH*
Carriere, J. S., Martel, M., Kao, M., Sullivan, M. J., Darnall, B. D.
2017; 10
- **Pain Catastrophizing Moderates Relationships between Pain Intensity and Opioid Prescription: Nonlinear Sex Differences Revealed Using a Learning Health System.** *Anesthesiology*
Sharifzadeh, Y., Kao, M. C., Sturgeon, J. A., Rico, T. J., Mackey, S., Darnall, B. D.
2017; 127 (1): 136–46
- **Pain catastrophizing, perceived injustice, and pain intensity impair life satisfaction through differential patterns of physical and psychological disruption.** *Scandinavian journal of pain*
Sturgeon, J. A., Ziadni, M. S., Trost, Z., Darnall, B. D., Mackey, S. C.
2017; 17: 390–96
- **Pain catastrophizing moderates the relationship between pain intensity and opioid prescription: Non-linear gender differences revealed using a learning health system** *Anesthesiology*
Sharifzadeh, Y., Kao, M., Sturgeon, J., Mackey, S., Darnall, B.
2017: 136–46
- **Pain catastrophizing, perceived injustice, and pain intensity impair life satisfaction through differential patterns of physical and psychological disruption** *Scand J Pain*
Sturgeon, J., Ziadni, M., Zina, T., Darnall, B., Mackey, S.
2017: 390–96

- **The relationship between negative metacognitive thoughts, pain catastrophizing, and adjustment to chronic pain** *Eur J Pain*
Ziadni, M., Sturgeon, J., Darnall, B.
2017
- **Effects of a Pain Catastrophizing Induction on Sensory Testing in Women with Chronic Low Back Pain: A Pilot Study** *PAIN RESEARCH & MANAGEMENT*
Taub, C. J., Sturgeon, J. A., Johnson, K. A., Mackey, S. C., Darnall, B. D.
2017
- **Perturbed connectivity of the amygdala and its subregions with the central executive and default mode networks in chronic pain.** *Pain*
Jiang, Y., Oathes, D., Hush, J., Darnall, B., Charvat, M., Mackey, S., Etkin, A.
2016; 157 (9): 1970-1978
- **Pediatric-Collaborative Health Outcomes Information Registry (Peds-CHOIR): a learning health system to guide pediatric pain research and treatment.** *Pain*
Bhandari, R. P., Feinstein, A. B., Huestis, S. E., Krane, E. J., Dunn, A. L., Cohen, L. L., Kao, M. C., Darnall, B. D., Mackey, S. C.
2016; 157 (9): 2033-2044
- **Incidence of and Risk Factors for Chronic Opioid Use Among Opioid-Naive Patients in the Postoperative Period.** *JAMA internal medicine*
Sun, E. C., Darnall, B. D., Baker, L. C., Mackey, S.
2016; 176 (9): 1286-1293
- **Pain Psychology and the Biopsychosocial Model of Pain Treatment: Ethical Imperatives and Social Responsibility.** *Pain medicine*
Darnall, B. D., Carr, D. B., Schatman, M. E.
2016
- **Social Disruption Mediates the Relationship Between Perceived Injustice and Anger in Chronic Pain: a Collaborative Health Outcomes Information Registry Study.** *Annals of behavioral medicine*
Sturgeon, J. A., Carriere, J. S., Kao, M. J., Rico, T., Darnall, B. D., Mackey, S. C.
2016: -?
- **(321) Enhanced secondary hyperalgesia following a pain catastrophizing induction in women with chronic low back pain.** *journal of pain*
Taub, C., Darnall, B., Johnson, K., Mackey, S.
2016; 17 (4S): S56-?
- **(418) A novel glial cell inhibitor, low dose naltrexone, reduces pain and depression, and improves function in chronic pain: A CHOIR study.** *journal of pain*
Noon, K., Sturgeon, J., Kao, M., Darnall, B., Mackey, S.
2016; 17 (4S): S79-?
- **(527) An internet-based perioperative pain psychology treatment program: results of a randomized controlled trial in breast oncology surgery patients.** *journal of pain*
Darnall, B., Wheeler, A., Taub, C., MACKKEY, I., Wapnir, I., Schultz, C., RICO, T., Flood, P.
2016; 17 (4S): S106-?
- **(489) An examination of the roles of perceived injustice and pain acceptance on pain interference and pain intensity in patients with chronic pain: A Collaborative Health Outcomes Information Registry (CHOIR) Study.** *journal of pain*
Carriere, J., Darnall, B., Kao, M., Mackey, S.
2016; 17 (4S): S97-?
- **(162) Social disruption, but not pain interference, mediates the relationship between perceived injustice and anger in chronic pain: A Collaborative Health Outcomes Information Registry (CHOIR) study.** *journal of pain*
Sturgeon, J., Carriere, J., Darnall, B., Mackey, S.
2016; 17 (4S): S16-?
- **(448) Perceived injustice, pain behavior and opioid prescriptions: a vicious circle? A Collaborative Health Outcomes Information Registry (CHOIR) Study.** *journal of pain*
Carriere, J., Darnall, B., Sullivan, M., Kao, M., Mackey, S.
2016; 17 (4S): S86-?
- **(180) Development and validation of a Daily Pain Catastrophizing Scale (Daily PCS) measure.** *journal of pain*

- Darnall, B., Sturgeon, J., Cook, K., Taub, C., Kao, M., RICO, T., Mackey, S.
2016; 17 (4S): S20-S21
- **(163) Pain catastrophizing, perceived injustice, and pain intensity impair life satisfaction through differential patterns of physical and psychological disruption.** *Journal of Pain*
Sturgeon, J., Dixon, E., Darnall, B., Mackey, S.
2016; 17 (4S): S16-?
 - **Pain Psychology and Pain Catastrophizing in the Perioperative Setting: A Review of Impacts, Interventions, and Unmet Needs.** *Hand clinics*
Darnall, B. D.
2016; 32 (1): 33-39
 - **Pain Psychology and Pain Catastrophizing in the Perioperative Setting: A Review of Impacts, Interventions, and Unmet Needs.** *Hand clinics*
Darnall, B. D.
2016; 32 (1): 33-39
 - **Pain Psychology: A Global Needs Assessment and National Call to Action** *PAIN MEDICINE*
Darnall, B. D., Scheman, J., Davin, S., Burns, J. W., Murphy, J. L., Wilson, A. C., Kerns, R. D., Mackey, S. C.
2016; 17 (2): 250-263
 - **Conflict of Interest, Part II: Pain Society Leadership and Industry** *Pain Medicine*
Schatman, M. E., Darnall, B. D.
2016; 17
 - **The Impact of Pain Catastrophizing on Outcomes: A Developmental Perspective across Children, Adolescents and Young Adults with Chronic Pain** *Journal of Pain*
Feinstein, A. B., Sturgeon, J. A., Bhandari, R. P., Dunn, A., Rico, T., Kao, M. C., Darnall, B. D.
2016
 - **Social Disruption Mediates the Relationship Between Perceived Injustice and Anger in Chronic Pain: a Collaborative Health Outcomes Information Registry Study** *Annals of Behavioral Medicine*
Sturgeon, J. A., Carriere, J. S., Kao, M. J., Rico, T. J., Darnall, B. D., Mackey, S. C.
2016: 802-12
 - **"The Opioid-Free Pain Relief Kit: 10 Simple Steps to Ease Your Pain"**
Darnall, B. D.
Bull Publishing, 2016
 - **Contributions of physical function and satisfaction with social roles to emotional distress in chronic pain: a Collaborative Health Outcomes Information Registry (CHOIR) study** *PAIN*
Sturgeon, J. A., Dixon, E. A., Darnall, B. D., Mackey, S. C.
2015; 156 (12): 2627-2633
 - **"Compassion Cultivation in Chronic Pain May Reduce Anger, Pain, and Increase Acceptance: Study Review and Brief Commentary".** *Health care. Current reviews*
Darnall, B. D.
2015; 3 (2)
 - **Toward the Healthiest Symbiosis.** *Pain medicine*
Darnall, B. D., Schatman, M. E.
2015; 16 (7): 1254-1255
 - **The Relationship Between Industry and Pain Societies, Part 1: Demystification and Legitimization of Continuing Medical Education** *PAIN MEDICINE*
Darnall, B. D., Schatman, M. E.
2015; 16 (7): 1251-1251
 - **Protecting the infant from unknown risks.** *Pain medicine*
Darnall, B. D., Schatman, M. E.
2015; 16 (4): 631-632
 - **Sub-clinical range of pain catastrophizing moderates the effect of pain intensity on opioid prescription**

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- Sharifzadeh, Y., Darnall, B., Kao, M., Mackey, S.
CHURCHILL LIVINGSTONE.2015: S16–S16
- **Opioid use and lactation: protecting the child in the context of maternal pain care.** *Pain medicine*
Darnall, B. D., Schatman, M. E.
2015; 16 (4): 628-?
 - **Physical and psychological correlates of fatigue and physical function: a Collaborative Health Outcomes Information Registry (CHOIR) study.** *journal of pain*
Sturgeon, J. A., Darnall, B. D., Kao, M. J., Mackey, S. C.
2015; 16 (3): 291-8 e1
 - **Physical and Psychological Correlates of Fatigue and Physical Function: A Collaborative Health Outcomes Information Registry (CHOIR) Study.** *journal of pain*
Sturgeon, J. A., Darnall, B. D., Kao, M. J., Mackey, S. C.
2015; 16 (3): 291-298 e1
 - **Compassion Cultivation in Chronic Pain May Reduce Anger, Pain, and Increase Acceptance: Review and Commentary** *Health Care: Current Reviews*
Darnall, B. D.
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PRESENTATIONS

- 2019 U.S. Food and Drug Administration (FDA), invited lecture on Patient-Centered Voluntary Opioid Deprescribing - U.S. Food and Drug Administration (6/11/2019)
- 2019 Keynote Speaker, Australian Pain Society: Brief and Digital Behavioral Pain Medicine Across the Continuum of Care: "Empowered Relief" and "My Surgical Success" - Keynote Speaker, Australian Pain Society
- 2019 Keynote Speaker, Australian Pain Society: "Integrated Perioperative Pain Care and Patient-Centered Prescription Opioid Tapering: Pragmatic Studies Across the Continuum of Care" - Australian Pain Society
- 2018 World Economic Forum, Davos, Switzerland: "The Psychology of Pain Relief" - World Economic Forum (January 23, 2018)
- 2018 Congressional Briefing on the Pain and Opioid Crisis (invited speaker; Washington DC) - Congress; October 2018