Chronic Pain Management

A Psychiatric approach

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Chronic Pain Management

• Chronic Pain patients want:
  – To be cured
  – To be pain-free
  – To overcome disability and re-gain control over their lives

• Pain Management does NOT
  – Offer them cure
  – Provide them freedom from pain

• Pain Management offers patients the OPPORTUNITY to overcome disability and to regain their sense of self-efficacy and control over their lives by facilitating
  - acceptance (through better understanding)
  and
  - adjustment (through effective strategies to self-manage their pain)
Acute Pain

- **Purpose of Pain**
  - Pain is the way your body tells you that it is being damaged or potentially damaged
  - It is a WARNING or ALARM

- **Reaction to Pain**
  - “Flight or fight”
**Acute Pain vs. Chronic Pain**

- Functions as warning signal to
  - Indicate tissue damage (Nociception)
  - Prevent further damage
  - Promote survival by activating reflexes and behaviours that immobilize the injured body part and prepare the organism for escape from the source of damage

- Treatment available
- Cure expected
- Limited time course

- Pain has lost its warning function and meaning
- **Sensitization** of CNS pain pathways results in:
  - Reflexes and behaviours aggravate and perpetuate the pain and maintain disability.
  - **Suffering**
    - Loss of physical ability
    - Loss of personal independence
    - Loss of financial independence
    - Loss of social roles
    - Loss of sense of self-efficacy

- Adequate treatment not available
- Incurable
- Indeterminate time course
How does Acute Pain become Chronic Pain?

• **Central Sensitization** is due to CNS neuroplasticity – i.e., neurophysiological changes in CNS pain pathways that develop in response to an original injury.

• It means that there has been a lowering of the threshold required to cause neuronal firing in the sensory field representing the injured part of the anatomy and results in

  ➢ (i) amplification of existing pain,
  ➢ (ii) the generation of spontaneous “flares” of pain, i.e., pain that arises as a result of the lowered threshold of the affected pathway rather than being due to ongoing injury
  ➢ (iii) recruitment of other parts of the body – not previously injured – to experience pain due to the expansion of the pain-sensitized field within the CNS.

• Once central sensitization has developed, the pain sufferer is primed not only to suffer persistent and intractable pain but is also prone to experience spontaneous exacerbations of pain – independent of any other factors or pathology.
The chronic pain sufferer, in effect, no longer has his or her original body – it has been damaged and is changed – and, as a consequence, the instinctive patterns of using it must be broken.

(Rephrased from “The Naked God” by Peter Hamilton)

To overcome the pain, chronic pain sufferers must first end their resentment and subconscious rejection of their (new/changed) body so that they can get (back) in touch with it.

They must then learn to work with the body and adapt to its new limitations.
Central Mechanisms in Pain

• A **sensory-discriminative** component
  • that refers to the capacity to analyse location, intensity, and duration of the pain stimulus

• A **motivational-affective** component
  • that gives rise to the unpleasant character of painful perception

• A **cognitive-evaluative** component
  • that involves anticipation, attention, suggestion & past experience and
  • *that interacts with the sensory-discriminative and motivational components*

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An unpleasant/distressing **sensation** in my .............

*(nociceptive component)*

that makes me **do** .... & **feel**....

*(affective component)*

and that **means** .......

*(evaluative component)*

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![Diagram](image-url)
What Pain Means

**EMOTIONAL aspects of Pain**

- Antalgic reflexes & behaviours result in functional disability
  - Disability means
    - Loss of physical ability & often personal independence
    - Loss of financial independence - becoming an “in-valid” person
    - Loss of social roles
    - Loss of sense of utility, self-efficacy and purpose
  - Pain also means
    - being punished, being a bad person/a fraud, having done something wrong,

- Emotional distress is often the most salient, disruptive and undesirable quality of the complex subjective experience of pain
  - Fear, anxiety, depression and anger are most common
  - Guilt, frustration and even sexual arousal may occur

- Complex interactions between emotional distress & pain
  - Emotional distress as a consequence of pain
  - Emotional distress as a cause of pain
  - Pain & Emotional distress as concurrent problems with independent sources
Cognitive factors in Pain

• Illness beliefs:
  • I can’t stand it/cope with it!
  • It’s incurable! ..I’ll never get better
  • No-one believes me!!
  • I must be a bad/unlucky person to be punished this way

• Cognitive errors
  – Catastrophising .....I'm useless. My future is bleak!!!!!
  – Overgeneralising ....... Nothing helps, no-one cares
  – Selective abstraction ......

• Perceived control of events
  • They should cure me ..take pain away
  • I need pain killers, must rest/withdraw

• Availability of personal or external resources

Better, though difficult, the right way to go, than wrong, though easy, where the end is woe.

John Bunyan, Pilgrim’s Progress
Psychological factors in Pain

What Pain makes me do .... & feel

“I get tense, short of breath. My heart races.. I get restless..feel frightened. My stomach churns, I feel nauseous & have compelling urge to urinate/defecate.. I fear that I might die!!!”

- I reach for pain-killers, rush to my doctor, physiotherapist, chiropractor
- I withdraw from activities -until I get better
- I feel helpless

- Anticipation
- Observational learning (modelling)
- Familial & cultural patterns of pain complaint and attitudes towards pain
- Fear & anxiety about what pain implies
- Coping style (Personality factors)
- Attentional capacity
- Post-traumatic Stress Disorder
Disability means loss of function, i.e., the loss of

- **Utility** = being useful
- **Job** = paid trade or profession
- **Occupation** = an activity on which time is spent, may be paid or unpaid
- **Role** = usual or expected function of a person, the part played in a given social context
- **Purpose** = the reason that someone exists

To overcome disability, one must accept that

- One cannot control all aspects of one’s life
- In order to remain autonomous, one might need to depend on others
- One must take responsibility to establish new roles, occupation, and purpose

so as to regain **MEANING**
Effective Management of Intractable Pain

To be maximally effective, therapists need to develop a strong, empathic relationship with the patient that imparts 3 core messages:

- that we can help them control their pain and the personal devastation that pain causes,
- that we will never give up trying to help them find effective treatment and to make good treatment choices, and
- that creating meaningful, motivationally-driven activity is key to their successful management of the condition and a better quality of life.

Chronic Pain & Dependence

- Tolerance and physical dependence are common
- Psychological dependence carries moral and legal connotations AND produces behavioural problems
- < 0.05% of all patients regularly receiving one or more opioid analgesics develop psychological dependence
- Appropriate early pain management reduces the risks of psychological dependence
Psychosocial correlates of **Good Prognosis**

**Good prognosis is more likely when patients:**

- Believe/accept that:
  - Pain has multiple components
  - They can affect treatment outcomes
  - The benefits of pain control needs to be assessed against the risks

- Are able to learn and adopt new coping strategies

- Are active participants in their own recovery and rehabilitation

- Have carers or partners who reinforce positive behaviours

- Do not expect treatment to completely remove their pain and restore them to 100% functioning
Psychosocial correlates of Poor Prognosis

Poor prognosis is more likely when patients:

× Believe/insist that:
  × Their pain is purely physical
  × Psychosocial factors do not affect their pain nor its treatment
  × Chronic pain means the loss of a normal life
  × They cannot impact their pain
  × They will never get any better

× Have pre-existing or co-morbid psychological problems

× Are passive bystanders in their own treatment

× Have carers or partners who encourage or enable "sick role" behaviours and undermine healthy behaviour
Chronic Pain Management

Functional rehabilitation

Cognitive therapies
- Spiritual support
- Relaxation
- Psychotherapy
- Antidepressants*
- Anxiolytics/Tranquilizers
- Opioids ??

Perception
- Paracetamol
- NSAIDS
- Opioids
- Nerve Blocks

Pain
- Local blocks
- NSAIDs
- Opioids
- Surgery
- Physical modalities

Nociception

Suffering

Pain behaviour
Nonpharmacologic Strategies: Evidence of Efficacy

Strong Evidence
- Exercise
  - Physical and psychological benefits
  - May increase aerobic performance and tender-point pain pressure threshold, and improve pain
  - Efficacy not maintained if exercise stops
- Cognitive-behavioral therapy
  - Improvements in pain, fatigue, mood, and physical function
  - Improvement often sustained for months
- Patient education/self-management
  - Improves pain, sleep, fatigue, and quality of life
- Combination (multidisciplinary therapy)

Modest Evidence
- Strength training
- Acupuncture
- Hypnotherapy
- EMG biofeedback
- Balneotherapy (medicinal bathing)
- Transcranial electrical stimulation

Weak Evidence
- Chiropractic
- Manual and massage therapy
- Ultrasound

No Evidence
- Tender-point injections
- Flexibility exercise

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<thead>
<tr>
<th>Strong Evidence</th>
<th>Antidepressants</th>
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<tr>
<td></td>
<td>Tricyclic compounds (amitriptyline, cyclobenzaprine)</td>
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<td>Norepinephrine reuptake and serotonin-norepinephrine reuptake inhibitors (milnacipran, duloxetine)</td>
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<td></td>
<td>Pregabalin</td>
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<td>Modest Evidence</td>
<td>Tramadol</td>
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<td>Gabapentin</td>
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<td>Selective serotonin reuptake inhibitors</td>
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<td>Gamma-hydroxybutyric acid</td>
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<td></td>
<td>Dopamine agonists (pramipexole)</td>
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<tr>
<td>Weak Evidence</td>
<td>Growth hormone, 5-hydroxytryptamine, S-adenosyl-L-methionine (SAMe)</td>
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<tr>
<td>No Evidence</td>
<td>Opioids, corticosteroids, nonsteroidal anti-inflammatory drugs, benzodiazepine and nonbenzodiazepine hypnotics, guaifenesin, thyroid hormone</td>
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The Role of the Psychiatrist

Cognitive Restructuring

Breaking instinctive patterns of thinking

Improving UNDERSTANDING

- IDENTIFYING SHATTERED ASSUMPTIONS & BELIEFS
- IDENTIFYING, CHALLENGING AND REPLACING MALADAPTIVE THOUGHT PATTERNS
- COUNTERING “FLIGHT/FIGHT” REACTIONS
The Role of the Psychiatrist

• **Reducing emotional distress**

  - **Facilitating ACCEPTANCE and ADJUSTMENT** to the pain and its consequences
    - providing & working through information about underlying pathology
    - facilitating understanding of the relationship of pain to cognitive, emotional and physiological variables
    - enhancing skills designed to cope more effectively with pain and emotional distress
    - working through the losses
    - introducing **appropriate** antidepressant and sedative-hypnotic medications
The Role of the Psychiatrist

- Deconditioning the response to pain
  - Breaking instinctive patterns of behaving
  - To facilitate ADJUSTMENT
    - Dissociating the experience of pain from the receiving of medication
    - Changing social & environmental contingencies to reduce sick-role behaviours
    - Facilitating development of effective strategies to cope with family, friends and the System (i.e., welfare agencies, insurers, lawyers, IMEs, the Courts)
The Role of the Psychiatrist

• Dealing with Pain Issues
  – Ending resentment, learning to how to live with intractable pain
  – To facilitate ADJUSTMENT

  ➢ Facilitating development of effective pain self-management skills & strategies

  ➢ Reinforcing healthy, active behaviours
c.f. passive, dependent, pain-related behaviours

  ➢ Exploring new options
  -- finding a reason to get better

  ➢ Facilitating engagement in personally meaningful activities
The Role of the Psychiatrist

- Dealing with Dependence Issues
  - controlling supplies
  - using long-acting c.f. short-acting drugs
  - reducing the priority allocated to drug use