Substance Abuse and TB Treatment
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Anthony Palomo, MS, LCDC, LPC
has the following disclosures to make:

• No conflict of interests

• No relevant financial relationships with any commercial companies pertaining to this educational activity
SUBSTANCE ABUSE AND TB TREATMENT

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KEY CONCEPTS (APA, 2017)

- **Substance Use Disorder (SUD):** Recurrent use of alcohol and/or other drugs causing clinically significantly impairment, including health problems, disability, and failure to meet major responsibilities at work, school or home.

- **Addiction:** Condition when person must use drug to avoid physical and psychological withdrawal symptoms.

- **Dependence:** Addiction’s first stage, during which the search for a drug dominates an individual’s life.

- **Tolerance:** Need for higher, or more frequent, doses of the drug to acquire the original effect.

- **Injection Drug Use (IDU/IVDU):** Taking drugs directly into blood vessels using a hypodermic needle and syringe.
PREVALENCE

- TB Patients report substance abuse (18.7%) more than other risk factors (Oeltmann et al., 2009).
  - About one in five U.S. TB pts. reports abusing alcohol or using illicit drugs (Montoya, 2014).
- TB Patients who are homeless:
  - Composed only 1/5 of substance-abusing population
  - Two thirds reported substance abuse problems
- Reported substance abuse: Black (39%) > White (26.2%) > Hispanic (22.7%).
- LTBI prevalence ranges between (10%-59%) among different cohorts of SUDs (Deiss et al., 2009).
- Risk of TBI (26X) and active disease (23X) **higher** among SUD (Getahun et al., 2013).
HOW DOES TB TRANSMISSION HAPPEN?

- Illicit drug use associated with alcoholism, which increases risk of TB infection
- "Shotgunning" – Exhale smoke directly on other person’s mouth
- "Bong" – Share water pipe
- Hotboxing – Smoke with other people in room with windows closed (in the car)

Airborne

- Living in cramped conditions
- Incarceration
- Shelters
- Exposure to other, untreated, infected persons.

Environmental

- Living in poorly ventilated areas
- Shooting galleries
- Sharing drug equipment

Montoya, 2014
SUDs IMPACT ON BODY

• Illicit drug users at high risk for TB infection and disease (Deiss et al., 2009).

• Affects cells responsible for immune response (Deiss et al., 2009).
  - Increases (↑) susceptibility to opportunistic infection
  - Decreases (↓) immune response even after treatment is started

• May hide symptoms ➞ Impacts early detention and treatment (Deiss et al., 2009).

• TB + Viral Hepatitis/HIV ➞ 4 to 5-fold at increased risk for developing drug-induced hepatitis (DIH)
  TB + Viral Hepatitis AND HIV ➞ 14-fold increase (Montoya, 2014).
SUDs IMPACT ON TREATMENT

- Frequently associated with a number of epidemiological factors:
  - Tobacco use (co-abuse)
  - Homelessness
  - Alcohol abuse (co-abuse)
  - Incarceration

- More complicated course of treatment:
  - More infectious
  - Take longer to achieve negative culture
  - Increased risk for mortality

- Difficulty completing medical evaluations or adhering to treatment:
  - Low motivation for treatment (particularly when asymptomatic)
  - Unstable lifestyles
  - Alcohol use
  - Lack of primary care or health insurance.
  - Treatment is a low priority
  - Self-discrimination and stigma

- Lack of social/family support
- Paranoia suspicion
- Competing demands (limited time, transportation, money)
- Psychiatric and medical comorbidities
- Drug interactions
CONTINUUM OF SUBSTANCE USE

KEY
- Only require screening
- Require brief intervention
- Require referral to treatment

Source: SAMHSA funded MASTERT program, N=773,714
NON-USE / LOW RISK

- From 1997-2006, 76.1% of patients with TB did not abuse substances
- Men (18-64), no more than:
  - 4 drinks per day
  - 14 drinks per week
- Women and Elderly
  - 3 drinks per day
  - 7 drinks per week
- Absolutely no recreational use of drugs/prescriptions

Intervention:
- education
- positive health message
From 1997-2006, 18.7% of patients with TB reported at least risky use:
- 2.6% IDU
- 7.6% non IDU
- 15.1% “excessive ETOH”

Any recreational use of drugs:
- Use of prescription drugs for non-prescribed purposes

Intervention:
- Education
- Brief intervention
SUBSTANCE ABUSE DISORDER: CLUSTER OF COGNITIVE, BEHAVIORAL, AND PHYSIOLOGICAL SYMPTOMS INDICATING THE INDIVIDUAL CONTINUES USING THE SUBSTANCES, DESPITE SIGNIFICANT SUBSTANCE-RELATED PROBLEMS

- DSMV Severity Specifiers:
  - Mild: 2-3 symptoms
  - Moderate: 4-5 symptoms
  - Severe: 6+ symptoms

- Symptoms (Criterion A)
  - Impaired Control
  - Social Impairment
  - Risky Use
  - Pharmacological

- Intervention:
  - Education
  - Brief Intervention
    - Engage/enhance motivation
  - Referral
CASE STUDY

Lucia, a Latina, married, 36 year old female weighing approximately 136 lbs., drank a bottle of wine (6 servings) at her bachelorette party over a 6-hour time period. Furthermore, she reports one glass of wine at dinner every night. No recreational use of drugs or prescriptions.

- Does Lucille meet criteria for low use/non-use?
- Under what criteria?
- What information is relevant, and what information is not?
SBIRT: EVIDENCE-BASED PRACTICE

1. Screening
   - Low Risk
     - No Further Intervention
   - Moderate Risk
     - Brief Intervention
   - Moderate to High Risk
     - Brief Treatment
   - Severe Risk, Dependency
     - Referral to Specialty Treatment
## PRE-SCREENING: TWO QUESTIONS

### Alcohol - NIAAA

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<td>MEN:</td>
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- **MEN**: How many times in the past year have you had or more drinks in a day? (4)
- **WOMEN**: How many times in the past year have you had or more drinks in a day? (3)

### Drugs - NIDA

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- How many times in the past year have you used a recreational drug or used a prescription medication for nonmedical reasons? (0)

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National Institute on Alcohol Abuse and Alcoholism
National Institute on Drug Use
BRIEF INTERVENTION

• Short (5-15 minute) motivational interviewing–based conversation to:
  • Enhance motivation to change
  • Motivate patients > severe use to seek treatment
• Provide education, to enhance ambivalence, not persuasion
• Listen for change-talk, commitment and ambivalence
• Don’t forget to praise, praise, praise (affirmation)
AMBIVALENCE: THE CENTER CONCEPT

• “MI works by activating patients’ own motivation for change and adherence to treatment” (Rollnick, Miller & Butler, 2014, p. 5)
• “often experienced as first thinking of a reason to change, then thinking of a reason not to change, and then to stop thinking about it” (p. 34).
• There is a natural human tendency to resist persuasion, particularly under perceived loss of freedom.
• MI works by encouraging introspection, self-talk and encouraging ambivalence (breaking status quo).
RESIST telling them what to do:
Avoid telling, directing, or convincing your friend about the right path to good health.

UNDERSTAND their motivation:
Seek to understand their values, needs, abilities, motivations and potential barriers to changing behaviors.

LISTEN with empathy:
Seek to understand their values, needs, abilities, motivations and potential barriers to changing behaviors.

EMPOWER them:
Work with your friends to set achievable goals and to identify techniques to overcome barriers.

Source: MINT Training, Centre for Addiction and Mental Health.
### SBIRT LEARNING TOOL – BRIEF INTERVENTION STEPS

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<th>Raise the subject</th>
<th>Provide feedback</th>
<th>Enhance motivation</th>
<th>Negotiate plan</th>
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| • Explain your role; ask permission to discuss the screening forms:  
  “Would it be okay if we talked about the annual screening forms you filled out today?”  
• Ask for alcohol/drug use patterns:  
  “Tell me about your alcohol/drug use? In a typical week, what does your alcohol/drug use look like?”  
• Listen carefully; use reflections to demonstrate understanding | • Share AUDIT/DAST zone(s) and meaning; review low-risk drinking limits; explore patient’s reaction:  
  “Your score on the screening form puts you in the ___ zone, which means... And, here are the low-risk drinking limits... What do you think about that?”  
• If applicable, explore possible connection to health, social, and/or work issues (share patient education materials):  
  “What connection might there be between your alcohol/drug use and...?”  
• Explore patient’s reaction to the information; listen closely and reflect | • Ask about pros/cons:  
  “What do you like about your alcohol/drug use? What don’t you like about your alcohol/drug use?”  
• Explore readiness to change and reasons for change using the readiness ruler:  
  “On a scale of 0-10, how ready are you to make a change in your alcohol/drug use?”  
  ° If > 2: “Why that number and not a ____ (lower one)?”  
  ° If 0-2: “How would your alcohol/drug use have to impact your life in order for you to start thinking about cutting back?” | • Summarize the conversation, including reasons for change identified by the patient  
• Ask a key question:  
  “What do you think you will do?” or “What steps are you willing to take to cut back?”  
• If not ready to plan, stop the intervention; thank patient; offer patient education materials  
• If needed, offer options for change (patient education materials); write down agreed-to steps and give to patient  
• Assess patient’s confidence in achieving his/her goal:  
  “On a scale of 0-10, how confident are you about making these changes?”  
• Negotiate follow-up visit and thank patient |

Gotham, 2016
WHAT TYPES OF TREATMENT ARE AVAILABLE?

- Specialty Addiction Treatment
  - Groups
    - Support Groups
    - Educational Groups
    - Therapy Groups
  - Individual Counseling
    - Motivational Interviewing
    - Cognitive-Behavioral Therapy
    - Contingency Management
    - Family Behavior Therapy
- Medication-Assisted Treatment
  - Manage withdrawal
  - Stay in treatment
  - Prevent relapse
  - Risk-Reduction
- Systemic Support (family, friends, work)
- Faith-based approaches
- Others (cold turkey)

Gotham, 2016; Montoya, 2014
PRINCIPLES OF DRUG ABUSE TREATMENT

1. Addiction is a complex but treatable disease that affects brain function and behavior
2. No single treatment is appropriate for everyone
3. Treatment needs to be readily available
4. Effective treatment attends to the multiple needs of the individual
5. Remaining in treatment for an adequate period of time is critical for treatment effectiveness
6. Counseling and other behavioral therapies are critical components of effective treatment
7. Medications are an important element of treatment for many patients
8. Treatment plans must be assessed and modified continually to meet challenging needs
9. Co-existing disorders should be treated in an integrated way
10. Treatment does not need to be voluntary to be effective
11. Possible drug use relapse during treatment must be monitored continuously
12. Treatment programs should assess for HIV/AIDS, Hepatitis B & C, TB and other infectious diseases and help client modify at-risk behaviors

Montoya, 2014
HOW TO MINIMIZE STRUCTURAL BARRIERS?

• Drug treatment centers utilizing DOT as important sites for TB-related services
  • Combine TX with methadone
  • More cost-effective for integrated treatment

• Enhance public health department to provide effective substance abuse TX
  • If not available on-site, have a “warm handoff” system of referrals
  • Multidisciplinary approach to treatment that incorporates mental health and social services

• Hospitalization

Deiss et al., 2009; Gotham, 2016
REFERENCES


QUESTIONS??

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