Suicide: Overdose
Deaths of Despair

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Disclosures

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Learning Objective 1

Recognize the relationship between opioid misuse and suicide risk.
Synthetic Opioids are Driving Up the Overdose Rate

Overdose Deaths in Thousands in Preceding 12 Months

- Synthetic opioids
- Heroin
- Other opioids
- Cocaine
- Psychostimulants
- Methadone

Exponential Growth in Overdose Deaths: Overdose Mortality Rate

By Time

By Drug, Age, Time

By Drug and Geography

"Deaths of Despair"

All-cause mortality, ages 45-54 for US White non-Hispanic (USW), US Hispanics (USH) and six comparison countries

Mortality by cause, White non-Hispanics ages 45-54

Overdose Deaths: Accidental Until Proven Otherwise

- Classification overdose as accidental may not tell the whole story and may be, in fact be misdiagnosed suicide attempts
- More than 50% of patients with opioid use disorder have histories of major depressive disorder which, when untreated, may further drive suicidal thoughts and behaviors

Suicide: A Silent Contributor to Opioid Overdose Deaths

- Addressing the trajectory of opioid overdoses requires a better understanding between intentional (suicide) and unintentional (accidental) deaths.
- Yet, most strategies to address overdose do not include screening for suicide or the need to tailor interventions for suicidal persons.
- Classifying these deaths as “undetermined” if no documented history of depression hinders deployment of prevention services.

Suicide risk in OUD is 6x the general US pop even after controlling for suicide risk factors such as coexisting psychiatric diagnoses, OUD more than doubled suicide risk among women and increased risk by 30% in men.

True proportion of suicides among opioid overdoses likely 20%-30%, but could be even higher.

250,000+ ED visits for opioid overdose
26.5% intentional
20.0% undetermined

Analysis of 41,053 participants of the National Survey of Drug Use and Health grouped into 4 categories based on past year frequency of prescription opioid misuse
- None
- Less than monthly (1-11 times)
- Monthly to weekly (12-51 times)
- Weekly or more (52+ times)

Frequency of opioid misuse was significantly associated with suicidal ideation (p < 0.05 for each frequency category)

Weekly or more group also associated with suicide planning and attempts (p < 0.05)

Analysis was adjusted for demographics, overall health rating, depression, anxiety, and substance use disorders

Suicidal Motivation Prior to Overdose Along a Continuum of Severity is Common

120 survivors of overdose (92% heroin/fentanyl)
- 41.5% stated that they did not want to die
- 58.5% reported at least some desire to die before their most recent overdose
- 36% reported strong desire to die
- 21% reported “I definitely wanted to die”
- Perceptions of overdose risk were variable
  - 30.2% reported no likelihood of overdose
  - 13.2% reported high likelihood of overdose

120 survivors of overdose (92% heroin/fentanyl)

- 41.5% stated that they did not want to die (0/10)
- 58.5% reported at least some desire to die before their most recent overdose
- 36% reported strong desire to die (> 7/10)
- 21% reported “I definitely wanted to die” (10/10)

Perceptions of overdose risk were variable
- 30.2% reported no likelihood of overdose (0/10)
- 13.2% reported high likelihood of overdose (10/10)

Dr. Hilary Connery and her Harvard University coauthors write that, “the classification of a drug overdose as either ‘unintentional’ or ‘intentional’ may not always reflect accurately upon either the behavioral episode itself or the treatment interventions most appropriate for preventing drug-related mortality.”

The Self-Medication Hypothesis

The SMH maintains that suffering (not pleasure seeking) is at the heart of addictive disorders, such that:

1. Addictive drugs have appeal because during the short term they relieve painful feelings and psychological distress.

2. There is a considerable degree of preference in a person’s drug of choice, but it isn’t as though a person “chooses” a drug; rather while experimenting with various drugs, he or she discovers that the effect of a particular drug is experienced as welcome because it changes or relieves feeling states that are especially painful or unwanted for reasons special to that person.
Brain Reward Threshold Changes with Drug Use—Does it Change Back?
Addictions Neuroclinical Assessment: A Neuroscience-Based Framework for Addictive Disorders

- Genetic Variables
  - Genes and family history
  - Pharmacogenomics
  - Sexuality
  - Psychiatric disorders
  - Methylomics
  - Metabolomics

- Environmental Variables
  - Education
  - SES
  - Activity levels
  - Culture
  - Stress exposure
  - Nutrition

- Agent use history
  - Onset
  - Type & mode
  - Pattern
  - Rx
  - Polydrug use
  - Withdrawal severity

- Executive Function
- Negative Emotionality
- Incentive Salience

- Outcomes
  - Problems with:
    - Law
    - Home
    - Work
    - Physical health

Call to Action

● Screen for suicide risk in patients with chronic pain and other conditions where opioid are prescribed and in substance use

● Standardize screening for suicide risk and treatment referral among emergency patients who have overdosed

● Reduce the double stigma associated with suicide and drug addiction that might make patients more willing to seek treatment