Chronic Pain workshop:
Living with the Catastrophe

Toronto ABI Network Conference
Tuesday Nov 9, 2010
10:30 am - 12:00 noon

Presenters:  Marilyn Galonski RN BSCN
             Ted Robinson MD CCFP FCFP

Outline of Session

• Overview of Chronic Pain
• Assessment Issues
• CBT for Chronic Pain
• Pain Management Groups
• ABI Patients: 2 Case Reports
• Pain Management Tools for the Health Practitioner
MANAGING CHRONIC PAIN
Finding the Balance

Marilyn Galonski, RN BScN
Coordinator
Wasser Pain Management Centre

Disclosure: Conflicts of Interest

M. Galonski has received personal compensation for consulting and/or speaking for:
- Bayer Healthcare
- Janssen Ortho
- Pfizer
- Purdue Pharma
Pain

- Pain is one of the most common reasons to see medical attention
- 80% of office visits are prompted by pain
- 9 out of 10 Americans aged 18 or older suffer pain at least once a month, and 42% experience it every day
- Prevalence of chronic pain in the adult population may be 30% (Moulin et al 2001)
- Consequently healthcare practitioners need education to assist in developing the skills needed to evaluate and manage patients with pain

What is Pain?

Acute pain
- An adaptive, beneficial response necessary for the preservation of tissue integrity

Chronic Pain
- Pain that has outlived its usefulness

IASP- Definition of Pain

- “An unpleasant sensory and emotional experience which we primarily associate with tissue damage or describe in terms of such damage, or both.”
- Pain is a combined sensory, emotional, and cognitive phenomenon
- Physical pathology does not need to be present for a patient to experience pain
- Pain can essentially be divided into 2 broad categories: nociceptive and neuropathic

Nociceptive vs Neuropathic Pain

Nociceptive
- Usually caused by tissue damage
- Normal nervous system

Neuropathic
- There may or may not be visible tissue damage
- Altered function of nervous system is the major cause
- Affects peripheral or central nervous systems or both
The High Cost of Untreated Pain

- Increased length of stay
- Frequent emergency visits
- Loss of productivity in the workplace
- Number one cause of adult disability in US (American Chronic Pain Association)
- Decreased Quality of life
  - Ability to concentrate, work, exercise, socialize, sleep, leisure activities, chores, engage in sexual activity

Comorbidities

- Chronic pain and the associated stressful negative consequences can lead to:
  - Inadequate sleep
  - Anxiety
  - Depression
- These comorbidities negatively impact on functionality and quality of life and require assessment and treatment

Assessing the Patient in Pain

What is the severity?
What is the mechanism?
Are there psychosocial contributing factors?
Is there a concurrent depression/anxiety disorder?
Is there an addiction risk?
What is the impact on patient’s functioning?
What are the patient’s beliefs/expectations?

Pillar 1: Assessment including a comprehensive pain history and risk assessment

- General history
- Pain history

P-provocation & palliation. What caused the pain and what makes it better or worse?
Q-quality of pain i.e. sharp, shooting, aching, burning etc?
R-region & radiation-Where is it? Does it radiate?
S-severity on a 1-10 scale. Does it interfere with activities?
T-timing. Sudden or gradual onset, intermittent? How often/how long?
DEFINITIONS

Addiction – primary chronic, neurobiologic disease with genetic, psychosocial, and environmental factors influencing its development and manifestations

American Academy of Pain Medicine, American Pain Society, and American Society of Addiction Medicine, Consensus document; 2001

- characterized by behaviours that include 1 or more 4C’s: impaired control over drug use, compulsive use, continued use despite harm, and craving

Heit HA 2003

DEFINITIONS

Physical Dependence

- State of adaptation
- Manifested by a drug class- specific syndrome produced by:
  - abrupt cessation
  - rapid dose reduction
  - decreasing blood level of the drug
  - administration of an antagonist

American Academy of Pain Medicine, American Pain Society American Society of Addiction Medicine, Consensus document; 2001
DEFINITIONS

Tolerance

- Taking the drug changes the body in such a way that the drug loses its effect over time
  - tolerance to side effects is a good thing
  - tolerance to pain relief is a problem

Risk Assessment

- Complicating the treatment of chronic pain is the challenge of treating the chronic pain patient at risk for or with a history of substance abuse
- This population is difficult to identify for problematic medication use/abuse
- Key element in assessment and management is the potential for problematic use of medication

http://www.stoppain.org/pain_medicine/content/medication/opioids.asp
Universal Precautions

- “Universal Precautions” originated from the infectious-disease model
- Impossible to predict which patients will become problematic users of prescription drugs, universal precautions can be applied to pain management


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Universal Precautions

Previous drug and alcohol use
  - Family history of drug or alcohol use
  - History of other addictions
Psychological and sexual abuse and social history
Current and previous pain treatment
Urinary drug screen and identification
Screening Tools

- Screening is an important step toward intervention
- Assess consistently
- By asking questions about substance abuse and misuse, the practitioner is able to demonstrate caring about this health issue
- Comfort level of the clinician is legitimate issue and may affect ability to engage the patient
- Features of screening instrument affecting acceptability to clinicians may include ease of use, brevity, comfort for the clinician and comfort for the patient (Vinson et al 2004)

Assessment Tools

CAGE Questionnaire

- “Have you felt the need to Cut down on your drinking (or drug use)?”
- “Have people Annoyed you by criticizing your drinking or drug use?”
- “Have you ever felt bad or Guilty about your drinking drug use?”
- Have you ever needed an Eye-opener in the morning to steady your nerves or get rid of a hangover?”

Ewing JA JAMA. 1984
Assessment Tools

Opioid Risk Tool (ORT)  
(Webster LR, 2005)

- five question, self-administered, assess patient risk prior to treatment initiation
- developed to screen patients with chronic pain who will be using opioids as part of their treatment plan
- quantifies the level of risk
- easy to use and score (low, moderate high risk)

Risk Stratification

LOW – no previous hx (personal/family) of substance abuse

MODERATE – e.g. family hx, age, gender, score 4-7 ORT

HIGH – current/past hx, score 7 or greater ORT

Addiction does not develop suddenly with exposure but dx over time
Be sure that you and your patient have the same goals before you start a treatment plan.

Manage Expectations

- Management vs cure
- Complete pain relief is relatively rare
- Improvements in functionality and quality of life are achievable goals
- Encourage the patient to participate in the decision-making process and in the determination of realistic objectives according to the clinical condition
- Goal setting (SMARTER)
Chronic Pain – Treatment Approach

Physical / Rehabilitative

Psychosocial

Medical
  - Pharmacological
  - Interventional

Psychological Modalities

- Cognitive Behavioural Therapy
- Mindfulness Based Stress Reduction
- Chronic Pain Self Management Program
- Biofeedback
- Relaxation
- Yoga/Tai Chi
Multidisciplinary Approach

- Offer a biopsychosocial approach to the underlying problem
- Decrease pain/increase function
  - Pharmacological treatments
  - Physical modalities
  - Interventional modalities
- Treat the associated psychological comorbidities
- Improve pain coping ability

Common Chronic Pain Conditions

- Neck and low back pain
- Arthritis
- Complex regional pain syndrome (CRPS)
- Myofascial pain syndrome
- Headache – migraine and “tension type”
- Fibromyalgia
- Painful neuropathies e.g. PHN, PDN
- MS; post-stroke central pain
- ABI
Pain: A Mind-Body Problem

MIND
• Cognition influences perception of bodily experience

BODY
• Bodily symptoms influence stress and depression
CBT Approach

• Collaborative
• Educational
• Time-limited
• Problem-oriented
• Structured
• Encourages expression of feelings
• Teaches pain coping skills
• Homework to consolidate skills
• Consistent with biopsychosocial model of pain

Beck, Judith 1995

CBT Treatment Content (Cognitive Change)

• Goals: Reduce distress associated with pain
  Decrease fear of pain & activity
  Reduce frustration
  Increase control

• Methods: Education re: hurt vs. harm
  Challenge thought content & beliefs
  Thought “experiment”
  Attention control devices e.g.
  guided pain imagery
**CBT Treatment Content (Behavioural Change)**

- **Goals:**
  - Increase activity
  - Decrease health care use
  - Increase functional independence
  - Reduce pain

- **Methods:**
  - Setting goals
  - Pacing
  - Behavioural "experiment"
  - Supervised gentle exercise
  - Relaxation

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**Program Content for CBT Pain Groups**

1. **Education**
   - Pain mechanisms & pain theories
   - Comprehensive nature of pain
   - Relationship between pain & stress, anger, depression, anxiety
   - Sleep, sex, nutrition, humour
   - Role of medications in chronic pain
2. Group Format
   • Peer support
   • Shared experiences
   • Problem solving

3. Skills training
   • Relaxation; guided pain imagery
   • Appropriate physical exercise
   • Modifying negative thoughts & challenging fixed beliefs
   • Pacing; goal setting

CBT Pain Group Programs

• Medical referral
• Pain questionnaire completed
• Initial individual Ax
• Group sessions 3 hours twice weekly for 10 weeks – follow-up session 3 months later
• Maximum 12 per group
• Interactive group discussion
• Skills training in session reinforced by home practice
• Exercise: Yoga, Qi Gong, Hydrotherapy
**Inclusion Criteria: CBT Pain Group Programs**

- CNCP > 6 months
- Pain adversely affects QOL
- Medically & psychiatrically stable
- Verbal English, cognitive & social skills sufficient for participation in group
- Seeking to become actively engaged in self-management of their pain
- Interested in learning pain control strategies to complement standard medical care

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**What is Pain??**
# What is Pain??

<table>
<thead>
<tr>
<th>Signal of problem - warning</th>
<th>Sore</th>
<th>Affect physical function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can't manage</td>
<td>Tension</td>
<td>Fatigue</td>
</tr>
<tr>
<td>Brain interpreting a sensation</td>
<td>Exhaustion</td>
<td>No energy</td>
</tr>
<tr>
<td>Body parts not moving same</td>
<td>Feel limited</td>
<td>Dependence</td>
</tr>
<tr>
<td>Feels like you’re crazy</td>
<td>Scary</td>
<td>Mind racing/rushing</td>
</tr>
<tr>
<td>Anxiety, panic</td>
<td>Obsessive</td>
<td>Not knowing</td>
</tr>
<tr>
<td>Depression</td>
<td>Stress</td>
<td></td>
</tr>
<tr>
<td>Aggressive, cruel</td>
<td>Unfriendly</td>
<td></td>
</tr>
<tr>
<td>Controls mood</td>
<td>Sad face</td>
<td></td>
</tr>
<tr>
<td>Controls appetite</td>
<td>On medications</td>
<td>Lack of sleep</td>
</tr>
<tr>
<td>Affects sex</td>
<td>Absorbs time</td>
<td>Lack of interest in things</td>
</tr>
<tr>
<td>Want to be isolated</td>
<td>Hide inside</td>
<td>Reality</td>
</tr>
<tr>
<td>Put up walls</td>
<td>Reality</td>
<td></td>
</tr>
<tr>
<td>Affects family, marriage, work</td>
<td>Out of control</td>
<td>Change of lifestyle</td>
</tr>
<tr>
<td>Constantly with you</td>
<td></td>
<td>Can be your identity</td>
</tr>
<tr>
<td>Can change you for the better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New interests; advocacy</td>
<td>Empathetic</td>
<td>More patient, reflective</td>
</tr>
</tbody>
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## CHANGING SELF-TALK

<table>
<thead>
<tr>
<th>SITUATION</th>
<th>NEGATIVE SELF-TALK</th>
<th>POSITIVE SELF-TALK</th>
<th>OUTCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jim</td>
<td>The garden looks awful. I can’t stand it.</td>
<td>I haven’t even been enjoying the part I finished. I can choose to focus on that part instead of the unfinished part.</td>
<td>Regain some of the enjoyment in gardening</td>
</tr>
<tr>
<td>55 year old school bus driver. Off work on WSIB because of back injury.</td>
<td>I just have to get out there and fix it. I worked as long as I could until the pain forced me to stop. Emotions: Frustration Irritation Feels overwhelmed</td>
<td>If I stop before the pain forces me to, maybe I won’t have a flare-up that lasts 2-3 days.</td>
<td>Use pacing to avoid flare-ups and get more done in the long run. Working within my limitations gets me further than fighting them.</td>
</tr>
<tr>
<td>Chief hobby and passion is gardening Unable to do it this year because of his back. He goes out and works in the garden all morning (about 4 hours). Pain becomes unbearable and he’s forced to stop. Causes flare-up of pain lasting 2-3 days. Coming in after 4 hours’ work he looks out and says:</td>
<td></td>
<td>I can also use some strategies like varying the tasks, sitting for some of the work, hiring a student to do the hard work like digging</td>
<td>Work smarter not harder.</td>
</tr>
</tbody>
</table>
Evidence of Efficacy for CBT in Chronic Pain

- Numerous recent control studies, systematic reviews & meta-analyses support efficacy of CBT for:
  - Recurrent headache
  - Chronic low back pain
  - Arthritis pain
  - Cancer pain
- Improvements in:
  - Pain levels
  - depression, anxiety,
  - pain catastrophizing, self-efficacy for pain,
  - increased activity level, reduction in medication intake

Williams, A. et al World Congress on Pain, Montreal 2010
CBT compared with Medical Treatments: NNT

<table>
<thead>
<tr>
<th></th>
<th>Diabetic Neuropathy</th>
<th>TGN</th>
<th>CBT for Chronic Pain</th>
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</thead>
<tbody>
<tr>
<td>Anti-depressants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-50% pain</td>
<td>2.5</td>
<td>2.3</td>
<td>2.1</td>
</tr>
<tr>
<td>Anti-convulsants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-50% pain</td>
<td>2.4</td>
<td>2.5</td>
<td>5.5</td>
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</tbody>
</table>

CBT for Chronic Pain
Function +50% Walk +50% Off opioids
-50% pain

Demographics of Pain Patients
(10 Consecutive CBT Groups)

N=70
Mean years with pain=8.9
Mean age 54.1 years
61 female 9 male
33 had other significant health problems
Living: Alone 29 (41%)
        Spouse 17 (24%)
        Children 18 (26%)
        Spouse & Children 6 (9%)
Program Evaluation

1. McGill Pain Questionnaire Short Form
2. Beck Depression Inventory II
3. Beck Anxiety Inventory
4. Coping Strategies Questionnaire
5. Pain & Disability Inventory
6. SF-36

Results of 10 CBT Groups at Bridgepoint (70 Patients)

- Participation in the Bridgepoint CBT pain group associated with:
  - no significant change in pain scores (MPQSF)
  - decrease in anxiety (BAI) & depression (BDI)
  - increase in active coping & decrease in passive coping (CSQ)
  - decrease in perceived disability (PDI)
  - increase in perception of physical function, role physical, mental health, & vitality (SF 36)
Improvement in Mood, Disability Perception and Coping

![Bar Chart for BAI, BDI, PDI, ACTIVE, PASSIVE]

Improvement in Quality of Life (SF 36)

![Bar Chart for Physical Function, Role Physical, Mental Health, Vitality]
Frequency of ABI Patients in Pain Management Groups

• 17 Consecutive Groups (Mt Sinai & Bridgepoint)
• 148 Patients
• 9 Patients ABI (6%)

Case 1: PL

• 31 year old male
• Anoxic brain injury caused by stab wound (neck)
• Required resuscitation; antero & retro amnesia
• MRI: extensive left multifocal infarcts
• Hospitalized 22 months
• Referral to PMP by physiatrist 24 months post-injury
• R sided body pain
• Other issues: dysphasia, decreased memory & concentration, impaired R hand function (couldn’t write)
**Case 1: PL (cont’d)**

- **Outcome:**
  - Attended 19/20 sessions
  - Appreciated group support
  - Unable to follow flow of group discussion
  - Unable to comprehend the assigned home tasks
  - Able to participate in relaxation sessions but not able to follow through with home practice
  - At end of program could not identify anything he learned that would help him manage pain

**Case 2: CB**

- 48 year old female
- MVA 5 years before PMP
- ?LOC; HA, contusion to head, memory loss
- GP sent for physio for L body pain
- RTW 7 weeks after injury – couldn’t do former job in insurance claims
- Difficulty with memory, concentration, word finding
Case 2: CB (cont’d)

• Assessed at Wasser 4 years post-injury
  – Referred to St. Michael’s ABI clinic
  – Appropriate medical management of pain
  – Referred to CBT PMP
• Chronic widespread pain
  – Esp. head & neck; also mid-back, L knee
  – Dx of FM
  – Ind Psych for PTSD & depression

Case 2: CB (concl)

• Attended 17/20 sessions
• Able to participate fully during sessions
• Self-directed to complete all home tasks
• Gained emotional support from group
• Used relaxation & breathing to decrease anxiety & depression
• Increased enough in self-confidence to quit part-time job & take time for herself to heal
• Now participating in MBSR program for chronic pain
Community Resources for Pain Patients

- Exercise: aqua-fit classes, Tai Chi, Qi Gong, Yoga
- Chronic Pain Association of Canada (CPAC) membership & support group meetings e.g. “New Outlook”
- Mindfulness Based Stress Reduction (MBSR) courses for chronic pain
- Self-help workbooks e.g. “Managing Pain Before it Manages You” Margaret Caudill MD revised 2009
- Relaxation CD’s e.g. Eli Bay, Emmett Miller

Community Resources (continued)

- Canadian Pain Society (CPS) website:
  www.canadianpainsociety.ca

- Wasser Pain Management Centre website:
  www.mtsinai.on.ca/care/pain_management

- Bridgepoint Health website:
  www.bridgepointhealth.ca/painmanagement