WHY IS THE DISEASE OF
OPIOID ADDICTION ON TRIAL?

Steven Kassels, M.D.
Medical Director
Community Substance Abuse Centers
STBKA: Health Care Resource Centers
Boston, Massachusetts
www.csachelp.com

Author
Addiction on Trial: Tragedy in Downeast Maine
Author House Publishing
www.addictionontrial.com
DISCLOSURES

None of the planners or presenters of this session have disclosed any conflict or commercial interest.
Goals and Objectives

- Demystify and destigmatize the disease of opioid addiction
- Define who/what to blame for the current heroin epidemic
- Review how to screen patients before prescribing opioids
- Review direct and indirect medical illnesses
- Review costs as a result of opioid addiction
- Explain benefits of medication replacement therapy to treat opioid dependency
Classification of Opioids

Naturally Occurring Opioids:
Alkaloids of Opium:
  Morphine; Codeine

Synthetic or Semisynthetic Opioids:
  Morphine like Synth. Opioids - lab alteration of morphine:
    Heroin; Hydromorphone (Dilaudid); Oxycodone (Oxycontin, Percodan); Hydrocodone (Vicodin, Hycodan)
  Meperidine like Synthetic Opioids – chem. unlike morphine:
    Meperidine (Demerol); Diphenoxylate (Lomotil)
  Methadone like Opioids – synthetic, long acting:
    Methadone (Dolophine), Propoxyphene (Darvon), LAAM

Agonist-Antagonist Opioids:
  Pentazocine (Talwin); Nalbuphine (Nubain); Butorphanol (Stadol); Buprenorphine (Subutex/Suboxone)
LIVING IN A WORLD OF SOUND BITES
How To Be Heard In A Noisy World
“What we ought to do is bring the guillotine back. We could have public executions ...”

“With the name D-Money, Smoothie, Shifty ... they come up here, they sell their heroin, they go back home. Half the time they impregnate a young white girl before they leave.”
COFFEE GROUNDS CAN SAVE A LIFE.

MIND YOUR MEDS

Prescription drug abuse kills more teens than heroin and cocaine combined. So if you have expired or unused meds, conceal them in an undesirable place like used coffee grounds, and throw them in the trash.

Learn other ways to safely dispose of your meds at drugfree.org

© Partnership for Drug-Free Kids, a nonprofit 501(c)(3) charitable organization.
Super Bowl Advertisement

Better than a Sound Bite
but
Not the Whole Story
Public Health Officials & Health Care Providers

Education Obligation

THE DISEASE OF ADDICTION

Strategies to Educate

➤ Emphasize Addiction as Equal Opportunity Disease

➤ Consequences & Costs of Not Treating

➤ Benefits: MAT for Opioid Dependency/Addiction

➤ Discuss Bias & Need to Expand Medical Training/Education

➤ Novel Approaches → Destigmatize & Demystify
MOVING PAST SOUND BITES TO DEMYSTIFY & DESTEMATIZE

To Tell the Real Story of Addiction
Based on Medical & Legal Truths

AUTHOR PROCEEDS DONATED TO TREATMENT CENTERS & HOMELESS SHELTERS
Who or What to Blame - Heroin Epidemic

- Injudicious Prescribing by MD’s
- Physician Training & Biases
- Patient Expectations
- Big Pharma: Oxy Reconstitution & Heroin Purity
- War in Afghanistan
- NIMBY
- Supply & Demand - “War on Drugs”
- Mental Health Treatment
- Public Officials
- Internet Sale of Pain Pills
• $60 *Reasonable* OxyContin (hard to crush) 60 mg Hartford, CT
• $25 *Cheap* OxyContin (old OC-crushable) 20 mg Wiscasset, ME
• $3.75 *Reasonable* Methadone 10 mg Hartford, CT
• $15 *Pricey* Oxycodone 15 mg Burlington, VT
• $3 *Overpriced* Oxycodone 5 mg Providence, RI
• $10 *Overpriced* Dilaudid 2 mg Worcester MA
Prescriptions – LA/Extended Release Opioids

Opioid prescriptions per every 100 persons
NOT JUST THE DOCTORS

SOURCE, AMONG THOSE AGED 12 OR OLDER, WHO USED PAIN RELIEVERS NONMEDICALLY (2012-2013)

- Obtained free from friend or relative, 53.0%
- Prescribed by 1 doctor, 21.2%
- Bought from a friend or relative, 10.6%
- Got from a drug dealer or stranger, 4.3%
- Internet, 0.1%
- Other, 10.8%

Source: Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings, U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality
Fatal Opioid & Heroin Overdoses

Source: United States Center for Disease Control
OD Deaths
Increase mostly from Opioids

Source: CDC Drug poisoning mortality statistics. Graphic by Alex Newman
HEROIN IN NEW HAMPSHIRE

Figure 1. Percent of high school students who have used heroin or prescription drugs without a doctor’s prescription in their lifetime

Source: Youth Risk Behavioral Survey, 2013
SBIRT
Saves Lives and Cuts Healthcare Costs

Identify – Reduce – Prevent:
Problematic Use & Dependence on Alcohol and Illicit Drugs

1. Screening:
   - location: any healthcare setting
   - when: always - not just before prescribing opioids, etc.
   - assess risky substance use behaviors
   - standardized screening tools

2. Brief Intervention:
   - engage pt w/ risky substance use behaviors
   - short conversation, w/ feedback & advice

3. Referral to Treatment:
   - brief therapy
   - specialty care as needed
Direct Medical Complications of Heroin & IV Drug Abuse

- HIV / AIDS
- Hepatitis
- Pneumonia
- Endocarditis
- Brain Abscess
- Cellulitis
- Tetanus
- Sepsis
- TB
- STD
Indirect Medical Complications of Alcohol, Nicotine & Drug Abuse

- Spread of Infectious Disease
  - HIV, Hepatitis, STD
- Asthma
- Domestic Abuse
  - Emotional & Physical
- Pregnancy
- Traumatic events
- Co-dependency & Depression
- Family Dysfunction
  - Delayed developmental milestones
  - Denial, Modeling
GOOD ADDICTIONS & BAD ADDICTIONS
Reward Pathway

prefrontal cortex

Glutamate

nucleus accumbens

Dopamine

Ventral tegmental area
Activation of the reward pathway by addictive drugs
Addiction as a Brain Disease

Common Pathway to Addiction

- Opioids both stimulate & suppress release of neurotransmitters → pleasure & addiction
- Changes in brain structure and function from prolonged use
- Change in endogenous opiate receptor sensitivity (mu, kappa, delta receptors)
Annual Cost of Treatment
Heroin / Opiate Addiction

Thousands

- Outpt Rx: $5,000
- Residential: $20,000 +
- Department of Correction: $50,000 +
Annual Cost to Society
Alcohol & Drug Addiction

$400 Billion spent related to:

- Crime
- Health Care
- Lost Worker Productivity

“You can pay now or you can pay later, but you’re gonna pay.”
Alcohol and other drugs claim a life every 4 MINUTES and cost us $400 billion every year.
22 MILLION

Americans struggle with addiction every day

and more than 100 million family members share their pain

www.shatterproof.org

SECOND HAND DRINKING & DRUGGING
MOST PREVALENT DISEASES
UNITED STATES

40 Million
or >1 in 7
AGES 12 AND OLDER HAVE ADDICTION...

...THIS IS MORE THAN THE NUMBER OF AMERICANS WITH:

- HEART CONDITIONS (27 Million)
- DIABETES (26 Million)
- CANCER (19 Million)

Founded in 1992 by former U.S. Secretary of Health, Education & Welfare, Joseph A. Califano, Jr,
MIGRATION OF HEROIN

- Study: > 9,000 opioid-dependent patients - 2,800 heroin users
- Prescription drug use usually preceded heroin
- Switch to heroin: cheaper & stronger “rush” - nasal
- 90% of heroin users: white, not living in big cities
- First-time heroin user: more likely to be white woman late 20’s
- Women: 52 % of current heroin users

JAMA Psychiatry. 2014;71(7):821-826
The Changing Face of Addiction

Aging Baby Boomers Drug Habits

• BB’s abusing drugs, arrested & dying from OD’s at higher rates
  (WSJ March 16, 2015)

• Adults in their 50’s now largest group being treated for Opioid Addiction
  (NCADD December 3, 2015)
CONCLUSION:

HEROIN USE HAS MIGRATED FROM INNER-CITY TO PRIMARILY WHITE MEN AND WOMEN IN THEIR LATE 20’s LIVING OUTSIDE OF LARGE URBAN AREAS.
THE CHANGING FACE OF HEROIN ADDICTION

CDC MMWR July 11, 2014
Percent Adults Reporting Current Illicit Drug Use by Income Level

Source: BRFSS - Massachusetts
Percent Adults Reporting Current Illicit Drug Use By Educational Level

- High School: 7%
- College 1–3 Years: 8%
- College 4+: 4%

Source: BRFSS – Massachusetts
Addiction as a Disease Model

Chronic Relapsing Disorder
An Equal Opportunity Disease

- Bio-psychosocial disease
- Self inflicted illness w/genetic predisposition
- Self medication of underlying disease (psychiatric, pain)
- Family illness/dysfunction
- Secondary/complicating illnesses (medical & psychiatric)
- 50% of all patients w/ SUD → psychiatric illness
Tolerance

Less bang for the same buck

Dependency

Symptoms in the absence of a drug

Addiction

Not just current or prior dependency
Related to behavior

*Drug seeking behavior & use despite harm to self or others*
Addiction

The continued engagement in a behavior despite adverse consequences

*Starting to use a drug is a choice*

*but*

*Addiction is not a choice!*

*Drug seeking behavior and use despite harm to self or others*
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POP QUIZ

What President gave:

A Special Message to the Congress on
Drug Abuse Prevention and Control:

“At this time, the evidence indicates that Methadone is a useful tool in the work of rehabilitating heroin addicts, and that tool ought to be available to those who must do this work.”
Richard Nixon

XXXVII PRESIDENT OF THE UNITED STATES 1969-1974

- 1971: Requested Congress to broaden authority for use of Methadone Maintenance

- Narcotic addiction: major contributor to crime

- As long as there is a demand, there will be suppliers of drugs
Crime Before and During Methadone Maintenance Treatment at 6 Programs

Adapted from Ball & Ross - The Effectiveness of Methadone Maintenance Treatment, 1991
What is Methadone?

- Synthetic opiate to treat/prevent withdrawal in opioid addicted pts
- Does NOT create a high
- Used for more than 50yrs to treat chronic opioid addiction
  - Safety and effectiveness: documented by research studies around the world

Methadone is NOT Methamphetamine!
METHADONE

Exhibit 5-5

Blood Plasma Levels Over 4 and 24 Hours With an Adequate and Inadequate Methadone Dose

- Adequate dosage (patient feels "normal")
- Inadequate dosage (patient feels "sick")

Hours After Observed Dose

Blood Plasma Methadone Level (ng/mL)
METHADONE – SPLIT DOSE

Exhibit 5-6

SMLs After Single and Split Methadone Dosing in a Fast Metabolizer

Plasma Methadone Level (ng/mL)

Hours After Dose

Hours After Observed Dose
Methadone vs Buprenorphine

Suboxone better for patients at lower levels of dependency/addiction
<table>
<thead>
<tr>
<th>Opiate withdrawal:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticipatory</td>
<td>Fear of withdrawal</td>
</tr>
<tr>
<td>(3-4 hours after last use)</td>
<td>anxiety</td>
</tr>
<tr>
<td></td>
<td>drug seeking behavior</td>
</tr>
<tr>
<td>Early</td>
<td>Anxiety</td>
</tr>
<tr>
<td>(8-10 hours after last use)</td>
<td>restlessness</td>
</tr>
<tr>
<td></td>
<td>yawning</td>
</tr>
<tr>
<td></td>
<td>nausea</td>
</tr>
<tr>
<td></td>
<td>sweating</td>
</tr>
<tr>
<td></td>
<td>nasal stuffiness</td>
</tr>
<tr>
<td></td>
<td>rhinorrhea</td>
</tr>
<tr>
<td></td>
<td>lacrimation</td>
</tr>
<tr>
<td></td>
<td>dilated pupils</td>
</tr>
<tr>
<td></td>
<td>stomach cramps</td>
</tr>
<tr>
<td></td>
<td>drug-seeking behavior</td>
</tr>
<tr>
<td>Fully developed</td>
<td>Severe anxiety</td>
</tr>
<tr>
<td>(1-3 days after last use)</td>
<td>tremor</td>
</tr>
<tr>
<td></td>
<td>restlessness</td>
</tr>
<tr>
<td></td>
<td>piloerection</td>
</tr>
<tr>
<td></td>
<td>vomiting, diarrhea</td>
</tr>
<tr>
<td></td>
<td>muscle spasm</td>
</tr>
<tr>
<td></td>
<td>muscle pain</td>
</tr>
<tr>
<td></td>
<td>increased blood pressure; tachycardia</td>
</tr>
<tr>
<td></td>
<td>fever, chills</td>
</tr>
<tr>
<td></td>
<td>impulse-driven drug-seeking behavior</td>
</tr>
<tr>
<td>Protracted abstinence</td>
<td>Hypotension</td>
</tr>
<tr>
<td>(indefinite duration)</td>
<td>bradycardia</td>
</tr>
<tr>
<td></td>
<td>insomnia</td>
</tr>
<tr>
<td></td>
<td>loss of energy, appetite</td>
</tr>
<tr>
<td></td>
<td>opiate cravings</td>
</tr>
</tbody>
</table>
Clinical Opiate Withdrawal Scale

<table>
<thead>
<tr>
<th>Reason for this assessment:</th>
</tr>
</thead>
</table>

| Patient’s Name: | Date and Time ___/___/_____ |

<table>
<thead>
<tr>
<th>Resting Pulse Rate:</th>
<th>GI Upset: over last 1/2 hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured after patient is sitting or lying for one minute</td>
<td></td>
</tr>
<tr>
<td>0 pulse rate 80 or below</td>
<td></td>
</tr>
<tr>
<td>1 pulse rate 81-100</td>
<td></td>
</tr>
<tr>
<td>2 pulse rate 101-120</td>
<td></td>
</tr>
<tr>
<td>4 pulse rate greater than 120</td>
<td></td>
</tr>
<tr>
<td>0 no GI symptoms</td>
<td></td>
</tr>
<tr>
<td>1 stomach cramps</td>
<td></td>
</tr>
<tr>
<td>2 nausea or loose stool</td>
<td></td>
</tr>
<tr>
<td>3 vomiting or diarrhea</td>
<td></td>
</tr>
<tr>
<td>5 multiple episodes of diarrhea or vomiting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sweating: over past 1/2 hour not accounted for by room temperature or patient activity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 no report of chills or flushing</td>
</tr>
<tr>
<td>1 subjective report of chills or flushing</td>
</tr>
<tr>
<td>2 flushed or observable moistness on face</td>
</tr>
<tr>
<td>3 beads of sweat on brow or face</td>
</tr>
<tr>
<td>4 sweat streaming off face</td>
</tr>
<tr>
<td>Tremor observation of outstretched hands</td>
</tr>
<tr>
<td>0 no tremor</td>
</tr>
<tr>
<td>1 tremor can be felt, but not observed</td>
</tr>
<tr>
<td>2 slight tremor observable</td>
</tr>
<tr>
<td>4 gross tremor or muscle twitching</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restlessness: Observation during assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 able to sit still</td>
</tr>
<tr>
<td>1 reports difficulty sitting still, but is able to do so</td>
</tr>
<tr>
<td>3 frequent shifting or extraneous movements of legs/arms</td>
</tr>
<tr>
<td>5 unable to sit still for more than a few seconds</td>
</tr>
<tr>
<td>Anxiety or Irritability</td>
</tr>
<tr>
<td>0 none</td>
</tr>
<tr>
<td>1 patient reports increasing irritability or anxiousness</td>
</tr>
<tr>
<td>2 patient obviously irritable or anxious</td>
</tr>
<tr>
<td>4 patient so irritable or anxious that participation in the assessment is difficult</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pupil size</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 pupils pinned or normal size for room light</td>
</tr>
<tr>
<td>1 pupils possibly larger than normal for room light</td>
</tr>
<tr>
<td>2 pupils moderately dilated</td>
</tr>
<tr>
<td>5 pupils so dilated that only the rim of the iris is visible</td>
</tr>
<tr>
<td>0 skin is smooth</td>
</tr>
<tr>
<td>3 piloerection of skin can be felt or hairs standing up on arms</td>
</tr>
<tr>
<td>5 prominent piloerection</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bone or Joint aches</th>
</tr>
</thead>
<tbody>
<tr>
<td>If patient was having pain previously, only the additional component attributed to opiates withdrawal is scored</td>
</tr>
<tr>
<td>0 not present</td>
</tr>
<tr>
<td>1 mild diffuse discomfort</td>
</tr>
<tr>
<td>2 patient reports severe diffuse aching of joints/muscles</td>
</tr>
<tr>
<td>4 patient is rubbing joints or muscles and is unable to sit still because of discomfort</td>
</tr>
<tr>
<td>0 skin is smooth</td>
</tr>
<tr>
<td>3 piloerection of skin can be felt or hairs standing up on arms</td>
</tr>
<tr>
<td>5 prominent piloerection</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Runny nose or tearing: Not accounted for by cold symptoms or allergies</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 not present</td>
</tr>
<tr>
<td>1 nasal stuffiness or unusually moist eyes</td>
</tr>
<tr>
<td>2 nose running or tearing</td>
</tr>
<tr>
<td>4 nose constantly running or tears streaming down cheeks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Score</th>
<th>The total score is the sum of all 11 items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initials of person completing assessment:</td>
<td></td>
</tr>
</tbody>
</table>

Score: 5-12 = mild. 13-24 = moderate. 25-36 = moderately severe; more than 36 = severe withdrawal

www.drugabuse.gov/nidamed-medical-health-professionals
MEDICATION ASSISTED TREATMENT

- **METHADONE:**
  - Full Agonist
  - Approved for “clinic” use only to treat addiction
  - Better for patients who need more structure

- **BUPRENORPHINE:**
  - Partial Agonist
  - Approved for both Office Based & Methadone Clinics
  - Better for patients with lower levels of dependency/addiction

- **NALTREXONE**
  - Pure Antagonist

_Counseling & psychosocial support are essential aspects of treatment_
METHADONE DOSING

- Start Low – Go Slow

- Dose ceilings:
  - low dose vs. high dose: harm reduction - Treat the patient
  - *Listen to your patient, he [she] is telling you the diagnosis*” – Sir William Osler

- Blocking dose:
  - lower doses reduce physiological withdrawal sx$s
  - higher doses reduce cravings & normalize sleep

- FDA Dosing Regs:
  - day 1 initial dose not > 30mg. (+10 mg after observing for 4 hrs)
  - then daily adjustment of doses during induction/stabilization phase

- Split dosing:
  - rapid metabolizers (classic symptoms) & peak/trough > 2
  - ideal peak < 1,000 & ideal trough 200-400 ng/ml
  - rate of change of levels may be more significant than actual levels
<table>
<thead>
<tr>
<th></th>
<th>Heroin</th>
<th>Methadone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset of Action</td>
<td>Seconds</td>
<td>30-90 min</td>
</tr>
<tr>
<td>Duration of Action</td>
<td>4-6 hrs</td>
<td>24-36 hrs</td>
</tr>
<tr>
<td>Route of Admin</td>
<td>Injection, nasal, smoking</td>
<td>Oral</td>
</tr>
<tr>
<td>Frequency of Admin</td>
<td>4-6x/d</td>
<td>1x every 24hrs (sometimes BID)</td>
</tr>
<tr>
<td>Effective Dose</td>
<td>Ever increasing</td>
<td>Individualized (stabilizing dose averages 80-120+ mg/d)</td>
</tr>
<tr>
<td>Overdose Potential</td>
<td>High</td>
<td>Very rare at Blocking Dose</td>
</tr>
<tr>
<td>Overall Safety</td>
<td>Potentially lethal</td>
<td>Non-toxic in opiate tolerant patient</td>
</tr>
<tr>
<td>Potential for Abuse</td>
<td>High</td>
<td>Blocking Dose prevents “high”</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>Within 3-4 hrs</td>
<td>After 24 hrs</td>
</tr>
<tr>
<td>Physical Reaction Time</td>
<td>Impaired</td>
<td>Normal</td>
</tr>
<tr>
<td><strong>Mood</strong></td>
<td><strong>Heroin</strong></td>
<td><strong>Methadone</strong></td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td></td>
<td>Constant mood swings</td>
<td>Stable mood</td>
</tr>
<tr>
<td><strong>Getting “High”</strong></td>
<td>Euphoria x 2 hrs</td>
<td>“High” is blocked</td>
</tr>
<tr>
<td><strong>Tolerance</strong></td>
<td>Increasing tolerance</td>
<td>Stabilized</td>
</tr>
<tr>
<td><strong>Cravings</strong></td>
<td>Recurring cravings</td>
<td>Eliminated</td>
</tr>
<tr>
<td><strong>Intellectual Functioning</strong></td>
<td>Impaired</td>
<td>Normal</td>
</tr>
<tr>
<td><strong>Pain &amp; Emotion</strong></td>
<td>Blunted</td>
<td>Normal pain &amp; range of emotions</td>
</tr>
<tr>
<td><strong>HIV/Hep C Transmission</strong></td>
<td>High rate w/ needle use &amp; unprotected sex</td>
<td>Reduced/eliminated</td>
</tr>
<tr>
<td><strong>Immune System for +HIV</strong></td>
<td><strong>↑ Progression to AIDS</strong></td>
<td>Progression slowed</td>
</tr>
<tr>
<td><strong>Immune/Endoc fx –HIV</strong></td>
<td>Impaired</td>
<td>Normalized</td>
</tr>
<tr>
<td><strong>Hypoth/Pit/Adrenal Axis</strong></td>
<td>Suppressed</td>
<td>Normalized</td>
</tr>
<tr>
<td></td>
<td><strong>Heroin</strong></td>
<td><strong>Methadone</strong></td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td><strong>Criminal Activity</strong></td>
<td>High level</td>
<td>Reduced/eliminated</td>
</tr>
<tr>
<td><strong>Personal Relationships</strong></td>
<td>Disrupted</td>
<td>Restored with counseling</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>Deteriorating performance</td>
<td>Full functioning</td>
</tr>
<tr>
<td></td>
<td>Loss of employment</td>
<td></td>
</tr>
<tr>
<td><strong>Community Relations</strong></td>
<td>Destructive impact</td>
<td>Contributes to public safety</td>
</tr>
<tr>
<td></td>
<td>High crime &amp; death rate</td>
<td>Low mortality</td>
</tr>
<tr>
<td></td>
<td>Transmission of disease</td>
<td>Improved health</td>
</tr>
<tr>
<td><strong>Pregnancy</strong></td>
<td>High risk pregnancy</td>
<td>Much lower risk pregnancy</td>
</tr>
<tr>
<td></td>
<td>Fetal abnormalities</td>
<td>Fetal abnormalities minimized</td>
</tr>
<tr>
<td></td>
<td>High maternal/fetal disease</td>
<td>Minimal fetal transmission</td>
</tr>
<tr>
<td></td>
<td>Poor parenting</td>
<td>Psycho-social support for parents</td>
</tr>
</tbody>
</table>

*Presented by US Dept of Health & Human Services and CSAT/SAMHSA*
*Derived in part from a chart by Herman Joseph, Ph.D., NY State Office of Alcoholism and Substance Abuse Services*
TREATMENT GOALS

- **Medication Assisted Treatment ("MAT"):**
  - medication in combination with counseling and behavioral therapies
  - A “whole-patient” approach to treat substance use disorders
  - Includes Methadone and Suboxone treatment
  - NOT replacing one drug for another

- **What Defines Successful Treatment?**
  - same as BP, DM, Cancer, CAD
  - How long does pt need meds for any chronic illness ???
  - Arbitrary limits of med treatment: not evidence based medicine
  - End Game = quality of life & minimizing symptoms
  - All chronic illnesses share same medication criteria: Risk vs. Benefit
RELAPSE RATES
ADDICTION & OTHER CHRONIC ILLNESSES

Diagram showing relapse rates for different conditions:
- Drug Addiction: 40 to 60%
- Type II Diabetes: 30 to 50%
- Hypertension: 50 to 70%
- Asthma: 50 to 70%

Source: NIDA
Methadone Myths

• #1: Methadone is substitute: one addiction for another
• #2: Pts on stable dose of Methadone are addicted
• #3: Stable Methadone pts (not using other drugs) can’t work/drive
• #4: Methadone rots teeth and bones
• #5: Methadone is not advisable in pregnant women
• #6: Methadone deaths are from addiction treatment
• #7: Diversion of Methadone is from Methadone Clinics
Take Home Methadone Medication

MEDICAL APPROVAL BASED ON:

- absence of illicit opiate use
- absence of abuse of alcohol and illicit drugs
- regular program attendance
- length of time in treatment and stable medication dose
- absence of recent criminal activity
- absence of serious behavioral problems
- adequate treatment of psychiatric illnesses
- stable home environment and social relationships
- ability to store take home medication safely
- issues of daily life schedule: work, family responsibilities, school, travel distance
Treatment: Benefit Ratio

Figure 1. Cost Offset of Substance Abuse Treatment in California

- reduced absenteeism,
- reduced tardiness,
- lowered on-the-job injuries,
- fewer mistakes, and
- disagreements with supervisors by 75%.

Treated patients have reduced:

- ER visits by 39%
- Hospital stays by 35%
- Total medical costs by 26%

Each $1 invested in alcohol & drug prevention saves $5.60
Each $1 invested in alcohol & drug treatment saves $7
Lifetime Model & Methadone Treatment

- Tracked methadone patients age 18 – 60
- Factors:
  - heroin use
  - treatment of addiction
  - crime
  - employment
  - Healthcare secondary illnesses

Each $1 dollar spent on methadone treatment yields $38

*Research Triangle Institute (RTI): Health Economics, November 2005*
Outcomes from Admission to Annual Update
Methadone Treatment

- 93% ↓ Use Illicit Substances

Outcomes based on data run on 3/24/15 for fiscal year 2015 using Maine’s Treatment Data System
Outcomes from Admission to Annual Update

Methadone Treatment

- 91% ↓ Arrests
- 59% ↓ Psychiatric Admissions
- 50% ↓ Homelessness

Outcomes based on data run on 3/24/15 for fiscal year 2015 using Maine’s Treatment Data System
Outcomes from Admission to Annual Update Methadone Treatment

- 37% ↑ Employment
- 52% ↑ Dependents Living with Patient

Outcomes based on data run on 3/24/15 for fiscal year 2015 using Maine’s Treatment Data System
Health Care Providers Need To Get Involved

GOV TO ADDICTS: DROP DEAD
WE CAN NOT ABDICATE OUR RESPONSIBILITY

VT Gov. Peter Shumlin
Attacking the Drug Epidemic
HOW TO GET INVOLVED
Destigmatize & Demystify

Consistent Talking Points

• Chronic Illness
• Not an Inner City Disease
• Who/What to Blame for Heroin Epidemic
• Equal Opportunity Disease
HOW TO GET INVOLVED
Destigmatize & Demystify

Education

• Patients & Families
• Schools & Libraries
• Elected & Appointed Officials
• Police/Fire
• Medical School and Residency (Join “COPE”)
HOW TO GET INVOLVED
Destigmatize & Demystify

Creative (“Novel” Approaches)

• Social Media:
  o Website
  o Blogs
  o Facebook
  o Twitter
  o LinkedIn
  o Instagram

• Traditional Media:
  o Op-eds
ABOUT THE BOOK

Addiction on Trial. Tragedy in Downeast Maine is a medical murder mystery/legal thriller that centers around who murdered Downeast’s “local,” Annette Horno. is “outside” and targeted drug addict Jimmy Sedgenick responsible or did Annette’s addiction to drugs kill her? What part did Annette’s boyfriend, Travis, play and did his drug addiction in any way contribute to her demise? Can the team of lawyer hired by Jimmy’s father, Adam, an emergency room physician living in Kansas City, prove Jimmy’s innocence? Unassuming Maine lawyer Robert Harston and Boston top shot attorney Shawn Marks attempt to disprove the evidence of both Jimmy’s and Annette’s blood all over the dashboard of Annette’s car, then while juggling an array of female companions, Attorney Marks never takes his eye off the legal challenge.

This novel is set in the fictional small town of West Haven Harbor, located on the real Mount Desert Island in Maine. The main characters are Annette, a likable transplant who has a cocaine addiction; her boyfriend Travis, who performs a heroic act as a crew member on a scalloping boat despite the fact he is using an illegal prescription drug to treat his heroin addiction; Jimmy, Travis’ childhood friend “from away,” who led his mother in a tragedy at an early age and who has been in and out of addiction recovery treatment; Adam Sedgewick, Jimmy’s father, an emotionally distant and enabling parent who never recovered from losing his wife but who stands by his son during the trial; lawyers Harston and Marks; newspaperer Sally Jenkins, Marks’ female foil; Venita Hupjeners, the truly district attorney, and various health professionals, townspeople, and family members involved in the murder case, just when the trial is reaching a crescendo, startling revelations come to light causing last minute legal maneuverings as Jimmy’s life hangs in the balance: “Travis was fighting for his life, Annette had lost hers and the locals were screaming for Jimmy.”

Addiction on Trial sends a powerful message through the medium of fiction via the outcome of a trio of characters with opiate and cocaine addictions. The messages of societal discrimination toward drug addicts and misunderstanding of what drug addiction really is – a chronic illness requiring a similar treatment approach as other chronic diseases – is woven into the intrigue of this thriller. The reader is exposed to psycho-social and biological nuances through the characters’ actions and from gripping snippets of testimony at Jimmy’s trial.

The novel is a complete work, but with an ending that begs for a sequel: thus it is the first in a series that revolves around the murder cases of Shawn Marks, an egotistical yet likable high-powered Boston attorney who loves the ladies but may have met his match in Sally Jenkins, at the sequel currently under development. Lost To Addiction, the adventures continue. Taking Marks from his legal entanglements in Maine to locales in Europe and the seedy underworld of drug distribution centers in Guadalajara, Mexico, in an attempt to solve a horrific murder and to exonerate the son of a wealthy client.
Medical Thriller’s Educational Value

November 1, 2013

Since my last blog when I boldly challenged whether a Murder Mystery can be Literary Fiction, I have been humbled by two more speaking invitations. I believe this further reinforces the premise that the term Literary Fiction is more expansive than commonly espoused. Should a Medical Thriller’s Educational Value be judged solely upon a narrow definition or on the message it imparts? Let’s remember that the term literary fiction is commonly used in the book-selling business to connote “serious fiction” with arbitrarily applied criteria such as having different types of book covers, titles or types of book formatting. Now: How about determining literary merit based on messages of social commentary, political criticism, or exploring some part of the human condition. Why can’t a novel entertain and excite while carrying a serious message?

I have been invited to use my book as a foundation to explore the educational value of using fiction with a message to expand the views of graduate students studying Communication and students in the School of Public Health. Over the next several months I will have the honor and privilege to make presentations at the following academic institutions:

- University of Massachusetts School of Public Health & Health Sciences, Amherst, MA
  “Addiction as a Disease Model” - Presentation/Discussion, December 7, 2015
- Philadelphia College of Osteopathic Medicine, Georgia Campos, Suwanee, GA
  “Designing Addictions” - Presentation/Discussion, December 10, 2015
- University of Amsterdam, Graduate School of Communication, Amsterdam, NL
  “The use of Fiction as a Vehicle to Communicate & Educate” - Presentations/Discussion: March, 2016 (date TBD)

As exciting as all this sounds, it is no more important than continuing to use Addiction on Trial to emphasize the devastating heroin/opioid epidemic still gripping our country. There need not be limits to a Medical Thriller’s Educational Value. I welcome invitations to participate in book clubs, gatherings (large and small) to discuss the characters, the messaging, the struggles of addiction and the duplicitous approach of society’s response. A recent article is a must-read: in Heroin Crisis, White Families Face Quarter War on Drugs.

Thank you to all my followers who continue to give me inspiration to speak and to write!

Author: Skiles

Can a Murder Mystery Be Literary Fiction?

November 1, 2013

Can a Murder Mystery Be Literary Fiction?

Why did I write a medical murder mystery/political thriller. Easy answer: to become a famous
Efforts to fight heroin bogged down in election-year politics

Sen. Rob Portman wants Congress to pass a bill to deal with the heroin crisis. Democrats want more money for it -- and want a political victory, too.

CLEVELAND.COM
Steven Kassels @StevenKassels 1d
Thrilled to discuss the benefits of using a novel to educate about societal challenges, including #addiction.

Addiction Medicine and Advocacy is out! paper.li/StevenKassels/ ... Stories via @PJK4brainhealth

FICTION, ADDICTION & A... addictionontrial.com
There should be just as many public service announcements about addiction as there are Viagra and Cialis commercials. In addition, expansion of addiction treatment services in jails would help to mitigate much of the revolving door phenomenon. Furthermore, we should demand that our medical schools and hospitals improve addiction training of our physicians. While there is plenty of blame to go around, let’s focus on the solutions. The scourge of addiction is in all of our yards. The solution is to decrease the demand with bold public initiatives and a change in attitude. It is both the humanitarian and fiscally responsible thing to do.

Dr. Steven Kassels serves as Medical Director of Community Substance Abuse Centers and is author of “Addiction on Trial: Tragedy in Downeast Maine.”
Medical Education & Barriers
BUPRENORPHINE WAIVERS

- Low rate of young physicians treating opioid addiction:
  - 7.8% physicians < 35y/o → only 2.6% of Suboxone prescribers
  - Insufficient residency training in opioid use disorders

- Barriers to treatment:
  - Physician Bias: Complexity of pts w/ opioid use disorders
  - Lack of institutional support
  - Inadequate support from nursing and office staff
  - Lack of mental health practitioners
  - Payment issues
  - Opposition from practice partners
  - Health Care provider FRUSTRATION

Geographic and Specialty Distribution of US Physicians Trained to Treat Opioid Use Disorder
ANNALS OF FAMILY MEDICINE, JANUARY/FEBRUARY 2015
ADDICTION = DENIAL &
WITHDRAWAL = MANIPULATION

MANIPULATION + DENIAL =

HEALTHCARE PROVIDER FRUSTRATION
WORDS MATTER

SUBSTANCE USE DISORDER - NOT SUBSTANCE ABUSE

Stigma and Language

- Addict
- Hitting Bottom
- Junkie
- Crack Head

Substance Abuse/Abuser
- Dirty Urine
- Clean Urine
- Habit/Drug Habit
DIG DEEPER
“Drug addiction is a brain disease that can be treated.”

Nora D. Volkow, M.D.
Director
National Institute on Drug Abuse
PORTLAND MAINE - LEAAP

Law Enforcement Addiction Advocacy Program

Three-Pronged Approach

- Outreach
- Education
- Treatment

The Angel Program
Obama Administration: Additional Actions
Prescription Opioid Abuse and Heroin Epidemic

Additional actions build on $1.1 billion in new opioid use disorder funding

Additional Actions Include:

- **Expanding Access To Treatment**
  - Expand access to MAT services & Behavioral Health
  - Buprenorphine waivers: ↑ to 200 patients/doctor

- **Expand Naloxone Funding**

- **Expand Partnerships**
  - law enforcement & public health officials
  - expanding initiative among state HIDTAs

- **Tackling SUDs in Rural Communities**
  - enhance quality of life w/ health & safety education

- **Implementing/Expanding Syringe Services Programs**

- **Educational Commitments**
  - 60 Med Schools: Prescriber Opioid Education
MA Initiatives

Governor Baker’s Opioid Working Group

- Limiting amount of opioids prescribed to new patients
- Allowing partial fill of opioids at patient’s direction
- Required use of Prescription Monitoring Program
- Greater participation by Ins Companies: Recovery Coaches, etc.
- Expanding/Changing Public Awareness: Destigmatize
  - [www.mass.gov/StateWithoutStigMA.com](http://www.mass.gov/StateWithoutStigMA.com)
NURSE PRACTITIONER LOBBYING

Get Involved - Move Past Sound Bites!

✓ Contact SAMHSA
  ▪ Reinstatement of privileges to order methadone in Methadone Treatment Centers

✓ Contact Federal Officials
  ▪ Emphasize need to expand opioid treatment
  ▪ Support TREAT *(Text for the Recovery Enhancement for Addiction Treatment Act)*
    ▪ Includes NPs to prescribe Buprenorphine

*Emphasize Inconsistencies: NPs can prescribe opioids for pain but not for opioid dependency/addiction*
MOVE PAST SOUND BITES

To Tell the Real Story of Addiction
Based on Medical & Legal Truths

Author proceeds donated to Treatment Centers Homeless Shelters
Meet Saul Tolson

Jimmy’s Psychotherapist

FICTION
ADDICTION ON TRIAL
Dr. Steven Kassels

"Put aside your current opinion of addiction. Give me your cleansed minds for just a brief time. At the end of my presentation you may accept, reject, or modify anything I say, but please start now with a clean slate."

Murder Mystery / Legal Thriller
Based on Medical & Legal Truths
MEET SHAWN MARKS

What’s it like to be:

Attorney trying to get to the truth

Addicts don’t rat on one another

or

A Health Care Provider trying to get the truth
MEET JIMMY SEDGWICK & DR. CARTER ADAM SEDGWICK

What’s it like to be:

*Heroin addict in withdrawal and in jail*
*or*
*Parent receiving the call from your son*
Meet Travis Bomer
Scallop & Heroin Addict
West Haven Harbor, MDI

Can a heroin addict save a life on the high seas?
Meet Mr. and Mrs. Bomer
Travis’ Parents

What is it like to be:

*Child of an Addicted Parent*

*or*

*Co-Dependent (Enabling) Spouse*
Meet Annette Fiorno
Travis’ Fiancée – Waitress – Cocaine Addict

Can a cocaine addict actually keep a job?

Found dead at the bottom of the ravine
Did Jimmy kill Annette?
ADDICTION ON TRIAL

steven.kassels@gmail.com  www.addictionontrial.com  Cell: 413-427-1213

Steven Kassels  Book Clubs & Author Events
@StevenKassels  Blog & Resources
Steven Kassels, MD  Media Page

Author/Medical Discussion Groups and Book Club Gatherings

AUTHOR PROCEEDS DONATED TO THE FARNUM CENTER
INPATIENT: 40 adults beds
30-day substance abuse treatment program; gender specific

INTENSIVE OUTPATIENT PROGRAM:
3 days a week for 3 hours/day x 4 weeks; then 10 weeks group/individual counseling

OUTPATIENT SERVICES:
Individual counseling; group therapy; education classes

SUBOXONE (BUPRENORPHINE) CLINIC:
MAT for opiate addicted clients with individual counseling

MEDICAL DETOXIFICATION - INPATIENT: 20 adult beds
Treatment of acute withdrawal