Objectives

1. Describe the physiologic link between pain and addiction.

2. Differentiate between abuse, addiction, physical dependence, and tolerance.


Addiction

"Addiction is a primary, chronic, neurobiological disease, with genetic, psychosocial, and environmental factors influencing its development and manifestations. It is characterized by behaviors that include one or more of the following:..."
Phenomenology of Addiction

Addicted individuals comprise a group of patients whose pain is quite likely to be mismanaged and/or under managed.

- Chronic, *relapsing* condition
- Psychiatric Morbidities
- Medical Morbidities
- Familial disorder (genetic tendencies)
- Primary coping response

When I grow up I wanna be a....

<table>
<thead>
<tr>
<th>Nurse</th>
<th>Lawyer</th>
<th>A Mommy</th>
<th>Football player</th>
<th>Doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer engineer</td>
<td>Movie Star</td>
<td>Addict ??</td>
<td>Teacher</td>
<td>A Daddy</td>
</tr>
<tr>
<td>Fireman</td>
<td>Rich and Famous</td>
<td>Business Owner</td>
<td>Radio Talk Show Host</td>
<td>President of the US</td>
</tr>
</tbody>
</table>

Pain and Addiction are not unrelated phenomenon
The presence of both affect the expression of the other……”

Pain ↔ Addiction

ASPMN Position Statement
September, 2002

Patients with addictive disease have the right to be treated with respect and to receive the same quality of pain management as all other patients.

Providing this care addresses the potential for increased drug use or relapse associated with unrelieved pain.

Nurses are in an ideal position to advocate and intervene for these patients across all treatment settings.

Models of Addiction

<table>
<thead>
<tr>
<th>Moral</th>
<th>Criminal</th>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral weakness lack of will power</td>
<td>Bad or evil character</td>
<td>Acquired brain disease</td>
</tr>
<tr>
<td>Increase moral strength/fortitude</td>
<td>Rehabilitation</td>
<td>Normalize brain disruption</td>
</tr>
<tr>
<td>Religious conversion</td>
<td>Incarceration</td>
<td>Pharmacotherapy, cognitive behavioral therapy</td>
</tr>
</tbody>
</table>

McCaffrey & Pasero (1999) pg 431
Neurobiology of Addiction


- Pain and substance abuse cause endogenous opioid activation in the subcortical structures of the brain.
- This may alter pain perception.
  - Increased pain perception
  - Decreased pain tolerance
- Neurophysiological adaptation that occurs in opioid addiction.

Addiction and Psychiatric Disease

<table>
<thead>
<tr>
<th>Disorder</th>
<th>% Alcohol</th>
<th>% Drug Abuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia</td>
<td>33.7</td>
<td>27.5</td>
</tr>
<tr>
<td>Antisocial Personality</td>
<td>73.6</td>
<td>42.0</td>
</tr>
<tr>
<td>Anxiety Disorder</td>
<td>17.9</td>
<td>11.9</td>
</tr>
<tr>
<td>OCD</td>
<td>24.0</td>
<td>18.4</td>
</tr>
<tr>
<td>Bipolar</td>
<td>43.6</td>
<td>40.7</td>
</tr>
<tr>
<td>Depression</td>
<td>16.5</td>
<td>18.0</td>
</tr>
</tbody>
</table>

Physical Dependence

- **neuroadaptive state** resulting from chronic drug administration.
- Abrupt cessation of the drug, or administration of an antagonist to the drug results in a **drug-specific withdrawal syndrome**.
- Expected physiological occurrence in all individuals in the presence of continuous use of certain drugs, such as opioid analgesics.
Miller & Gold 1993

- The presence of addiction [regardless of the drug(s) abused] will increase/intensify the experience of pain.
- Activation of the SNS is caused by:
  - Pain
  - Drug abuse
  - Opioid withdrawal

Compton (1994)

- Genetic propensities
- Rapid metabolism of opioids via CP 450
- Theoretically this would/should:
  - Risk for addiction due to less ‘brain reward’
  - Increases risk for under treatment of pain

Addiction Behaviors
(The 4 C’s)

- Loss of control over use (compulsive).
- Continuation of use despite adverse consequences.
- Obsession or preoccupation with obtaining and using the substance.
- Continued craving for the drug and the need to use the drug for effects other than pain relief.
- Diversion
Addiction: State of the Science

No scientific evidence yet exists to support the assumption/claims that providing opioid analgesia to patients with addictive disease in any way worsens the addiction or that the withholding of opioid analgesia increases the likelihood of recovery from addictive disease. Therefore, health care professionals must acknowledge their biases concerning addiction prior to caring for patients with addictive disease.

Practice Implications

- Opioid induced tolerance and hyperalgesia may reflect two sides of the same coin at the cellular level
  - CCK receptors
  - NMDA receptors
- Caution: Mao (2002; 2006) clinical features are distinctly different
  - Hyperalgesia: increased sensitivity to pain
  - Tolerance: decreased sensitivity to opioids

Pain vs. Addiction

<table>
<thead>
<tr>
<th>Pain Patient</th>
<th>Addicted Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ control over medication use</td>
<td>(-) control over medication use</td>
</tr>
<tr>
<td>+ quality of life</td>
<td>(-) quality of life</td>
</tr>
<tr>
<td>Awareness and dislike of side effects</td>
<td>Requests increases despite side effects **</td>
</tr>
<tr>
<td>Concerned about medical problems</td>
<td>Denial regarding medical problems</td>
</tr>
<tr>
<td>Adheres to treatment plan</td>
<td>Does not adhere to treatment plan</td>
</tr>
<tr>
<td>Left over medication</td>
<td>Never any leftovers</td>
</tr>
</tbody>
</table>

DuPen, Shen, & Ersek (2007)
Assess/screen for addiction: the 4 ‘A’s of Pain Management

- Analgesia
- Activities of daily living
- Adverse events
- Aberrant drug-taking behaviors

Goals of acute pain management in opioid dependent patients

1. Identify populations at risk.
2. Prevent withdrawal symptoms and complications.
3. Symptomatically treat psychological affective disorders (anxiety).
4. Provide effective analgesic treatment (pain relief) in the acute phase.
5. Assist with rehabilitation process to an acceptable and suitable level of opioid maintenance therapy.

General Guidelines
ASPMN Position Statement (2002)

1. Identify and openly discuss patient’s addictions.
   - Drug (s) of abuse.
   - Current, recent, or remote use?
   - Duration of addictive disease.
General Guidelines
ASPMN Position Statement (2002)

• 2. Accept and act on patient’s pain report

• 3. Develop and establish an **individualized** pain treatment plan.

• 4. Consult a pain and/or addiction specialist to collaborate with the above plan.

• 5. Psychiatric consultation is crucial.

---

General Guidelines
ASPMN Position Statement (2002)

6. **Do not** give agonist-antagonists!
   - High risk of inducing withdrawal
   - High risk/probability for unrelieved pain
   - High risk/probability of encouraging inappropriate ‘drug-seeking’ in an attempt to relieve pain

---

General Guidelines
ASPMN Position Statement (2002)

• 7. Consult a pain and/or addiction specialist to collaborate with the above plan.

• 8. Consult psychiatric services immediately while in patient.

• 9. Assess the individual’s motivation to engage in addiction rehab
Opioid Detoxification

1. Out patient basis.
2. Uncomfortable but not life threatening.**
3. Treat ANS symptoms of withdrawal:
   - Clonidine q 4 – 6 hrs ATC **** Hypotension
   - Does not treat insomnia or drug craving
4. Substitute for abused opioid.
   - Methadone
   - 30-120 day periods
   - Duration of action- long and variable

Summary

“.... in the chronic pain patient taking long-term opioids, physical dependence and tolerance should be expected, but the *maladaptive behavior changes associated with addiction are not expected.*

Thus, it is the presence of these behaviors in the chronic pain patient that is far more important in diagnosing addiction”.

Summary

- pain relief is the goal [and right] of all patients with pain regardless of the current or past history of addiction.
- primary objective therefore is the **relief of pain**.
- Comfort HCP Trust Increased adherence
- Detoxification does not treat the disease of addiction.
- Never appropriate to initiate detoxification treatment procedures when patient is experiencing pain.
Summary

• To withhold appropriate pain assessment and/or pain relief in a patient with addictive disease is:
  – Discrimination
  – Double standard of practice/care
  – Unethical

• Health care professionals must acknowledge biases prior to caring for patients with addictive disease

Questions and Reference List

• Please send email request to:

  bazenp@upstate.edu