

Substance Use Disorder "Addiction" A Chronic Brain Disease

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1

What you will Learn

- Addiction is a Brain Disease
 - Understand the Structure and Pathways Associated with changes in the brain.
- Prevention and Early Intervention for Substance Misuse/Abuse /Addiction
 - SBIRT as an Evidence Based Model
 - Motivational Interviewing Skills

2

Myths & Misconceptions

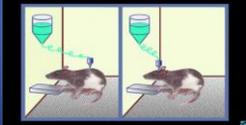
- A person addicted to drugs / alcohol is
 - Bad, crazy, simply stupid
 - Lacking willpower
 - Hopeless
 - Must be punished as a means to force them to change
 - Must reach bottom before they can get help



3

Understanding Drug Abuse and Addiction

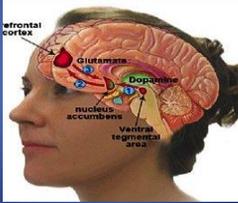
What Science Says



4

A Complex Illness

- Reward Pathways
- Emotional Centers
- Memory Centers
- Perceptions & Judgments



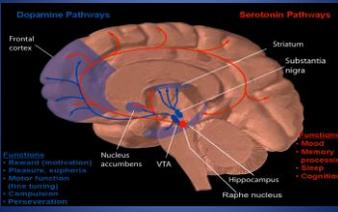
5

Changes in the Brain

- Over Time Addiction causes changes in the brain.
 - Brain Structure
 - Prefrontal Cortex, limbic system
 - Brain Pathways (neural connections)
 - Dopamine pathway, serotonin pathway
 - Brain Chemicals
 - Dopamine, serotonin, endorphin, glutamate

6

Brain Pathways



7

Brain Chemicals

- **Dopamine** – a feel good chemical.
- **Serotonin** – the happy, anti-worry, flexibility chemical.
- **GABA** – an inhibitory neurotransmitter that helps calm or relax the brain
- **Endorphins** – the brains own natural pleasure and pain killing chemical
- **Glutamate** – locks the pleasurable experience into memory



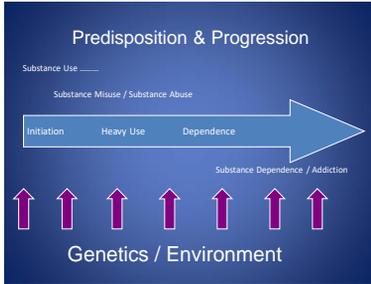
8

The Addiction Cycle & the 4 C's

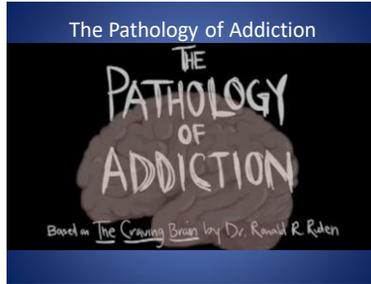
- Craving (dopamine; brain is hard wired to crave rewards)
- Compulsion (low serotonin levels)
- Loss of Control (damage to the prefrontal cortex; right & wrong)
- Continued Use Despite Consequences – further damage to prefrontal cortex (interferes with judgement).



9



10



11

The Disease Model

- Only about 100 years old
- Emerged from Germ Theory
- Organ >>>> Defect >>>> Symptoms
 - Femur > Fracture > Pain/Deformity
 - Pancreas > Insulin Secretion > Symptoms of Diabetes
- Doctors go after the Defect to cure the disease.

12

Is addiction a Disease?

- Disease is a departure from health.
 - Defect (malady)
 - Signs & Symptoms
 - Predictable Natural Course
- Disease – “a disordered or incorrectly functioning organ, part, structure or system of the body.”
 - Specific Outcome if left untreated
 - Risk Factors
 - Early Warning Signs
 - Diagnostic Criteria

13

Signs & Symptoms

- Cravings
- Compulsion
- Loss of Control
- Continued use Despite Consequences
- Tolerance
 - A State in which an organism no longer responds to a drug
 - A higher dose is required to achieve the same effect.
- Withdrawal
 - Manifested as a physical disturbance when the drug is removed (withdrawal)

14

Addiction Progresses in Stages

- ◆ Substance use
- ◆ Substance Abuse (Risky Use)
- ◆ Substance Dependence / Addiction

◆ DSM IV makes a clear distinction between substance abuse / addiction; the pattern of compulsive use is the distinguishing factor.

Initiation ↔ Tolerance ↔ Dependence

Predictable Natural Course

15

Positron Emission Tomography (PET)

control on cocaine

www.drugabuse.gov

16

Risk Factors

General Risk Factors

1. Psychological
2. Behavioral
3. Social
4. Demographic
5. Family
6. Genetics

Stress and Addiction are closely linked.

Increased stress creates a significant increase in risk for addiction.

17

Best Practices Prevention & Early Intervention

Screening, Brief interventions & Referral to treatment

18

Be Pro-Active

1. **Paradigm shift** from traditional view of substance abuse interventions
2. Views Substance Use Disorder as a **public health** issue and focus on risk reduction as well as abstinence
3. Focus on identifying "misuse" early and providing **brief** interventions
4. Is **comprehensive** in it's approach

19

Why screen for substance misuse and provide interventions

- Multiple physical health, emotional, and interpersonal problems are associated with illicit drug use.
- Financial difficulties and legal, work, and family problems can all result from or be exacerbated by drug abuse.
- Personal Injury or injury to others
- Cardiovascular disease
- Stroke
- Cancer
- STD's
- Anxiety
- Depression
- Sleep problems

20

Have the Conversation

10-15 minute interventions

4 Components:

1. Raise the Subject
2. Provide Feedback
3. Enhance Motivation
4. Develop a Plan

- FRAMES
- Feedback
- Responsibility
- Advice
- Menu of Options
- Empathy
- Supporting person's sense of self efficacy

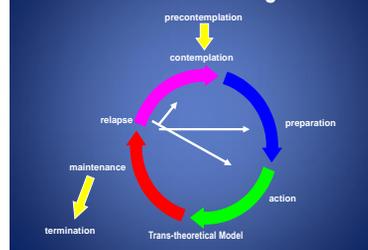
21

Effective Brief Interventions

1. Elicit values and goals
2. Explore discrepancies between current behavior and future aspirations
3. Tailor feedback and advice to address concerns and needs
4. Use reflections and summaries to respond to the person's reasons for considering change target behavior.
5. Identify steps he or she would take, who would help him/her, obstacles and how he/she would know the plan is working.
6. Use Importance/Confidence Readiness Ruler to elicit and reinforce change talk.
7. Monitor person's progress with plan

22

Wheel of change



23

Motivational Interviewing basics

• What is Motivational Interviewing?

a semi-directive, client centered conversation for eliciting behavior change by helping people to explore and resolve ambivalence about change.

Collaboration – Working in Partnership

Evocation – Learning from the person

Autonomy – Person is responsible for own change

24

More About the MI Philosophy

Empowers people to take ownership of their own health management by:

- Providing information respectfully
- Partnering
- Supporting sense of self-efficacy
- Places patient in role as the expert regarding how to change their behavior

25

Basic Assumptions of MI

- Motivation is a state of readiness to change that fluctuates with time and situations.
- Motivation can be increased through interaction.
- The process of making a change often includes mixed feelings*

*Ambivalence is a normal part of the change process.

26

Motivational Interviewing

• The task of the practitioner is to:

- Tap into the person's potential for change
- Guide the natural change process already within the individual
- Impart hope, belief in, and confidence that the person can make desired changes.

27

dance 

don't wrestle 

- avoid direct persuasion
- avoid unsolicited advice
- respect the status quo

Duel Expertise... 

28

Core Motivational Interviewing Strategies

- O.A.R.S.
 - Open-Ended Questions
 - Affirmations
 - Reflections
 - Summarizations
- importance \times confidence = readiness

29

Ambivalence Change...

- Identifying Ambivalence and Finding the Potential for Change...
- Reflections to Address Ambivalence and Promote Change

"I know I should probably not drink so much. I often feel a bit fuzzy the next day, and sometimes I forget things that I need to do. But drinking helps me relax at the end of the day, and it helps me forget my pain."

"So if you could find a way to relax without alcohol, you might feel better."

"Drinking alcohol gets in the way of your doing things that you need to do."

"You're worried that if you don't do something about your drinking, you might forget something really important."

"You're in a lot of pain and need to find a way to make things better."

30

Importance and Confidence Rulers

Importance 

- How important would you say it is to cut back or quit using?
- Why did you pick a ___ and not a (lower number)?
- What concerns do you have about your use?

Confidence 

- If you were to decide right now to cut back, how confident are you that you could succeed?
- Why did you pick a ___ and not a (lower number)?
- What would help you to have a higher number?

31

Assess Ambivalence

	Pros (Good Things)	Cons (Downsides)
Reducing or Stopping Using	It helps me relax I can forget my pain	I forget things that I need to do. Makes me tired; Lack energy and motivation
Using the Same	Would not forget things Would feel better Have more energy	I would feel more pain I would be bored or have nothing to do in the evenings. All guys drink

32

Thank You

Questions
Comments
Discussion



33