# The National Academies of SCIENCES • ENGINEERING • MEDICINE

# The Role of Nonpharmacological Approaches to Pain Management: A Workshop

December 4–5, 2018
National Academy of Sciences Building
2101 Constitution Avenue, NW | Washington, DC

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#### **Background:**

Pain is a leading cause of disability in the United States. Given the complexity and biobehavioral nature of pain, the 2011 Institute of Medicine report on *Relieving Pain in America*: A *Blueprint for Transforming Prevention, Care, Education, and Research* advocated for multifaceted approaches for pain management comprised of both pharmacological and nonpharmacological therapies. In 2017, the National Academies of Sciences, Engineering, and Medicine's report *Pain Management and the Opioid Epidemic: Balancing Societal and Individual Benefits and Risks of Prescription Opioid Use reviewed the status of available evidence on nonpharmacological therapies for managing chronic pain. For example, CBT, a type of psychotherapy focused on restructuring negative thoughts and experiences with positive expectations, has been shown to be effective in reducing pain intensity and other psychological effects caused by pain (e.g., anxiety and depression) for low back pain, headaches, arthritis, orofacial pain, and fibromyalgia.* 

As a result of this national push toward the use of nonpharmacological therapies for chronic pain, increased health professionals' education and training will be needed to encourage the adoption and appropriate use of the evidence-based approaches. In addition, addressing policy barriers, such as those related to reimbursement for these treatments will be important to enable broader use and dissemination. Given the changing landscape for pain management, the Forum on Neuroscience and Nervous System Disorders and the Global Forum on Innovation in Health Professional Education will bring together key stakeholders to discuss these treatments and integrative health models for pain management.

### **Workshop Objectives:**

- Review the current state of evidence on the effectiveness of nonpharmacological treatments and integrative
  health models for pain management, as well as available evidence on use patterns and patient interest.
   Examples may include acupuncture; manual therapies; physical therapy, occupational therapy, and exercise;
  cognitive behavioral therapy; tai chi; yoga; meditation; and neurostimulation.
- Explore the state of evidence on the effectiveness of emerging models of pain management.
- Consider multimodal approaches and potential synergies between and among pharmacological and nonpharmacological approaches to pain management.
- Consider multimodal approaches and potential synergies between and among devices and nonpharmacological approaches to pain management.
- Discuss research gaps and key questions for further research.
- Examine health professions' current approaches for educating students, trainees, and practicing clinicians on nonpharmacological pain management, and discuss potential next steps to improve training and education within and across health professions.
- Explore policies, such as those related to reimbursement that would enable broader dissemination and implementation of evidence-based nonpharmacological treatments when appropriate.





# DAY ONE: December 4, 2018 | Room 125

8:00 a.m. Welcome and Overview of Workshop

DANIEL CHERKIN, Kaiser Permanente Washington Health Research Institute (emeritus) (Co-Chair)

ANTHONY DELITTO, University of Pittsburgh (Co-Chair)

8:15 a.m. Why This Workshop Matters - Lived Experience and Provider Perspective

CHRISTIN VEASLEY, Chronic Pain Research Alliance MARK RYAN, Virginia Commonwealth University

# Session I: Nonpharmacological Approaches to Pain Management - Evidence on Effectiveness and Safety, and Emerging Models of Care

### Objectives:

- Describe the treatments used for pain problems covered by insurance and patient use of complementary and integrative health approaches often not covered by insurance.
- Review evidence for the effectiveness and cost-effectiveness of nonpharmacological treatments for pain management.
- Describe the impact of psychological and social factors on patient responses to pain and pain treatments.
- Explore the state of evidence on the effectiveness of emerging models of pain management.
- Consider multimodal approaches and potential synergies between and among 1) pharmacological and nonpharmacological approaches; and 2) devices and nonpharmacological approaches to pain management, and for whom.
- Discuss research gaps and priorities for further research.

8:35 a.m. Session Overview

STEVEN GEORGE, Duke University, Moderator

8:45 a.m. What health care services are provided to persons with pain?

- In large insured population
- In indigent (Medicaid) population
- In older adults (Medicare)
- Use of complementary and integrative health approaches in US population

DAVID ELTON, Optum

9:00 a.m. What do we know about the effectiveness and safety of nonpharmacological and nonsurgical treatments for chronic pain conditions?

- Low back pain
- Other common pain problems
- In specific populations (indigent, elderly, ethnic groups)

ROGER CHOU, Oregon Health & Science University

9:30 a.m. What is known about the cost-effectiveness of nonpharmacological and nonsurgical treatments? PATRICIA HERMAN, RAND Corporation

9:45 a.m. Discussion

10:15 a.m. BREAK

10:30 a.m. What are the effects of psychological and social factors on patient responses to pain and

pain treatments?

DENNIS TURK, University of Washington

10:45 a.m. Emerging Models of Care

Overview (deficiencies of current models; principles guiding development of new models; evidence for effectiveness of major models; and challenges for implementing in diverse settings)

ROBERT KERNS, Yale University, Moderator

11:00 a.m. Major Models and Evidence for Effectiveness (series of 10-minute presentations)

Stepped Care, Stratified Care and Matched Care
WILLIAM SHAW, University of Connecticut

First contact care

JULIE FRITZ, University of Utah

Care for patients with complex and high impact chronic pain

ROBERT EDWARDS, Brigham and Women's Hospital/Harvard Medical School

Integrative Care

LYNN DEBAR, Kaiser Permanente Washington Health Research Institute

Use of technology to support access, self-management and care processes ALICIA HEAPY, Yale University; VA Connecticut Healthcare System

11:50 a.m. Discussion

12:30 p.m. LUNCH

1:30 p.m. Multimodal Approaches to Pain Management and Potential Synergies

Pharmacological and non-pharmacological approaches

KURT KROENKE, Indiana University

Devices and non-pharmacological approaches

RICHARD WILSON, Case Western Reserve University

2:00 p.m. Discussion

2:15 p.m. Major Current Research Initiatives and Priorities

LINDA PORTER, National Institute for Neurological Disorders and Stroke

DAVID SHURTLEFF, National Center for Complementary and Integrative Health

WENDY SMITH, NIH Office of Behavioral and Social Sciences Research

ALISON CERNICH, National Center for Medical Rehabilitation Research, Eunice Kennedy

Shriver National Institute of Child Health and Human Development

CHRISTINE GOERTZ, Patient Centered Outcomes Research Institute (PCORI)

DAVID ATKINS, Department of Veterans Affairs

ERIC SCHOOMAKER, Uniformed Services University of the Health Sciences;

Department of Defense

3:05 p.m. Panel on Future Research Priorities

ALICIA HEAPY, Yale University; VA Connecticut Healthcare System

ROGER CHOU, Oregon Health & Science University

PATRICIA HERMAN, RAND Corporation

KAREN SHERMAN, Kaiser Permanente Washington Health Research Institute

BEVERLY THORN, University of Alabama

3:30 p.m. Discussion

KIM DUNLEAVY, University of Florida, Discussant

4:00 p.m. BREAK

# Session II: Education and Training of Health Professionals in Pain Management

#### Objective:

 Examine health professions' current approaches for educating students, trainees, and practicing clinicians on nonpharmacological pain management.

4:15 p.m. Session Overview

ELIZABETH (LIZA) GOLDBLATT, Academic Collaborative for Integrative Health, Moderator

4:25 p.m. Current status of health professional education in pain management and the incorporation of

nonpharmacological approaches

SCOTT FISHMAN, University of California, Davis

4:40 p.m. Discussion

NANCY BAKER, Tufts University, Discussant

DAVID THOMAS, National Institute on Drug Abuse, Discussant

BENJAMIN KLIGLER, Veterans Health Administration; Icahn School of Medicine at Mount

Sinai, Discussant

5:30 p.m. Adjourn Day One

DANIEL CHERKIN, Kaiser Permanente Washington Health Research Institute (emeritus)

(Co-Chair)

ANTHONY DELITTO, University of Pittsburgh (Co-Chair)

# DAY TWO: December 5, 2018 | Room 120

8:00 a.m. Day Two Opening Remarks

DANIEL CHERKIN, Kaiser Permanente Washington Health Research Institute (emeritus) (Co-Chair)

ANTHONY DELITTO, University of Pittsburgh (Co-Chair)

# Session II: Education and Training of Health Professionals (continued)

#### Objective:

 Discuss potential next steps to improve training and education for pain management within and across health professions.

8:10 a.m. Session Overview

ELIZABETH (LIZA) GOLDBLATT, Academic Collaborative for Integrative Health, Moderator

8:20 a.m. Interprofessional education: How do we move from classroom to practice?

MICHELE MAIERS, Northwestern Health Sciences University, Moderator

Speakers:

JUDY WATT-WATSON, University of Toronto S. LIZ HARRELL, Arizona State University

8:50 a.m. Discussion

BENJAMIN KLIGLER, Veterans Health Administration; Icahn School of Medicine at Mount

Sinai, Discussant

9:30 a.m. BREAK

9:45 a.m. Collaborative practice: Facilitating a team-based approach for pain management

MARGARET CHESNEY, University of California, San Francisco, Moderator

Speakers:

LESLIE DAVIDSON, George Washington University

ANTHONY LISI, Veterans Health Administration; Yale School of Medicine

10:15 a.m. Discussion

BELINDA (BEAU) ANDERSON, Monmouth University; Albert Einstein College of Medicine,

Discussant

11:00 a.m. LUNCH

# Session III: Policies to Promote Evidence-based Nonpharmacological Approaches

#### Objective:

- Explore policies, such as those related to reimbursement that would enable broader dissemination and implementation of evidence-based nonpharmacological treatments when appropriate.
- Discuss potential policy barriers and opportunities for innovation.
- Consider the research and evidence needed to advance these policies.

#### 12:00 p.m. Session Overview

ROBERT SAPER, Boston University, Moderator

12:10 p.m. Patient, Clinician, Educator and Healthcare System Perspectives

PENNEY COWAN, American Chronic Pain Association

ROBERT BONAKDAR, Scripps

BETH DARNALL, Stanford University

DANIEL CARR, Tufts University School of Medicine HARLEY GOLDBERG, Kaiser Permanente (retired)

CHESTER (TRIP) BUCKENMAIER, III, Uniformed University of the Health Sciences;

Department of Defense

12:40 p.m. Discussion

12:55 p.m. What policies would help reduce major barriers to change?

Insurance Coverage and Reimbursement Perspective

SHARI LING, Centers for Medicare and Medicaid Services

CATHERINE LIVINGSTON, Health Evidence Review Commission/Oregon Health Authority

DAVID ELTON, Optum

CALEB ALEXANDER, Johns Hopkins University PATRICIA HERMAN, RAND Corporation

1:20 p.m. Discussion

# Session IV: Moving Forward

Objective: Synthesize and discuss key highlights from the workshop presentations and discussions and, most importantly, identify next steps and promising areas for future action and research.

1:40 p.m. Session Overview and Synthesis of Key Workshop Themes and Future Directions

DANIEL CHERKIN, Kaiser Permanente Washington Health Research Institute (emeritus)

(Co-Chair)

ANTHONY DELITTO, University of Pittsburgh (Co-Chair)

2:00 p.m. Open Discussion

2:25 p.m. Closing Remarks from Workshop Co-Chairs

2:30 p.m. Adjourn Workshop

# **Workshop Planning Committee**

Daniel Cherkin, Kaiser Permanente Washington Health Research Institute (emeritus), Co-Chair

Anthony Delitto, University of Pittsburgh, Co-Chair

Megan Driscoll, University of Pittsburgh Medical Center

Kim Dunleavy, University of Florida

John Chae, Case Western Reserve University

Steven George, Duke University

Elizabeth Goldblatt, Academic Collaborative for Integrative Health

Alan Jette, MGH Institute of Health Professions

Robert Kerns, Yale University

John Krystal, Yale University

Anne Marie McKenzie-Brown, Emory University

Vitaly Napadow, Massachusetts General Hospital; Harvard University

Robert Saper, Boston University

Dennis Turk, University of Washington

Christin Veasley, Chronic Pain Research Alliance