Beth D. Darnall, Ph.D.

Department of Anesthesiology, Perioperative and Pain Medicine
Division of Pain Medicine
Stanford University
Stanford Systems Neuroscience and Pain Laboratory
1070 Arastradero, Suite 200, MC 5596
Palo Alto, CA 94304-1336
t: 650.721.2104 | *e:* bdarnall@stanford.edu | www.bethdarnall.com

CURRENT APPOINTMENTS

Clinical Associate Professor of Anesthesiology, Perioperative and Pain Medicine. Stanford University, 10/12 – present
Clinical: Attending Psychologist at the Stanford Outpatient Pain Management Center

Adjunct Faculty, Helfgott Research Center. National College of Natural Medicine, Portland, OR. 03/06 - present

EDUCATION AND TRAINING

Post-Doctoral Fellow, 9/02-4/04
The Johns Hopkins University
School of Medicine & Bloomberg School of Public Health (joint appointment)
Department of Physical Medicine and Rehabilitation
Clinical: Catastrophic burn, spinal cord injury, amputation, post-surgical acute rehabilitation

Ph.D. Clinical Psychology, 8/02
University of Colorado, Boulder, CO

M.A. Clinical Psychology, 12/98
University of Colorado, Boulder, CO

B.S. Journalism, 8/94
Texas Woman's University, Denton, TX

PREVIOUS APPOINTMENTS

Associate Professor, Oregon Health & Science University, Department of Anesthesiology and Perioperative Medicine. June 2012

Assistant Professor, Oregon Health & Science University, Department of Anesthesiology and Perioperative Medicine. October 2005- May 2012

Assistant Professor, Oregon Health & Science University, Department of Psychiatry. October 2009- May 2012 (secondary appointment)

PUBLICATIONS

Peer-Reviewed Publications (*based on original data)

1. Jiang Y, Oathes DJ, Hush J, **Darnall BD**, Charvat M, Mackey S. Perturbed Amygdalar Connectivity with the Central Executive and Default Mode Networks in Chronic Pain. (in review)*

2. Kao MC, Hah JM, Zheng PZ, **Darnall BD**, Humphreys K, Mackey SC. The unrecognized surge in US benzodiazepine prescribing.* (in review)

3. Sun EC, **Darnall BD**, Baker LC, Mackey S. The Effect of Epidural Steroid Injections on Opioid Use Among Patients with Low Back Pain: Evidence from the Marketscan® Database. (in review)

4. Sun EC, Jena AB, Kao MC, **Darnall BD**, Baker LC, Mackey SC. Incidence of and Risk Factors for Chronic Opioid use Among Opioid Naïve Patients in the Perioperative Period. (in review)

5. Sturgeon JA, Dixon E, **Darnall BD**, Mackey SC. Contributions of Physical Function and Satisfaction with Social Roles to Emotional Distress in Chronic Pain: A Collaborative Health Outcomes Information Registry (CHOIR) Study.* (in review)

6. **Darnall BD**. Perioperative Pain Psychology & Pain Catastrophizing: Impacts and unmet needs (invited topical review; status: accepted for publication).

7. **Darnall BD**, Schatman ME. The relationship between industry and pain societies, Part 1: Demystification and legitimization in continuing medical education (in press, *Pain Medicine*).

8. **Darnall BD**, Schatman ME. Opioid Use and Lactation: Protecting the Child in the Context of Maternal Pain Care (*Pain Medicine,* March 2015 E-pub ahead of print).

9. Christian J, **Darnall BD**, Feinberg R, Feinberg S, Kalauokalani D, Pasero C, Pohl M. *American Chronic Pain Association Resource Guide to Chronic Pain Medication and Treatment*: *2015 Edition* (in press, ACPA).

10. Halawa O, Al-Diri I, McLean SA, **Darnall BD**. When I'm in Pain, I feel God is Testing Me: Differences in Middle Eastern and US Cancer Pain Experiences. *BAOJ Palliative Medicine.* Feb 2015.*

11. Sturgeon JA, **Darnall BD**, Kao MC, Mackey SC. Physical and Psychological Correlates of Fatigue and Physical Function: A Collaborative Health Outcomes Information Registry (CHOIR) study. *Journal of Pain*. Dec 2014; doi:10.1016/j.jpain.2014.12.004.*

12. Sturgeon JA, **Darnall BD**, Zwickey H, Wood LJ, Hanes D, Zava D, Mackey SC. Pro-Inflammatory Cytokines and DHEA-S in Women with FMS: Impact of Psychological Distress and Menopausal Status. *J Pain Research*. 2014; (7): 707-716. http://dx.doi.org/10.2147/JPR.S71344.*

13. **Darnall BD** & Schatman ME. Urine Drug Screening: The Risks of Opioids Preclude Complete Patient Autonomy. *Pain Medicine*. 2014; Nov 6 [epub ahead of print] doi: 10.1111/pme.12604_4.

14. **Darnall BD** & Schatman ME. Urine Drug Screening: Necessary or Alienating? *Pain Medicine*. 2014; [epub ahead of print] doi: 10.1111/pme.12604.

15. Chapin, HL, **Darnall BD**, Seppala E, Hah JM, Doty J, Mackey SC. Compassion meditation training for people living with chronic pain and their significant others: A pilot study and mixed-methods analysis. *J Compassionate Healthcare*. 2014; 1:4. doi:10.1186/s40639-014-0004-x.*

16. Schatman ME, **Darnall BD**. Intrathecal Opioids: Hardly a Panacea. *Pain Medicine*. 2014 Aug 4. doi: 10.1111/pme.12494_4. PMID: 25092110.

17. Schatman ME, **Darnall BD**. Intrathecal Opioids for Chronic Nonmalignant Pain: A Case Study and the Search for Balance. *Pain Medicine*. 2014; 10.1111/pme.12494. PMID: 25091712.

18. **Darnall BD**, Sturgeon JA, Hah JM, Kao MC, Mackey SC. 'From Catastrophizing to Recovery': A pilot study of a single-session treatment for pain catastrophizing. *J Pain Research*. 2014; (7):219-226. PMID: 24851056.*

19. Schatman ME & **Darnall BD**. The needle and the damage done? *Pain Medicine*. 2014; 15(4):546-7. PMID: 24635998.

20. Schatman ME & **Darnall BD**. A practical and ethical solution to the opioid scheduling conundrum. *J Pain Research*. 2014; (7):1-3. DOI: http://dx.doi.org/10.2147/JPR.S58148.

21. Schatman ME & **Darnall BD**. "Just Saying No" to Mandatory Pain CME: How Important Is Physician Autonomy? *Pain Medicine*. Nov 2013; DOI: 10.1111/pme.12285_4.

22. Schatman ME & **Darnall BD**. Upscheduling of Hydrocodone: Convenience and Access vs. Patient Safety Measures. *Pain Medicine*. 2013; 14(11):1627. Doi: 10.1111/pme.12257.

23. Schatman ME & **Darnall BD**. Among disparate views, scales tipped by the ethics of system integrity. *Pain Medicine*. Nov 2013; 14(11):1629-30. Doi: 10.1111/pme.12257_4.

24. **Darnall BD**, Schatman ME. Autonomy vs paternalism in the emergency department: the potential deleterious impact of patient satisfaction surveys. *Pain Medicine*. 2013; Jul;14(7):968. doi: 10.1111/pme.12170.

25. **Darnall BD** & Schatman ME. A Call to Action and Evolution. *Pain Medicine*. 2013; Jul;14(7):969-70. doi: 10.1111/pme.12170_4.

26. Schatman ME, **Darnall BD**. Medical Marijuana: A viable tool in the armamentaria of physicians treating chronic pain? *Pain Medicine*. 2013; Jun;14(6):799. doi: 10.1111/pme.12137.

27. Schatman ME, **Darnall BD**. Ethical Pain Care in a Complex Case. *Pain Medicine*. 2013; Jun;14(6):800-1. doi: 10.1111/pme.12137_3.

28. Schatman ME & **Darnall BD**. A Pendulum Swings Awry: Reconciling Divergent Views on Restrictions on Opioid Prescribing for Chronic Non-Cancer Pain. *Pain Medicine* 2013. May;14(5):617. Doi: 10.1111/pme.12120.

29. **Darnall BD**, Stacey BR, Chou R. Medical and psychological risks and consequences of long-term opioid use in women (comprehensive review) *Pain Medicine* 2012; 13(9); [DOI: 10.1111/j.1526-4637.2012.01467.x].*

30. Schatman ME & **Darnall B**. The resurrection of the Ethics Forum in Pain Medicine: An introduction. *Pain Medicine*. 2013 Apr;14(4):453-4. doi: 10.1111/j.1526-4637.2012.01378.x.

31. **Darnall BD** & Sazie E. Pain characteristics and pain catastrophizing in incarcerated women with chronic pain. *J Health Care for the Poor and Underserved.* 2012; 23(2):544-557.*

32. Darnall BD & Stacey BR. Sex differences in long-term opioid use: Cautionary notes for prescribing in women. *JAMA Internal Medicine.* 2012; 172(5):431-432.

33. **Darnall BD** & Li H. Home-based self-delivered mirror therapy for phantom pain: A pilot study. *J Rehabilitation Medicine.* 2012; 44:254-260. [DOI: 10.2340/16501977-0933].*

34. **Darnall B** & Li H. Hysterectomy and predictors for opioid prescription in a chronic pain clinic sample. *Pain Medicine.* 2011; 12(2): 196-203. [DOI: 10.1111/j.1526-4637.2010.01038.x].*

35. **Darnall BD**, Aickin M, Zwickey H. Pilot study of inflammatory responses following a negative imaginal focus in persons with chronic pain: Analysis by sex/gender. *Gender Medicine.* 2010; 7(3) 1-13.*

36. **Darnall BD** & Suarez EC. Sex and gender in psychoneuroimmunology research: Past, present and future (Review). *Brain, Behavior & Immunity.* 2009; 23(5): 595-604.

37. **Darnall BD**. Self-delivered home-based mirror therapy for lower limb phantom pain. *American Journal of Physical Medicine and Rehabilitation.* 2009; Jan, 88(1):78-81. (Editor's choice for the cover of this issue)*

38. **Darnall BD**, Ephraim P, Wegener ST, Dillingham T, Pezzin L, Rossbach P, & MacKenzie E. Prevalence of Depressive Symptoms and Mental Health Care Utilization in Persons with Limb Loss: Results of a National Survey. *Archives of Physical Medicine & Rehabilitation.* 2005; 86: 650-8.*

39. **Darnall BD**, Craighead, LW, Coleman L, Greenburg L, Carey G. (2002) *The relationship between athletic identity, elite athlete self-esteem, coping, and pathology in elite athletes.* Boulder, CO; University of Colorado Press.

40. **Darnall BD**, Smith JE, Craighead LW, & Lamounier JA. Modification of the Cognitive Model for Bulimia via Path Analysis on a Brazilian Adolescent Sample. *Addictive Behaviors.* 1999; 24(1): 47-57.*

Invited Editorials

1. Darnall BD. Empowering Patients with Chronic Pain to Look Beyond Opioids. *PCSS Monthly* (July 2015; in press). (Clinical Support System for Opioid Therapies and Providers' Clinical Support System for Medication Assisted Treatment).

2. Darnall BD. Targeting a saboteur of surgical outcomes: Pain catastrophizing. *Practical Pain Management.* April, 2015. http://www.practicalpainmanagement.com/treatments/psychological/cognitive-behavioral-therapy/targeting-sabateur-surgical-outcomes-pain

3. Darnall BD. Minimize Opioids by Optimizing Pain Psychology. *Pain Management.* 2014; Jul 4(4):251-3. doi: 10.2217/pmt.14.18. PMID: 25300380

4. Darnall BD. Pre-amputation mirror therapy and home-based self-delivered mirror therapy for phantom pain. *O&P Business News* (Orthotics & Prosthetics) 2010; April, 26(5): 26.

Non-peer-reviewed Articles

1. **Darnall BD**. Empowering people with chronic pain to have less pain and need fewer pills. Empathic Therapy Newsletter. December, 2014 (Vol. 5, Issue 4). http://secure.campaigner.com/Campaigner/Public/t.show?7qkkr--3upqn-34674s9&_v=2

2. **Darnall BD.** Surge in opioid prescriptions for pregnant women indicates a need for safer pain management strategies. April 16, 2014. https://www.bullpub.com/blog/Surge-in-Opioid-Prescriptions-for-Pregnant-Women-Indicate-a-Need-for-Safer-Pain-Management-Strategies

3. **Darnall BD**. Your psychology affects your response to medical treatments and to pain medications. National Register for Health Service Psychologists. January 10, 2014. http://www.findapsychologist.org/your-psychology-affects-your-response-to-medical-treatments-and-to-pain-medications-by-dr-beth-darnall/

4. **Darnall BD.** Surviving a pain flare. *Fibromyalgia & Chronic Pain LIFE* magazine 2012; Jan/Feb print edition; [Epub ahead of print] http://fibropainlife.org/2012/01/17/surviving-a-pain-flare/

5. **Darnall BD**. Sex/gender disparity in pain and pain treatment: Closing the gap and meeting women's treatment needs. *Pain Management* 2011; July: 25-27.

6. **Darnall BD**. Mirror therapy: Expanding global access to phantom pain care. *InMotion* 2010; 20 (6): 42-44.

Peer-Reviewed Published Abstracts

1. Sturgeon JA, Dixon E, **Darnall BD**, Mackey SC. Contributions of Physical Function and Satisfaction with Social Roles in Chronic Pain: A Stanford-NIH CHOIR Study. *J Pain.* 2015; 16(4): S17.

2. Sturgeon J, **Darnall B**, Kao, M, Mackey S. Physical and psychological correlates of fatigue and physical function: A Stanford-NIH CHOIR Study. *J Pain.* 2015; 16(4): S18.

3. Kao M, Leon M, Prasad R, Cullen A, Pacht T, Wellisch O, Olson G, **Darnall B**, Weber S, Mackey S. Stanford Patient Experience Questionnaire (SPEQ): Network of patient experience touch points revealed by Bayesian network reconstruction suggests targets for intervention. *J Pain.* 2015; 16(4): S36.

4. Kao M, Leon M, Prasad R, Cullen A, Pacht T, Wellisch O, Olson G, **Darnall B**, Weber S, Mackey S. Stanford Patient Experience Questionnaire (SPEQ): Machine mediated classification of patient experience feedback using natural language processing. *J Pain.* 2015; 16(4): S37.

5. Taub C, Chahal M, **Darnall BD**, Kao MC, Mackey SC. Anger Mediates Relationship Between Trauma and Pain Catastrophizing in Chronic Pain. *J Pain.* 2015; 16(4): S99.

6. Sharifzadeh Y, **Darnall B**, Kao M, Mackey S. Sub-clinical range of pain catastrophizing moderates the effect of pain intensity on opioid prescription. *J Pain.* 2015; 16(4): S16.

7. Chahal M, Taub C, **Darnall BD**, Kao MC, Mackey SC. Assessment of Anxiety as Mediator of the Relationship Between Sleep Disturbance and Pain Catastrophizing in Chronic Pain. *J Pain.* 2015; 16(4): S5.

8. Sharifzadeh Y, **Darnall BD**, Kao MC, Mackey SC. Opioid prescription is predicted by novel sub-clinical range of pain catastrophizing: Discovery from resampling nonparametric modeling. *Pain Medicine*. 2015; 16(3):586.

9. Mackey S, Kao MC, Cook K, Olson G, Pacht T, **Darnall B**, Weber S. Collaborative Health Outcomes Information Registry (CHOIR): Open source cloud based platform to generate and support learning healthcare systems. *Postgraduate Medicine, Pain Management*. 2014; 66.

10. **Darnall BD**, Sturgeon JA, Kao MC, Hah JM, Mackey SC. From Catastrophizing to Recovery: Pilot study of a single-session psychobehavioral class to treat pain catastrophizing. *J Pain.* 2014; 15 (4): S109.

11. Ruchelli G, Chapin H, **Darnall BD**, Seppala E, Doty J, Mackey S. Compassion meditation training for people living with chronic pain and their significant others: A pilot study and mixed methods analysis. *J Pain.* 2014; 15 (4): S117.

12. Kao M, Cook K, Olson G, Pacht T, **Darnall BD**, Weber S, Mackey S. Stanford-NIH Pain Registry: Catalyzing the rate limited step of psychometrics with modern patient-reported outcomes. *J Pain.* 2014; 15 (4): S3.

13. Kao M, Weber S, Cook K, Olson G, Pacht T, **Darnall BD**, Weber S, Mackey S. Stanford-NIH Pain Registry: Open source platform for large-scale longitudinal assessment and tracking of modern patient-reported outcomes. *J Pain.* 2014; 15 (4): S40.

14. Kao M, Cook K, Olson G, Pacht T, **Darnall BD**, Weber S, Mackey S. Stanford-NIH Pain Registry: Catalyzing the rate limited step of big-data psychometrics with item-response theory and advanced computerized adaptive testing. *Pain Medicine*. 2014; 15 (3): 533.

15. Kao M, Cook K, Olson G, Pacht T, **Darnall BD**, Weber S, Mackey S. Stanford-NIH Pain Registry: Open source platform for large-scale longitudinal assessment of clinical data and patient-reported outcomes. *Pain Medicine*. 2014; 15 (3): 533.

16. Ching AC, Marshall L, Hart RA, Zusman NL, **Darnall B**, Ragel BT, Nemecek A, Lanning KK, Watson KM, Yoo JU. Early prevalence of post-traumatic stress disorder in spainal trauma patients. The Spine Journal. 2012 12(9):S51.

17. **Darnall BD**, Wilson AC, Pierce DA. CARE Scale: Development and validation of a measure assessing the impact of relationships on self-care in chronic pain. *J Pain.* 2012; 13 (4), S1: S19.

18. **Darnall BD**, Wilson AC, Pierce DA. Medication taking attitude/behavior is influenced by relationships: Results from the CARE Scale online survey. *Pain Medicine.* 2012; 13(2): 316.

19. Volpe K, Li H, Caughey A, **Darnall BD**. Relationship of childbirth self-efficacy to prolonged second stage of labor. *J Women's Health.* 2011; 20(3):P124.

20. **Darnall BD**. A pilot study of self-delivered home-based mirror therapy for phantom pain. *J Pain.* 2010; 11(4) S1: S54.

21. **Darnall BD**. Chronic pain and pain catastrophizing in incarcerated women. *J Pain.* 2010; 11(4), S1: S19.

22. **Darnall BD**. Hysterectomy is associated with opioid use in women with chronic pain. *J Women's Health.* 2009; 18(10): 1496.

23. **Darnall BD**, Zwickey H, Aickin M. Interleukin-6 response to in-vivo pain catastrophizing: Comparison by gender. *J Women's Health.* 2008; Nov; 17: 1248.

Book Reviews

1. **Darnall BD**. "Pain as It Presents in Clinic: Complex and Comorbid." *J Pain and Symptom Management* 2013; 45(6): 1120-1121. (Book review of *Pain comorbidities: Understanding and treating the complex patient,* Giamberardino MA and Jensen TS, Eds. IASP Press, Seattle, WA, USA 2012).

Book Chapters

1. Sturgeon JA, Zautra A, **Darnall BD**. Physical and social pain: Twin challenges in well-being in adult life. The Wiley Encyclopedia of Health Psychology. Sweeny K and Robbins M, Eds. Wiley Press (in review).

Books

1. **Darnall BD**. *Less Pain, Fewer Pills: Avoid the Dangers of Prescription Opioids and Gain Control Over Chronic Pain.* ©2014. Bull Publishing, Boulder, CO. (232 pages)

GRANT SUPPORT

Pending Grants

1. **NIH / NCCIH**
   R01 grant
   Title: Single Session Pain Catastrophizing Treatment: Comparative Efficacy & Mechanisms
   This project will test the efficacy of a novel treatment for pain catastrophizing I developed and pilot tested at the Stanford Pain Management Center.
   Total funds requested: **$3,660,888**
   Multi-PI: Darnall & Mackey
   Reviewed 02/03/15: Percentile: 3; Priority Score: 17

2. **NIH / NICHD**
   R01 grant
   Title: Maternal Chronic Pain: Risk for Pain and Poor Outcomes in Children
   (PI: Anna Wilson, PhD)
   Darnall, Site PI for Stanford University

Total funds requested for Stanford site: **$1,203,750**
Reviewed 03/04/15: Percentile 1; Funded

CURRENT GRANTS

1. **Stanford Faculty Innovation Program** 12/18/14-12/17/15
   Title: Pain Clinic Optimization of Patient Experience (Pain COPE): Leveraging Open Source Learning Health System for Prescriptive Analytics Approach to Patient Satisfaction
   $50,000
   Multi-PI: Darnall BD and Kao MC

2. **NIH/ NCCIH** 11/01/14-10/31/15
   P01 AT006651-S1
   Title: The psychobiological and neural mechanisms of pain catastrophizing.
   This career development training supplement funds 0.75 FTE, Year 2 (competitive renewal).
   $230,000 (supplement to the P01)
   PI: Sean Mackey, MD; **Darnall, Scholar PI.**

3. **NIH / NCCAM** 9/1/11 – 5/31/16
   P01 AT006651
   Title: Stanford CAM Center for Chronic Back Pain
   PD: Mackey;
   Darnall, Co-I and Lead for the Psychophysics & Behavioral Core
   (Director for patient reported outcomes across all projects in the Center; Lead of Project 2 (R01 comparing MBSR and pain-CBT); Lead for Center Marketing and Promotions).

4. **NIH/ NCCAM** 9/01/13-10/31/15
   P01 AT006651-S2
   Title: Sex/Gender-Specific Brain Risks for Prescription Opioids in Chronic Low Back Pain.
   The goal of this grant is to characterize sex/gender differences for the effect of opioids on baseline brain structure in chronic low back pain, thus clarifying sex-specific brain risks for prescription opioids in women.
   $100,000 (supplement to the P01)
   PI: Sean Mackey, MD; **Darnall, Co-I.**

COMPLETED GRANTS

1. **NIH/ NCCAM** 9/01/13-10/31/14
   P01 AT006651-S1
   Title: The psychobiological and neural mechanisms of pain catastrophizing.
   This career development training supplement funds 0.75 FTE for Year 1.
   $230,000 (supplement to the P01)
   PI: Sean Mackey, MD; **Darnall, Scholar PI.**

2. **International Association for the Study of Pain (IASP)** 6/15/11-6/15/12
   Grant: Initiative for improving pain education in developing countries.
   Title: Mirror Therapy Outreach Workshops for Medical Providers in Vietnam
   $10,000
   Darnall, Co-PI. Co-PI: Dr. Do Than Huy, MD

3. **National Institutes of Health/Office of Research on Women's Health** 1/01/08-6/30/10
Oregon BIRCWH K-12 (Building Interdisciplinary Research Careers in Women's Health)
Title: Pain Catastrophizing as a Cause of Systemic Inflammation in Women with Chronic Pain
Annual Budget: $180,000 yearly; 0.75 FTE
PI: Leslie Hallick. **Darnall, Scholar PI.**

4. **Medical Research Foundation of Oregon** 3/01/10 – 6/30/12
Title: Pain Catastrophizing as a Cause of Systemic Inflammation in Pre- and Post-Menopausal Women
$40,000
Darnall, PI

5. **ZRT Laboratories** 7/01/08-7/01/12
Title: Pain Catastrophizing as a Cause of Systemic Inflammation in Women with Chronic Pain
$86,000
Darnall, PI

6. **N.L. Tartar Research Fellowship** 6/01/10 – 6/01/11
Title: Home-Based Self-Delivered Mirror Therapy for Phantom Pain
$1,000
Darnall, PI

7. **OHSU Humanitarian Award** 6/01/09-6/01/10
Title: Single-Session Pain Psychology for Underinsured Family Medicine Patients with Chronic Pain
$7,500
PI: Thayer White, MD; **Darnall, Co-I.**

8. **American Pain Society "Future Leaders in Pain Research" Award** 11/01/06-6/01/08
Title: "An Investigation of Immunologic Response to Negative Cognition in Persons with Chronic Pain"
$20,000
Darnall, PI

9. **Centers for Disease Control**
Title: Self-Management of Limb Loss grant award to the Center for Injury Research & Policy.
PI: Ellen J. MacKenzie, Ph.D.
$400,000 (Year 1) 0.25 FTE
Darnall, Post-Doctoral Fellow

10. **NIH T-32 Research Fellowship Grant** 11/01/02-3/30/04
Johns Hopkins University, School of Medicine, Department of Neurology.
0.75 FTE
Darnall, Post-Doctoral Fellow

CREDENTIALING

Stanford University Hospitals and Clinics	02/13 - present
Oregon Health & Science University Hospital	11/05 - 06/12
Portland Veterans Affairs Hospital	10/09 - 10/11

LICENSURE

California Board of Psychology, License #25495	02/13 - present
Oregon Board of Psychologist Examiners, License #1697	10/05 – 02/13
Maryland Board of Examiners of Psychologists, License #3965	09/03 – 09/05

CERTIFICATION

Examination for Professional Practice in Psychology (EPPP)	2000
National Register for Health Care Providers in Psychology	2005 – 2014

VISTITING PROFESSORSHIPS

1. **Stanford University**
   Department of Anesthesiology, Perioperative and Pain Medicine
   Division of Pain Medicine
   January 11-13, 2012

   "Sex/Gender in Chronic Pain: Mechanisms of Influence and Treatment Implications." Departments of Neuroscience and Anesthesiology. Stanford University, Palo Alto, CA; 1/12/12.

   "Goals of Pain Education: Minimize Opioids, Empower Patients, Relieve Suffering." Department of Anesthesiology, Perioperative and Pain Medicine. Division of Pain Management, Stanford University. Redwood City, CA; 1/13/12.

2. **University of California, Davis**
   Department of Anesthesiology, Perioperative and Pain Medicine
   Division of Pain Medicine
   December 19, 2013

   "The interface between psychology and opioids." Division of Pain Medicine, University of California, Davis; 12/19/13.

CME LECTURES

International and National CME Lectures

1. Session Chair and Speaker. "Basic and Clinical Pain Research Ethics: National Oversight, Data Integrity, and How and Why Your Role as Ethical Steward Outlasts Your Research Study." Darnall

BD, Parkitny L, and Ambalavanar R. American Pain Society 34th annual scientific meeting. Palm Springs: 05/15/15.

2. Session Chair and Speaker. "Opioid Drug:Drug Interaction Pitfalls." Darnall BD, McCance-Katz EF, Kao MC. American Academy of Pain Medicine annual conference. Washington, DC: 03/20/15.

3. Session Chair and Speaker. "Stop Catastrophizing from Undermining Your Treatment Outcomes." Darnall BD & Edwards RR. American Academy of Pain Medicine annual conference. Washington, DC: 03/21/15.

4. Session Chair and Speaker. "The Psychology of Opioids." Darnall BD, Sullivan M, Mackey SC. PAINWeek 2014, Las Vegas, NV: 09/04/14.

5. Lecturer, "Mind Over Pill: Minimizing Opioids & Optimizing Psychology." Stanford University, the Western Pain Society, and the American Academy of Pain Medicine conference, Stanford, CA: 9/19/14.

6. Session Chair and Speaker. "Mind Over Pill." Darnall BD, Sullivan M, and Prasad R. American Academy of Pain Medicine Annual Conference, Phoenix, AZ: 03/08/14.

7. Speaker, "Pain, Psychology & Opioids." Fundamentals of Pain Management: 2013 Primer Course, sponsored by the American Pain Society. New Orleans, LA: 5/07/13.

8. Co-Presenter, "Hot Topics in Pain Psychology." Prasad R and Darnall BD. American Academy of Pain Medicine annual conference. Ft. Lauderdale, FL: 4/14/13.

9. Speaker, "Relationships and chronic pain." Women in Pain 5th annual conference. Los Angeles, CA: 9/14/12.

10. Co-presenter. "The rational use of opioid analgesics for non-cancer chronic pain: What every prescriber needs to know." Darnall BD, Argoff C. Served as faculty representing the American Pain Society at PAINWeek. Las Vegas, NV: 9/07/12.

11. Session Chair and Speaker. "Translating opioid research findings into clinical practice: practical and ethical implications." Darnall BD, Ballantyne J, Argoff C, Schatman M. American Pain Society annual scientific conference, Honolulu, HI: 5/17/12.

12. Speaker. "Change your brain, change your pain." American Academy of Pain Management, 22nd annual conference. Las Vegas, NV: 9/21/11.

13. Keynote Speaker. "Pain in Women: Finding the gift and flourishing." Women in Pain 4th annual conference. Los Angeles, CA: 9/16/11.

14. Session Chair and Moderator. "Empowering Women in Pain," Women in Pain 4th annual conference, Los Angeles, CA: 9/16/11.

15. Invited oral presentation: "Gender Dimorphic Immunologic Response to Pain Catastrophizing." Office for Women's Health Research annual conference, NIH, Bethesda, MD: 11/19/08.

16. Selected oral presentation: "Immunologic Response to a Pain Catastrophizing Induction." Selected oral presentation, The International Association for the Study of Pain, triennial conference; Glasgow, Scotland: 8/20/08.

17. Invited oral presentation: "Immunologic Response to Pain Catastrophizing." American Pain Society Annual Scientific Meeting, Tampa, FL: 5/10/08.

State and Regional CME Lectures

1. "Minimizing Opioids and Optimizing Psychology." Stanford University, Western Pain Society, and the American Academy of Pain Medicine: Conquering Pain Locally, Regionally and Nationally. Stanford, CA. September 19, 2014.

2. "Optimizing Patient Transformation: Hot Trends in Coaching & Education." Western Pain Society annual conference (WPS is a 13-state regional pain society). Eugene, OR; September 21, 2013.

3. "The Interface Between Opioids and Chronic Pain." Hoag Neuroscience Symposium. Pain and Addiction: The Ultimate Challenge of the Treating Physician. Irvine, CA; March 23, 2013.

4. "Pain characteristics and pain catastrophizing in incarcerated women with chronic pain: Research results and implications for clinical care." State of Oregon Department of Corrections annual health provider conference. Salem, OR; April 5, 2012.

5. "The Interface Between Psychology and Opioids." Pain Society of Oregon. Eugene Chapter; Eugene, OR, October 19, 2011.

6. "The Interface Between Psychology and Opioids." Pain Society of Oregon. Portland Chapter; Portland, OR, October 18, 2011.

8. Session Chair and Speaker. Darnall BD, Pengally S, Schatman M. "Complex Psychological Issues." Western Pain Society annual conference, 10/01/11.

9. "Chronic Pain in Women," Western Pain Society annual conference, 10/02/11.

10. "Change Your Brain, Change Your Pain." Veterans Administration Health Care System, VISN 20 Region (telecast across Oregon, Southern Washington, Alaska, Idaho), 8/25/11.

11. Co-Lecturer. Darnall BD & Wagner J. "Barriers to Care: New Models for Accessing Pain Treatment." Pain Society of Oregon annual conference, 5/22/10.

12. "Mirror Therapy for Phantom Pain." Pain Society of Oregon annual conference, 5/22/10.

13. "Gender-Specific Treatment for Women with Chronic Pain," Pain Society of Oregon, 10/20/09.

14. "Immunologic Response to Pain Catastrophizing," Western Pain Society, Annual Conference, 4/24/08.

15. "Treating Chronic Pain in Corrections Settings," Oregon Department of Corrections, 11/09/08.

16. Poster selected for oral presentation. "The Immunologic Impact of In-Vivo Pain Catastrophizing." Darnall BD, Zwickey H, Byung P. American Pain Society Annual Meeting, 5/09/08.

17. "Treating Patients with Chronic Pain," Seminar, Oregon Psychological Association annual meeting, 05/07.

18. Co-Presenter. Darnall BD & Abel JM. "Multidisciplinary Treatment of a Chronic Groin Pain Patient" Co-Presenter, Pain Society of Oregon Annual Clinical Meeting, 4/15/06.

Local CME Lectures

1. *Pain Fellows Didactic Lecture Series*
   Stanford University, Department of Anesthesiology, Perioperative and Pain Medicine
   Deliver 2 pain psychology lectures each year.

2. *Pain Fellows Didactic Lecture Series*
   Portland VA Mental Health, Psychology Lecture Series
   Annually lectured to post-doctoral fellows and interns on pain psychology, 2009-2012.

3. Psychological Treatment Modalities and Resources. Division of Pain Medicine, Stanford University, 4/10/15.

4. "Pain Catastrophizing." Division of Pain Medicine, Stanford University, 11/21/14.

5. "The interface between psychology and opioids." Division of Pain Medicine, Stanford University, 12/07/12.

6. "Home-based self-delivered mirror therapy for phantom pain." Quarterly conference, Department of Physical Medicine and Rehabilitation, Portland VA Hospital, 4/25/12.

7. "Goals of pain education: Minimize opioids, empower patients, relieve suffering." Grand Rounds, OHSU Department of Anesthesiology and Perioperative Medicine, 4/09/12.

8. "Utility of bilateral tactile stimulation in chronic pain: Rationale and applications." Portland EMDRIA practitioner group, 03/23/12.

9. Course organizer, panel moderator and speaker. "Opioids for chronic pain: Should we take that path?" Panel members: Stacey BR, Fromme E, Carr T, Wagner J, Darnall BD, 2nd Annual OHSU Pain Day, 2/28/12.

10. "Pain Psychology: Research & Clinical Updates." OHSU Division of Psychology, Spring Colloquium, 03/24/11.

11. "Change Your Brain, Change Your Pain," BRAINet, Portland, OR, 02/28/11.

12. Moderator, Panel Speaker: "Pain in Clinical Practice" OHSU Inaugural P.A.I.N. Day, 02/22/11.

13. "Clinical Pain Updates: Women are Not Men" OHSU Inaugural P.A.I.N. Day, 02/22/11.

14. "The Mystery of Pain." *Bing Pain Lounge: OHSU Medical Breakthroughs*. Co-Lectured with Stacey, BR. Taped and webcast. 2/09/11.

15. "Pain Psychology." Portland VA Mental Health, psychology intern and post-doctoral fellow lecture, 2/02/11.

16. "Mirror Therapy for Phantom Pain." OHSU Department of Anesthesiology & Perioperative Medicine, Departmental Grand Rounds, 1/10/11.

17. "The Interface Between Psychology and Opioid Use." OHSU Department of Anesthesiology & Perioperative Medicine, 09/10.

18. "Improving Access to Mirror Therapy for Phantom Pain." OHSU/Kaiser CHR collaborative pain research interest group meeting, 8/02/10.

19. "Gender-Responsive Chronic Pain Treatment for Incarcerated Women with Substance Abuse." OHSU and Kaiser Permanente collaborative pain research interest group meeting, 4/05/10.

20. "Psychological Stress and Inflammatory Factors." OHSU Central Sensitivity Research Group, 1/07/10.

21. "Pain Psychology." Portland VA Mental Health, psychology intern and post-doctoral fellow lecture, 12/09/09.

22. "Immune Mediators of Pain." OHSU Department of Anesthesiology, Pain Fellows Lecture, 2/09/09.

23. "Treating Patients with Comorbid Chronic Pain." Grand Rounds, OHSU Department of Psychiatry, 6/17/08.

24. "IL-6 Response to In-Vivo Pain Catastrophizing is Gender Dimorphic." OHSU Human Investigator Program, Annual Conference and Awards Ceremony, 5/30/08.

25. "Can Your Thoughts Affect Your Immune System?" Department of Psychology, Portland State University, 5/27/08.

26. "How Your Thoughts Affect Your Immune System," Marquam Hill Lecture Series, OHSU, 5/15/08.

27. "IL-6 Response to In-Vivo Pain Catastrophizing is Gender Dimorphic." Selected oral presentation, OHSU Human Investigator Annual Symposium and Awards Ceremony, 5/30/08.

28. "Chronic Pain Patient Services." Department of Psychiatry, OHSU, Psychiatry Resident Lecture; 1/21/08.

29. "Self-Management of Chronic Pain." Lupus Society of Portland, 1/07.

30. "An Investigation of Immunologic Response to Negative Cognition in Persons with Chronic Pain." Symposium for Portland Area Research on Complementary and Alternative Medicine, Annual Conference; 6/09/07.

31. "Adult Pain Psychology." Grand Rounds, Department of Anesthesiology and Perioperative Medicine, OHSU. 6/19/06.

32. Department of Bariatrics, OHSU. "Maximizing Post-Operative Success," 04/06.

Non-CME Presentations

1. "Changing Pain, Brain and Behavior." Research and Development presentation, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University, Stanford, CA: 3/10/15.

2. "Perioperative Pain Psychology." Stanford University Colorectal Surgery group, Stanford, CA: 1/27/15.

3. "Pain Psychology: Harness the Power of Your Brain." Stanford University and Western Pain Society all-day event for people living with chronic pain, Stanford, CA: 9/21/14.

4. Session Chair and Panel Speaker. "Ethical Topics in Chronic Pain." (Panelists: Stacey BR, Chou R, Sheman J, Darnall BD). Ethics SIG meeting for the 2014 Annual meeting of the American Pain Society. Tampa, FL: 4/29/14.

5. "Less Pain, Fewer Pills: Optimizing the Mind-Body Connection in Women with Chronic Pain." The 2013 Women's Health Forum, Stanford University: 5/15/13.

6. Session Chair and Panel Speaker. "The Industry Conundrum: The role of industry funding within the APS and at the national conference." (Panelists: Schatman M, Jarvis M, Manworren R, Peppin J, Darnall BD). Ethics SIG meeting for the 2013 Annual meeting of the American Pain Society. New Orleans, LA: 5/9/13.

INTERNATIONAL RESEARCH & EDUCATION PROJECTS

Certification Workshops

Primary developer and instructor for a full-day workshop that trained Vietnamese physicians and allied healthcare professionals in mirror therapy to treat phantom pain. Delivered workshops in 3 cities in 3 regions of Vietnam (N = 167). Workshops included live Vietnamese translation and back-translated printed materials. Participants became certified mirror therapy practitioners and trainers. Collaborators included Drs. Nguyen and End the Pain Project. Project funded by a grant from the International Association for the Study of Pain (IASP).

Certification workshops delivered:

- Phuong Chau International Obstetrics Gynecology Hospital, Can Tho, Vietnam: 11/26/11.
- Quang Tri Province, Dong Ha, Vietnam: 11/30/11.
- Vietnamese Training Centre for Orthopaedic Technologist, Hanoi, Vietnam: 12/3/11.

Research Director

Directed a collaboration between the Universidade Federal de Minas Gerais School of Medicine, Belo Horizonte, Brazil, the University of New Mexico and the University of Colorado (5/95-5/96). Published the first prevalence data for eating disordered behaviors among Brazilian adolescents. Darnall BD, Smith JE, Craighead LW, & Lamounier JA. "Modification of the Cognitive Model for Bulimia via Path Analysis on a Brazilian Adolescent Sample." *Addictive Behaviors 1999; 24 (1): 47-57*

CME CONFERENCE LEADERSHIP

Regional and National Conference Co-Chair

2015 **Co-Chair:** Stanford, Western Pain Society, and the American Academy of Pain Medicine: *Conquering Pain Locally, Regionally, and Nationally*. Co-Chaired this 3-day CME conference with Dr. Sean Mackey. Stanford, CA: September 19-21.

American Pain Society Annual Meeting Scientific Program Committee

2011-2014 American Pain Society annual scientific conferences. The committee reviews workshop and symposia proposals for the annual scientific conference, attend a full-day committee meeting in Chicago, plan conference content and areas of emphasis, and vet applications for ethical considerations and conflicts of interest. Each member rates and vets roughly 60 symposia proposals and 100 scientific abstracts for potential paper or poster presentation.

Regional and Local Conference Planning Committees

2009-2012 Pain Society of Oregon, annual clinical conferences.

2011-2012 "OHSU Pain Day: Scientific and Clinical Updates." Pain Awareness and Information Network; Program committee. Played an integral role in the inaugural conference in 2011.

SELECTED SCIENTIFIC POSTER PRESENTATIONS

Listed below are posters that were not also published in peer-reviewed scientific journals in abstract form.

1. Kao MC, Cook KF, **Darnall BD**, Olson G, Pacht T, Weber SC, Mackey SC. Collaborative Health Outcomes Information Registry (CHOIR): Open Source Cloud-Based Platform to Generate and Support Learning Healthcare Systems. International Neuromodulation Society 12th World Congress. Montreal, Canada: 6/15.

2. Mackey SC, Kao MC, Cook KF, **Darnall BD**, Olson G, Pacht T, Weber SC. Collaborative Health Outcomes Information Registry (CHOIR): Open Source Learning Health Systems Platform. Patient-Reported Outcomes Measurement Information System: From Basics to Applications in Clinical Research, Practice and Population Health. Philadelphia, PA: 5/15.

3. Mackey SC, Kao MC, Cook KF, **Darnall BD**, Olson G, Pacht T, Weber SC CHOIR CAT: Integrated Multi-Objective Probabilistic Computer Adaptive Testing Platform for NIH PROMIS and Toolbox. Patient-Reported Outcomes Measurement Information System: From Basics to Applications in Clinical Research, Practice and Population Health. Philadelphia, PA: 5/15.

4. Sharifzadeh Y, **Darnall BD**, Kao MC, Mackey SC. "Opioid prescription is predicted by novel sub-clinical range of pain catastrophizing: Discovery from resampling nonparametric modeling." American Academy of Pain Medicine, Washington, DC: 3/19/15.

5. **Darnall BD**, Curtin C, Kin C, Welton L, Kenney D, Kao MC, Rico T, Mackey SC. My Surgical Success: Remote Perioperative Pain Psychology. UCSF-Stanford Anesthesia Research Day, Millbrae, CA: 3/14/15.

6. Kao MC, Cook K, Olson G, Pacht T, **Darnall BD**, Weber S, Mackey SC. CHOIR CAT: Integrated Multi-Objective Probabilistic Computer Adaptive Testing Platform for NIH PROMIS and Toolbox. UCSF-Stanford Anesthesia Research Day, Millbrae, CA: 3/14/15.

7. Mackey SC, Kao MC, Cook KF, **Darnall BD**, Olson G, Pacht T, Weber SC. Collaborative Health Outcomes Information Registry (CHOIR): Open Source Learning Health Systems Platform. UCSF-Stanford Anesthesia Research Day, Millbrae, CA: 3/14/15.

8. Mackey S, Kao MC, **Darnall B**, Prasad R, Leong M, Cullen A, Wellisch O, Olson G. Stanford Patient Experience Questionnaire (SPEQ): Network of patient experience touch points revealed by Bayesian network reconstruction suggests targets for intervention. UCSF-Stanford Anesthesia Research Day, Millbrae, CA: 3/14/15.

9. **Darnall BD**, Sturgeon JA, Kao MC, Hah JM, Mackey SC. "From Catastrophizing to Recovery: Pilot study of a single-session psychobehavioral class to treat pain catastrophizing." American Pain Society annual scientific conference, Tampa, FL: 05/14.

10. Ruchelli G, Chapin H, **Darnall BD**, Seppala E, Doty J, Mackey S. "Compassion meditation training for people living with chronic pain and their significant others: A pilot study and mixed methods analysis." American Pain Society annual scientific conference, Tampa, FL: 05/14.

11. Kao M, Cook K, Olson G, Pacht T, **Darnall BD**, Weber S, Mackey S. "Stanford-NIH Pain Registry: Catalyzing the rate limited step of psychometrics with modern patient-reported outcomes." American Pain Society annual scientific conference, Tampa, FL: 05/14.

12. Halawa O, **Darnall BD**. "The Effect of Religiosity on Opioid-Taking Behavior for Lung Cancer Pain: An International Study." International Association for the Study of Pain Biennial conference, Milan, Italy: 08/12.

13. **Darnall BD**, Wilson AC, Pierce DA. "CARE Scale: Development and preliminary validation of a measure assessing the impact of relationships on self-care in chronic pain." American Pain Society annual scientific conference, Honolulu, HI: 5/17/12.

14. **Darnall BD**, Wilson AC, Pierce DA. "CARE Scale: Development and validation of a measure assessing the impact of relationships on self-care in chronic pain." American Academy of Pain Medicine annual meeting, Palm Springs, CA: 2/23/12.

15. **Darnall BD** & Li H. "Hysterectomy predicts opioid prescription in women with chronic pain." Invited poster presentation. American Academy of Pain Management, 22nd annual conference, Las Vegas, NV: 9/21/11.

16. Volpe K, **Darnall BD**, Li H, Caughey A. "Relationship of childbirth self-efficacy to prolonged second stage of labor." NIH Women's Health Conference, Bethesda, MD: 4/5/11.

17. **Darnall BD** & Li H. "Home-Based Self-Delivered Mirror Therapy for Phantom Pain." Egyptian Society for the Management of Pain, Cairo, Egypt: 10/28/10.

18. Reposar A, Volpe K, **Darnall BD**, Li H. "Pain Catastrophizing and Birth Satisfaction in a Sample of Healthy Nulliparious Women." Annual meeting of the American Society of Anesthesiology, San Francisco, CA: 10/14/10.

19. **Darnall BD**. "Self-Delivered Mirror Therapy for Phantom Pain." Amputee Coalition of America annual conference, Irvine, CA: 8/28/10.

20. **Darnall BD**. "Pain Characteristics and Pain Catastrophizing in Incarcerated Women." American Pain Society annual conference, Baltimore, MD: 5/6/10.

21. **Darnall BD**. "Home-Based Self-Delivered Mirror Therapy for Phantom Pain: Results from a Pilot Study." American Pain Society annual conference, Baltimore, MD: 5/6/10.

22. **Darnall BD**. "Hysterectomy is Associated with Opioid Use in Women with Chronic Pain." Office for Research on Women's Heath, NIH, BIRCWH conference, Bethesda, MD: 11/16/09.

23. **Darnall BD**, Zwickey H, Byung P. "Immunologic Response to a Pain Catastrophizing Induction." The International Association for the Study of Pain, triennial conference, Glasgow, Scotland: 8/20/08.

24. Larsen G, **Darnall BD**, Zwickey H. "The Effects of Sleep on the Immunologic Response to Negative Cognition in Persons with Chronic Pain." American Pain Society Annual Meeting, Tampa, FL: 5/08.

25. **Darnall BD**, Zwickey H, Byung P. "Cortisol Mediates Interleukin-6 Response Following In-Vivo Pain Catastrophizing." American Pain Society Annual Meeting, Tampa, FL: 5/8/08.

26. Larsen G, **Darnall BD**, Zwickey H. "The Effects of Sleep on the Immunologic Response to Negative Cognition in Persons with Chronic Pain." American Society for Anesthesiology annual meeting, San Francisco, CA: 10/07.

27. **Darnall BD**. "An Investigation of Immunologic Response to Negative Cognition in Persons with Chronic Pain." American Pain Society Annual Meeting, Washington, D.C.: 5/2/07.

28. **Darnall BD**, Ephraim P, Wegener ST, Dillingham T, Pezzin L., Rossbach P, & MacKenzie E. "Prevalence of Depressive Symptoms and Mental Health Care Utilization in Persons with Limb Loss: Results of a National Survey." National Institutes of Health, Bethesda, MD: 12/03.

29. **Darnall BD**, Ephraim P, Wegener ST, Dillingham T, Pezzin L, Rossbach P, & MacKenzie E. "Prevalence of Depressive Symptoms and Mental Health Care Utilization in Persons with Limb Loss: Results of a National Survey." Rehabilitation Psychology Annual Conference, Tucson, AZ: 4/03.

30. **Darnall BD** & Craighead LW. "Investigation the Cognitive Model for Bulimia via Path Analysis on a Brazilian College Sample." American Association for Behavior Therapy Annual Conference, Miami, FL: 11/97.

MENTORING

Research Trainees

Gail Larsen, M.D., M.P.H.
Primary research mentor, 2007
Supported by the Medical Student Anesthesia Research Fellowship
Foundation for Anesthesia and Education Research (FAER)
"The Effects of Sleep on the Immunologic Response to Negative Cognition in Persons with Chronic Pain."
Current Position: Chief Medical Resident, University of Michigan, Internal Medicine.

Katie Volpe, M.D.
Primary research mentor, 2008-2010.
"Relationship of childbirth self-efficacy to prolonged second stage of labor."
Current Position: Resident in Obstetrics at the University of New Mexico.

Aaron Reposar, M.D.
Primary research mentor, 2010
Supported by the Medical Student Anesthesia Research Fellowship
Foundation for Anesthesia and Education Research (FAER)
"Pain Catastrophizing and Birth Satisfaction in a Sample of Healthy Nulliparious Women."
Current Position: Resident in General Surgery at Christiana Health Care System, Delaware.

Omar Halawaa, M.D.
Primary research mentor, 2011
Project: "Religiosity and Cancer Pain Experience: An international study." Collaboration with researchers at OHSU, UNC Chapel Hill, and Saudi Arabia.
Current Position: Pain Fellow, UC San Diego, Department of Anesthesiology, Perioperative and Pain Medicine.

Chloe Taub
Primary research mentor, 2014-2015
Topic: Sensory Perception Changes Following a Pain Catastrophizing Induction in Women with Chronic Pain: A Quantitative Sensory Testing Study.
Current Position: Master's student in Psychology, Stanford University.

Yasamin Sharifzadeh
Co-mentor with Drs. Mackey and Kao, 2014-2105
Topic: Opioid prescription is predicted by novel sub-clinical range of pain catastrophizing: Discovery from resampling nonparametric modeling.
Current Position: Stanford undergraduate student.

Junie Carriere, B.S.
Primary mentor, pre-doctoral research internship, 07/15-12/15
Supported by Fonds de Recherche Quebec Sante Master's Training Award.
Topic: Pain Catastrophizing and it's association with perceived injustice and acceptance.
Current Position: Doctoral student at McGill University, Department of Psychology, Montreal, Quebec.

EDITORIAL ACTIVITIES

Editorial Board Memberships

Journal of Pain Research (2013–present)

Pain Medicine (Section Editor, Ethics Forum; 2013-present)
Journal of Pain and Relief (2012-present)
Journal of Palliative Medicine (2014-present)

Invited Reviewer

JAMA Internal Medicine
Brain, Behavior & Immunity
Pain
Clinical Journal of Pain
Journal of Pain
American Journal of Physical Medicine and Rehabilitation
Journal of Healthcare for the Poor and Underserved
European Journal of Integrative Medicine
Women's Health Issues

Grant Reviewer

American Pain Society Future Leaders in Pain Research; 2013, 2014, 2015

American Pain Society Sharon S. Keller research awards; 2013, 2014, 2015

The Scientific Peer Advisory and Review Services Division of the American Institute of Biological Sciences (on behalf of US Army Medical Research and Materiel Command); 2012.

OHSU Center for Women's Health & Department of Obstetrics/Gynecology (Circle of Giving Research Awards); 2009-2012.

Membership in Professional Societies

International Association for the Study of Pain (2006-present)
American Pain Society (2006-present)
Pain Society of Oregon (2009-2012)
American Academy of Pain Medicine (2010-present)
National Register for Health Care Providers in Psychology (2004-2014)
American Psychological Association (present)
Organization for the Study of Sex Differences (2008-2009)
Oregon Psychological Association (2006-2011)
American Association of University Women (2006-2009)
Maryland Psychological Association (2002-2004)
Johns Hopkins University Post-Doctoral Association (2002-2003)
Southern Arizona Psychological Association (Diversity Committee; 2001-2002)
American Psychological Association (present)
California Psychological Association (2013, present)

LEADERSHIP POSITIONS IN PROFESSIONAL SOCIETIES & COMMITTEE MEMBERSHIP

International & National Organizations

American Pain Society (APS)

2013-2016 **Chair, APS Ethics Shared Interest Group**. Chair of SIG steering committee and SIG programming for the annual APS scientific conferences.

2010-2015 **APS Ethics Committee**. The purpose of this committee is to initiate, review and advocate for ethical pain policy and ethical pain care. Members attend yearly meetings, teleconference and/or e-conference regularly and provide recommendations on relevant issues. This is considered a competitive and prestigious committee appointment within the APS organization.

2011-2014 **APS Scientific Program Committee** (see National CME Conference Leadership)

2012-2015 **APS Clinical Practice Guidelines Committee and Co-Author**. Developed guidelines for clinicians who treat chronic and acute pain patients. Committee considerations include best practices, evidence-based treatment, and ethics. Charge includes teleconferencing and attending a meeting at the annual conference.

2014-2015 **APS Committee on the Principles of Analgesic Use in the Treatment of Acute Pain and Cancer Pain**. Co-Author for the 2015 *APS Principles of Analgesic Use 7th edition.* Committee Chair: Chris Herndon, PharmD

2011-2013 **Steering Committee, APS Ethics SIG**. Developed content for Ethics SIG panel at the annual scientific conference. Online and teleconference meetings to discuss and resolve issues relevant to the SIG.

2012-2013 **APS Leadership Development Committee (Nominating Committee)**. This committee membership of APS with candidates for all elected offices.

American Academy of Pain Medicine (AAPM)

2015- **Co-Chair, Pain Psychology Task Force.** Co-Chair with Judith Scheman, PhD, established the first national task force dedicated to Pain Psychology. Efforts include quantifying national clinical needs and barriers to meeting current needs. Goals for 2016 include establishing an educational program for the core competencies of Pain Psychology.

2015-2016 **Annual Meeting Planning Committee**. Invited Member. This committee is charged with the strategic planning and needs assessment related to the overall educational content selection (live programming and chair oversight of Scientific Poster Abstract Committee) content review, faculty recruitment and onsite program evaluation of Annual Meeting education related activities. Committee Chairs: Dr. Daniel Carr and David Tauben, MD.

2013-2016 **Ethics Council**. Appointed Member. The Ethics Council provides advisement to the AAPM Board of Directors regarding ethical and conflict of interest issues within the organization and also nationally within the discipline of pain medicine; drafted current AAPM Conflict of Interest policy.

2014-2015 **Co-Chair, Membership Task Force** (with Dr. Perry Fine). Made recommendations to the board of directors toward the goal of increasing non-physician membership in the Academy while retaining the Academy's existing power / leadership structure. The Board of Directors adopted our recommendations and changed the current membership bylaws to be more inclusive. Received a 2015 Presidential Commendation (shared with Co-Chair Dr. Perry Fine) for our work.

2014-present **Interdisciplinary Shared Interest Group.**

Pain Action Initiative 2010 National Task Force

2010-2011 **Task force member**. The purpose: to develop a national strategic plan for improving treatment of chronic pain and to move the initiative forward to the policy level.

Foundation for Ethics in Pain Care

2011-present **Board of Directors**. This non-profit organization is dedicated to promoting and advocating for ethical pain research, treatment, and education in the United States and abroad: http://www.painethics.org

2013-present **Secretary**.

For Grace

2015-present **Legislative Committee**.

2012-present **Board of Governors**. This non-profit organization is devoted to ensuring the ethical and equal treatment of all women in pain. http://www.forgrace.org/women/in/pain/C28

2012-2014 **Steering Committee,** Annual Conference.

End the Pain Project

2009-present **Advisor, Board of Directors**. This non-profit organization is dedicated to the global reduction of phantom pain. The organization is using my clinical and research protocol to provide free phantom pain treatment to persons in developing countries (Vietnam, Cambodia, and Egypt): http://endthepainproject.org/

International Association for the Study of Pain, International Pain Summit

2010 Montreal, Canada 9/03/10.
U.S. Delegate. Participated in the International Pain Summit as a U.S. delegate of the International Association for the Study of pain, along with delegates from 84

nations, to discuss crucial aspects of pain management with a focus on advocacy and assistance for all countries to develop national pain strategies. Drafted language for an IASP International Bill of Human Rights regarding pain management, intended to influence global pain policy; ratified in the Fall of 2010 by the IASP Council as the "Declaration of Montreal".

Center for the Study of Empathic Therapy

2014-present **Advisory Council.** This non-profit organization is dedicated to raising the ethical and scientific standards in psychology and psychiatry. http://www.empathictherapy.org/

American Chronic Pain Association

2014-2015 **Committee Member and Co-Author.** The 2015 *ACPA Resource Guide to Chronic Pain Medication and Treatment*. Project Lead: Steven Feinberg, MD

Regional Leadership

Pain Society of Oregon

2012 **President** (presided over 3 regional chapters: Portland, Eugene and Bend)

2012 **Representative to the Western Pain Society Board of Directors** (with voting rights)

2011-2012 **Chair**, Board of Directors, Portland Chapter

2010-2012 **Board of Directors**

2010-2012 **Chair,** Portland Education Committee

2011 **Steering Committee**, 2011 Annual conference (October, Eugene, OR)

2010 **Steering Committee**, 2010 Annual conference (May 21-22, Portland, OR)

2009-2012 **Steering Committee**, Portland Chapter

Institutional Committees

Oregon Health & Science University (OHSU)

2010-2012 OHSU Women in Academic Medicine Committee

2010-2011 Pain Awareness and Information Network; inaugural conference

2010-2011 Program Committee, "OHSU Pain Day: Scientific and Clinical Updates"

2010-2011 OHSU Division of Psychology Steering Committee

2010-2011 OHSU Clinical Research Management System Investigator Advisory Committee

2011-2012 Pain Awareness and Information Network; Program committee, "OHSU Pain Day: Scientific and Clinical Updates"

2011-2012 OHSU Center for Integrative Medicine development task force

Departmental Committees

2012- Faculty Development and Mentoring Committee, Stanford University, Department of Anesthesiology, Perioperative and Pain Medicine

2011 Clinical Research Committee, OHSU, Department of Anesthesiology and Perioperative Medicine

Community Service:

Volunteer psychologist, Returning Veterans Northwest, Portland, OR (2007-2009)

Pro-bono pain psychology, select underinsured patients, OHSU Comprehensive Pain Center (2005-2012)

Mentor for Northwest Web Mentoring, a mentoring program for at-risk youth, Portland, OR (2007)

AWARDS AND RECOGNITION

2015 Presidential Commendation, for C the effort to expand AAPM membership to non-physician members, thus broadening the diversity of the organization. American Academy of Pain Medicine (shared with Co-Chair Dr. Perry Fine).

2011 'Pathways to Leadership' Scholar, Oregon Health & Science University

2011 Recognized by the Dean of the OHSU School of Medicine (Dr. Mark Richardson) as an outstanding junior faculty member; selected to apply for the 2011 White House Fellowship on behalf of OHSU.

2010 2010 Technology Innovation Award, Oregon Health & Science University "Do It Yourself Mirror Therapy" ©2010 DVD.

2003-2004 T-32 Research Fellowship, Kennedy Krieger Institute, Department of Neurology, The Johns Hopkins University, Baltimore, MD

1996-2000 Full Tuition Scholarship, University of Colorado Graduate School, Department of Clinical Psychology, Doctoral Program.

1998 Omnium National Champion Team (Univeristy of Colorado) Collegiate Road Cycling Nationals, Greenville, SC.

1997-1999 Research Fellowship, Department of Psychology, University of Colorado

1994 Magna cum laude, Texas Woman's University

1994 Vice President for the Society of Professional Journalists

1994 National Golden Key Honor Society

1993-1994 Journalism Scholarship, Texas Woman's University

1992-1994 Dean's List, Texas Woman's University

1991	Honors Council, University of Missouri-Columbia (Student representative on the Honors Faculty Board; included voting power).
1990-1992	President, Honors Women's Network, University of Missouri-Columbia

TREATMENTS DEVELOPED

Commercial Products

1. *Less Pain, Fewer Pills: Avoid the dangers of prescription opioids and gain control over chronic pain* © 2014 Bull Publishing, Boulder, CO. Written primarily for patients, this 240 page self-help book includes opioid education and a pain psychology treatment package.

2. "Enhanced Pain Management: Binaural Relaxation" © 2013 Stanford University. This 20-minute audio CD is the first commercial pain management CD that uses binaural technology to optimize the relaxation response for enhanced pain management. Available for purchase through Bull Publishing (subcontract with Stanford University) and at www.bethdarnall.com.

3. "Do It Yourself Mirror Therapy" © 2010 Oregon Health & Science University (OHSU Office of Technology Transfer and Business Development product ID# 1538). This 13-minute DVD was invented, developed, and produced by Dr. Darnall for patients with phantom limb pain and their providers. The DVD is a low-cost treatment option that improves access to phantom pain care and enables patients to treat phantom pain at home. Currently available for purchase from OHSU at www.bethdarnall.com. Received the 2010 OHSU Innovation in Technology Award.

4. "Pain Management Skills CD" © 2010 Oregon Health & Science University (OHSU Office of Technology Transfer and Business Development product ID# 1513). This 22-minute audio CD was developed and produced by Dr. Darnall.

TREATMENTS DEVELOPED

Clinical / Research Treatment Curriculum

1. *My Surgical Success* © is a perioperative pain psychology treatment package that includes a 90-minute psychoeducational video, a personalized plan, and a binaural audio CD / audiofile ("Enhanced Pain Management: Binaural Relaxation" © 2013 Stanford University). Developed by Beth Darnall, PhD, and based of the chronic pain psychology program *From Catastrophizing to Recovery* (below). Currently being tested in colorectal surgery patients at Stanford and in carpal tunnel surgery patients at the Palo Alto VA.

2. *From Catastrophizing to Recovery* © is a 2-hour, single-session psychoeducational treatment developed to specifically and focally treat pain catastrophizing. Developed in 2013, pilot findings published 04/14, video version developed 12/13 and additional studies are underway to determine durability of effects.

3. Developed 4-session chronic pain class curriculum for Departments of Anesthesiology & Perioperative Medicine and Family Medicine; delivered group treatment 2008-2010.

4. Developed single-session chronic pain / opioid education for patients in the Department of Family Medicine;

delivered group treatment 2010-2012.

CONSULTANCY AND ADVISORY ROLES

MyStrength

2015 **National expert consultant, content development.** MyStrength is an online and mobile tool that serves as a treatment extender for healthcare providers and payers. MyStrength is a partner with the National Council for Behavior Health and over 30 clinical networks nationwide. My role was to advise in the content development for an online pain psychology treatment package for patients.

Axial Healthcare

2014-present **National Clinical Advisory Board**. This for-profit company conducts big data analytics and risk stratification for payers of patients with chronic pain. Axial also optimizes the care delivery network and connects patients to non-pharmacologic pain management resources.

Office for Research on Women's Health

2013 ORWH website scientific advisory panel.

MedScape Neurology

2013 Invited moderator for a 'virtual' debate on opioids for chronic pain. Panelists: Jane Ballantyne, MD, Charles Argoff, MD, and Michael Schatman, PhD. Target audience: Prescribing providers.

Quantia MD

2012 Expert for online module for primary care physicians: "Opioid Use in Women with Chronic Pain."

St. Jude Medical

2012 Invited speaker, "Women in Neuromodulation" national training seminar (topic: pain psychology), 9/22-9/23; Dallas, TX.

ORCAS

2011-2012 Consultant for program development for Phase II of the NIH-funded project, ORCAS (R44-AR054652-02A2), with a goal of developing an online, multidisciplinary intervention to manage and prevent nonspecific low back pain.

Swedish Medical Center

2010-2011 Consultant for the development and refinement of an online continuing medical education program for providers prescribing opioids (Dr. Gordon Irving). Served as consultant for a second project regarding the development and refinement of an online self-management program for chronic pain patients taking prescription opioids.

NATIONAL PUBLIC EDUCATION

Columnist

1. "Ask Dr. Beth, Pain Psychologist", *National Pain Report*
   americannews**report**.com/**nationalpainreport**/ (June 2013 –present); example columns:

   06/04/13 "Why Do Women Have More Pain Than Men?" (Darnall BD)

   11/26/13 "What To Do When Someone Doubts Your Pain." (Darnall BD)

   12/18/13 "Chronic Pain and Overeating." (Darnall BD)

   07/23/14 "How Do I Find a Pain Psychologist?" (Darnall BD)

2. "Less Pain, Fewer Pills" column at *Psychology Today*
   The *Psychology Today* website has 4.2 million site views each month.
   http://www.psychologytoday.com/blog/less-pain-fewer-pills

   06/23/14 "Chronic Pain: Reduce Opioids and Your Risks" (Darnall BD)

   07/14/14 "What is a Pain Psychologist?" (Darnall BD)

   08/25/14 "Pain Psychology: Is it really all in your head?" (Darnall BD)

   09/25/14 "Your Psychology Affects Your Response to Medical Treatments." (Darnall BD)

   12/03/14 "Social Pain = Physical Pain: 5 Tips for Relief." (Darnall BD)

   12/16/14 "9 Tips to Stop Anger and Injustice from Hurting You" (Darnall BD)

   01/09/15 "Love and Pain" (Darnall BD)

   03/01/15 "Fear and Pain Can Alter Memory" (Darnall BD)

POPULAR PRESS / MEDIA

- 2009 *The Oregonian* features story on Dr. Darnall's research (author: Joe Rojas)
  "Studying phantom limbs and other illusions to find cures."

- 2010 invited expert guest on KATU TV's *AM Northwest* live morning talk show: "Pain psychology for women."

- 2010 *PT Today* story (author: Heather Stringer)
  "Mirror therapy's potential to treat pain."

- 2010 scientific opinion published in *U.S. News & World Report* (author: Randy Dotinga)
  "Self-touch may reduce pain."

- 2011 *Daily Health News* feature Dr. Darnall and bilateral touch.
  "Amazingly simple pain relief trick: Use self-touch to banish pain."

- 2011 *Portland Tribune* front-page feature (author: Peter Korn)
  "The pain is all in your head (and researchers say that's OK): OHSU program moves beyond mirrors to retrain patients' brains."

- 2011 *The Lund Report* (author: Amanda Waldroupe)
  Clinical and scientific opinion featured in *"Pain Specialists Urge Stronger Use of Holistic Therapies: They believe that such therapies should replace prescription opiates as the dominant method of treatment."*

- 2011 *ABC News* health story (author: Susan Donaldson James)
  "Chronic pain is no laughing matter" features Dr. Darnall's clinical work with women and discusses her upcoming keynote presentation at the Women in Pain 4th annual conference in Los Angeles, CA.

- 2011 *The Lund Report* article featuring Dr. Darnall's upcoming trip to Vietnam to deliver mirror therapy practitioner training workshops.

- 2011 *O&P Business News* features Dr. Darnall's upcoming trip to Vietnam to deliver mirror therapy practitioner training workshops.

- 2011 Vietnamese television news aired a prime time news feature on Dr. Darnall's mirror therapy workshops in Vietnam (aired Nov. 26, 2011). Subtitled video may be viewed on the homepage at www.bethdarnall.com

- 2012 KATU-TV featured Dr. Darnall's 90 second video segment "Pain & the Brain" in the *"Did you know?"* scientific expert series (sponsored by the OHSU Brain Institute and the Oregon Museum of Science and Industry). Commercial segments aired throughout the day and during primetime in November and December 2011 and throughout January 2012 (viewership 24,000 per run).

- 2012 Radio show KXL 750 featured Dr. Darnall as an expert guest in January. Interview on phantom pain, mirror therapy, and the Vietnam outreach project here: http://www.ohsu.edu/blogs/news/2012/01/28/heres-what-you-missed/

- 2012 *O&P Business News* February issue (author: Megan Gilbride) two feature stories on mirror therapy includes discussion on Dr. Darnall's research, outreach work in Vietnam, and DVD.

- 2012 *The Asian Reporter* covered Dr. Darnall's IASP-funded mirror therapy training workshops in Vietnam (page 9): http://www.asianreporter.com/paper/2012-02-Jan%2016-part1.pdf

- 2012 *OregonLive* and *The Oregonian* feature Dr. Darnall's mirror therapy research with an updated report on her 2012 study findings (author: Joe Rojas): http://www.oregonlive.com/health/index.ssf/2012/03/using_illusions_to_treat_pain.html

- 2012 "*Everyday Health*" published an interview with Dr. Darnall on the topic of how to maximize efficiency when challenged with fibromyalgia: http://www.everydayhealth.com/fibromyalgia-pictures/fibromyalgia/ways-to-take-back-your-time.aspx?xid=fb_EH_20120309_fibromyalgia#/slide-1

- 2012 *American News Report* discusses Drs. Darnall & Stacey's *JAMA Internal Medicine* commentary on the risks of long term opioid use in women:

http://americannewsreport.com/older-patients-more-at-risk-of-painkiller-addiction-after-surgery-8813525.html

- 2012 *myRegence.com* story entitled "Managing the Stress of Chronic Pain" features Dr. Darnall and her approach to treating patients via pain psychology (author: Maureen Healy). https://www.myregence.com/mxp-theme/readarticle.do?articleID=28742&WT.mc_id=2

- 2012 The International Association for the Study of Pain discusses Dr. Darnall's Vietnam mirror therapy workshops and expansion of this outreach work into Cambodia (p16). http://www.iasp-pain.org/Insight/June2012Insight.pdf

- 2012 *The Portland Tribune* features Dr. Darnall as an expert in an article on the placebo effect: "A Pill to Cure All Ills? It's Just in Our Heads" (author: Peter Korn). http://discoverforestgrove.com/pt-rss/9-news/111744-a-pill-to-cure-all-ills?-its-just-in-our-heads

- 2012 *The Lund Report* features Dr. Darnall and colleagues' research on the risks and consequences of long-term opioid use in women (author: Raymond Redelman). http://thelundreport.org/resource/study_targets_opiate_use_epidemic'_risks_for_women

- 03/13. Drs. Darnall & Stacey's recommendations for safe opioid prescribing practices in women are quoted in this article in the *National Pain Report* feature, "Older Patients More at Risk of Painkiller Addiction After Surgery." http://americannewsreport.com/nationalpainreport/older-patients-more-at-risk-of-painkiller-addiction-after-surgery-8813525.html

- 04/13. Dr. Darnall provides commentary on research that describes the link between history of abuse and the development of chronic pain in this *National Pain Report* article: http://americannewsreport.com/nationalpainreport/abused-women-more-susceptible-to-pain-8819453.html

- 05/13. Dr. Darnall provides expert opinion in a story discussing research on the links between trauma, stress, and chronic pain. http://americannewsreport.com/nationalpainreport/chronic-pain-linked-to-stress-8819812.html

- 06/13. Dr. Darnall's opinion on medical education for chronic pain care is featured here in the *American News Report* (Editor: Pat Anson): http://americannewsreport.com/nationalpainreport/treating-chronic-pain-can-doctors-do-better-8820182.htmlhttp://americannewsreport.com/nationalpainreport/treating-chronic-pain-can-doctors-do-better-8820182.html

- 07/13. "Natural Medicine Journal" podcast show features Dr. Darnall in a pain management expert podcast a wide variety of issues associated with opioid use (host: Karolyn Gazella) http://www.naturalmedicinejournal.com/article_content.asp?article=439

- 07/13. Dr. Darnall is featured in a *National Pain Report* story of the CDC press release discussing a rapid rise in opioid-related deaths among American women in the past decade. http://americannewsreport.com/nationalpainreport/deaths-from-painkillers-rise-sharply-among-women-8820699.html (Author: Pat Anson)

- 7/23/13. Dr. Darnall was the featured guest on "Five to Thrive" live radio show. In this hour-long show she discussed chronic pain, stress, and the immune system. Audio is also available on iTunes. www.w4cs.com

- 8/14/13. Dr. Darnall's radio program was rebroadcast on "Five to Thrive" radio show. Topic: chronic pain, stress and the immune system.

- 8/20/13. Dr. Darnall was the featured guest on "Five to Thrive" live radio show. In this hour-long show she discussed the risks and consequences of long-term opioid therapy for chronic pain.

- 9/18/13. Dr. Darnall's radio show on the risks of long-term opioid use in chronic pain was rebroadcast on "Five to Thrive" radio show.

- 12/4/13. Dr. Darnall was the featured guest on 103.3 fm WXOJ radio program (live streamed at www.valleyfreeradio.com). Topics of discussion were pain catastrophizing, pain psychology, and her forthcoming book, *Less Pain, Fewer Pills*.

- 03/2014 Coverage of Dr. Darnall's "Mind Over Pill" symposium at the 2014 Annual Conference of the American Academy of Pain Medicine (Darnall, Session Chair; Sullivan and Prasad, speakers) is featured: http://www.hcplive.com/conferences/2014-aapm/Mindfulness-based-Pain-Care-Provides-Opioid-Taper-Support

- 5/14/14 The Pain and Injury Doctor posts a video of Dr. Darnall and features her in the article "How Having a 'Fear Avoidance' State of Mind Promotes Pain." http://www.painandinjurydoctor.com/psychosomatic-pain/how-having-a-fear-avoidance-state-of-mind-promotes-pain/

- 7/2/14 Dr. Darnall is interviewed on "The Pain Free Podcast": https://itunes.apple.com/us/podcast/the-pain-free-podcast/id895525760?mt=2

- 7/14 Dr. Darnall is interviewed and *Less Pain, Fewer Pills* is reviewed http://www.painweek.org/wp-content/uploads/2014/07/Darnall_book_review.pdf (author: Holly Caster).

- 7/9/14 Dr. Darnall is the featured guest on the live radio show, The Dr. Peter Breggin Hour. http://drpeterbregginshow.podbean.com/e/the-dr-peter-breggin-hour-070914/. She discusses pain psychology, her book *Less Pain, Fewer Pills*, and the power of the mind to influence sensory perception http://prn.fm/tag/beth-darnall/

- 7/14/14 *National Pain Report* interviews Dr. Darnall about *Less Pain, Fewer Pills* http://americannewsreport.com/nationalpainreport/less-pain-fewer-pills-8824242.html (author: Pat Anson)

- 7/25/14 Falls Radio, Little Falls, MN (syndicate radio show) features Dr. Darnall and *Less Pain, Fewer Pills* (Host: Ron Specker).

- 7/26/14 "Body Talk" features a one-hour live interview with Dr. Darnall on KTIP-AM radio, syndicated throughout California (host: Mimi Stoneburner).

- 7/28/14 *Healthline* features Dr. Darnall in the story "For Pain Patients, the Physical and Emotional are Entertwined" http://www.healthline.com/health-news/chronic-pain-is-physical-and-emotional-072814#3 (author: Shawn Radcliffe)

- 8/05/14 KRWM Radio features Dr. Darnall and Less Pain, Fewer Pills (host: Kate Daniels).

- 8/23/14 "The People's Pharmacy" radio show, Austin, TX, features Dr. Darnall and *Less Pain, Fewer Pills*.

- 9/3/14 Paul Costello's Stanford University Podcast "1:2:1" features Dr. Darnall: "Chronic Pain: Getting your head around it." http://med.stanford.edu/news/all-news/one-to-one/2014/beth-darnall-discusses--less-pain--fewer-pills-.html

- 9/4/14 e-MPR features Dr. Darnall's symposium at PAINWeek 2014 Las Vegas: "Calming Patients' Nervous Systems Reduces Pain Intensity and Distress, Opioid Use." (author: Debra Hughes). http://www.empr.com/calming-patients-nervous-systems-reduces-pain-intensity-and-distress-opioid-use/article/368982/

- 9/12/14 *Positivity in Pain* blog features Dr. Darnall's research and treatment approach in the article "When Thinking About Pain" (author: Jennifer Corter) http://positivityinpain.net/2014/09/when-thinking-about-pain.html

- 9/17/14 Dr. Darnall is an invited guest on Health Revolution Radio (host: Peter Abaci, MD) http://www.iheart.com/show/Health-Revolution-Radio/

- 10/14/14 One-hour interview with R. Gallyot on KWMR Radio 89.9 & 90.5 "Airwaves" live show. Topic: Pain psychology and *Less Pain, Fewer Pills*.

- 11/19/14 Dr. Darnall is interviewed on Radio MD *NaturallySavvy*, a nationally-syndicated http://click2site.co/ib/click.php?s2s=&cid=0&subd=&id=70250&cm= radio show. Topic: Pain psychology (host: Lisa Davis).

- 12/1/14 *Women's Health* magazine includes an interview with Dr. Darnall in a feature on chronic pain for the December 2014 issue.

- 12/5/14 *Practical Pain Management* features Dr. Darnall and colleague's research on the single session catastrophizing treatment she developed, and it's application in the perioperative setting: http://www.practicalpainmanagement.com/resources/news-and-research/preoperative-fears-affect-postoperative-recovery (author Thomas G. Ciccone)

- 12/18/14 *National Pain Report* features a patient story describing the impact that Dr. Darnall's work and Less Pain has had on his pain experience and life: http://americannewsreport.com/nationalpainreport/my-story-what-doctors-dont-tell-us-8825365.html (Author: Kerry Smith)

- 12/29/14 PainMaps interviews Dr. Darnall on pain psychology, the relaxation response, and opioid risks. Hour-long radio broadcast: http://www.painmaps.com/neuroscience-of-pain/

- 03/04/15 *National Pain Report* features Dr. Darnall's opinion about the value of patient bloggers in the chronic pain community. http://bit.ly/1APKHZo

- 03/16/15 *Men's Health* magazine features Dr. Darnall in a story on sex differences in the experience of pain: http://www.menshealth.com/best-life/6-pains-worse-than-childbirth

- 03/20/15 *Newswire* reports on the Dr. Darnall as a recipient of a 2015 Presidential Commendation from the American Academy of Pain Medicine: http://www.newswise.com/articles/view/631180/?sc=rsla

- 04/01/15 *Practical Pain Management* features Dr. Darnall as a pain expert in the article "Pain in Women" (p22-24) (author: Kristin Della Volpe).

- 04/01/15 *Practical Pain Management* features Dr. Darnall as an expert on catastrophizing treatment in the article "Parent's Play a Role in their Child's Post-Operative Pain" (author: Tom Ciccone). http://www.practicalpainmanagement.com/resources/news-and-research/parents-play-role-childs-postop-pain

- 04/01/15 *MORE Magazine* features Dr. Darnall as an expert on aspects of chronic pain, including sex differences and the psychobiology of pain (author: Nissa Simon) http://www.more.com/health/wellness/when-pain-just-wont-stop

- 04/07/15 *Pain News Network* features Dr. Darnall's opinion of opioid prescribing in chronic low back pain. http://www.painnewsnetwork.org/stories/2015/4/7/study-one-in-five-opioid-prescriptions-for-low-back-pain
(author: Pain Anson).

- 04/23/15 *National Pain Report* publishes "A Conversation About Chronic Pain with Beth Darnall, PhD." In this feature article Dr. Darnall discusses the state of pain treatment in the US and what's needed to for collective advancement. http://nationalpainreport.com/a-conversation-about-chronic-pain-8825995.html (author: Ed Coughlan).

- 06/01/15 Dr. Darnall provides expert commentary in the story "Anxiety & Chronic Pain Link Defined". http://nationalpainreport.com/anxiety-chronic-pain-link-defined-8826402.html

- 06/12/15 *The Sydney Morning Herald* quotes Dr. Darnall in a story on back pain "Emotional back pain: the cause for our country's biggest problem?" (author: Sarah Berry) http://www.smh.com.au/lifestyle/diet-and-fitness/emotional-back-pain-the-cause-for-our-countrys-biggest-problem-20150612-ghm6n3.html

PERSONAL

Birthplace: Las Cruces, NM

Race: Caucasian and Native American (Cherokee and Choctaw)