A Social Emergency Medicine Approach to Opioid Use Disorder

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Brown Emergency Medicine
I have no financial conflicts of interest to disclose
1. Define addiction and opioid use disorder

2. Describe a social emergency medicine approach to emergency department patients with opioid use disorder

3. Understand current drug law and policy and resulting racial inequities

4. Describe emergency department harm reduction and treatment initiatives to reduce morbidity and mortality of patients with opioid use disorder
Substance Use & Addiction
USE \neq USE DISORDER

DOES NOT EQUAL

DEPENDENCE \neq ADDICTION
A treatable, chronic disease involving complex interactions among brain circuits, genetics, the environment, and an individual’s life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.
HEALTH IMPACT PYRAMID

Increasing Individual Effort
Management of addiction as a chronic disease, prevention and response to acute health events

Counseling and Education
ex. support groups, counseling

Clinical Interventions
ex. medications for addiction treatment, naloxone & syringe access

Preventative Interventions
ex. screening, provider prescribing, addressing stigma, addressing trauma, treatment availability

Institutional & Environmental Changes
ex. provider prescribing, availability of health and social services, taxation, recovery housing programs, job training programs

Socioeconomic Factors
ex. housing, education, criminalization or substance use, exposure to violence, available health and social services, employment policy

Increased Population Health Impact
Institutional, environmental and social determinants

Adapted from Frieden, Am J Public Health, 2010
Improving laws and policies that shape community conditions

Social and Institutional Inequalities
Racism, discrimination, classism, poverty, ableism, sexism

Addressing individuals’ social needs

Living Conditions
Housing, transportation, violence, access to good jobs and education, exposure to toxins, income

Addressing health outcomes

Health Outcomes, Symptoms
Poor nutrition, chronic disease, communicable disease, toxic stress, infant mortality, life expectancy

MassBudget
Massachusetts Budget and Policy Center

kids count
1 DRUG SUPPLY
3 Waves of the Rise in Opioid Overdose Deaths

- **Wave 1**: Rise in Prescription Opioid Overdose Deaths
- **Wave 2**: Rise in Heroin Overdose Deaths
- **Wave 3**: Rise in Synthetic Opioid Overdose Deaths

**Other Synthetic Opioids**
- E.g. Tramadol and Fentanyl, prescribed or illicitly manufactured

**Commonly Prescribed Opioids**
- Natural & Semi Synthetic Opioids and Methadone

**Heroin**

**Source**: National Vital Statistics System Mortality File.
DRUG CRIMINALIZATION

U.S. State and Federal Prison Population, 1925-2014

Source: Bureau of Justice Statistics Prisoners Series.
There are over 1 million drug possession arrests each year.

There are 6 times as many arrests for drug possession as for drug sales.

(Arrests in millions, 1980–2018)

THE NEW JIM CROW

**FIGURE 6A.**
Rates of Drug Use and Sales, by Race

**FIGURE 6B.**
Rates of Drug-Related Criminal Justice Measures, by Race

Source: BLS n.d.; Carson 2015; Census Bureau n.d.; FBI 2015; authors’ calculations.
Since the early '90s, the 100,000 “problematic” drug users in the country have been reduced by half.

In 1999 6,040 people were in drug treatment.

147% increase.

In 2003 14,877 people were in drug treatment.

$10,000 = 40,000$ Portuguese are now in drug treatment as opposed to incarceration.
Then & Now Portugal's Drug Decriminalization
Key developments since Portugal decriminalized drugs in 2001

Overdose deaths
- 1999: 369
- 2016: 30

New HIV diagnoses due to injecting
- 2000: 907
- 2017: 18

Number of people incarcerated for drug offences
- 1999: 3,863
- 2017: 1,140

Sources: TheLancet, drugpolicy.org, EMCDDA, VHPA
Drugs rarely kill anyone in Portugal.
Drug-induced deaths of people aged 15-64, per million population.
Marijuana laws in the US

*Washington, DC, legalized marijuana for recreational purposes, but doesn’t allow sales.

Source: Marijuana Policy Project
Improving laws and policies that shape community conditions

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HARM REDUCTION & TREATMENT ACCESS
HARM REDUCTION PRINCIPLES

- Health & Dignity
- Person-centered
- Participant involved
- Recognize Inequalities & Injustices
- Respect Autonomy
- Pragmatism/realism
In 2016, **20.1 million Americans** over age 12 had a substance use disorder (related to alcohol or illicit drug use), but only **3.8 million**—one of five—received any substance use treatment.

A survey of people diagnosed with substance or alcohol use disorder found that more were willing to enter treatment in primary care settings than in specialty drug treatment centers.

- **37.3%** in primary care settings
- **24.6%** in specialty drug treatment centers
STAGES OF CHANGE

PRE-CONTemplation
no intention on changing behaviour

CONTEMPLATION
aware a problem exists but with no commitment to action

ACTION
active modification of behaviour

MAINTENANCE
sustained change; new behaviour replaces old

RELAPSE
fall back into old patterns of behaviour

UPWARD SPIRAL
learn from each relapse

[Diagram showing steps of change and a symbol for action]
SAY THIS

Person with a substance use disorder
Person living in recovery
Person living with an addiction
Person arrested for drug violation
Chooses not to at this point
Medication is a treatment tool
Had a setback
Maintained recovery
Positive drug screen

NOT THAT

Addict, junkie, druggie
Ex-addict
Battling/suffering from an addiction
Drug offender
Non-compliant/bombed out
Medication is a crutch
Relapsed
Stayed clean
Dirty drug screen
One-Year Mortality of Patients After Emergency Department Treatment for Nonfatal Opioid Overdose

Scott G. Weiner, MD, MPH*; Olesya Baker, PhD; Dana Bernson, MPH; Jeremiah D. Schuur, MD, MHS

*Corresponding Author. E-mail: sweiner@bwh.harvard.edu, Twitter: @scottweinermd.

Figure 2. Number of deaths after ED treatment for nonfatal overdose by number of days after discharge in the first month, by day (n=130).
Risk of myocardial infarction or death in patients with high-risk chest pain (HEART score >6)

Risk of myocardial infarction or death in patients with moderate risk chest pain (HEART score 4-6)
HOW OUD MEDICATIONS WORK

Empty opioid receptor

Methadone
- Full agonist: generates effect

Buprenorphine
- Partial agonist: generates limited effect

Naltrexone
- Antagonist: blocks effect
MOUD reduces overdose, acute care use

Wakeman, et al. JAMA Netw Open. 2020
MEDICATION FOR OUD

Survival
Treatment retention
Ability to gain & maintain employment
Birth outcomes
Quality of life

Overdose
Mortality
HIV & HCV Infections
Crime
Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association With Mortality

A Cohort Study

Marc R. Laroche, MD, MPH, Dana Bernson, MPH, Thomas Land, PhD, Thomas J. Stopka, PhD, MHS, Na Wang, MA, Ziming Xuan, ScD, SM, Sarah M. Bagley, MD, MSc, Jane M. Liebschutz, MD, MPH, Alexander Y. Walley, MD, MSc

Adjusted Hazard Ratio

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<thead>
<tr>
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<th>All Cause Mortality</th>
<th>Opioid-Related Mortality</th>
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<tbody>
<tr>
<td>Methadone</td>
<td>0.37 (0.24–0.59)</td>
<td>0.32 (0.17–0.59)</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>0.35 (0.23–0.53)</td>
<td>0.31 (0.18–0.54)</td>
</tr>
</tbody>
</table>

Figure 3. Extended Kaplan–Meier cumulative incidence of all-cause mortality (A and B) and opioid-related mortality (C and D), by monthly exposure to MOUD after index overdose.
Average Adjusted Probability of Follow-up Treatment After Opioid Overdose, by Overdose Type and Race/Ethnicity
How we approach substance use is a racial equity issue.
Role of the ED

Time sensitive treatment and stabilization

Acute Diagnostic Center

Healthcare Access and Treatment Linkage
ED OUD PRACTICE, RESEARCH, POLICY

Clinical Research

- **Prevention**: Efficacy of non-opioid analgesics for pain control
- **Harm Reduction**: Evaluation of patient outcomes after ED naloxone distribution
- **Treatment**: Efficacy of new OUD medication and psychosocial treatments

Quality Measurement

- **Prevention**: ED pain control and opioid prescribing clinical guidelines
- **Harm Reduction**: Third-party naloxone prescribing
- **Treatment**: Clinical guidelines for ED-OUD treatment

Quality Improvement

- **Prevention**: Trial of non-opoid analgesics prior to opioid initiation
- **Harm Reduction**: Naloxone provision to patients at risk for overdose
- **Treatment**: ED brief intervention and buprenorphine initiation

Policy

- **Prevention**: EHR data linkage between health systems, departments of health
- **Harm Reduction**: Naloxone price limits and/or cost sharing
- **Treatment**: Remove MAT waiver training requirements for ED physicians

Samuels et al, Annals of EM, 2019
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PATIENT ASSESSMENT
PATIENT ENGAGEMENT

**FIVE PRINCIPLES OF MOTIVATIONAL INTERVIEWING**

- **Express empathy for the client**
- **Develop discrepancy between the client's goals and values and their current behavior, particularly regarding substance use**
- **Avoid argumentation and direct confrontation**
- **Roll with client resistance, instead of fighting it**
- **Support the client's self-efficacy, or their belief that they can change**

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**The Willingness Ruler**

*measures how willing a person is to take an action*

**The Confidence Ruler**

*measures how confident a person is in his / her ability to perform or take the action*

**The Readiness Ruler**

*measures how ready the person is to take the action*
MEET PATIENTS WHERE THEY ARE
buprenorphine
Emergency Department-Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence
A Randomized Clinical Trial

Gail D’Onofrio, MD, MS; Patrick G. O’Connor, MD, MPH; Michael V. Pantalon, PhD; Marek C. Chawarski, PhD; Susan H. Busch, PhD; Patricia H. Owens, MS; Steven L. Bernstein, MD; David A. Fiellin, MD

30 day treatment enrollment

<table>
<thead>
<tr>
<th>Buprenorphine</th>
<th>Treatment Referral</th>
<th>Brief Intervention</th>
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<tbody>
<tr>
<td>78%</td>
<td>37%</td>
<td>45%</td>
</tr>
<tr>
<td>95% CI 70%-85%</td>
<td>95% CI 28%-47%</td>
<td>95% CI 36%-54%</td>
</tr>
</tbody>
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Lack of training & experience
Outpatient treatment availability
Competing needs for time and resources

Education and training
Local departmental protocols
Feedback on patient experiences and gaps in quality of care.
Implementation of emergency department–initiated buprenorphine for opioid use disorder in a rural southern state
Carolyn Bogan\textsuperscript{a,*}, Lindsey Jennings\textsuperscript{b}, Louise Haynes\textsuperscript{a}, Kelly Barth\textsuperscript{c}, Angela Moreland\textsuperscript{d}, Marla Oros\textsuperscript{e}, Sara Goldsby\textsuperscript{f}, Suzanne Lane\textsuperscript{a}, Chanda Funcell\textsuperscript{g}, Kathleen Brady\textsuperscript{a}

Journal of Substance Abuse Treatment 112 (2020) 73–78

Treating Opioid Withdrawal With Buprenorphine in a Community Hospital Emergency Department: An Outreach Program
Frank J. Edwards, MD\textsuperscript{*}; Robert Wicelinski, DO; Nicholas Gallagher, DO; Alice McKinzie, DO; Ryan White, DO; Ann Domingos, LCSW-R, CASAC
SOCIAL EM APPROACH TO SUD

**UPSTREAM**
- Improving laws and policies that shape community conditions

**MIDSTREAM**
- Addressing individuals’ social needs

**DOWNSTREAM**
- Addressing health outcomes

**Social and Institutional Inequalities**
- Drug Policy
- ED CHW/Peers ED-community initiatives
- Harm Reduction Buprenorphine Treatment Linkage

**MassBudget Massachussetts Budget and Policy Center**
TAKE HOME POINTS

- Addictions are complex biopsychosocial diseases

- Upstream, policy changes will have largest public health impact

- Current policies produce structural racial inequities in treatment access, incarceration

- ED has important role in providing access to harm reduction and addiction treatment to address current gaps and improve health outcomes
Thank You

Questions?
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REFERENCES


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