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
Understand 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!
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.