

Causalytics – You're in Pain and It's all Your Fault

Kevin L. Zacharoff, MD, FACPE, FACIP, FAAP





Disclosure

Nothing to disclose



Learning Objectives

- Illustrate how precognitive thinking may negatively impact clinical decisionmaking in managing chronic pain
- Describe cognitive biases
- Identify common healthcare provider and patient biases regarding chronic pain and its treatment
- Distinguish the differences between implicit and explicit biases that exist in today's pain management environment
- Describe methods to help recognize, reflect upon, and circumvent potential stigmas to prevent compromise of patient care



The Blame Game

- Reacting to people with chronic pain
 - -Do we wince?
 - -Do we wait to respond until we know
 - Cause?
 - Diagnosis?
 - Context?
 - -Do we stigmatize?
 - –Does it depend on the circumstance(s)?
 - Does it have to do with responsibility?
 - -Is our level of empathy directly related to responsibility?









Or do we do it on the fly?

Do We Plan to Blame in Advance?





Precognition or Cognition?





Are We Taught to Think *Before* We Know?

Precognition –

- -Thinking that occurs **before** knowledge acquisition takes place
 - Do we **predict** the future?
 - Do we **see** the future?
 - Do we **dictate** the future?
 - Does empirical thinking shape our decisions?
 - Do we use our *intuition*?
 - Do we judge?
 - Do we label??
 - -If yes, when?
 - -If yes, why?





Why We Label

- Growing number of (sometimes) conflicting opioid prescribing guidelines
 - Aberrant drug-related behavior(s), overdose deaths
- Negative media attention
 - -Stigma
 - Patient
 - Healthcare provider
- Co-morbid medical complexity
- State mandates
- Competing educational programs
 - -Educational vacuum^{1,2}
- FEAR OF REGULATORY SCRUTINY





Mezei L, Murinson B. Pain education in North American medical schools. J Pain. 2011;12(12):1199-1208.

^{2.} Bradshaw YS, Patel Wacks N, Perez-Tamayo A, et al. Deconstructing one medical school's pain curriculum: ii. partnering with medical students on an evidence-guided redesign. *Pain Med*. 2017;18(4):664-679.

What Happens When We Know?

■ Cognition –

- -The *process* of acquiring knowledge and understanding through thought, experience, and the senses involving:
- Intellect:
 - Acquiring knowledge
 - Perceiving
 - Memory access/past experience(s)
- Processing
- Reasoning
- Understanding
- Transduction
 - Language/words
- -Formation of beliefs and attitudes?
 - When??





The Patient Perspective

- Pain patients often feel the need to prove pain is real
 - Subjective Sx vs objective findings
- Stigmatization is real
 - -Opioids
 - Physical limitations
 - -Social limitations
- Reaction(s) to pity
- Reaction(s) to sympathy
 - Not the same as empathy
- Suspicion about malingering
- Loneliness
- Everything else...



The Need for Individuality and Choice

- Self-reported pain ratings are subjective
- Patient needs and treatment should be highly individualized
 - -Context ALWAYS varies
- Highly valuable contributory information should not be ignored
- BUT AVOID:
 - -Gut checks
 - -Over-reliance on prior experience
 - -Superimposition of anecdotal experience



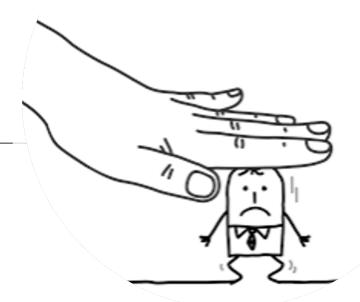




Patients are Individuals

There may be many things that the standard assessment processes *may not capture*

- Emotional states
- Emotional challenges
- Cultural challenges
- Cultural differences
- Different external pressures that they have in their lives









Precognitive Judgments

- Like it or not, we bring precognitive judgments and thinking into the exam room with us every time we see a patient, probably before we even meet the patient
- We read about them before we ever meet them
 - -We then judge them based on what we see and how we feel







Potential Corruption of Assessment and Treatment



Patients Judge Too...

- Patients judge themselves
- Patients judge us









Consider

- You may not have the "whole picture"
 - At any given time, a person is dealing with many factors of which you're unaware
- The way you think and feel about a situation may be very different from one day to the next, influenced by various elements, including <u>your</u> current mood
- Under emotional stress, you may behave very differently than you think you would





Are taught them from the beginning?

We are Fully Stocked with Cognitive Biases...









Cognitive Biases in Pain Management

- Attribution error
- Anchoring
- Premature closure
- Search satisfaction
- Zebra retreat
- Blind-spotting

- Clustering illusion
- Bandwagon effect
- Authority bias
- Availability heuristic
- Conservatism bias
- Ostrich effect

- Outcome bias
- Zero-risk approach
- Placebo effect
- Recency
- Search satisfaction
- Overconfidence



- Common Cognitive Biases. The Canadian Protective Association. https://www.cmpa-acpm.ca/serve/docs/ela/goodpracticesguide/pages/human_factors/Cognitive_biases/common_cognitive_biases-e.html. Accessed July 16, 201
- 2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/ . Accessed July 16, 2019.
- 3. Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.
- 4. Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. Personality and Social Psychology Bulletin. March 1, 2002.
- 5. Pinker, S. Mind Over Mass Media. The New York Times. JUNE 10, 2010.

Attribution error

- -Explaining a patient's condition on the basis of their disposition or character rather than seeking a valid medical explanation
- -Why?
 - Because we stereotype
 - Because there are so many things to pick from...
 - -Race
 - -Gender
 - -Age
 - -Socioeconomic status
 - -Educational level
 - -Medical/substance abuse history
 - -Diagnosis
 - -Etc
 - · What to do?
 - -Be aware



Commentary

Prejudice in medicine

Our role in creating health care disparities

John Guilfoyle MD FCFP Len Kelly MD MClinSc FCFP Natalie St Pierre-Hansen

VOL 54: NOVEMBER · NOVEMBRE 2008 Canadian Family Physician · Le Médecin de famille canadien

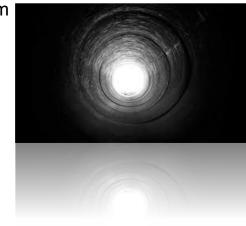


Anchoring

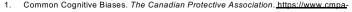
- -Focusing on:
 - One particular sign or symptom (usually the first... –sound familiar?)
 - One piece of information
 - Hanging onto one particular diagnosis without taking into consideration

other possibilities, or discounting and/or ignoring them

- Why?
 - Efficiency we learn fast
 - We learn from experience
- End result tunnel vision
- What to do?
 - Reassess
 - · Reconsider diagnosis if
 - New signs or symptoms
 - Unexpected course of treatment
 - Lack of progress
 - Unexpected outcome







Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.

Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.



Premature closure

Acceptance of an initial diagnosis

Failing to challenge it or look any further

- Why?

 I was always taught that if you give a patient enough time, they will tell you what's wrong with them

- What to do?

- Always have a differential
- · Look for "red flags"
 - -Follow-up on them
- Consider the worst-case scenario (only as a possibility to ensure you don't miss something) and then <u>rule it out</u>
- Consider a 2nd brain/set of eyes consult with a colleague



[.] Common Cognitive Biases. The Canadian Protective Association. https://www.cmpa-







acpm.ca/serve/docs/ela/goodpracticesguide/pages/human_factors/Cognitive_biases/common_cognitive_biases-e.html . Accessed July 16, 2019.

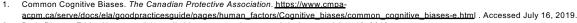
^{2.} Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.

^{3.} Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579

Search satisfaction

- -When an abnormality is found
 - The search is **OVER**
- -Why?
 - So we can pin the tail on the donkey!
 - How many times have you heard people mention "I have herniated discs"?
- What to do?
 - Ask yourself <u>more than once</u> if something else might be going on





2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/ . Accessed July 16, 2019.

3. Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.

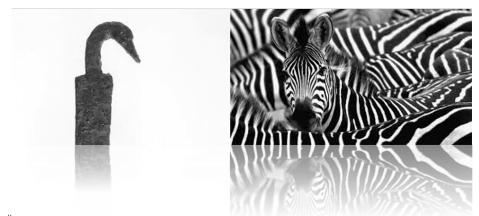
4. Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. Personality and Social Psychology Bulletin. March 1, 2002.

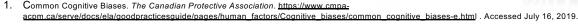
5. Pinker, S. Mind Over Mass Media. The New York Times. JUNE 10, 2010.



Zebra retreat

- -If it's not common, it can't be the diagnosis
 - Not considering the rare case
- -Why?
 - Because we're taught not to think of zebras, we're taught to think of ducks...
 - Usually good advice
 - "Go where the money is"
- -What to do?
 - Rule out the zebra





2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.

3. Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.

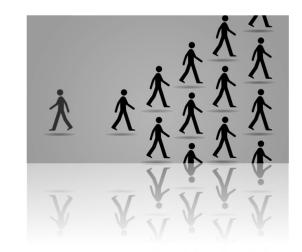
4. Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. Personality and Social Psychology Bulletin. March 1, 2002.

5. Pinker, S. Mind Over Mass Media. The New York Times. JUNE 10, 2010.



Blind-spotting

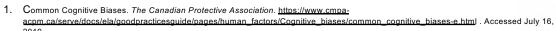
- -Being less likely to detect bias in yourself than in others
- -Why?
 - To some degree, it's natural...
 - -Unrelated to
 - » Intelligence
 - » Self-esteem
 - » Ability to make unbiased judgments
 - We tend to "do what we know" and think it's best
- What to do?
 - Look in the mirror
 - Self-awareness
 - Identify who and what makes you feel uncomfortable
 - -Figure out why





Clustering illusion

- -The tendency to see patterns in random events
- Why?
 - Because we believe in streaks
 - Because we all have some kind of gambling tendency
- What to do?
 - Realize it's a fallacy
 - A bad case is just a bad case



- 2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.
- 3. Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.
- 4. Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. *Personality and Social Psychology Bulletin*. March 1, 2002.
- 5. Pinker, S. Mind Over Mass Media. The New York Times. JUNE 10, 2010.

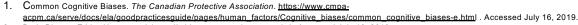




Bandwagon effect

- When a diagnosis "sticks" to a patient potentially distorting the diagnostic process
 - eg, the patient with a history of substance abuse presents with bona fide pathology and pain and is assumed to be drug-seeking
- -Why?
 - Because everybody has a "permanent record"...
- What to do?
 - Diligent assessment
 - Consciously come to a diagnosis
 - Take a diagnostic "time out"





2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.

Baron, J., Hershey, J. C. Outcome bias in decision evaluation. *Journal of Personality and Social Psychology*, Vol 54(4), Apr 1988, 569-579.
 Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. *Personality and Social Psychology Bulletin*. March 1,

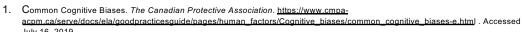
2002.





Authority bias

- -Consciously deciding to disagree with an "expert" or person with authority
- -Why?
 - Because the "White Ivory Tower" is not "Main Street"
 - Because we like to go against authority
- What to do?
 - Know your limitations
 - Make sure to listen to both patient and the expert and then come to your own conclusions based on objective analysis
 - Make sure every member of the "team" has an equal voice



- 2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.
- 3. Baron, J., Hershey, J. C. Outcome bias in decision evaluation. *Journal of Personality and Social Psychology*, Vol 54(4), Apr 1988, 569-579.
- Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. Personality and Social Psychology Bulletin. March 1, 2002.
- 5. Pinker, S. Mind Over Mass Media. The New York Times. JUNE 10, 2010.





Availability heuristic

- -Recent or vivid diagnoses come to mind first and are overemphasized
 - I just had a patient with...
- -Why?
 - Think *mental shortcut*
- What to do?
 - Remember patient individuality
 - Watch for inconsistencies with common, less serious diagnoses
 - Beware over-investigating because recent unexpected diagnosis in another patient







- Common Cognitive Biases. The Canadian Protective Association. https://www.cmpa-acpm.ca/serve/docs/ela/goodpracticesguide/pages/human_factors/Cognitive_biases/common_cognitive_biases-e.html. Accessed July 16, 2019.
- 2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.
- 3. Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.
- 4. Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. Personality and Social Psychology Bulletin. March 1, 2002.
- 5. Pinker, S. Mind Over Mass Media. The New York Times. JUNE 10, 2010.

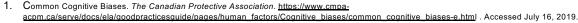
Conservatism

- -Favoring old evidence over new information
- -Why?
 - "It's the way I was taught"
 - "This has always worked before"
 - "If it isn't broken, don't fix it"
- What to do?
 - Keep an open mind
 - Come to Vegas to PAINWeek every September
 - · Measure what the young'uns say after listening
 - Understand that change is usually a good thing









2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.

3. Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.

Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. Personality and Social Psychology Bulletin. March 1, 2002.

5. Pinker, S. Mind Over Mass Media. The New York Times. JUNE 10, 2010.



- Ostrich effect
 - -Pretty much self explanatory
 - *Why?*
 - Because we like to avoid difficult
 - -Situations
 - -Discussions
 - -Outcomes
 - -What to do?
 - Don't abandon patients
 - -Firing them
 - "I don't prescribe opioids"
 - "All patients are drug seeking"
 - Don't make assumptions based on the diagnosis without context
 - "There are two types of patients that just get the opioid prescription: cancer and sickle cell"



^{1.} Common Cognitive Biases. The Canadian Protective Association. https://www.cmpa-





acpm.ca/serve/docs/ela/goodpracticesguide/pages/human_factors/Cognitive_biases/common_cognitive_biases-e.html . Accessed July 16, 2019.

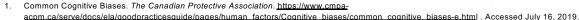
^{2.} Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.

^{3.} Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.

Outcome bias

- -Judging the quality of a decision based on the outcome instead of the process of how the decision was made
- -Why?
 - Because we'd all rather be lucky than smart, right?
- What to do?
 - Try to standardize the decision-making process
 - Avoid pendulums
 - Base and document decisions based on ethical principle(s)





2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.

B. Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.

4. Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. Personality and Social Psychology Bulletin. March 1, 2002.

5. Pinker, S. Mind Over Mass Media. The New York Times. JUNE 10, 2010.



Zero-risk

- Avoidance of risk at all costs even if the result is counterproductive
- -Why?
 - We like predictable outcomes
 - We like to avoid harm
 - Nonmaleficence is what we consider to be the most important ethical principle
 - Because risk mitigation is a very current topic

- What to do?

- Consider that risk mitigation is <u>not</u> risk elimination
 - -Think about anti-coagulation...
- Risk/benefit analysis and informed consent (documented)
 - Common Cognitive Biases. The Canadian Protective Association. https://www.cmpa-acpm.ca/serve/docs/ela/goodpracticesguide/pages/human_factors/Cognitive_biases/common_cognitive_biases-e.html. Accessed July 16, 2019.
 - 2. Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.
 - 3. Baron, J., Hershey, J. C. Outcome bias in decision evaluation. Journal of Personality and Social Psychology, Vol 54(4), Apr 1988, 569-579.
 - 4. Pronin, E. Lin, D.Y., Ross, L. The Bias Blind Spot: Perceptions of Bias in Self Versus Others. Personality and Social Psychology Bulletin. March 1, 2002.
 - 5. Pinker, S. Mind Over Mass Media. The New York Times. JUNE 10, 2010.

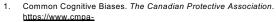






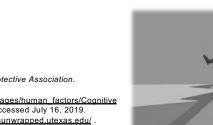
Honorable mention...

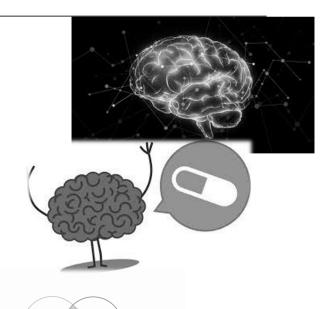
- -Placebo effect
 - Doing something is better than doing nothing
- -Recency
 - "I just learned about this at a conference"
- -Search satisfaction
 - Once you find something, you stop looking for other things
- -Overconfidence
 - Who me?



acpm.ca/serve/docs/ela/goodpracticesquide/pages/human_factors/Cognitive_biases/common_cognitive_biases-e.html . Accessed July 16, 2019.

Brain Biases; Ethics Unwrapped. https://ethicsunwrapped.utexas.edu/. Accessed July 16, 2019.







Implicit or Explicit Bias?

Implicit bias

- -*Unconscious* attitude(s) or stereotype(s) that may affect:
 - Understanding
 - Actions
 - Decisions
- -We all have them...
- -May be *favorable or unfavorable*
- –Activated *involuntarily*
 - Usually without awareness or intentional control





Implicit or Explicit Bias?

Explicit bias

- Attitude(s) or stereotype(s) we may have about a person or group on a *conscious* level
- Deliberate
- -Generally *unfavorable*
- -When people perceive their biases to be valid, they may be more likely to justify unfair/unequitable treatment
- -Can have significant negative impact on patients' physical and mental health









What is the Clinical Impact?



So What Does all this Mean?



Bias, Stigma, and Pain





Pain Management Best Practices Inter-Agency Task Force



- Established to propose updates to best practices and issue recommendations that address gaps or inconsistencies for managing chronic and acute pain"
 - -The U.S. Department of Health and Human Services guided this effort along with the U.S. Department of Veterans Affairs and U.S. Department of Defense
 - -The Task Force consisted of representatives from relevant HHS agencies, the Departments of Veterans Affairs and Defense and the Office of National Drug Control Policy
 - Non-federal representatives included from diverse disciplines and views, including experts in areas related to pain management, pain advocacy, addiction, recovery, substance use disorders, mental health, and minority health and more



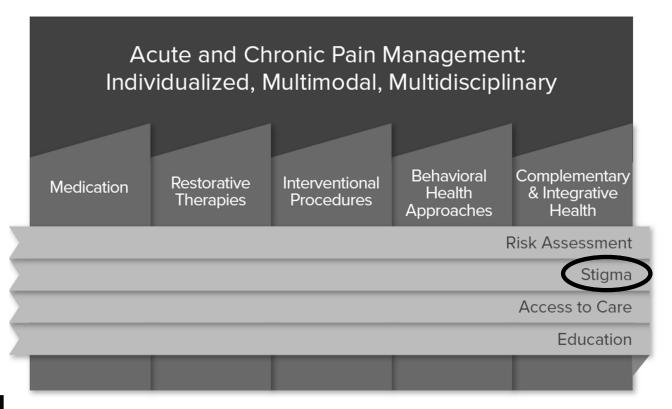
PAIN MANAGEMENT BEST PRACTICES PAIN MANAGEMENT BEST PRACTICES INTER-AGENCY TASK FORCE REPORT Updates, Gaps, inconsistencies, and Recommendations

Stigma

- "Stigma can be a barrier to treatment of painful conditions"
- Often presents a barrier to care and is often cited as a challenge for:
 - -Patients
 - Families
 - -Caregivers
 - -Clinicians
 - -Social dynamics
- In the current environment, patients with chronic pain particularly those being treated with opioids can be stigmatized
- May be exacerbated when co-morbidities exist
 - Anxiety
 - Depression
 - -Substance use disorder
 - -Etc



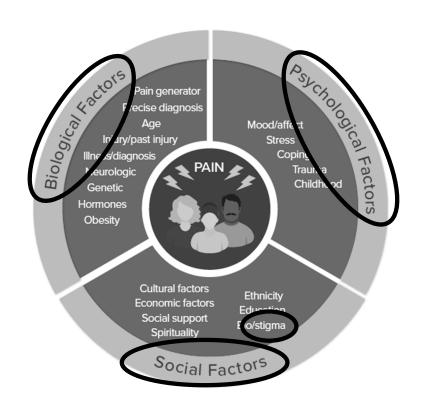
Treatment Approaches Informed by Four Critical Topics







The Biopsychosocial Model of Pain Management







PAIN MANAGEMENT BEST PRACTICES



Stigma

- "Studies suggest that patients who are receiving or who have previously received long-term opioid therapy for nonmalignant pain face both subtle and overt stigma from:"
 - -Family
 - -Friends
 - -Coworkers
 - -The healthcare system
 - -Society
 - -Insurers





Stigma

- Feelings of *guilt*, *shame, judgment, and embarrassment* resulting from stigma can increase the risk for behavioral health issues, such as anxiety and depression
 - -Which can further contribute to *symptom chronicity*
- "The sub-population of patients with painful conditions and comorbid substance use disorder (SUD) face additional barriers to treatment because of stigmatization of both chronic pain and addiction."
- "Chronic pain is common among individuals with SUD, including opioid misuse, yet stigma remains a significant barrier to implementation of programs and treatments for such as medication-assisted treatment and naloxone"







"Reducing barriers to care that exist as a consequence of stigmatization is crucial for patient engagement and treatment effectiveness"







"Increase patient, physician, clinician, non-clinical staff, and societal education on the underlying disease processes of acute and chronic pain to reduce stigma"







"Increase patient, physician, clinician, non-clinical staff, and societal education on the disease of addiction"





PAIN MANAGEMENT
BEST PRACTICES

PAIN MANAGEMENT BEST PRACTICES
INTER-AGENCY TASK FORCE REPORT

Updates, Gaps, Inconsistencies, and Recommendations

FRAAL REPORT

"Counter societal attitudes that equate pain with weakness through an awareness campaign that urges early treatment for pain that persists beyond the expected duration for that condition or injury"



"Identify strategies to reduce stigma in opioid use so that it is never a barrier to patients receiving appropriate treatment, with all cautions and considerations, for the management of their chronic pain conditions"

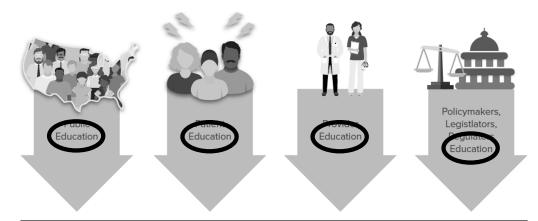






Does Education Make a Difference?





+ Effective, patient-centered care
+ Optimize patient functional outcomes
+ Appropriate use of pain medication
+ Eliminate stigma
+ Reduced risk through risk-benefit assessment



Final Thoughts...

■ The issue of stigma and chronic pain is *not new* and *not ours alone*

Topical Review





PAIN MEDICINE Volume 10 • Number 1 • 2009

: a-state-of-

"It Encourage Patient-Repor

Study of the 1 Pain Medicine 2011; 12: Wiley Periodicals, Inc.

PSYCHOLOGY, PSYCHIATRY AND BRAIN NEUROSCIENCE **SECTION**

> 1028-1035 lirect.com

> > CrossMark

Sangeeta C. Ahluv Risa Cromer, ** an

*RAND Corporation, Santa †UCLA Fielding School of F VA Palo Alto Healthcare S §Stanford School of Medic NA HSR&D Center to Imp

ETHICS §

Original Research Articles

Oregon Health and Scient Review A
**Stanford University, Stal

Stigmatiz

Stigma Experienced by People with Nonspecific Chronic Low **Back Pain: A Qualitative Study**

The Extir Susan Carolyn Slade, PhD Candidate,* Elizabeth Molloy, PhD,† and Jennifer Lyn Keating, PhD*



*School of Primary Health Care, Faculty of Medicine, Nursing and Health Sciences, Monash University-Peninsula Campus, Frankston, Victoria; †Centre for Medical and Health Sciences Education, Monash University, Clayton Campus, Victoria, Australia

Watch for Certain "Markers"

- Malingering
 - -Be really sure
- "The patient failed a trial/course of therapy..."
 - -Who failed who?
- "The last five people I went to see for this didn't help me"
 - -What is the definition of help?
- Drug-seeking/doctor shopping
 - -Be really sure
- Lying
- These are just a few examples...
 - -There are so many more





Final Thoughts...

- Reflect
 - Your/our common biases
- Recognize what might happen before knowledge is acquired
- Think about when/how we formulate beliefs and what drives us to them
- Consider that the potential negative impact of precognitive thinking and bias
 - Depression
 - -Anxiety
 - -Low self-esteem
 - -Social detachment
 - -Suicide?
- This can affect treatment outcomes
 - -Bad for the patient
 - -Bad for us
 - -Bad for everyone





Painveek



"Cure sometimes, treat often, comfort always."

— Hippocrates

QUESTIONS?

