

HSR&D Cyber Seminar Program

Pain and Pain Measurement: An Opportunity for Integrative Health



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Disclosures

I have no financial Conflicts of Interest to disclose





This presentation was prepared by Dr. Chester Buckenmaier in his personal capacity. The opinions expressed in this presentation are the author's own and do not necessarily reflect the views of the Uniformed Services University, Department of Defense, or the United States government.



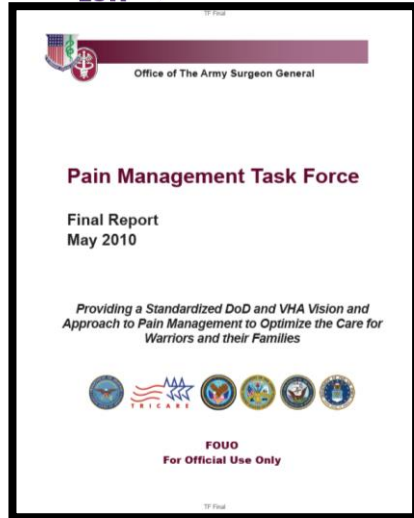
Legislation: 2010 NDAA

SEC. 711. COMPREHENSIVE POLICY ON PAIN MANAGEMENT BY THE MILITARY HEALTH CARE SYSTEM

- Not later than March 31, 2011, the Secretary of Defense shall develop and implement a comprehensive policy on pain management by the military health care system.
- Scope of Policy to be developed by DoD:
 - Standard of care for pain management for DoD
 - Consistent application of pain assessments throughout DoD
 - Acute/Chronic pain management
 - Programs of research
 - Education and training for health care personnel & patients

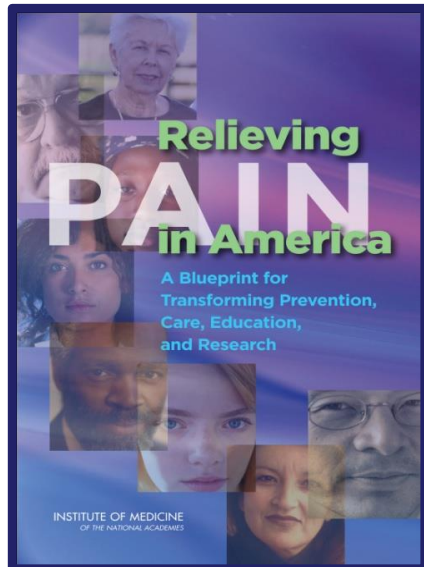


Pain Management Task Force



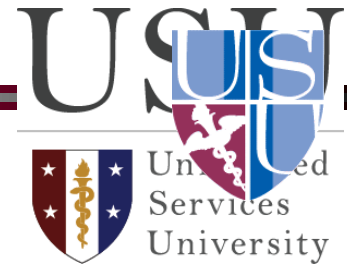
- Provide recommendations for a MEDCOM comprehensive pain management strategy that is **holistic**, **multidisciplinary**, and **multimodal** in its approach, utilizes **state of the art/science** modalities and technologies, and provides **optimal quality of life** for **Soldiers and other patients** with acute and chronic pain.

» *Army Pain Management Task Force Charter; signed 21 Aug 2009*

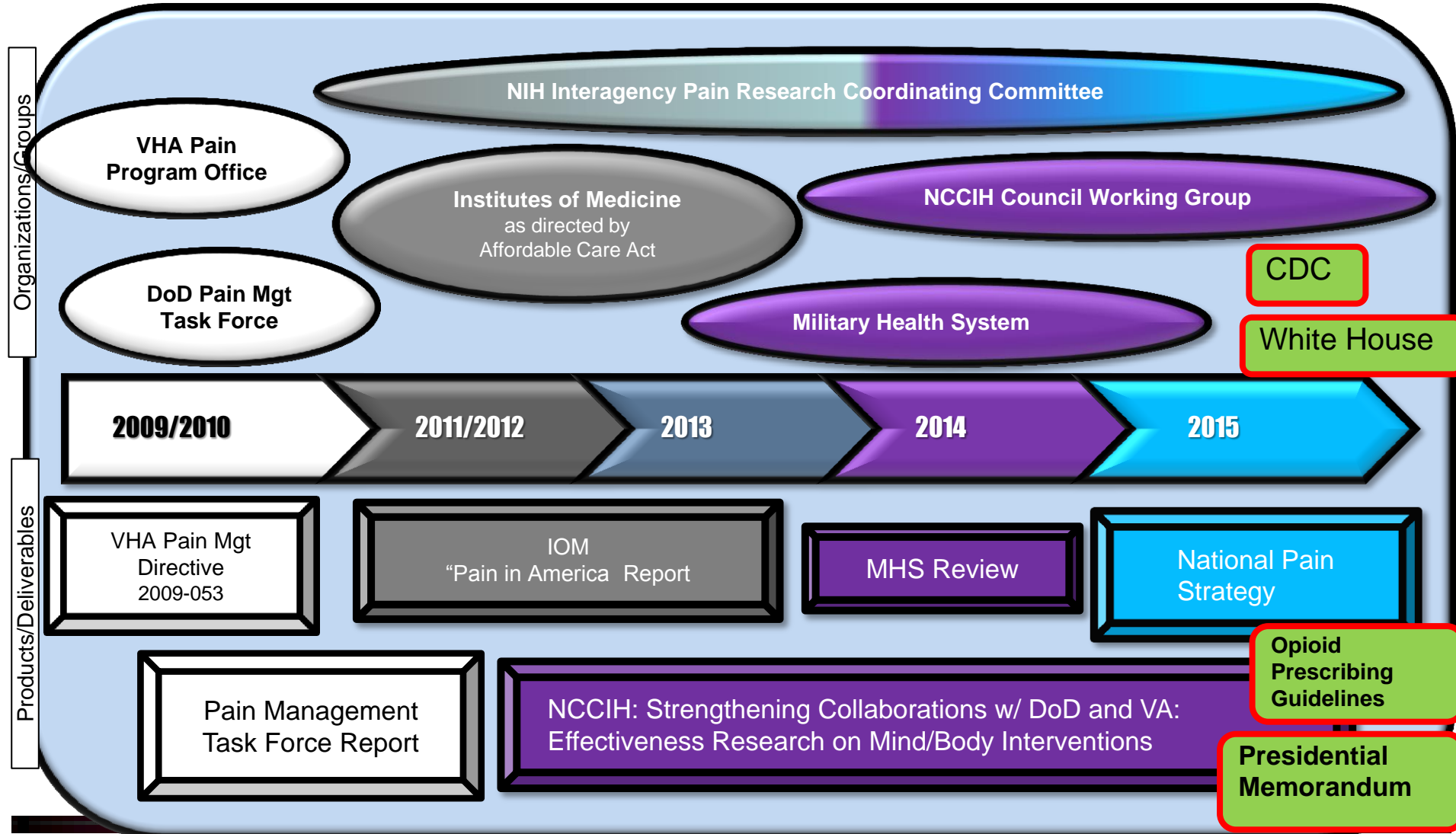


- *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research*

» *June 2011*



Federal Medicine Pain Management Initiatives





USU



Uniformed
Services
University

“It’s now four years since I lay in the dirt, near death, on the side of the road in Fallujah. I’m grateful for all I have, and proud of the things I’ve accomplished.

In the end though, I don’t measure how far I’ve come by goals achieved, or academic degrees earned, or running trophies won. For me, what counts is that pain no longer rules my life.”

—Derek McGinnis

Exit Wounds: A Survival Guide to Pain Management for Returning Veterans and Their Families

www.exitwoundsforveterans.org American Pain Foundation

19th Century Battlefield Pain Control

In 1803, Serturmer, a German pharmacist, identified and isolated the main ingredient of opium, Morphine. He called this alkaloid "Morphia" after Morpheus, the Greek God of Dreams. The name "Morphine" is now used instead of Morphia because of the standard that all alkaloids end in "-ine".





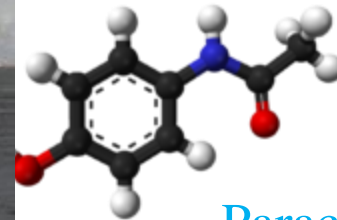
Novel p

d equipment



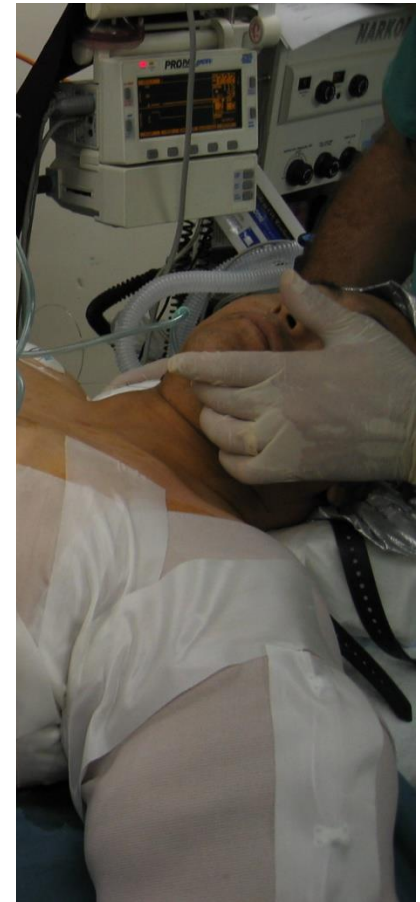
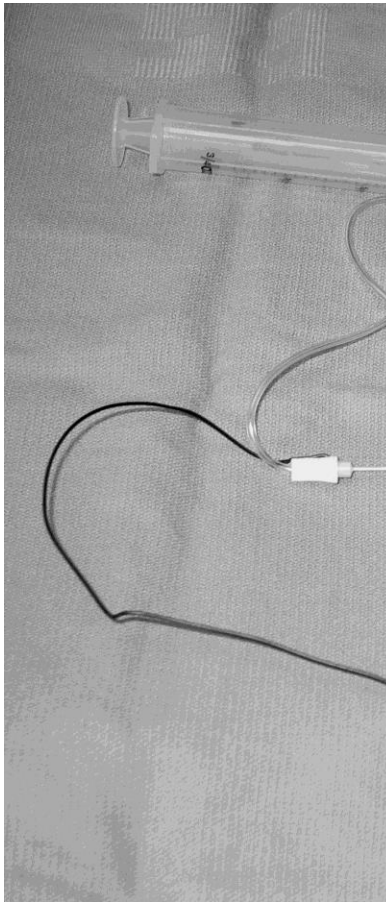
Ketamine Bottle

Photo by Anonymous. © 2009 Erowid.org

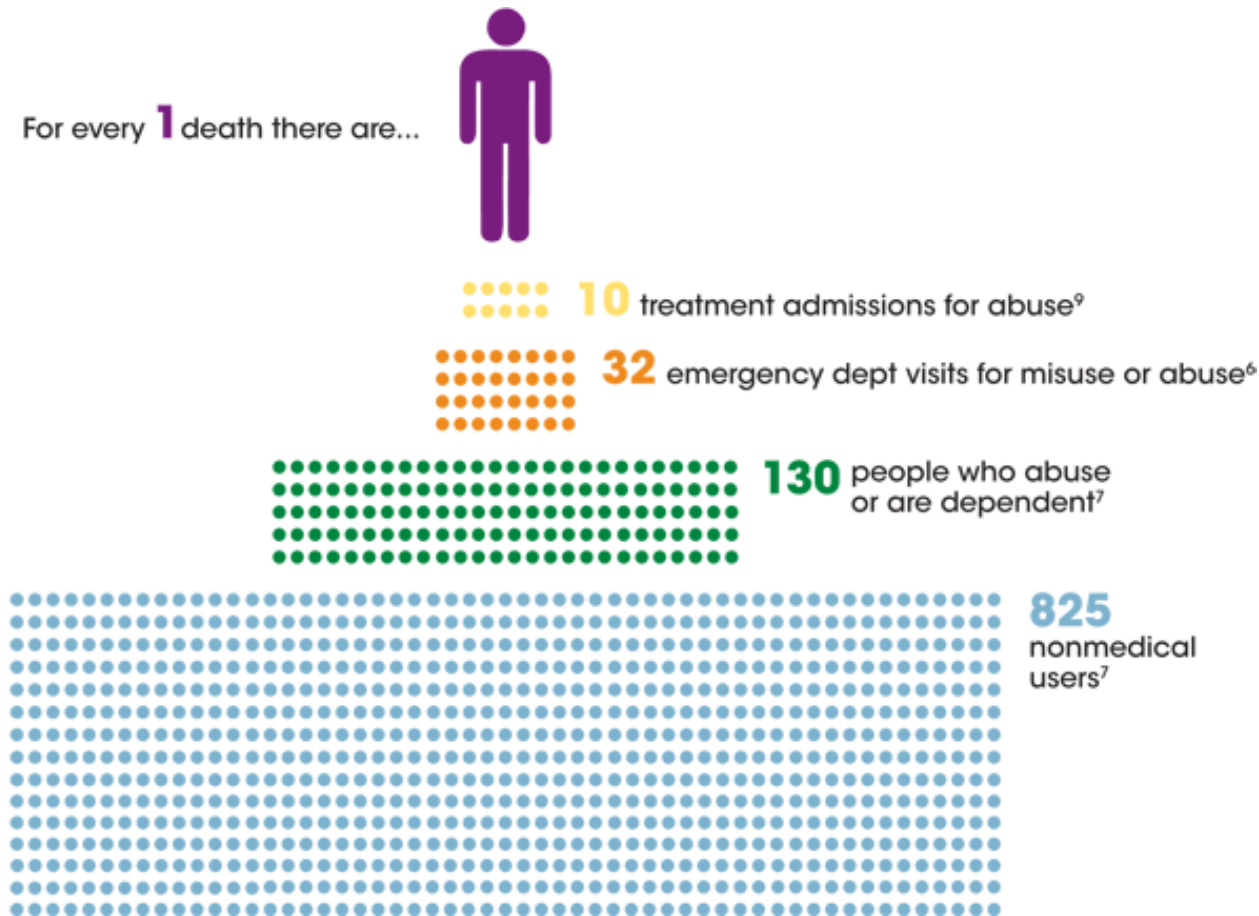


Paracetamol

The New Face of Regional Anesthesia



In 2008, there were 14,800 prescription painkiller deaths.¹



“Medicine is not a science; it is empiricism founded on a network of blunders.”

— [Emmet Densmore](#)
(1837-1911)

1.CDC. Vital Signs: Overdoses of Prescription Opioid Pain Relievers—United States, 1999-2008. MMWR 2011; 60: 1-6



Why it matters?

- Organizational Mandates
 - Joint Commission (Pain and Safety)
 - American Society of Anesthesiologists
 - HCAPHS

Effective January 1, 2015: For ambulatory care, critical access hospital, home care, hospital, nursing care center, and office-based surgery accreditation programs.

Standard PC.01.02.07: The [organization] assesses and manages the [patient's] pain.

[Revised] Rationale for PC.01.02.07 [New for ambulatory care and office-based surgery practice]

The identification and management of pain is an important component of [patient]-centered care. [Patients] can expect that their health care providers will involve them in their assessment and management of pain. Both pharmacologic and nonpharmacologic strategies have a role in the management of pain. The following examples are not exhaustive, but strategies may include the following:

- Nonpharmacologic strategies: physical modalities (for example, acupuncture therapy, chiropractic therapy, osteopathic manipulative treatment, massage therapy, and physical therapy), relaxation therapy, and cognitive behavioral therapy
- Pharmacologic strategies: nonopioid, opioid, and adjuvant analgesics

EP 4: The [organization] either treats the [patient's] pain or refers the [patient] for treatment.

[New] Note: Treatment strategies for pain may include pharmacologic and nonpharmacologic approaches. Strategies should reflect a [patient]-centered approach and consider the patient's current presentation, the health care providers' clinical judgment, and the risks and benefits associated with the strategies, including potential risk of dependency, addiction, and abuse.

What should we measure?





Pain Intensity



The NEW ENGLAND
JOURNAL of MEDICINE

Perspective

Intensity of Chronic Pain — The Wrong Metric?

Jane C. Ballantyne, M.D., and Mark D. Sullivan, M.D., Ph.D.

N Engl J Med 2015; 373:2098-2099 [November 26, 2015](#)

DOI: 10.1056/NEJMp1507136

Both the idea that chronic pain could be effectively and safely managed with opioids and the principles of opioid pain management were based on the successful use of these drugs to treat acute and end-of-life pain. That success was based on the “titrate to effect” principle: the correct dose of an opioid was whatever dose provided pain relief, as measured by a pain-intensity scale.

A new take on an old scale...

Pain Medicine

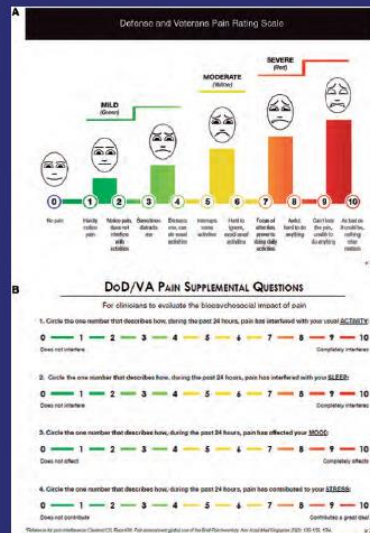
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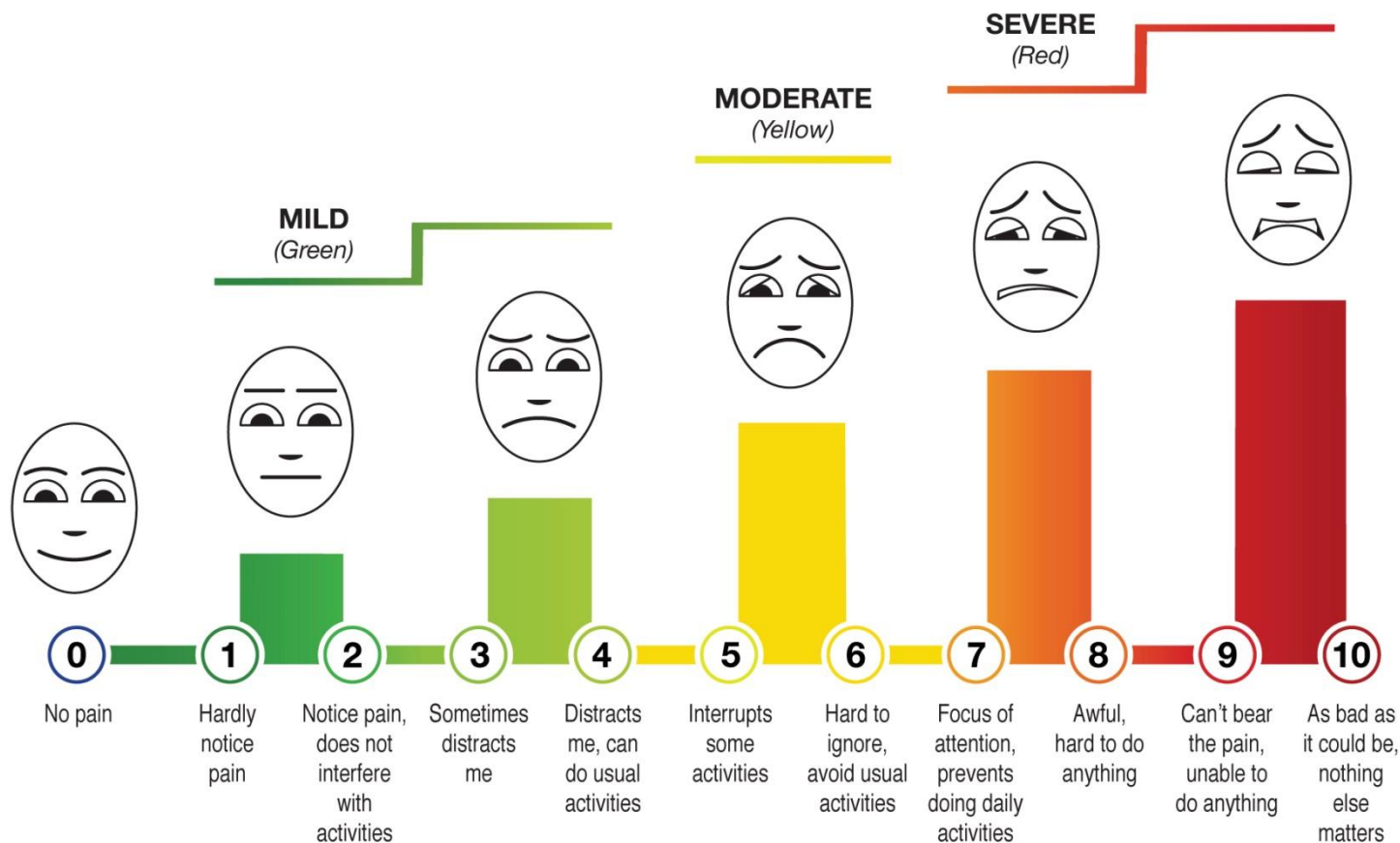


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Defense and Veterans Pain Rating Scale (front)

Defense and Veterans Pain Rating Scale



Defense and Veterans Pain Rating Scale (back)

DoD/VA PAIN SUPPLEMENTAL QUESTIONS

For clinicians to evaluate the biopsychosocial impact of pain

1. Circle the one number that describes how, during the past 24 hours, pain has interfered with your usual ACTIVITY:

0 — 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
Does not interfere Completely interferes

2. Circle the one number that describes how, during the past 24 hours, pain has interfered with your SLEEP:

0 — 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
Does not interfere Completely interferes

3. Circle the one number that describes how, during the past 24 hours, pain has affected your MOOD:

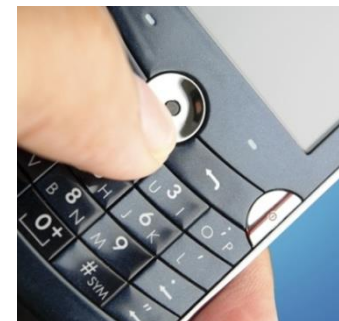
0 — 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
Does not affect Completely affects

4. Circle the one number that describes how, during the past 24 hours, pain has contributed to your STRESS:

0 — 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
Does not contribute Contributes a great deal

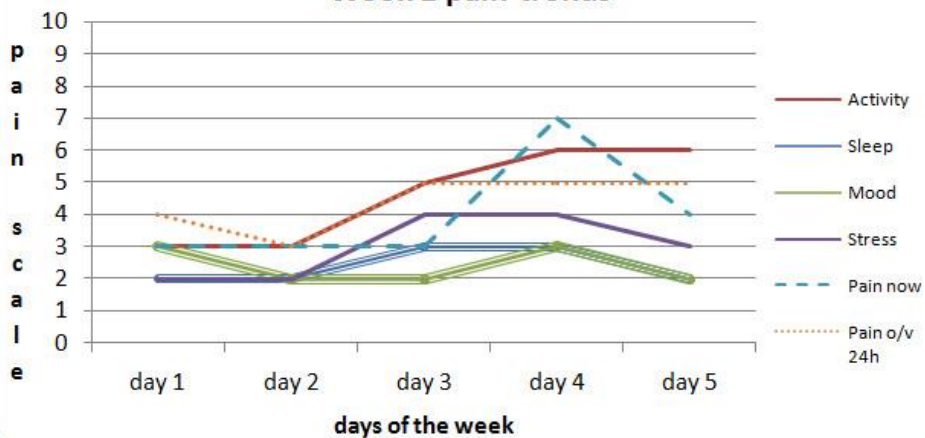
DVPRS Clinical Use

Patient name	Dates of the week		Activity	Sleep	Mood	Stress		Pain now	Pain o/v 24h
TB	8/6-8/17	day 1	3	2	3	2		3	4
		day 2	3	2	2	2		3	3
		day 3	5	3	2	4		3	5
		day 4	6	3	3	4		7	5
		day 5	6	2	2	3		4	5
		day 6	3	2	2	2		5	5
		day 7	0	0	1	0		4	5
		day 8	0	0	1	0		5	5
		day 9	0	0	1	0		3	3
		day 10	0	0	0	0		0	0

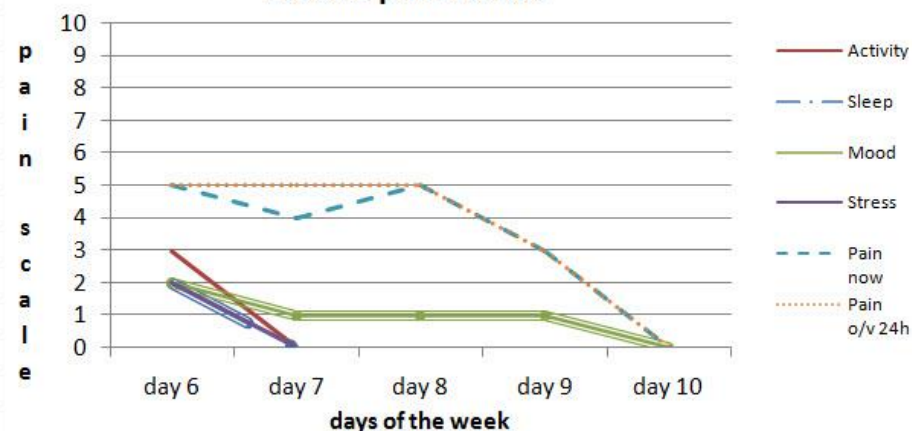


mCare - TATRC

Week 1 pain trends



Week 2 pain trends





USU



Uniformed
Services
University

PASTOR/PROMIS

RESEARCH * OUTCOMES REGISTRY * CLINICAL DECISION TOOL



- Center for Disease Control and Prevention: (Health People 2020 will include PROMIS Global Measure)



The Children's Hospital of Philadelphia®
Hope lives here.



GEORGETOWN UNIVERSITY



Duke University

The Bravewell Collaborative™

Transforming Health Care and Improving the Health of the Public through Integrative Medicine

- Bravewell Collaborative Integrative Medicine Outcomes Study



- DVCIPM Research
 - Pain Management
 - Rx Med Abuse
 - Interdisciplinary Care



PASTOR
PAIN ASSESSMENT SCREENING TOOL
AND OUTCOMES REGISTRY

RESEARCH • OUTCOMES REGISTRY • CLINICAL DECISION TOOL

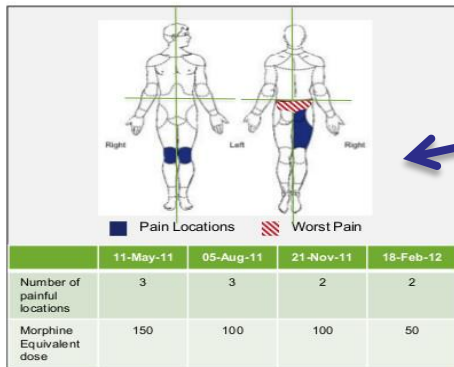
- Web application served from MAMC
 - Clinical Assessment
 - Using validated computer adaptive testing (CAT) PROMIS instruments
 - Clinical Report/Decision Tool
 - Longitudinal pt pain/function/alert data in concise format
 - Patients Enter Information Prior to Appointments
 - Using the web capable device of their choice



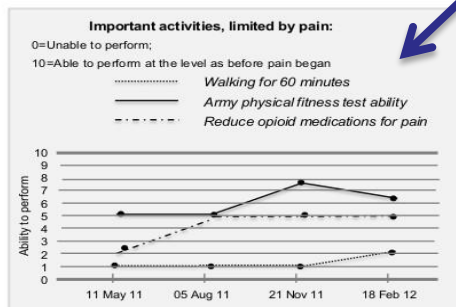
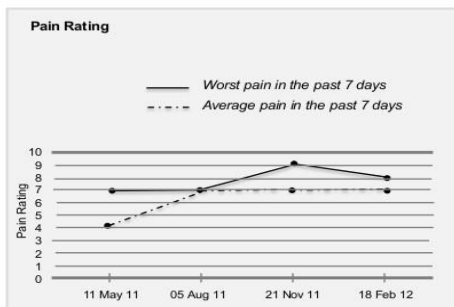
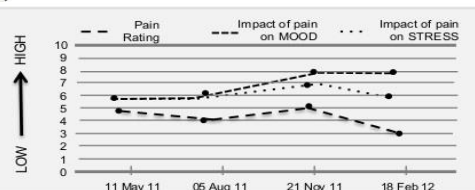
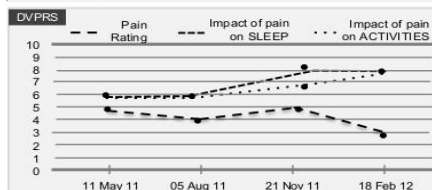
PASTOR Clinical Report

Date: 17-04-13
Name: Smith, Snuffy Q.
Family Preference Code/SSN: 20/1111
DOB: 16-04-44
AGE: 72
RANK: CPT

Home Phone Number: 555-555-5555
Primary Care Manager: Dr. XYZ
Gender: M
Home Address: 123 Sesame Street, Beverly Hills, CA 90210
Case Managed: Yes



Suicide Ideation	"In the past 2 weeks, how often have you been bothered by thoughts that you would be better off dead?" ANSWER: "Nearly every day."
Opioid Misuse/Abuse	Negative Screen; Score did not indicate problem.
PTSD	Negative Screen; 0 items were endorsed.
Alcohol Misuse/Abuse	Today's score: 4 Previous score: 3
Depression	Negative Screen.
Anxiety	Negative Screen.



• Pain Mapped by Region

• Clinical Alerts

• Patient Defined Goals

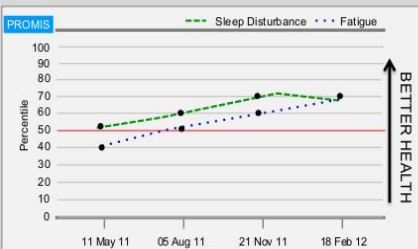
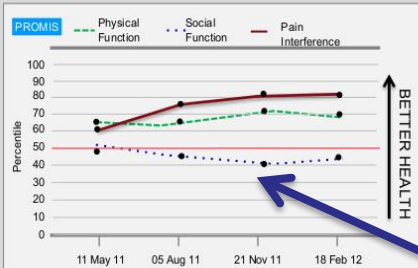
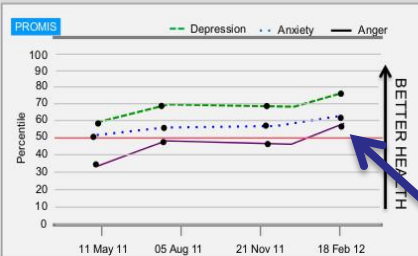


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PROMIS Scores

Scores are reported in PERCENTILES and compared to a sample matched to the US 2000 Census on age, race/ethnicity, and sex. Higher scores indicate BETTER HEALTH.



Treatment History

Healthcare providers seen in the past 6 months:

General Practice	1
Medical Specialists	4
Psychologists, Psychiatrists, other mental health professionals	2
Allied health professionals	1
Complementary and alternative healthcare professionals	0

Treatment modalities and effectiveness, in the past 6 months

Exercise, physical therapy or occupational therapy.	Yes
Effective?	Moderately
Physical modalities such as heat, massage, or TENS	No
Behavioral treatment (CBT, relaxation, distraction, etc.)	Yes
Effective?	Not at all
Non-opioid, non-steroidal anti-inflammatory medications	Yes
Effective?	Very
Non-opioid, non-steroidal, neuropathic pain medications	Yes
Effective?	Moderately
Alternative therapies such as acupuncture, hypnosis, yoga or meditation	No

Opioid Utilization Screener

Currently taking opiates/opioids/narcotics?	Yes
How long:	≥6 months
Pain relief:	Good
"Bad days" in past month:	3-5

Date: 17-04-13
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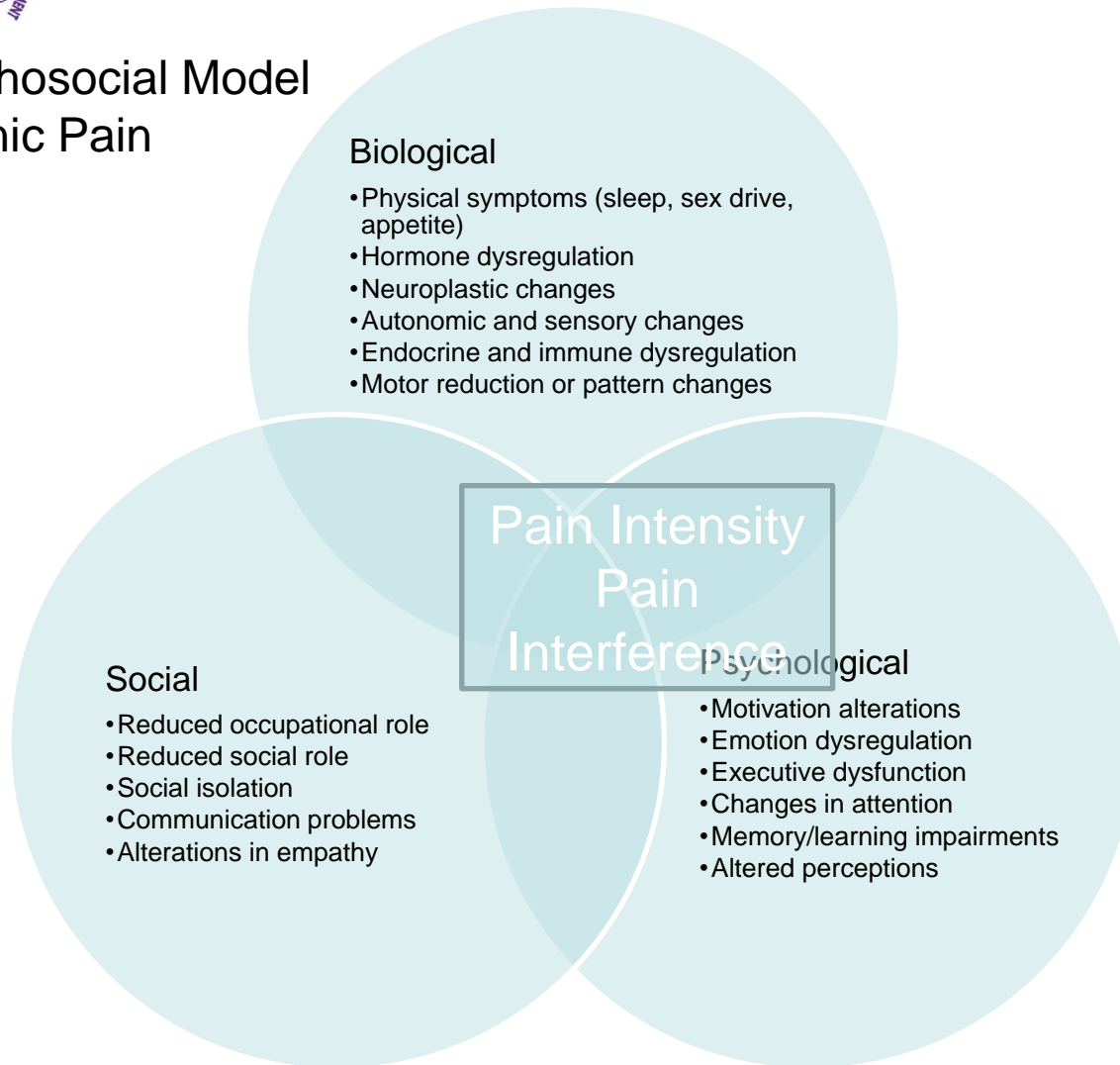
Depression (Percentile: 55)		Sleep (Percentile: 72)	
In the past 7 days:	Response	In the past 7 days:	Response
I felt sad.	Very Much	I tried to sleep whenever I could	Rarely
I felt that I was not needed.	A little bit	I had problems during the day because of poor sleep.	A little bit
I felt lonely.	Somewhat	I felt irritable because of poor sleep.	Often
I felt that nothing was interesting.	Somewhat	I still felt sleepy when I woke up.	Often

Pain Interference (Percentile: 63)		Physical Function (Percentile: 76)	
In the past 7 days:	Response		Response
How much did pain interfere with your ability to concentrate?	Somewhat	Does your health now limit you in doing vigorous activities, such as running, lifting heavy objects, participating in strenuous sports?	Somewhat
How much did pain interfere with your day to day activities?	Very much	Does your health now limit you in lifting or carrying groceries?	Very much
How much did pain interfere with your enjoyment of recreational activities?	Not at all	How much do physical health problems now limit your usual physical activities (such as walking or climbing stairs)?	Quite a bit
How much did pain interfere with the things you usually do for fun?	A little bit	Are you able to move a chair from one room to another?	Very much

- Gen population percentile indicator
- Color Coding on each graph



Biopsychosocial Model of Chronic Pain

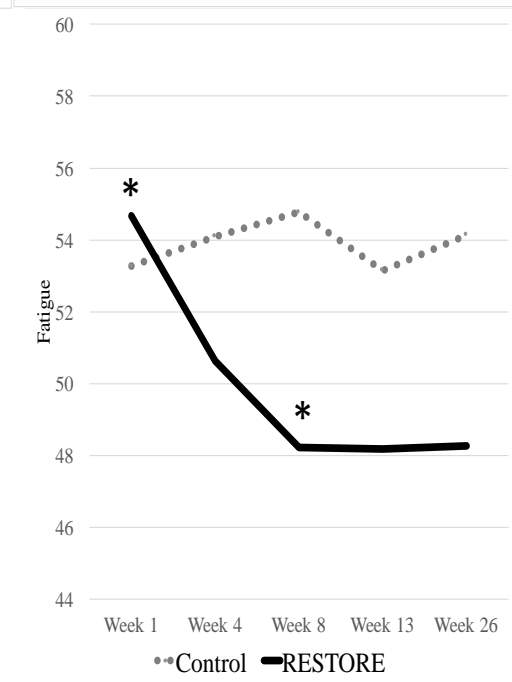
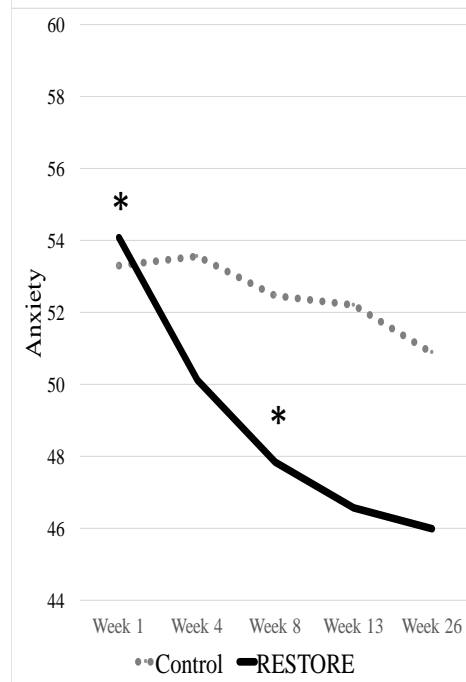
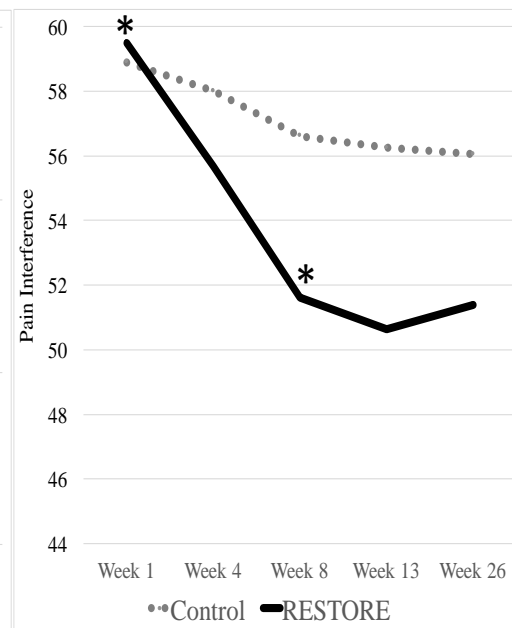
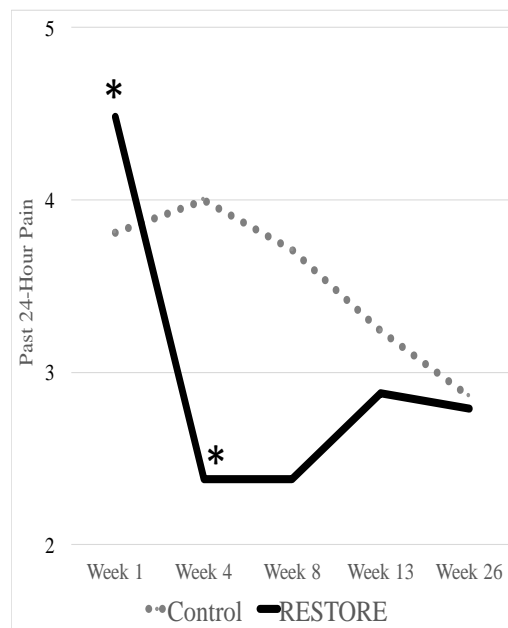


Treatment targets impacting one sphere may have indirect bearing on a different sphere.

Treatment selection must consider both direct and indirect effects.

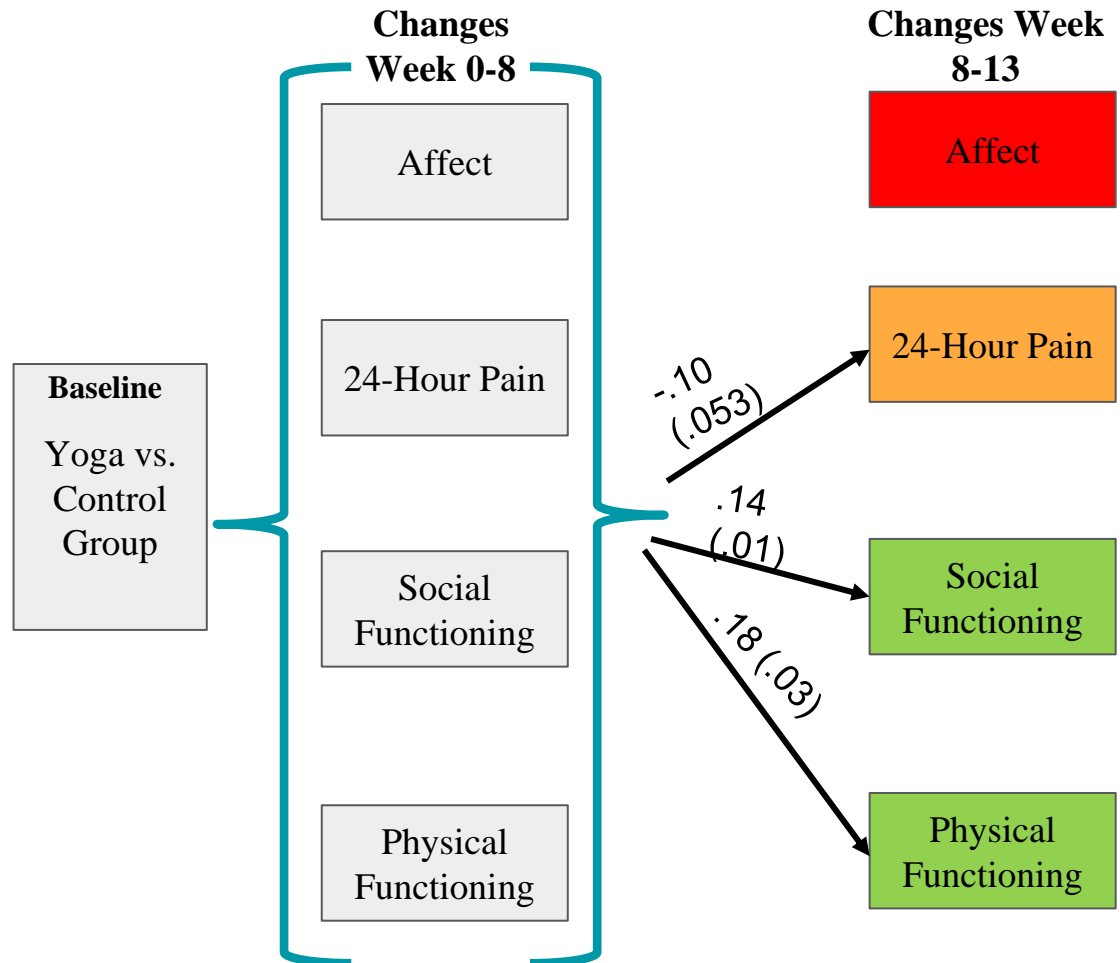
Yoga for Chronic Lower Back Pain

- Participants randomized to receive 8 weeks (12 sessions) of individual yoga practice or treatment-as-usual (control).
- PROMIS measures and DVPRS administered at Weeks 0, 4, 8, 13, and 26.
- Participants in the yoga group reported significant improvements in physical functioning, fatigue, sleep disturbances, anxiety, depression, social functioning, pain interference, and pain during the 8-week intervention period.
- These benefits were maintained through 6-month follow-up.
- Note that pain levels are relatively similar at 6-month follow-up between groups, but other aspects of functioning remain discrepant.

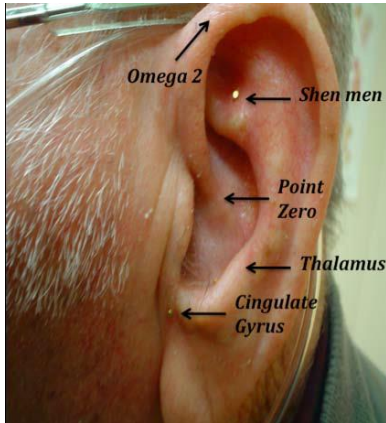


Yoga for Chronic Lower Back Pain

- Why is yoga the gift that keeps giving, even when the intervention is done?
- Mediation tests examined how changes during the 8-week intervention period spurred changes after the intervention was complete.
- For example, the improvements in pain after the 8-week intervention period was due, in part, to the combined changes of social functioning, physical functioning, and affect during the intervention period.
- In particular, reductions in negative affect during the intervention period was associated with continued improvements in physical and social functioning after the intervention period ended.



Integrative Medicine



The future of
"integrative medicine"
is too close for comfort
- Posted by David
Gorski on September 2,
2013



"It is more important to know what sort of person has a disease than to know what sort of disease a person has." ~Hippocrates (460-377 B.C.)



Pain Medicine Massage Series



amta
american **massage therapy** association*



July Issue

- Buckenmaier C, Cambron J, Werner R, Buckenmaier P, Deery C, Schwartz J, Whitridge P. 2016. [Massage Therapy for Pain – Call to Action](#). *Pain Medicine*. doi: [10.1093/pm/pnw092](#)
- Crawford C, Boyd C, Paat C, Price A, Xenakis L, Yang E, Zhang W & the EMT Working Group. 2016. [The Impact of Massage Therapy on Function in Pain Populations – A Systematic Review and Meta-analysis of Randomized Controlled Trials: Part I, Patients Experiencing Pain in the General Population](#). *Pain Medicine*. doi: 10.1093/pm/pnw099.

August Issue

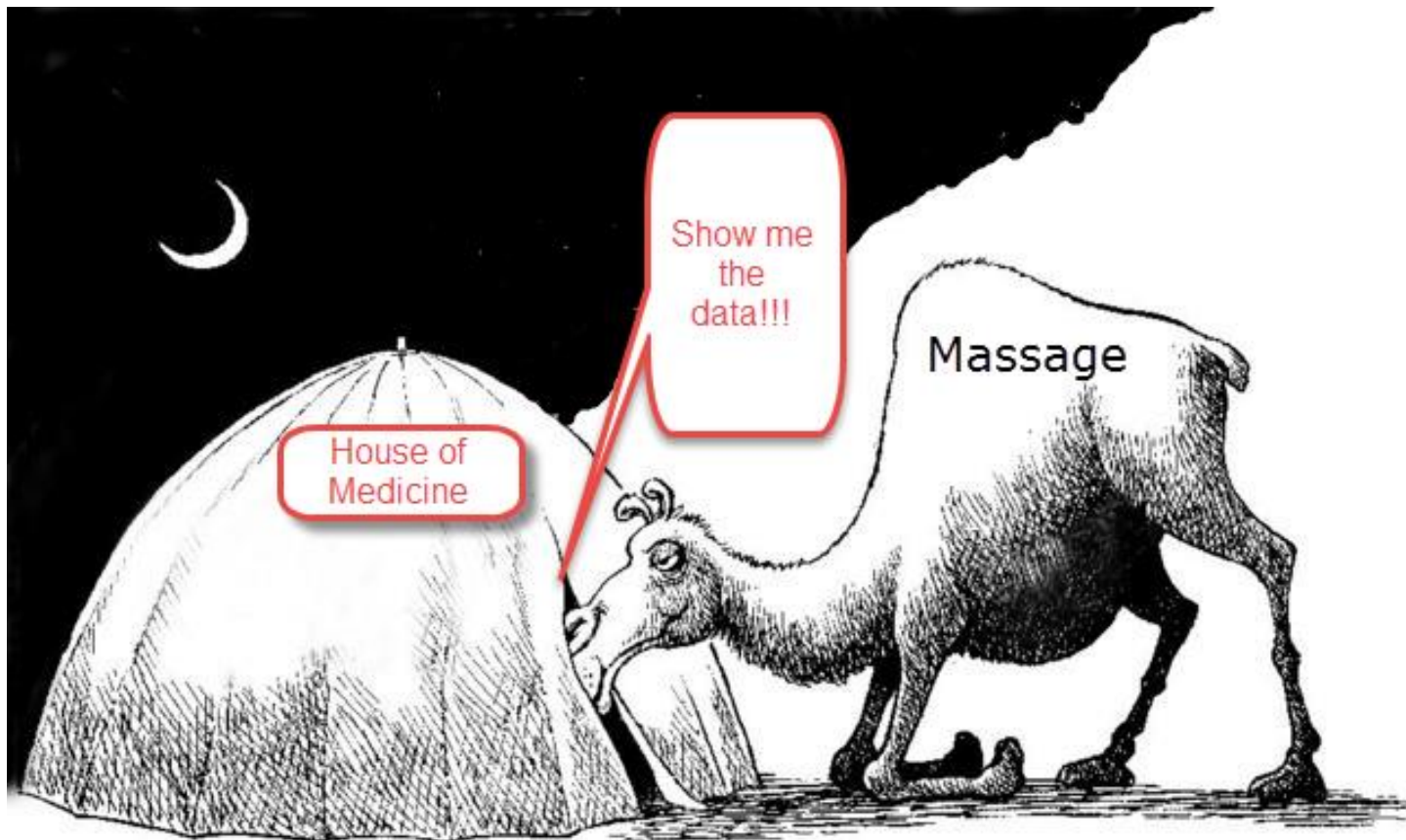
- Jonas W, Schoomaker E, Berry K, Buckenmaier C. 2016. [A Time for Massage](#). *Pain Medicine*. doi: [10.1093/pm/pnw086](#)
- Boyd C, Crawford C, Paat C, Price A, Xenakis L, Zhang W & the EMT Working Group. 2016. [The Impact of Massage Therapy on Function in Pain Populations – A Systematic Review and Meta-analysis of Randomized Controlled Trials: Part II, Cancer Pain Populations](#). *Pain Medicine*. doi: 10.1093/pm/pnw100.

September Issue

- Boyd C, Crawford C, Paat C, Price A, Xenakis L, Zhang W & the EMT Working Group. 2016. [The Impact of Massage Therapy on Function in Pain Populations – A Systematic Review and Meta-analysis of Randomized Controlled Trials: Part III, Surgical Pain Populations](#). *Pain Medicine*. doi: 10.1093/pm/pnw101.

Show me the data...

"If the camel once gets his nose in the tent, his body will soon follow." –Arabian Proverb





Questions? Not my Job



Defense & Veterans Center for Integrative Pain Management

DVCIPM

For the latest on DoD pain management and helpful information.

www.dvcipm.org