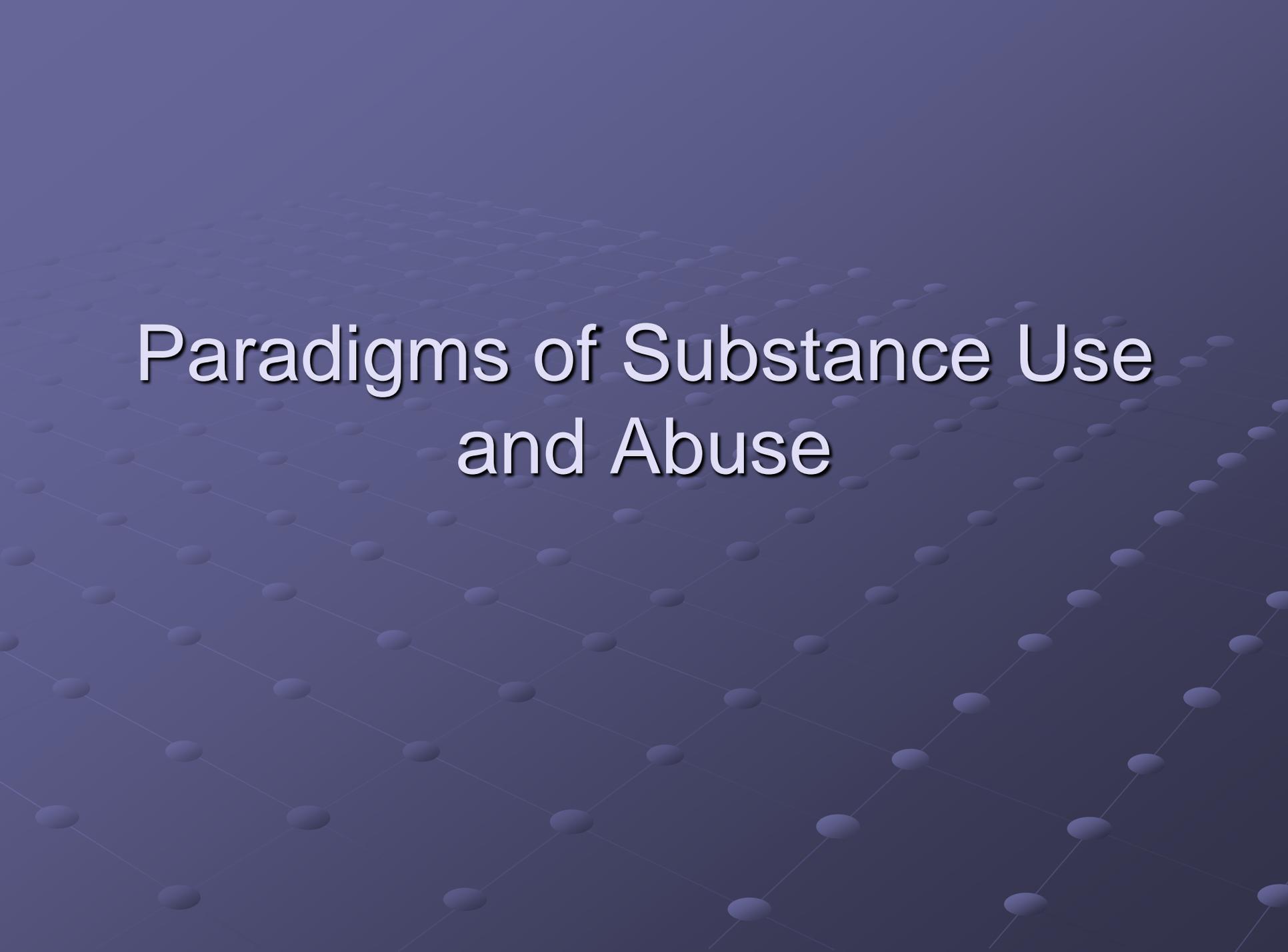


Paradigms of Substance Use and Abuse

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Paradigms of Substance Use and Abuse

What do you experience when
you encounter a substance
abuser?

What do you bring to the
interaction?

A Social Failing?

Or

A Disease?

Disease Defined

- A departure from health of the body and it's function
- Identifiable risk factors
- Known pathophysiology
- Recognizable group of signs and Sxs
- Predictable morbidity ,mortality ,natural Hx
- Responds to Tx

Addiction: A Disease.... or Something Else?

- The impaired model
- The Dry Moral Model
- The Wet Model
- The Wet Moral Model
- **The Chronic Disease Model**

The Impaired Model

- Addicts are flawed in their nature
- They cannot/will not change
- They will always use alcohol or drugs
- They cannot quit, not really
- They will always come back and get sick
- They always come back when I'm on call...

Assume addicts are easily recognizable....

- But....

- 90% function in society and have normal jobs, family, pay taxes...

“Looking good” patients and families

Assume treatment doesn't work...

- Reduces drug use 40-60%
- Decreases criminal behavior up to 50%
- Reduces risk of HIV, Hep C, Hep B by X6.
- Increases employment rates by 40%
- More effective than DM, HTN, or asthma Tx

Assumes treatment not worth it...

- 1 yr methadone \$4,700
- 1 yr Buprenorphine \$3,300-\$7,500
- 1 yr prison \$30-\$40,000+
- \$1.00 in treatment → \$12.00 savings in crime and health care costs

Dry Moral Model

Reagan's.....Just say no!!....

Prohibition

War on drugs

Implication:

- Alcohol and drugs are evil
- People who use are morally weak
- People should be abstinent

The Wet Moral Model

- Every time is the right time for Miller time
- Especially the night, which belongs to Michelob
- Because you know it doesn't get any better than this
- **As long as you know when to say when**

The Wet Moral Model Assumptions

- Everyone can and should use socially
- Social use is good, makes you popular, friendly, socially competent

Wet Model Fallacies

- 12-15% of Americans who try to drink socially will develop alcoholism
- The majority of patients with chemical dependency can never use socially

Disease Re-defined

- A disorder of the body and it's function
- Identifiable risk factors
- Known pathophysiology
- Recognizable group of signs and Sxs
- Predictable morbidity ,mortality ,natural Hx
- Responds to Tx

Known Risk Factors

● Adverse Childhood Experiences (ACES)

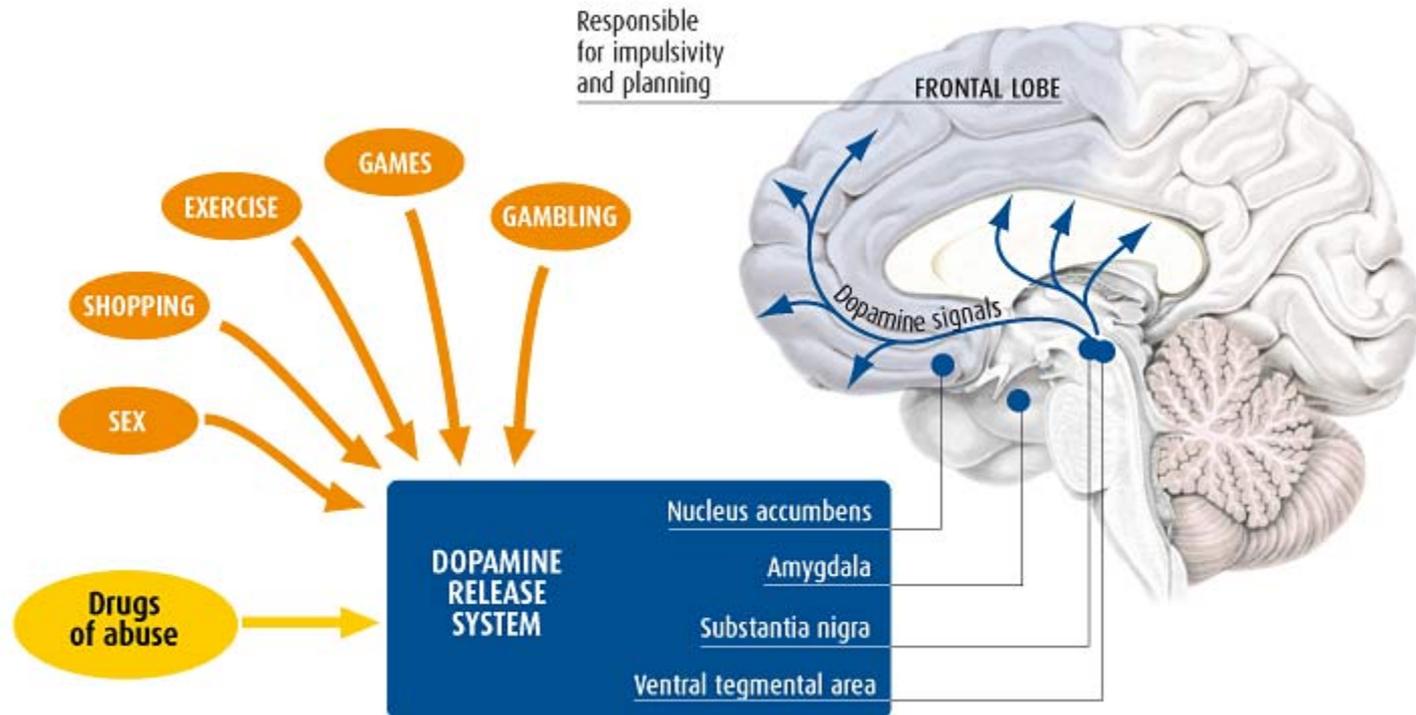
Felliti et al 1998

- Family Hx prevalence studies
- Adoption studies
- Twin studies
- Studies of sons of alcoholics

Neurophysiology “Hijacked Reward System”

THE MANY TRIGGERS OF ADDICTION

Drugs of abuse and excessive behaviours seem to trigger a similar rise in dopamine release in the reward circuits of the brain – a crucial step on the way to addiction



Neurophysiology 101

Endorphins bind Mu receptors on GABA neurons in the ventral tegmental area

- → decrease GABA
- → increased dopamine output in nucleus accumbens
- → Rewards...modulates obsessive thought and impulsivity in the cortex and limbic systems
- → Permanent changes seen in activated MRI/PET scan
 - cognitive impairment

Neurochemistry 103

**All major classes of addictive drugs
work at the same point on these
pathways: the reward pathways-
eating, love, sex, fight or flight**

Recognizable group of Signs and Symptoms

- Tolerance
- Dependence
- Withdrawal
- Continued use despite negative consequences
- Using more than intended
- **Denial (vs short/long term cognitive impairment)**
- Rationalization
- Failure of normal social functioning

Predictable Morbidity and Mortality: Alcohol

- Hangovers
- Increased BP
- Macrocytic anemia
- Hepatitis
- Palmer erythema
- Malnutrition
- Gastritis/ulcers
- Balance problems
- Bleeding
- Cardiomyopathy
- Pancreatitis
- Dementia
- Death

Predictable morbidity and mortality: IV opiates

- Constipation
- Nausea
- Anorexia
- Malnutrition
- Skin infections
- Hepatitis B
- Hepatitis C
- HIV
- Endocarditis
- Brain abscess
- Inadvertent overdose
- Death

Predictable Natural History

Hazardous Use

Increased risk of co-morbidities
and trauma

Progression to abuse

Abuse

Recurrent hazardous use

Continues use despite
medical/social/legal problems

Dependence

Tolerance

Withdrawal

Loss of control over use

Continued use despite
consequences

Use replaces social
obligations/functioning

Death

Not just a disease....

A Chronic Disease

Medical Impact: Alcohol

Those who drink over 2 drinks/day (women), 3 drinks/day (men) at risk for:

- Liver disease
- Cardiomyopathy/Afib
- Stroke
- Cancer
- Accidents/physical injury: 50% all U.S. trauma deaths/nonfatal injuries; 40% MVA, 40% Pedestrians killed

Anderson et al, 1993; Dawson, 2000

Social Impact

Suicide

The major reversible cause for depression

Factor in 30% of completed suicides

Those who drink 2x likely to commit
suicide

Drinking causes work problems → 6x risk
suicide

Economic Impact

U.S. 184,636,000,000/yr:

- Alcohol services
- Medical consequences
- FAS direct costs
- Lost earnings a/w FAS (FAE not included)
- Premature death: lost earnings
- Lost earnings a/w crime/victims
- Crashes/fires /criminal justice

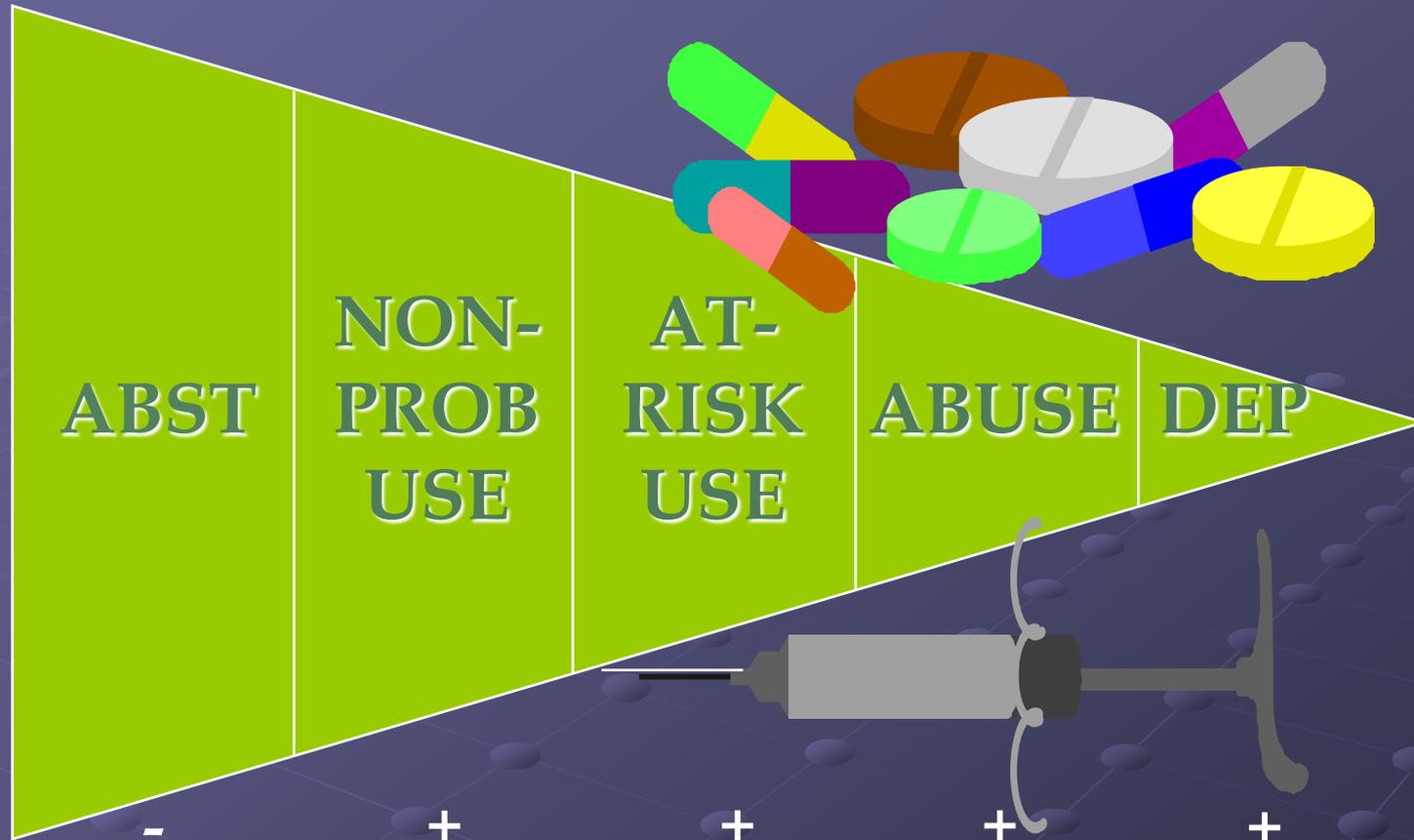
NIAAA 2000

Responds to Treatment

- Reduces drug use by 40-60%
- Methadone (less data buprenorphine) decreases criminal behavior 50%
- Reduces risk of HIV/Hep C infection and spread to community
- Increases employment rates up to 40%
- 50-75% maintain long-term sobriety
- NOT DEAD

Show Unwavering Compassion and Regard for the Patient With This Disease

- Your patient is not immoral.
- Your patient is not weak.
- Your patient is not a loser.
- Your patient is sick and afraid that you will find out and dislike them/fire them.



Use	-	+	+	+	+
Consequences	-	-	-/+	+	++
Repetition	-	-	-	+	+
Loss of control, preoccupation, compulsivity, phys. dep.					+

Let go of our prejudices!

- **No one chooses to be an addict!!!**
- Treat patients who suffer with substance abuse issues with respect they deserve.
- It's a disease where our intervention has greater impact on morbidity, extended length of life, and social costs than our intervention in coronary artery disease
- Act like we care and mean it.