A primary care, integrated disease management program for patients with chronic pain and co-occurring mood and substance use disorders

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Managing Pain in PC

- Overview
- Diagnostic issues
- Risk Factors for Addiction
- Aberrant drug taking behaviors
- Chronic Disease Management Model
- Future research needs
- Summary
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Chronic Pain-Consequences

- Untreated or mismanaged pain can lead to adverse effects such as delays in healing, changes in the central nervous system (neuroplasticity), chronic stress, depression, suicide and opioid addiction

McCaffery & Pasero 1999
Fishbain 1999
Mendell & Sahenk 2003
Martell et al 2007
Opioid Dependence and Abuse in Chronic Pain Patient Population

• Treatment of chronic non-cancer pain with opioids is considered a standard of practice

  Portenoy, 2000; Harden, 2002; Ballantyne & Mao, 2003

• However, there is ongoing debate regarding this policy given the rising prevalence of prescription opioid abuse and addiction in the country

  Johnston, 2005
Increasing Prevalence of Opioid Abuse and Addiction

- The incidence of non-medical use of prescription opioids increased from 573,000 in 1990 to 2.5 million in 2002.
  
  Substance Abuse and Mental Health Services Administration (SAMHSA) 2005

- Admission rates to substance abuse treatment facilities for opioid abuse other than heroin increased from 1% of all admissions in 1997 to 5% in 2007.

  Substance Abuse and Mental Health Services Administration (SAMHSA) 2009

- Between 2004 and 2006 there was a 43% increase in ED visits related to the nonmedical use of opioid analgesics.

  DAWN, 2008
Past Month Non-medical Use of Prescription Drugs (Psychotherapeutics) among Persons 12+: 2002-2006 National Survey on Drug Use and Health (NSDUH)

Percent Using in Past Month

+ Difference between this estimate and the 2006 estimate is statistically significant at the .05 level.
Percent of 12th Graders Reporting Non-medical Use of Oxycodone HCL ER and Hydrocodone in the Past Year

No year-to-year differences are statistically significant.

University of Michigan: 2007
Monitoring the Future Study
Treatment Dichotomy

**Cure for Pain**

**POLLICY FOR PRESCRIPTION PAIN MEDICATIONS**

Our surgeons do not treat “chronic” back, neck & head pain with narcotic medications. Prescription pain medications are given only to patients who have recently had surgery and then only for a limited amount of time.

Under no circumstances will phone calls for pain medications or refills of any medication be taken on weekends or after office hours, Monday through Friday 9:00 a.m. to 4:00 p.m.
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Diagnostic Confusion
Substance Dependence (Addiction)  
DSM-IV

- Tolerance
- Physical dependence/withdrawal
- Used in greater amounts or longer than intended
- Unsuccessful attempts to cut down or discontinue
- Much time spent pursuing or recovering from use
- Important activities reduced or given up
- Continued use despite knowledge of persistent physical or psychological harm

  3/7 required for diagnosis
  5/7 common in non-addicted pain patients
Addiction

• A primary, chronic, neurological disease with genetic, psychosocial, and environmental factors influencing its development and manifestations

• Characterized by behaviors that include one or more of the following:
  – Continued use despite harm (adverse Consequences)
  – Impaired Control over use (Compulsive use)
  – Preoccupation with use for non-pain-relief purposes (Craving)

*Physical dependence and tolerance not necessary*

AAPM, APS, ASAM
DSM-V
Opioid-Use Disorder

A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by 2 (or more) of the following, occurring within a 12-month period:

- Recurrent substance use resulting in a failure to fulfill major role obligations
- Recurrent substance use in situations in which it is physically hazardous
- Continued substance use despite having persistent or recurrent social or interpersonal problems
- Tolerance, as defined by either of the following:
  - A need for markedly increased amounts of the substance to achieve intoxication or desired effect
  - Markedly diminished effect with continued use of the same amount of the substance (Note: tolerance is not counted for those taking medications under medical supervision such as analgesics, antidepressants, anti-anxiety medications or beta-blockers)
- Withdrawal, as manifested by either of the following:
  - The characteristic withdrawal syndrome for the substance (refer to Criteria A and B of the criteria set Withdrawal from the specific substances)
  - The same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms (Note: Withdrawal is not counted for those taking medications under medical supervision such as analgesics, antidepressants, anti-anxiety medications or beta-blockers)
- The substance is often taken in larger amounts or over a longer period than was intended
- There is a persistent desire or unsuccessful efforts to cut down or control substance use
- A great deal of time is spent in activities necessary to obtain the substance, use the substance, or recover from its effects
- Important social, occupational or recreational activities are given up or reduced because of substance use
- The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
- Craving or a strong desire to urge to use a specific substance

www.dsm5.org
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Risk factors for Addiction

Host
- Genetic Predisposition
- Comorbid psychiatric conditions

Environment
- Occupation
- Peer group
- Culture
- Social stability

Agent
- Availability
- Cost
- Rapidity with which the agent reaches the brain
- Efficacy as tranquilizer
Overlap of chronic pain, psychological comorbidities & substance abuse/aberrant behavior
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Aberrant Drug-Taking Behaviors Suggestive of Addiction
Aberrant Behaviors in Chronic Pain Patients Identified as Abusing/Misusing Prescribed Opioids
Cheatle, O'Brien, Mathai et al, unpublished

- Sixty-eight charts were reviewed of patients with chronic nonmalignant pain receiving long term opioid therapy in a primary care clinic.
- Thirty four of these cases were patients discharged from the practice for abusing or misusing prescription opioids.
- Thirty four charts were randomly selected from the clinic practice of patients with similar characteristics (chronic pain, RX opioids long term) but not discharged from the clinic.
- All charts were blindly reviewed by one of two reviewers with expertise in pain and addiction utilizing an aberrant behavior checklist developed from previous work in this area (Dunbar & Katz, 1996)
- A third reviewer rated 10 charts from each of the first two reviewers to determine inter-rater reliability.
Emergence of Aberrant Behaviors

Cheatle, O’Brien et al, unpublished
Presence of Preexisting Factors

Cheatle, O'Brien et al, unpublished

<table>
<thead>
<tr>
<th>Factor</th>
<th>Abusers</th>
<th>Non-abusers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking Hx.</td>
<td>80</td>
<td>50</td>
</tr>
<tr>
<td>SUD Hx.</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>Psych. Hx.</td>
<td>90</td>
<td>40</td>
</tr>
</tbody>
</table>

Cheatle, O'Brien et al, unpublished
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Chronic Pain as a Disease?

- “Chronic pain can be considered a chronic disease associated with considerable risk for the onset of complicating or recurrent depressive illness”
- “Chronic pain can be a fatal disease because of its association with suicide and with violence”

Chronic Disease Management Model

- Risk Assessment/Stratification
- Intervention
- Monitoring
Risk Assessment in Opioid Therapy

- Risk Screening Tools
- UTS
- Medical Record Audit
- Psychological Assessment
Screening Tools

- Drug Abuse Screening Test (DAST)
- Opioid Risk Tool (ORT)
- Diagnosis, Intractability, Risk, Efficacy (DIRE)
- Screener and Opioid Assessment for Patients with Pain (SOAPP)
- Prescription Drug Use Questionnaire (PDUQ)
- Screening Instrument for Substance Abuse Potential (SISAP)
- Pain Assessment and Documentation Tool (PADT)
- Current Opioid Misuse Measure (COMM)
Urine Drug Test

• Recent guidelines (Chou et al, 2009) recommend periodic UTS for CNCP patients on COT

• Assess only the presence of a particular drug and/or metabolite in a specific concentration at a specific moment in time

• A positive result does not diagnose
  – Drug addiction
  – Physical dependence
  – Impairment

• Absence of Rx opioid may reflect diversion, but also hoarding
Psychological Assessment

- Depression and anxiety are common companions to CNCP
- Estimates of prevalence of major depression in CPPs range from 18 to 80%
- Anxiety disorders in CPPs range from 7 to 29%
- PTSD in patients seeking pain treatment range from 10 to 50%
Suicidal Ideation, Plans, and Attempts in Chronic Pain Patients: Factors Associated with Increased Risk

Smith, Edwards, Robinson & Dworkin, Pain, 2004

- 153 adults referred to a tertiary care pain center completed a Structured Clinical Interview for Suicide History, McGill Pain Questionnaire, and the Beck Depression Inventory
- 19% reported current passive suicidal ideation, 13% had active thoughts of committing suicide, 5% had a current suicide plan and 5% reported a previous suicide attempt
- Drug overdose was the most common reported plan and method of attempt (75%)
- Authors concluded that these results highlighted the importance of routine evaluation and monitoring of suicidal behavior in chronic pain, especially for patients with family history of suicide, and those taking potentially lethal medications
Mental Health Screening

- BDI-II
- BDI-FS
- Zung Self-Rating Depression Scale
- CES-D
- PHQ-9/PHQ-2
- HADS*
- POMS*
- PHQ-4*
Risk Stratification
Gourlay et al 2005

- Low risk (no personal or family h/o SUD, no or minimal comorid psychiatric pathology)-PCP
- Moderate Risk (past h/o SUD, FH of SUD, current psychiatric disorder)- PCP with specialist support
- High Risk (actively addicted and/or unstable, major psychiatric disorder)- specialty pain management
Interventions

• Referral to local Behavioral Health/Addiction Specialist (http://findtreatment.samhsa.gov)

• Office-based interventions

  ➢ Screening, Brief Intervention and Referral to Treatment (SBIRT)
    SAMSHA, CSAT

  ➢ Antidepressant therapy/pain self-management program
    Kroenke et al 2009
Reductions in Substance Use
From Baseline to 6 Month Follow-up

% Reporting specific substances at baseline and at 6 month follow-up

- Marijuana
- Cocaine
- Methamphetamine
- Heroin
- Others
- Alcohol

*** p < 0.001

Baseline
6 Months

Madras et al, 2009
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Incidence of Prescription Opioid Abuse in Chronic Nonmalignant Pain patients

- Evidence-based review of available studies revealed addiction rate of 3.7% (Fishbain et al, 2008)
- 32% incidence of opioid abuse/misuse in PCP population utilizing UDS (Ives et al, 2006)
- Need for longitudinal, prospective investigation
Risk of Abuse/Addiction in Chronic Pain Patients Receiving Prescription Opioids in Primary Care

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Study Aims and Hypotheses

- Aim 1: Characterize the nature and extent of pain, substance use, aberrant behaviors, addiction, co-morbid psychiatric disorders and functionality of 400 patients initiating opioid therapy for chronic, nonmalignant pain
Study Aims and Hypotheses

• Aim 2: Assess patient level moderators of response to opioid exposure for pain and the development of aberrant behaviors and addiction

- H1: Pre-existing h/o SUD will increase the probability of developing aberrant behaviors and addiction
- H2: Concurrent depression and/or anxiety at the initiation of treatment will increase the probability of developing aberrant behaviors and addiction
- H3: Lower levels of support will increase the probability of developing aberrant behaviors and addiction
Conceptual framework for the iatrogenic development of addiction

- Predisposing Risk (H1, H2, and H3)
- Onset of pain
- Initiation of treatment
- Treatment Factors
- Aberrant Behaviors
- Abuse Addiction
- Long-term Disability

Time course to development of symptoms
Study Design

Longitudinal, repeated measures cohort study, utilizing standardized measures of patient status and treatment content at baseline (start of opioid therapy for CP), and at 3, 6, 12, 18 and 24 months thereafter.
Dep. Hx Tobacco Use FH MH/SUD

- Yes: 56.9%, 29.6%, 41.4%
- No: 43.1%, 29.6%, 41.4%
- Unknown: 0.0%, 0.0%, 3.5%

(Chart showing percentages for different conditions)
Beck Anxiety Inventory

- **Baseline**: 12.35
- **3 mo**: 15.08
- **6 mo**: 11.42
- **12 mo**: 12.63

0-7  minimal level of anxiety
8-15  mild anxiety
16-25  moderate anxiety
26-63  severe anxiety
PHQ-9

Average Score

Baseline 3 mo 6 mo 12 mo

9.43 10.57 9.18 11.05

5-9 Minimal Symptoms
10-14 Mild depression
≥ 15 Warrants treatment
Aberrant Behavior/Abuse

- LOW (3-32% (2%))
- HIGH (>60% (38%))

Abuse based on UTS
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Summary

• Chronic pain is a significant public health dilemma with a high prevalence rate and a paucity of experienced pain clinicians

• Most cases are managed by PCPs with little time or training in this area leading to possible iatrogenic complications of under treating (needless suffering) or over treating pain (addiction)

• The prevalence of “true” addiction in patients treated long-term with opioids is unknown but appears low in a community sample

• A chronic disease model for managing CNCP with opioids in the PC setting promotes minimizing risk while maximizing benefit
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