Understanding Substance Use Disorders and Addiction: A Public Health Perspective

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Opioid Response Network STR-TA

Working with Communities to Address the Opioid Crisis

- SAMHSA's State Targeted Response Technical Assistance (STR-TA) grant created the *Opioid Response Network* to assist STR grantees, individuals and other organizations by providing the resources and technical assistance they need locally to address the opioid crisis .
- Technical assistance is available to support the evidence-based prevention, treatment, and recovery of opioid use disorders.

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Working with Communities to Address the Opioid Crisis

- The Opioid Response Network (ORN) provides local, experienced consultants in prevention, treatment and recovery to communities and organizations to help address this opioid crisis.
- The ORN accepts requests for education and training.
- Each state/territory has a designated team, led by a regional Technology Transfer Specialist (TTS), who is an expert in implementing evidence-based practices.

Contact the Opioid Response Network

- To ask questions or submit a request for technical assistance:
  - Visit www.OpioidResponseNetwork.org
  - Email orn@aaap.org
  - Call 401-270-5900

Learning Objectives

Explore	Recognize	Understand	Face	Explore	Identify	Discuss
Explore opioid epidemic and causative factors	Recognize addiction as a chronic brain disease	Understand the connection between ACE's and vulnerability for addiction	Face stigma associated with addiction as a barrier to establishing relationships	•The contribution of social determinants of health as related to Substance Use Disorders	Issues specific to the treatment of pregnant women with opioid use disorder	The role of Public Health in addressing the opioid epidemic across the Core Functions of Assessment, Policy Development and Assurance

Terminology Related to Opioids

- **Opioid use**: Taking an opioid to reduce pain — Broad category includes morphine, codeine, synthetic opioids (e.g., fentanyl or methadone) and semisynthetic opioids (e.g., oxycodone)
- **Opioid misuse**: Use of prescription drugs without a prescription, or in a manner other than as directed by the prescriber
- **Opioid dependence**: Physiologic adaptation to opioids that produces symptoms of withdrawal when opioids are stopped
- **Opioid use disorder**: Problematic pattern of opioid use leading to clinically significant impairment or distress
- **Medication to treat addiction**: Use of specific medication in the treatment of opioid use disorders — Includes methadone, buprenorphine (Subutex, Suboxone) or naltrexone (Vivitrol)

History, Women, Context & The Big Picture

HISTORY

Opioid use during pregnancy in the 1800s:

- 66 – 75% of individuals who used opioids were women
- Opium prescription to treat pain and uniquely female "issues"
- Media began to link and sensationalize drug use, women and sexuality in an effort to stimulate public outrage a drug use

Courtwright D. *J Southern History* 1983; Kandall S *Substance and shadow*, 1996. Earle, *Medical Standards*, 1888
Slide: Dr. Hendree Jones

Historical Context: Opioid Use and Women

Four Main Eras of Opioid Use in the USA:

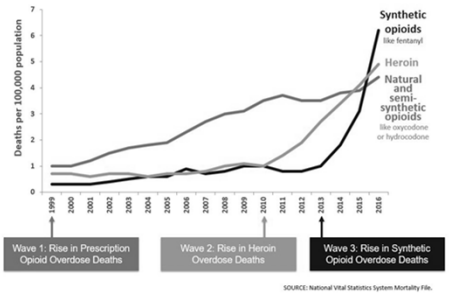
- 1800s: 66–75% of people using opioids were women
- 1940-50s: New York saw large increase in teenage opioid use
- 1969-70s: Opioid use by Vietnam veterans
- 1996-now: Pain as the 5th vital sign and pain medication access

Courtwright D. *J Southern History* 1983; Kandall S *Substance and shadow*, 1996.
Earle, *Medical Standards*, 1888
The Incidental Economist 2014 https://pointsadmsblog.files.wordpress.com/2012/03/08-0620thair20salon20ice20nywt20226b.jpg

ETIOLOGY OF THE EPIDEMIC

1990's Pain becomes the 5th Vital Sign
New High Potency Opioids are brought to market
Prescription opiate abuse and dependence rise at alarming rates
Opioids killed more than 47,600 people in 2017 – more than any other year on record
130 Americans die every day from an opioid related overdose
Source: CDC (2018)

3 Waves of the Rise in Opioid Overdose Deaths



SOURCE: National Vital Statistics System Mortality File.

Overdose Deaths…

From 1999 to 2017, more than 399,000 Americans died from an opioid overdose

Nearly 68% of the more than 70,237 drug overdose deaths in 2017 involved an opioid

In 2017, the number of overdose deaths involving opioids (including prescription opioids and illegal opioids like heroin and illicitly manufactured fentanyl) was 6 times higher than in 1999

On average, 130 Americans die every day from an opioid overdose

Source: CDC, 2017, 2018

Women & Opioids

- Between 1992 and 2012 show that the percentage of pregnant women with OUD due to prescription opioids increased from 2% to 28%
- Pathway to opioid use for women is more likely to be through medical treatment than for men
- Women are at increased risk for pain and more sensitive to the aversive aspects of most painful stimuli
- Women were more likely to be given prescriptions than men (54% vs 46%. 1993 - 2014)
- 63% of chronic pain patients prescribed opioids are women and for women aged 61+ this figure goes up to 80%

Mazure, C. & Fiellin, D., The Lancet Vol. 392 July 7, 2018

YES, IT'S IN YOUR HEAD!
The Neurobiology of Addiction

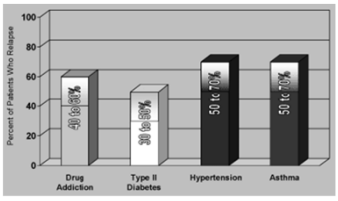
Addiction is <u>NOT</u>

- Caused by another mental illness or trauma
- A moral or ethical problem
- A personality disorder
- A choice
- Caused by lack of social connection or isolation

ADDICTION IS NOT CASUAL USE

- Compulsion to seek and take the drug
- Loss of control in limiting intake
- Diminished recognition of significant problems
- Emergence of negative emotional state
- Craving
- Chronicity
- Periods of remission and recurrence

Like Other Chronic Diseases, Addiction Often Involves Cycles Of Recurrence And Remission



According to ASAM Addiction IS:

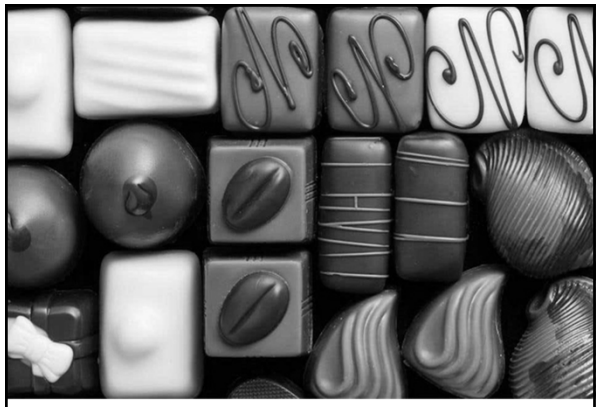
A primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.

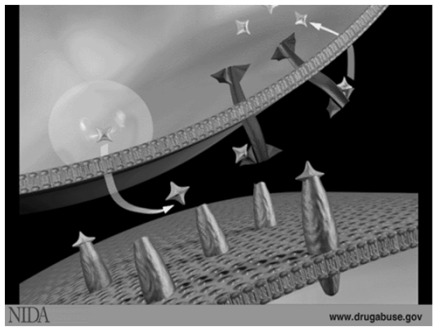
VIDEO:

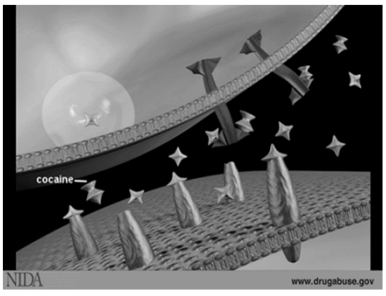
- From National Geographic
- Provides an excellent overview of the brain changes inherent to addiction
- Excellent for multiple audiences
- Available on You Tube

Dopamine

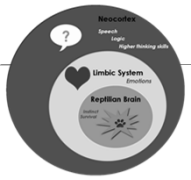
- Neurotransmitter
- Signals reward in our brains
- Also increased by stimuli that predict a reward
- Brain itself will drive the repeating of what it perceives as life-sustaining activity
- Over time when the brain is regularly flooded with dopamine (and other neurotransmitters) it will reduce the natural production







"Old Brain"



- Three Main Functions:
  - Regulate physiological functions
  - Experience basic emotions (anger, fear, hunger, thirst, lust, pain and pleasure)
  - Imprint survival memories
- Overrides new brain in times of stress
- Can be thought of as the "go" or reactive part of the brain

The New Brain: Prefrontal Cortex

Executive Functions

(not fully developed until age 25)

- Judgment
- Impulse control
- Self-monitoring

Coping Functions

- Attention span
- Organization
- Learning from experience
- Empathy
- Problem Solving

Old Brain vs. New Brain

- Old brain is senior partner
- Craving resides in the old brain and can override the reasoning that happens in the new brain
- Old brain acts 4 -5 x more quickly than new brain

BRAIN CHANGES INHERENT TO ADDICTION

- Less dopamine produced
- Fewer dopamine receptors
- Ability to experience normal reward – feel joy reduced significantly
- Using no longer pleasurable, but about trying to get dopamine function back to a normal level
- Brain is driven to seek out and use substances compulsively
- Ability to make sound decisions and control impulses is compromised

NIDA – Drugs, Brains and Behavior: The Science of Addiction

How ACE's Increase Vulnerability for Substance Use Disorders

Why Do Only Some People Become Addicted?

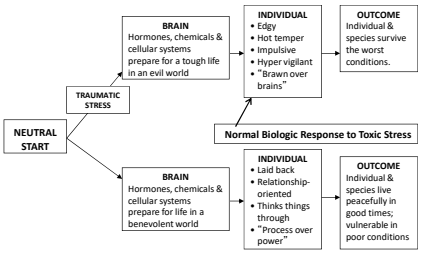
- No single factor
- More risk factors = a more vulnerable brain
- Protective factors decrease chance of brain becoming addicted
- Genetics account for 40% - 60%
- Adolescents & people with mental illness are at greater risk
- In many ways addiction is a disease that originates in adolescence

Risk & Protective Factors for Drug Misuse & Addiction

Risk Factors	Protective Factors
*Aggressive behavior in childhood**	*Good self-control**
*Lack of parental supervision**	*Parental monitoring and support**
*Poor social skills**	*Positive relationships**
*Drug experimentation**	*Academic competence**
Availability of drugs at school	School anti-drug policies
Community poverty	Neighborhood pride

* Impacted by EBHV

ACEs Influence Via Biologic Impact On Neurodevelopment



No ACEs 33%
- 1 in 16 smokes; 1 in 14 has heart disease
- 1 in 69 is alcoholic**; 1 in 480 uses IV drugs**
- **1 in 96 has attempted suicide**

1-3 ACEs 51%
- **With 3 ACES**, 1 in 9 smokes, 1 in 7 heart disease
- 1 in 9 is alcoholic, 1 in 43 uses IV drugs
- 1 in 10 has attempted suicide

4-10 ACEs 16%
- **With 7+ ACEs**, 1 in 6 smokes, 1 in 6 has heart disease
- 1 in 6 is alcoholic, **1 in 30 uses IV drugs**
- **1 in 5 has attempted suicide**

Social Determinants of Health & ACEs

SDOH & ACEs are intimately connected

We can not successfully reduce ACEs without improving health equity

SDOH impact day to day stressors in the community and families with young children are disproportionately affected

ACEs Increase Vulnerability for SUDs

- Predict earlier age of drinking onset
- Higher risk of mental illness and SUD as older adult (50+ yrs.)
- Continued tobacco use in adulthood
- 47% - 56% increase in odds of prescription drug misuse for every additional ACE
- 2 to 4-fold increase in likelihood of early initiation into illicit drug use for each additional ACE

SAMHSA

Children's earliest interactions within the family are crucial to their healthy development and risk for drug misuse

Connectedness Is The Key

YOUR HISTORY OF CONNECTEDNESS IS A BETTER PREDICTOR OF YOUR HEALTH THAN YOUR HISTORY OF ADVERSITY

be with each other **I** celebrate diversity **I** listen and learn from others **I** share time, food, work

The "super-power of human kind is our capacity to connect; it is regulating and the major "route" by which we can teach, coach, parent, heal and learn

Stigma & Recovery Oriented Language

What if….

- You go to the hospital with chest pain and are found to be having a heart attack
  - Told it's "your fault" because of your "choices"
  - Denied treatment because you "did it to yourself"
  - Given a list of cardiologists and cath labs to call
  - Only given aspirin if you agree to go to counseling
  - Kicked out of the hospital for more chest pain

Stigma Complicates Illness

- Internalized Stigma Outcomes:
  - Depression
  - Decreased Hope
  - Worsening Symptoms
    - Less Likely to Seek Help
    - Less Likely to Self – Advocate

- Source: Corrigan, P., Watson, A. (2002) Understand the impact of stigma on people with mental illness. World Psychiatry, 1(1):16-20

Examples of Stigma

- People with SUD and those on agonist therapy may not be accepted to post-acute care facilities
- People on agonist therapy may not be offered organ transplantation
- People mandated to treatment as a condition of probation who have a positive toxicology despite treatmentadherence can be imprisoned

Impact of Stigma

- Erodes confidence that substance use disorder is a valid and treatable health condition
- Barrier to jobs, housing, relationships
- Deters public from wanting to pay for treatment, allows insurers to restrict coverage
- Stops people from seeking help
- Impacts clinical care and treatment decisions

More Consequences of Stigma

- Substance use disorder is among the most stigmatized conditions in the US and around the world. People do not want to work with, be related to, or even see people with a substance use disorder in public.
- Many believe that people with a substance use disorder can or should be denied housing, employment, social services, and health care.
- Some health care providers treat patients who have substance use disorders differently.
- Clinicians have lower expectations for health outcomes for patients with substance use disorders; this in turn can affect whether the provider believes the patient is deserving of treatment.
- Some health care providers, falsely believing that substance use disorders are within a person's control, cite feelings of frustration and resentment when treating patients with substance use disorders

Source: https://www.samhsa.gov/capt/sites/default/files/resources/sud-stigma-tool.pdf

How Does Stigma Impact Individuals?

	Effects of Prejudice and Discrimination
Prejudice and discrimination exclude people with MH and SUD challenges from activities that are open to other people	This limits people's ability to: • Get/keep employment • Get/keep housing • Get health care (including MH/SUD TX) • Be accepted by family/friends • Find/make friends or have other long-term relationships • Take part in social activities
Prejudice and discrimination often become internalized by people with MH/SUD challenges	This leads them to: • Believe the negative things (self/internalized stigma) • Have lower self esteem because of guilt/shame
Prejudice and discrimination can cause people with MH/SUD challenges to keep it a secret	As a result: • They avoid getting the help they need • MH/SUD issues less likely to decrease or end

(Corrigan P., Watson, A., (2002) Understanding the impact of stigma on people with mental illness. World Psychiatry, 1 (1):16-20)

Stigma Is Everywhere!

Stigma from within
- Blame self, feel hopeless

Stigma from recovery community
- Medications vs. "abstinence"

Stigma from clinicians
- Belief that treatment is ineffective

Stigma from outside
- Choice (moral failing) vs. disease

Language Matters

"Words are important.

If you want to care for something, you call it a 'flower'; if you want to kill something, you call it a 'weed.'"

- Don Coyhis

Why Language Matters

- The language we use is critical in building and providing recovery-oriented services
- The language we use can either diminish or promote stigma
- Every day you have an opportunity to foster hope, resilience and recovery through the language we choose
- People are influenced by our language
- Language provides the framework for the services you provide and serves to promote hope and become motivation for success

Do:

- Put people first: Do say "A person with a behavioral health condition" or "a person diagnosed with …"
- Emphasize abilities. Focus on what is strong i.e. the person's strengths, skills & passions
- Focus on language that is respectful, clear and understandable, free of jargon, confusing data, and speculation
- Focus on language that is non-judgmental and carries a sense of commitment, hope and opportunity

Adapted in 2019 from Wahl, O. (2010). Recovery Language.
Adapted from Burge, M. /Consumer Advocate (2010). Excerpt from speech given at The MHS Conference 2010

Changing the Narrative:

Deficit-Based		Strengths-Based
✧ An addict/junkie	→	A person diagnosed with an addiction
✧ Substance abuser	→	Person with an addiction to
✧ Treatment Team	→	Recovery Team, Recovery Support System
✧ Relapse	→	Return to use/re-emergence of symptoms
✧ Not ready/not willing	→	Experiencing ambivalence
✧ Non-compliant	→	Experience challenges around . . .

Janis Tondora, Psy.D.

Changing the Narrative:

Deficit-Based		Strengths-Based
✧ Drug abuse	→	Drug misuse, harmful use
✧ Clean	→	Abstinent, not actively using, negative for
✧ Dirty	→	Actively using, presence of, positive for
✧ MAT	→	Medication to treat addiction
✧ Former addict	→	Person in recovery

Janis Tondora, Psy.D.

LANGUAGE MATTERS

Don't:

- ✧ Label people
- ✧ Say "he or she is an addict"
- ✧ Define the person by their struggle
- ✧ Emphasize limitations and focus on what is wrong
- ✧ Use condescending terms, e.g. 'frequent flyer or chronic relapser'
- ✧ Equate the person's identity with a diagnosis
- ✧ Sensationalize a behavioral health condition. This means not using terms such as "afflicted with," "suffers from," "victim of"
- ✧ Portray successful persons with behavioral health conditions as super-humans. This carries the assumption that it is rare for people with behavioral health conditions to do great things

Adapted by in 2019 from Wahl, O. (2010). Recovery Language.
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Treating Opioid Use Disorder & Considerations for Pregnancy

Physical Differences Put Women at Risk

- ✧ Physical differences may put women at a higher risk for medical problems associated with substance use disorders
- ✧ Women may also become physically dependent on opioid pain medication more quickly than men
- ✧ Women may use a smaller amount of drugs for a shorter amount of time before they become dependent in comparison to men
- ✧ Differences in use and basic physical differences (e.g., body fat percentages, metabolic rate, and hormonal fluctuations) have an impact
- ✧ Some research has shown that women also may be more sensitive to cravings
- ✧ A study specifically examining opioids found cravings were significantly higher among women than among men

DHHS Office of Women's Health White Paper: *Opioid Use, Misuse and Overdose in Women*, December 2016 pp 12-13

Social Differences Put Women at Risk

- More likely to begin risky use of substances within the context of a romantic relationship
- Emotional distress has been identified as a risk factor for nonmedical use of opioids among women
- History of intimate partner violence and/or trauma in childhood increase risk for SUD
- PTSD is more common among women seeking treatment for SUD than men
- Rates of sexual abuse (childhood and adult) is higher among women as opposed to men
- Women are more likely to experience co-occurring mental health and SUD

DHHS Office of Women's Health White Paper: Opioid Use, Misuse and Overdose in Women, December 2016 pp 12-13

Pregnancy: A Unique Treatment Opportunity

- Mothers with SUD die at a rate 8.4 times higher than other US women of similar age
- Pregnant women who use illegal substances may delay prenatal care and miss more healthcare visits than women who do not use substances
- Regular prenatal care makes a positive difference in the health of the baby
- Fear of retaining custody and the involvement of child protective services is a barrier to seeking and participating in prenatal care for women with SUD
- After childbirth, ongoing substance use disorders by caregivers and the dysfunctional home environment may lead to negative effects on children's psychological growth and development
- The mother's well-being has been recognized as a key determinant of the health of the next generation

Hser et al, 2012; Funai et al., 2003 Staton et al., 2003 and Wagner et al., 1998; El-Mohandes et al., 2003; Roberts and Pies, 2011 and Schempf and Strobino, 2009; Chatterji and Markowitz, 2001, Clark et al., 2004, Conners et al., 2004 Hanson et al., 2006 and Linares et al., 2006

American College of Obstetricians and Gynecologists (ACOG) Committee Opinion – August 2017

- Opioid agonist pharmacotherapy is the recommended therapy and preferable to medically supervised withdrawal
- Medically supervised withdrawal is associated with higher rates of recurrence
- More research is needed to assess the safety, efficacy, and long-term outcomes of medically supervised withdrawal
- Infants born to women who used opioids during pregnancy should be monitored by a pediatric care provider for neonatal abstinence syndrome
- Obstetric care providers have an ethical responsibility to their pregnant and parenting patients with substance use disorder to discourage the separation of parents from their children solely based on substance use disorder, either suspected or confirmed

Disease Course and Long-Term Management

Long-term management rather than repeated episodes of acute treatment should be a primary strategy

- Post-stabilization monitoring, education, and linking with community supports
- Medical, psychosocial, and environmental interventions should be utilized over a lifetime with intensity matching the severity of symptoms
- Frequent checkups to monitor stability/adjust medications
- Focus on treating consequences and minimizing risk factors
- Helping patient develop self-monitoring and self-care strategies

Disease Course and Medications

Recurrence/return to use carries a significant risk of overdose and death

- Treatment with agonist medications reduces the risk of death 2-3 fold

Medications reduce the risk of death by 2-3x!

Disease Course and Medications (*cont'd*)

The longer the patient remains on the medication, the better chance of benefiting from treatment:

- It is not known if there is a duration of medications for addiction treatment (MAT) that would eliminate the risk of return to use
- The risk of return to use should always be considered to be greater once the medication is stopped
- A decision to discontinue medications after a period of successful treatment should occur only after a careful discussion of risks between the clinician and the patient

Goals of Medication for OUD

- Reduce mortality
  - All cause and drug-related
- Reduce associated morbidity
  - Transmission of blood-borne viruses
  - Infectious complications from IV drug use
- Reduce opioid use
- Increase retention in addiction treatment
- Improve general health and well-being
- Reduce drug-related crime

Source: Volkow, et al, NEJM. 2016

Treatment of OUD

Most effective treatment for OUD involves a combination of several approaches:

- **Medication for Addiction Treatment (MAT)** involves use of medications in combination with intervention to increase adherence to medications
- **Psychosocial/behavioral approach** focused on helping patients develop skills necessary to maintain abstinence
- **Self Help/Mutual Help** support groups form social network supportive of recovery
- **Recovery-oriented activities** help patients develop satisfying lives

Medications to Treat Addiction

Best practice includes the use of medications coupled with counseling and behavioral therapies to treat substance use disorders and prevent opioid overdose.

- Vivitrol
- Methadone
- Buprenorphine

Vivitrol

- Opioid antagonist obtained by prescription
- Once-monthly injectable
- Requires detox
- Not a narcotic
- Non-addictive
- Helps prevent relapse
- Treatment includes counseling
- Not FDA approved for pregnant women

Methadone

- Opioid medication – full agonist
- Reduces withdrawal symptoms
- Used as a pain reliever for detoxification and maintenance
- Daily dose
- Treatment includes counseling
- Creates physiological dependence
- Prescription required or registration with a Methadone clinic

Buprenorphine

- Partial agonist opioid medication
- Sublingual tablet (Subutex), sublingual film (Suboxone), extended release injection (Sublocade)
- Used in the induction and maintenance treatment of opioid dependence
- Reduces withdrawal symptoms & craving
- Daily dose
- Prescription required
- Treatment includes counseling

Methadone and Buprenorphine: Advantages

Advantages	Methadone	Buprenorphine
Reduces/eliminates cravings for opioid drugs	X	X
Prevents onset of withdrawal for 24 hours	X	X
Blocks the effects of other opioids	X	X
Promotes increased physical and emotional health	X	X
Higher treatment retention than other treatments	X	
Lower risk of overdose Fewer drug interactions Office-based treatment delivery Shorter NAS course		X

Slide: Dr. Hendree Jones, PCSS

A Word on Medication Dosage

- Reducing the dose of medication does not reduce NAS expression or severity
- No relationship was found between either methadone or buprenorphine dose and significant infant outcomes, including NAS expression or severity
- Dose of medication should be individualized to suppress withdrawal symptoms, minimize cravings and prevent a return to substance use

SAMHSA. Clinical Guidance for Treating Pregnant and Parenting Women With Opioid Use Disorder and Their Infants. HHS Publication No. (SMA) 18-5054. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2018.

Medications in Support of Recovery

- Combines behavioral therapy, medication, and support from family and friends. All three components are equally important and the likelihood of achieving sobriety is much higher when all three are combined (SAMHSA).
- Treatment that includes medication is often the best choice for opioid addiction (SAMHSA).

A Note on Vivitrol

- Vivitrol is not FDA approved for pregnant women
- Individuals on Vivitrol who stop the medication are at higher risk of overdose death as they have no tolerance
- This could be a very dangerous combination for a pregnant woman

Addiction Medicine During Pregnancy

- Current lack of evidence from long-term neurodevelopmental studies in terms of buprenorphine during pregnancy
- Advantages of buprenorphine include lower risk of OD, fewer drug interactions, evidence of less severe neonatal abstinence syndrome (NAS) as opposed to methadone
- Pregnant women who stop using opioids and subsequently experience recurrence are at greater risk of overdose death
- Research shows that a combination of medication and behavioral therapies is most successful for substance use disorder treatment

Source: ACOG Committee Opinion Number 524, May 2012.
SAMHSA - A Collaborative Approach to the Treatment of Pregnant Women with Opioid Use Disorders, 2016

Why Medication?

- Current data does not support a reduction in NAS with medically assisted withdrawal (MAW) compared to medication
- Medically assisted withdrawal increases risk of maternal return to use and poor treatment engagement and does not improve newborn health
- Close to half of pregnant women who completed a MAW protocol (48%) returned to active use, significantly increasing risk for OD, HIV, Hep C and infection

Jones et al, Addiction Medicine March/April 2017, HE Jones, Approaches in Women with Substance Use Disorders Who Become Pregnant Opioid Use Disorders in Pregnancy: Management Guidelines for Improving Outcomes- Cambridge University Press 2018 pp 76-77

Risks of Returning to Use

- MAT decreases likelihood of a return to use and its dangers including:
  - Rape
  - Prostitution
  - Assault
  - Disease exposure (STI, HIV, Hep C)
- Lifestyle associated with active addiction is a bigger risk than fetal exposure (exception is alcohol)
- Reducing stress, eating well, exercise and consistent prenatal care are all conducive to a healthy baby and not part of a lifestyle in active opioid addiction
- Overdose & death most significant risk

The Reward System & Parenting

- In chronic active addiction the brain's reward circuits drive drug-seeking behavior
- Key regions of the brain's reward system do not engage among addicted individuals to the same extent as non addicts when it comes to non-drug rewards
- Research has shown activation of reward circuits in mothers' brains when viewing their infant's smiling face vs. an unfamiliar infant
- Studies indicate that these reward processing areas of the brain overlap with the areas of the brain involved in processing infant cues in mothers

The Neurobiology of Addiction and Attachment H. Rutherford, M. Potenza and L. Mayes

The Stress Response System

- Considerable research has shown that stress increases craving in addicted individuals
- These factors could explain increased incidence of relapse during the postpartum period
- Stress may influence the brain to drive drug seeking behaviors that are connected to relief of negative feelings
- Stress-induced cravings have been found to significantly predict relapse in abstinent individuals

Source: The Neurobiology of Addiction and Attachment H.Rutherford, M. Potenza and L. Mayes

Brain Pathways Overlap

- The brain pathways involved in parenting are also the pathways negatively impacted by addiction
- Reward and stress pathways are of significant importance in both parenting and addiction
- Pathways driving parenting and attachment behaviors seem to be the same pathways negatively impacted or dysregulated by addiction

Early Recovery & Early Parenting

- Mama & baby are difficult regulatory partners for each other
- Substance-affected baby has hard time regulating sleep/wake cycles, not always a clear signaler, needs more parental help to regulate
- Mothers often have a difficult time reading baby's signals – and a reduced tolerance for coping with a distressed baby – very vulnerable combination

Babies Of Mothers With SUDs

- Show less positive emotion during interaction
- More distress from new situations (novelty)
- Slower recovery from interruptions
- Have a harder time maintaining alert attentive state
- Interaction between moms and babies has less enthusiasm and mutual enjoyment, more conflict and less mutual excitement

Studies Of Mothers With Substance Use Disorders

- Less sensitive in interactions
- Less emotionally engaged
- Less attentive
- Less resourceful (due to stress?)
- Less flexible and contingent
- Experience less pleasure in interaction with baby

Early Recovery & Early Parenting

- Women are making several great changes at the same time in multiple areas of their life:
  - Make room for child in their mind
  - Take responsibility for child
  - Give up substances – including smoking
  - New social network
  - Life & securing services

Source: M. Pajulo, N. Suchman, M. Kalland and L. Mayes, Enhancing the Effectiveness of Residential Treatment For Substance Abusing Pregnant and Parenting Women: Focus on Maternal Reflective Functioning and Mother-Child Relationship; Infant Mental Health Journal., 2006 Sept 1; 27 (5): 448

Clinical Finding:

The most problematic areas found in parenting among mothers with SUD'S includes inability to keep the baby in mind and stay emotionally connected and present to baby. Moms have difficulty differentiating the child's needs from their own.

Source: M. Pajulo, N. Suchman, M. Kalland and L. Mayes, Enhancing the Effectiveness of Residential Treatment For Substance Abusing Pregnant and Parenting Women: Focus on Maternal Reflective Functioning and Mother-Child Relationship; Infant Mental Health Journal., 2006 Sept 1; 27 (5): 448

Recovery & Parenting

- Equally relevant
- Worked on simultaneously
- Focus on the parent-child relationship promotes and enhances recovery
- Relates to the relationship between the reward pathways in the brain
- Pathways are "competing" between investment in substances or investment in caring for the infant
- As mothers become invested in their infants the focus of the reward system is "reset"

Source: Mentalizing-Based Intervention with Mother-Baby Dyads, M. Pajulo and M. Kiland

Intervening

- Begins during pregnancy
- Must build capacity to read and interpret baby's states
- Also supports mothers in processing and changing own emotional reactions
- Strengthen mother's ability to soothe infant and build confidence
- Builds ability to manage daily cycles and rhythms of feeding, sleep and play for infants
- Must respect what we know about regulation for mom and baby while also supporting development of co-regulation

Intervention Objectives

- See aspects of the infant that are truly endearing
- Recognize aspects of the infant's behavior and functioning that are adaptive and organizing
- Be realistic about concerns (not pathologies) in functioning
- Give the message that the infant will be caringly and intelligently watched and that the parent will be "teamed up with" by providers who will help the mother care for her baby

Boukydis, C.F.Z. (2012). Consultation with Parents and Infants in the Perinatal Period. Baltimore, MD: Brookes Publishing Co.

Infant Cues & Touchpoints

- **Persistent** misreading of cues increases likelihood of developmental problems later in life such as attention & learning difficulties
- Interventions need to incorporate a focus on assessing and enhancing cue interpretation and responsivity
- Touchpoints are period where developmental spurts may cause disruption in attunement
- Key periods – prenatal, neonatal and 2nd to 3rd month

Wondering About Baby Together

The consultant or trained staff:

- Waits for the parent to comment and then reinforces or expands on the parent's comment;
- Asks open ended questions (What do you think is going on for her right now? What might she be telling us?)
- Wonders out loud about specific infant behaviors (When she saw your face, her eyes brightened, her breathing became steadier, and she kept her focus on you; I wonder what she is telling you right now
- Serves as a collaborative observer who wonders aloud about what the baby may be telling the mother

Parallel Process

The relationship experiences that the parent and staff have together that can affect the parent-child relationship and the way that the parent interacts with the child

The Role of Public Health

Core Areas for LHDs

- ASSESSMENT
- DATA COLLECTION/ANALYSIS/RESEARCH
- COMMUNICABLE DISEASE
- HARM REDUCTION
- COALITION/COLLABORATION
- POLICY/ LEGISLATION/ADVOCACY
- PREVENTION/EDUCATION AND PUBLIC AWARENESS

Common Activities for LHDs

- Leading Community Health Assessments (CHAs) and Community Health Improvement Plans (CHIPs) to assess current gap and resources
- Monitor and address the increased burden of communicable disease
- Meet drug users "where they are at" through implementing syringe exchange programs and/or advocating for necessary policy change
- Lead local task forces and coalitions and promote data driven approaches
- Implementation of Screening, Brief Intervention, Referral to Treatment (SBIRT)

Common Activities for LHDs (cont)

- Support policy, legislation and advocacy that aims to decrease drug misuse and increase treatment, recovery and prevention
- Overdose fatality review committees similar to child fatality review
- Remove barriers to prescription drug drop boxes
- Implement and/or assurance of evidence-based prevention education in schools
- Increasing education, awareness, and understanding of addiction as a disease and discourage the idea that addiction is a moral failing, combat stigma
- Education for prescribers on prescribing guidelines and alternatives for pain management

PH Response to Opioid Use in Pregnancy

- Focus on preventing unintended pregnancies
- Improve access to contraception
- Universal screening for alcohol and other drug use in women of childbearing age
- Knowledge and informed consent of maternal drug testing and reporting practices
- Improved access to comprehensive obstetric care, including medications
- Gender-specific substance use treatment programs

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