SUPPORT Act Grant 101: #7—Substance Use Disorders Overview & Tele-Behavioral Health

PAUL BRASLER, M.A., M.S.W.
LICENSED CLINICAL SOCIAL WORKER
Disclaimer

- The information contained in this material can change as we learn more about the brain and the ways it is impacted by the environment, trauma, medications, substances of misuse, and other things.

- Always follow the guidelines of your agency, ethical and legal standards of your certifying Board, evidence-based practice methods; local, state and Federal laws as well as your judgement and commonsense when working with clients.
Questions?

If you have any questions, please do not hesitate to contact the author at paul.brasler@dmas.Virginia.gov
Contents

I. Introduction: Tele-Behavioral Health Basics

II. Theories of Substance Use Disorder

III. Neurobiology of SUD
Introduction to Tele-Behavioral Health
We first need to admit that most of us do not enjoy “connecting” with clients this way; “I didn’t go to school for this!”

We also need to acknowledge that not all clients have access to technology to participate in tele-behavioral health and so we have to improvise.

Therefore practitioners and clients are using phones, Skype and FaceTime to conduct sessions; and getting creative in other ways.

Clinicians do not have to use HIPAA-compliant video conferencing technology during the current National Emergency; Health & Human Services will waive any penalties for HIPAA violations related to the platform used during this emergency.
Tele-Behavioral Health: Clinician

- Have a space set up where you can connect with your client without being disturbed.
- Your work-space should provide some privacy for your client.
- Internet connectivity and/or phone signal strength should be tested prior to engaging in tele-behavioral health.
- If conducting a group therapy session, educate clients on muting themselves unless they are speaking.
- I recommend against using your personal phone, but sometimes this cannot be avoided.
  - If using a personal device, I would set firm boundaries with clients regarding when they can and cannot contact you.
You’ll likely notice that the flow of clinical sessions will be slower than in-person.

Be aware that you will likely need to speak slower than in person.

Try to express empathy with your voice, especially when not connecting via video.
Tele-Behavioral Health: Client

- Try to have a private space where you can connect with your counselor that is also free from interruptions and distractions
- Test out your communications system (connectivity) prior to meeting with your counselor
- Most of us (counselors especially) don’t like meeting this way, so remember this is temporary and we (like you) look forward to meeting face-to-face again
Informed Consent to Treatment

Informed consent should be obtained prior to the start of tele-mental health.

I recommend that the clinician review all aspects of the Consent to Treatment form with the client prior to the start of treatment to ensure that the client understands what is expected in treatment and the limits of what the clinician can and cannot disclose without the client’s permission.

The National Association of Social Workers has developed an example of a Telemental Health Informed Consent you can find at: https://www.socialworkers.org/LinkClick.aspx?fileticket=tN67-dWQReM%3d&portalid=0
Informed Consent to Tele-Behavioral Health Treatment—Essential Elements

- A statement explaining what tele-behavioral health will look like for you and the client (methods to be utilized: FaceTime, phone, etc.)
- A statement discussing the risks of tele-behavioral health (technology limitations and failures; possible/unintentional breaches of confidentiality)
- A statement agreeing that the sessions will not be recorded by either party
- A statement emphasizing that the content of the session is confidential and that a written release is required from the client to release information
- A statement noting the limits of confidentiality, including having to report suspected child abuse, vulnerable adult abuse, danger to self or others
Informed Consent to Tele-Behavioral Health Treatment—Essential Elements

- A statement explaining what steps must be taken should the clinician believe that the client is a danger to themselves, a danger to others or is unable to care for themselves
  - This could include a statement that participation in tele-behavioral health may not be appropriate and a higher level of care could be required
- A statement describing how you will handle technical problems should they arise
- A statement explaining that the client must disclose their physical location during the session and an individual the clinician can contact in case of an emergency
- A statement that you are continuing to maintain treatment records during this time
If you don’t write it down, it never happened

Record, in detail, all aspects of client interactions, including any known precipitating events, interventions, outcomes, staff members involved and all contacts with outside agencies

Record where the client says they are contacting you from

Do this as quickly as possible following the session

Stick to the facts; do not presuppose or assume anything

See documentation as a necessary means to protect yourself, the people you serve, and your organization
Theories of Substance Use Disorder
Addiction is a treatable, chronic medical 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.

Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.

Adopted by the ASAM Board of Directors September 15, 2019
Addiction/SUD Defined: The 3 P’s

(Filbey, 2019, P. 1)

**Pervasive**: SUD affects all aspects of a person’s life

**Persistent**: SUD effects persevere despite efforts by the individual

**Pathological**: SUD effects are uncontrollable
“Addiction is a multi-determined phenomenon with layers within layers of mutual influences, internal and external, all interacting concurrently, leading to a pathological outcome. It is no more true [sic] to say that addiction is simply a brain disease, or a flawed personal choice, or an experience of learning than it is to say that falling in love is nothing but biochemistry.” (Italics in original) (Morgan, 2019, p. 4)
The Big Question:

Why do some people become addicted or substance-dependent and others don’t?
Why Do People Misuse Drugs?

1. Throughout human history, people have used a wide variety of plants and other chemicals to alter their mood, perception and behaviors.
2. Some people may have a predisposition toward addiction.
3. Some people live in environments where there is a high concentration of drugs or accepted (encouraged) use of substances.
4. Some people use drugs that are socially acceptable.
5. Others may use chemicals to address unrecognized mental or medical issues.
6. Most people start using drugs because it initially makes them feel good!
Traditional Paths to SUD

“Denny”
- Upper-middle class background
- Raised by two parents
- No history of family violence
- Both grandfathers were alcoholics
- Started drinking as a teen, progressed to heroin by 19
- Numerous opportunities and attempts at treatment
- Family remains supportive and concerned throughout
- Died of a heroin overdose at age 23

“Ashley”
- Low socio-economic background
- Raised by a single mother; father not identified
- Extreme family/domestic violence
- Molested at age 7 by mother’s boyfriend, raped at age 11 by uncle
- Started smoking marijuana by 12, progressed to heroin by age 20
- Jailed for prostitution and drug possession, no offers of treatment
- Stuck in a sexually-abusive situation for housing and money for drugs
A Newer Path to SUD

“Shirley”

- No history of any substance use
- Work-related back injury in 2007
- Prescribed OxyContin by Primary Care Provider for pain
- Tolerance develops, so dosage is increased
- Medical provider becomes concerned about possible dependence, so dosage is decreased
- Shirley starts running out of medication early and starts to purchase illicitly (~$1.00 per mg on the street)
- She soon realizes that heroin is cheaper, and stronger, so she starts to purchase it instead
Medical Model/Disease Theory

- Addiction is a disease that is:
  - Chronic
  - Progressive
  - Relapsing
  - Incurable
  - Ultimately fatal

- The only way to treat the disease is to keep it in remission by the complete abstinence from any drug use

- Genetic pre-disposed problems with brain chemistry are activated by specific drugs

- Most diagnostic criteria (including the DSM-5) are built on many of the suppositions underlying this theory
Psychodynamic Model

- Drug use is due to underlying psychological problems which the person may or may not be aware of.
- Some people may also have a personality that propels them to use drugs.
- The “self medication” hypothesis is built upon this model.
- Drug use can be seen as a poor coping strategy.
- If the person’s psychological problems can be appropriately addressed, the person will not need to use drugs.
Behavioral Theory/Reinforcement Model

- Positive reinforcement: The person likes how the drug makes them feel, so they use more.
  - Addiction is seen as the end-point of a process that begins with the person liking what they are using.

- Negative reinforcement: The person does something to relieve or avoid pain, in this case use drugs.
  - The user initially likes how the drug makes them feel, but when they try to stop, they experience withdrawal symptoms, thus they continue to use to avoid the bad feelings associated with withdrawal.
Addiction as a process that often encompasses a user’s life

**Diathesis:** A predisposition; the stronger the diathesis, the fewer drugs are needed to move the person into addiction

**Diathesis plus** environmental influences (even some that are positive) **plus** the use of a psychoactive substance alters the neurochemistry and brain function and even genetics to the point that the person has a difficult time returning to normal (non-using) behavior

If we believe that a person’s trauma history can impact their substance use, then this theory supports this notion.
Addiction as Learned Behavior

- Proposed by Szalavitz (2016)
- Recognizes the role of trauma in addiction; addiction as a maladaptive coping style
- “Addiction is a developmental disorder—a problem involving timing and learning...[it] is often a search for safety” (p. 3)
  - “Three critical elements to it: The behavior has a psychological purpose, the specific learning pathways involved make it nearly automatic and compulsive, and it doesn’t stop when it’s no longer adaptive” (p. 36)
- Recognizes the role of the biopsychosocial-spiritual aspects of a person’s life as things that can increase the chances of developing an addiction or creating protective factors that decrease this risk
- Notes that addictions take time to develop—as does recovery
- Focuses on the connection between drug use to decrease pain (physical and emotional), while withdrawal increases pain
Which Theory Should I Use?

Each theory has validity and can help us understand why a person engages in addictive behaviors.

The theories are not completely mutually exclusive, therefore I recommend an eclectic use of them.
“...the essence of recovery is a lived experience of improved life quality and a sense of empowerment; that the principles of recovery focus on the central ideas of hope, choice, freedom and aspiration that are experienced rather than diagnosed and occur in real life settings rather than in the rarefied atmosphere of clinical settings. Recovery is a process rather than an end state, with the goal of being in ongoing quest for a better life.”

(Best & Laudet, 2010 as cited in Morgan, 2019, p. 191)
Neurobiology of SUD
The definition of an addictive drug is one that stimulates the mesolimbic pathway, but there are three general axioms in psychopharmacology that also apply to all drugs:

1. All drugs act by changing the rate of what is already going on
2. All drugs have side effects
3. The brain adapts to all drugs that effect it by counteracting the drug’s effects

*The brain’s response to a drug is always to facilitate the opposite state; therefore, the only way for any regular user to feel normal is to take the drug.* (p. 32)
How Do Drugs Get to the Brain?

**Pharmacodynamics:** A drug’s effect on the body

**Pharmacokinetics:** The body’s effect on a drug; how a drug is absorbed, distributed, metabolized, eliminated and excreted by the body; all of which are influenced by:

- Route of administration
- Speed of transit to the brain
- Rates of metabolism
- Process of elimination
- Affinity for nerve cells and neurotransmitters

*Pharmacodynamics & pharmacokinetics co-occur*

The more rapidly a drug reaches its target in the brain, the greater the reinforcing potential
Routes of Use

- **Inhalation**: The quickest way to the brain (7 – 10 seconds)
- **Injection**: The most dangerous and efficient method, as it bypasses the body’s natural defenses
  - Intravenously (15 – 30 seconds)
  - Intramuscularly (3 – 5 minutes)
  - Subcutaneously (skin popping; 3 – 5 minutes)
- **Mucous Membrane Absorption**: (10 – 15 minutes)
  - Insufflation (snorting through the nose)
  - Sublingually (under the tongue) or **Buccally** (between gums & cheek)
  - Rectum or vagina
  - Eyeball
- **Oral Ingestion**: The drug is absorbed by the stomach or small intestine (20 – 30 minutes)
- **Contact Absorption**: Passive absorption through the skin (up to 7 days, but can take up to 2 days for full effect)
Drug Distribution and General Effects

- Once into the bloodstream, the drug will be distributed to the rest of the body.
- The amount of the drug that reaches the brain depends on the drug’s bioavailability (the degree to which a drug becomes available to target tissues after use).
- Once in the bloodstream, the drug reaches the blood-brain barrier in 10 – 15 seconds.
- The blood-brain barrier consists of capillaries which have tightly sealed epithelial cells that allow only certain substances (particularly fat-soluble) to cross the barrier.
Addictive drugs provide a shortcut to the brain’s reward system by:

1. Flooding the **nucleus accumbens** with dopamine

2. The **hippocampus** lays down memories of this rapid sense of satisfaction

3. The **amygdala** creates a conditioned (anticipated) response to certain stimuli
Agonist & Antagonist

- **Agonist**: A drug or chemical that acts on a receptor to mimic the effects usually created by the neurotransmitter that “fits” that of a naturally occurring substance or of receptor. Examples include the majority of opioids. Benzodiazepines act as agonists on the GABA receptor.

- **Antagonist**: A substance or drug capable of blocking or reducing (at the receptor) that activity of an agonist without exerting any effect itself. Competitive and noncompetitive agonists. Examples include most anti-psychotics (which block dopamine 2 receptors) and naltrexone and naloxone (Narcan) which block opioid receptors.
“Go” Circuit: Nucleus accumbens; in the old brain
- Reward/reinforcement
- “Keep on doing what you just did”

“Stop” Circuit: Shuts down the go circuit
- Most substances of abuse change these circuits to cause the Go circuit to become overactive while shutting down or inhibiting the Stop circuit
- Long-term use of a substance appears to disable the Stop circuit
  - “When the reward/control pathway is activated by psychoactive drugs, especially in susceptible individuals, the impact is so strong that the drugs can imprint and reinforce the emotional memory of euphoria or pain relief more deeply than most natural survival memories, making repetition of the behavior more likely” (Wise, 2002 as cited in Inaba & Cohen, 2014)
Metabolism

- The process of a drug being broken down and inactivated (for a majority of drugs, the liver does most of this process)

- **Half-Life:** The amount of time it takes for half of a drug to be eliminated from the body; the slower the breakdown process, generally the longer the drug has an effect

Plasma half life \((t_{1/2})\) of drug

- Time to decline conc. from 100 to 50 = 2 hr
- So, \(t_{1/2}\) of this drug is 2 hr
Metabolism Factors

These factors vary by individual, but are largely dependent on the following:

- **Age**: Metabolism usually slows with age, thus the older the person, the greater the effect
- **Ethnicity**: Enzyme levels differ among various groups: e.g. some people of Asian descent react negatively to alcohol
- **Heredity**
- **Sex**
- **Health**
- **Emotional States**: Emotions can exaggerate the effects of a drug
- **Other drugs**: drug synergism
- **Exaggerated reaction** (allergy to a specific substance)
- **Other factors** (hormonal cycles; environment)
References
References