Addictions and Their Treatment: An Evidence Based Approach

Alëna A. Balasanova, M.D., FAPA
Assistant Professor and Director of Addictions Education, UNMC Department of Psychiatry
Disclosure Declaration

As a provider accredited by ACCME, the University of Nebraska Medical Center, Center for Continuing Education, Nebraska Medicine, and the American Nurses Credentialing Center’s Commission on Accreditation must ensure balance, objectivity, independence, and scientific rigor in its educational activities. Faculty are encouraged to provide a balanced view of therapeutic options by utilizing either generic names or the trade names of several to ensure impartiality.

All speakers, planning committee members and others in a position to control continuing medical education content participating in a University of Nebraska Medical Center, Center for Continuing Education, Nebraska Medicine, and American Nurses Credentialing Center’s Commission on Accreditation activity are required to disclose relationships with commercial interests. A commercial interest is any entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients. Disclosure of these commitments and/or relationships is included in these course materials so that participants in the activity may formulate their own judgments in interpreting its content and evaluating its recommendations.

This activity may include presentations in which faculty may discuss off-label and/or investigational use of pharmaceuticals or instruments not yet FDA-approved. Participants should note that the use of products outside currently FDA-approved labeling should be considered experimental and are advised to consult current prescribing information for FDA-approved indications.

The following indicates the disclosure declaration information and the nature of those commercial relationships.

All materials are included with the permission of the authors. The opinions expressed are those of the authors and are not to be construed as those of the University of Nebraska Medical Center, Center for Continuing Education, Nebraska Medicine, or American Nurses Credentialing Center’s Commission on Accreditation.

The faculty and planning committee members listed below, have no conflicts of interest to disclose.
Alëna A. Balasanova MD, FAPA; Brenda C. Ram, CMP, CHCP Sara M. Weber, MSW, CHES®, CBE  Jackie Siebels, BSN, RN-BC
Disclosures

• I have no relevant financial relationships with commercial interests.

• I have no actual or potential conflicts of interest in relation to this presentation.
Series of Activities Available Online

UNMC-CCE offers topics of interest to medical professionals that are available online for CME credit at: www.unmc.edu/cce/outreach

If you have questions, please contact Sara Weber.
Objectives

1. Define addiction and substance use disorder
2. Review related terminology
3. Summarize current trends in SUD epidemiology and delivery of treatment services
4. Examine Medication-Assisted Treatment (MAT) as an evidence-based treatment option for SUDs
First things first: what is addiction?

• A **chronic brain disease** that has the potential for both recurrence (relapse) and recovery (remission)

• Associated with **uncontrolled** or compulsive use of one or more substances

• The most severe form of **Substance Use Disorder (SUD)**
Okay, so what then is SUD?

• A medical illness caused by repeated misuse of a substance or substances
• Develops gradually over time
• Leads to brain changes

...and substance misuse?

• Use of any substance in a way that can cause harm to the individual or those around them
SUD-related brain changes result in impaired executive function.

This causes problems with:
- self control
- decision-making
Continuum

- Substance Use
- Substance Misuse
- Substance Use Disorder
- Addiction
Addiction: what is it **not**?

- Moral failing
- Character deficit
- Bad behavior
- Poor decision-making
- Voluntary choice

Society has *judged* substance use throughout time

Historic love-hate relationship with “booze” & “dope”
The words we choose matter

SAY THIS
Substance Use Disorder
Substance Misuse
Substance Use
Addiction

NOT THAT
Substance Abuse
Replacement therapy
Alcoholic
Drug Abuser
Addict

Commonly used terms explicitly and implicitly convey that patients are at fault for their disease and influence perceptions and judgments¹

¹Botticelli et al. (2016)
Language impacts patient care

Health professionals generally have negative attitudes towards patients with SUDs

Attitudes and implicit bias repeatedly implicated as drivers of clinician behavior

- More likely to assign blame
- Agree with need for punishment
- View a “substance abuser” less deserving of treatment than if same person is described as a “patient with a SUD”

1Botticelli et al. (2016); 2Van Boekel et al. (2013)
Implicit bias in clinical practice

2016 study of ~300 MDs at a brand-name Boston hospital, looking at attitudes and clinical practices¹

- 38% felt that SUD is different from other chronic diseases because people who use drugs or alcohol are “making a choice”
- 14% felt that medication treatment using opioid-agonists is “simply replacing one addiction for another”
- 12% thought someone “using drugs is committing a crime and deserves to be punished”

Impact of bias is universal; it holds true even for highly-trained and experienced health professionals

¹Wakeman et al. (2016)
How common are SUDs?

1 in 7 people will develop a substance use disorder at some point in their lives.

#FacingAddiction
The human costs of untreated addiction

- **2015 CDC report**: 52,404 people died from drug overdose (63% involving opioids)
  
  
  1Rudd et al. (2016)

- **2016 CDC report**: 64,000 people died from drug overdose
  
  2Hannam K (11.2.2017 Fortune)

- **2017 CDC report**: 72,000 people died from drug overdose (49,000 involving opioids)
  
Scope of the problem

National Overdose Deaths
Number of Deaths Involving All Drugs

Source: National Center for Health Statistics, CDC Wonder
Drugs Involved in U.S. Overdose Deaths, 1999 to 2017

Among the more than 72,000 drug OD deaths estimated in 2017*, sharpest increase was among deaths related to fentanyl and its analogs (e.g. carfentanil) with nearly 30,000 OD deaths.

Source: CDC WONDER
The Scope of the Problem: Opioids

Prescription Painkiller Sales and Deaths

- Sales (kg per 10,000)
- Deaths (per 100,000)

Source:

http://www.pfizer.com/
The Opioid Epidemic

- Everyday 91 people die from opioid overdose (out of 175 daily overdose deaths)
- Since 2001 heroin use has increased 500%

1University of Wisconsin Population Health Institute. County Health Rankings Key Findings 2017
Opioid pain medication prescriptions

• In 2015, Nebraska prescribers wrote 72.8 opioid prescriptions per 100 persons (1.4 million prescriptions).

• In the same year, the average U.S. rate was 70 opioid prescriptions per 100 persons.
The costs of our attitudes...

Only 1 in 10 people suffering from a substance use disorder receives any type of treatment.

That means 90% of people needing help are not getting it.

#FacingAddiction

Center for Behavioral Health Statistics and Quality (2016). Results from the 2015 National Survey on Drug Use and Health: Detailed tables. Rockville, MD: Substance Abuse and Mental Health Services Administration.
<table>
<thead>
<tr>
<th>Population/Treatment Services</th>
<th>Nebraska</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>% patients with past year drug-use disorder who did <strong>NOT</strong> receive treatment</td>
<td>88.8%</td>
<td>85.9%</td>
</tr>
<tr>
<td>% patients with past year alcohol use disorder who did <strong>NOT</strong> receive treatment</td>
<td>93.0%</td>
<td>92.7%</td>
</tr>
</tbody>
</table>

How would we react if only 10% of patients with cancer received treatment?  

Source: Nebraska Behavioral Health Needs Assessment (2016)
Traditional approach to addiction treatment
Treatment: traditional approach

- Based on historical idea that substance use disorder is an **acute** and **curable** condition
  → services are time-limited
  → priority is to remove access to the offending drug
  → abstinence is the only goal
  → e.g., inpatient **detox*** 3-5 days, 28-day **residential**

* **withdrawal management** by itself is **NOT** an acceptable form of treatment → **90-93% return to substance use**
Self-help & peer recovery support

Alcoholics Anonymous (A.A.) and Narcotics Anonymous (NA) are abstinence-only peer support groups historically believed to be the mainstay of addictions treatment

HOWEVER

While some individuals may attain and maintain recovery through peer support alone, 12-step groups are NOT treatment and are considered to be an important supplement to treatment
Co-occurring disorders: common and complex

- Highest rates of co-occurring SUD in patients with mood, anxiety and personality disorders – if untreated, psychiatric illness often complicates recovery course of SUD

- Prevalence varies from 41.2%\(^2\) to 78%\(^1\) across studies depending on the diagnostic criteria used and by study methodology

\(^1\)Grant et al. (2016); \(^2\)Kienast et al. (2014)
Redefining the treatment paradigm

https://www.pinterest.com/vickiottley/snoopy/
Today’s standard of care: evidence-based treatment

A service or set of services that may include:
- medication
- counseling and/or behavioral therapy
- other supportive services

Services are designed to enable an individual:
- to reduce or eliminate alcohol and/or other drug use
- address associated physical or mental health problems
- restore the patient to maximum functional capacity
MAT: an evidence-based treatment

Medication Assisted Treatment (MAT) is the use of medications in combination with psychosocial or behavioral therapies as part of an individualized approach to treatment of patients with SUDs.

MAT is not one-size-fits-all

- Aim to address a patient’s particular substance-use patterns and recovery-related goals.
- Recovery need not include abstinence, though often does.
MAT: what it is and what it’s not

- Medication is only **ONE** part of treatment and it alone is insufficient for maintaining recovery
  - Helps restore balance to brain pathways caused by prolonged substance use
  - Most effective when used in conjunction with psychosocial interventions, including those provided in regular face-to-face visits with prescribing clinician
  - Medication provides a platform to make ‘real’ treatment possible → to enact change
FDA approved MAT agents

**Opioid Use Disorder (OUD)**
- **Buprenorphine** or buprenorphine/naloxone combo
  - Sublingual tablet or film
  - Subdermal implant (approved 2016)
  - Extended-release monthly injection (approved 2018)
- **Methadone** (oral)
- **Naltrexone** (oral, extended-release intramuscular injection)

**Alcohol Use Disorder (AUD)**
- **Naltrexone** (oral, extended-release intramuscular injection)
- **Acamprosate**
- **Disulfiram**
Federal Regulations of MAT agents

- **Methadone MAT** is only available through **strictly regulated, federally licensed clinics**
  - Can’t be prescribed for addiction treatment outside of these certified treatment centers

- **Buprenorphine MAT** is approved for prescribing by MD/DOs and APRNs/PAs who have obtained a **DATA 2000 waiver**
  - Requires completion of clinician education; certain restrictions apply to the number of patients treated

- **Naltrexone MAT** **does not require any special license or extra education** and can be prescribed in the office
  - Not a controlled substance; just like any other medication but highly underutilized
Prescription Drug Monitoring Program (PDMP)

- Prescription medication reporting and query program available to all prescribers and dispensers in Nebraska at no cost
- Initially reported schedule II - V prescriptions dispensed in or delivered to Nebraska; as of Jan 2018 includes all prescriptions
- Allows prescribers to determine if patients have been filling controlled medication prescriptions - safety/quality measure
  - Clinical scenario: Some patients receiving MAT for OUD may have consistently negative urine tests for addictive substances, yet PDMP records indicate recent receipt of opioid prescriptions
  - PDMP can also serve as a therapeutic tool for clinicians to raise concerns about diversion with patients receiving treatment

1 More information at: http://www.nehii.org  
2 Hoefer et al (2014)
MAT has been shown to keep patients in treatment programs longer, increasing their chances of a long-term recovery.
Treatment comparison with other chronic medical conditions

- Substance Use Disorders: 40 to 60%
- Diabetes Mellitus: 30 to 50%
- Hypertension: 50 to 70%
- Asthma: 50 to 70%

McLellan et al. (2000)
Why is addiction seen differently? Both require ongoing care
Evidence-based treatment using MAT is effective and cost-effective

- Medicaid enrollees receiving abstinence-only OUD treatment had 75% higher mortality than those on partial agonist maintenance

- Individuals on federal probation receiving opioid antagonist treatment had 50% lower rate of re-incarceration and 70% lower rate of illicit substance use compared to non-treated

- Those engaged in outpatient MAT found to have 17%-27% lower odds of getting arrested since starting the treatment episode – even if there is previous criminal justice involvement

1 Clark et al. (2011); 2Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health (2016); 3Garnick et al. (2014);
Health System & Societal Impact

- Substance misuse and substance use disorders cost the U.S. $442 billion each year in healthcare costs, lost productivity and criminal justice costs.\(^1\)

- Every $1 spent on SUD treatment saves $4 in healthcare expenditures and $7 in criminal justice costs.\(^1\)

\(^1\)Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health (2016)
Coordinated care for SUDs, psychiatric illness and general primary care can result in:

• Improved clinical and functional outcomes
• Increased care quality
• Reduced healthcare costs
• Enhanced patient satisfaction and practitioner morale
Thank you!

Alena.Balasanova@unmc.edu

Questions?


References (2)


University of Nebraska Medical Center, College of Public Health (September 2016). Nebraska Behavioral Health Needs Assessment. Omaha, NE.


