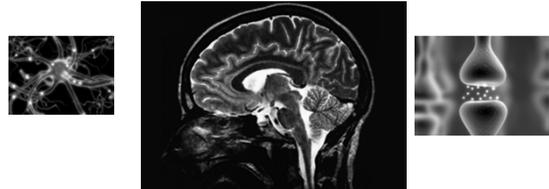


Wisconsin Public Psychiatry Network Teleconference (WPPNT)

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## Brain, Behavior & Addiction

- The Science of Change



## Science Has Generated Much Evidence Showing That...

### Prolonged Drug Use Changes the Brain In Fundamental and Long-Lasting Ways

## Where to Start

What do People in active addiction need?

Myths and Facts:

1. People have to "hit bottom"  
Fact: Motivation to change is easier for brain earlier on the continuum
2. Person needs to accept they are an alcoholic or addict  
Fact: Labeling can actually *increase* resistance because of stigma
3. Addicts need inpatient/residential rehab  
Fact: 1996- ASAM – Start with *least* restrictive treatment that is safe.
4. Addicts are either ready to change – or not.  
Fact: Ambivalence is *normal* – defining feature of ANY major change

Myth and Facts:

5. Addicts need to have their denial broken down (confrontation)  
Fact: Confrontation causes activation of primitive, survival part of brain.

People with Substance Use Disorders consistently respond better with kindness and respectful treatment



## Your Role As Counselor

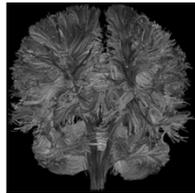
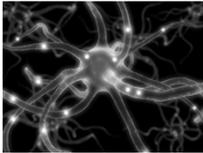
- Help through Recovery Science
- To Move Brain From:

Pro Using to Pro Recovery Patterns of Thinking



### Fundamental Framework

- Where neurons fire together – they wire together!



### So...Addiction:

- Continually fired and *strongly (efficiently)* wired pathways in the brain...
- That reacts to it's environment (Internal and External)....
  - To create powerful emotional “memories” (cue/triggers) at a biochemical level in the part of the brain that drives behaviors for survival.

–Most are unconscious!

- More you (repeat)...positively *or* negatively =
- More efficiently and powerful pathway becomes
- Takes time and practice to break up brain's pathways of strongly wired connections



### So.....Recovery

- Re-establishes balance of Frontal Cortex (Exec. Functioning) and Meso Limbic systems (Primitive)
- Re-establish/Creates healthier pathways (thinking/feeling)
- Foster better decision making

### Understanding the Science is Important for Your Client:

- Understand *biological* factors driving behavior
- Reducing self stigma
- Plan for Recovery Management
- Be Patient

### Fundamental Skills For Long Term Recovery

1. Learn relapse triggers and how to manage them
2. Change destructive thinking/feeling patterns
3. Identify emotional states and manage them  
*All related to changing brain wiring*



### Managing Cravings

- Fundamental Symptom of Early Recovery
- Ways to manage:
  - Avoidance – Sometimes impossible
  - Extinguish – Unpredictable

**Trigger/Craving Plan of Action**

### Craving Crushers

Healing The Addicted Brain

1. Talking about it right away
2. Distraction
3. Flash Cards
4. Stress Management Techniques
5. Visualization

### Flash Cards

List – 10 Positive Things if You Resist Craving  
 “If I Resist Craving”...  
 - 10 Worst Things if you Don’t Resist Craving

3x5 Card – 4 MOST Positive on one side  
 - 4 MOST Negative on other side

Make by hand and make lots of them!

enterhealth | A BETTER WAY to recover.

Daily Trigger Chart				
Situation (Trigger)	Thoughts and Feelings	Behavior	Positive Consequences	Negative Consequences

### Relapse Involves Cues that Trigger Cravings

Examples of external triggers:

- cash
- Fridays
- using “buddies”




### Medical Management And Recovery

- Medical Management
  1. Subutex (Buprenorphine)
  2. Suboxone (Buprenorphine & Naloxone)
  3. Naltrexone – Oral or Vivitrol Naltrexone Injection
  4. Methadone
  5. Campral – Alcohol – Helps brain healing
  6. Gabapentin – Marijuana withdrawal

### Dr. Richard Davidson's Work

- Affective Neuroscience

- Brain Plasticity – ability to change structure and function throughout life
  - Experiences - external
  - Thoughts - internal



- His research shows that:
  - Behavioral interventions are actually

*Biological*

In fact: Behavioral interventions:

Change brain in more targeted and specific ways than pharmaceuticals

*Without all the side effects*



### Dr. Davidson's Research

Mental training (meditators) can strengthen brain activity for:

- Empathy
- Compassion
- Optimism
- Sense of Well-Being



### Other Research on Mindfulness

Benefits from smaller "doses"

1. Thirty minutes five/six days/wk for 2 months
2. 4 min x 4 times.
3. Two weeks
4. Training over the internet

### Generalized Anxiety Disorder

Roemer, Orsillo Clinical Psychology Science and Practice, 2001

Substance Use Disorders and Anxiety and Mood Disorders with drugs and alcohol

NIH News 2004

In Mindfulness we can *work with* old, strongly held connections

Becoming aware when they happen

"Stepping back" (loosening our brain) from: the auto pilot thought/feeling/reaction by non-judgmental awareness

Deciding if the thought, feeling, reaction is helpful to us

- Practice changes neurochemistry to more positive functioning



### Cognitive Behavioral Therapy

- Focuses on Role of **Thinking** in
  - How We Feel
  - What We Do



### CBT

Based on an educational model

- Oppositional to “talk therapy”
- Unlearning old patterns
- Learning/practicing new patterns

Inquiry and debate using opposing viewpoints

Framed around asking and answering questions to stimulate critical thinking

### CBT – Why It Works to Rewire the Brain

Time limited

Agreed upon at first session

Therapist/Client relationship not the focus

Learning skill most important

### CBT and the Brain

**Collaborative effort of “therapist” & client**

**Client’s goals**

**Structured and directive**

**Not with the “what” but the “how”**

Where attention goes, neurons fire.

And where neurons

fire, they can re-wire.

Daniel Siegel, *The Mindful Brain: Reflection And Attunement in the Cultivation of Well-Being* (2007), p. 291

