Integrative Therapies for Relapse Prevention in Opioid Treatment

Loretta Butehorn PhD CCH IHS 2018

In this talk....

- Current understanding of addiction
- Overview of Alternative-Complementary-Integrative Approaches to health and healing in addictive illness
- Post Acute Withdrawal Syndrome (PAWS) and Relapse Prevention
- Integrative Approaches most effective in dealing with PAWS in very early recovery
- Video clips demonstrating physical- energetic- and attitudinal changes stabilizing early recovery
- All citations on Bibliography available with PP

Current understanding of addiction

1972—38 years since the biology of addiction has been understood

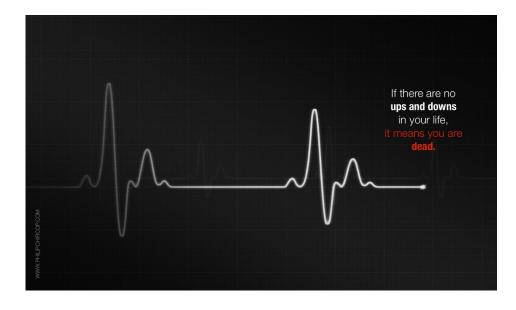
Neurotransmitters

- Candace Pert PhD (1946-2013)
- Neuroscientist and pharmacologist
- Mother of Neuropsychoimmunology
- Molecules of Emotion
- As a Grad student (1972) identified opioid receptor site in brain
- 130+ neurotransmitters
- Dopamine- epinephrine serotonin



Neurotransmitters

- Feel like yourself
- Stress increase/decrease NT's



 Head injury-mental health issues and substance use disorders-all impact same neurotransmitters

Following from <u>Uppers Downers</u> Allarounders, D. Inaba et al 2017

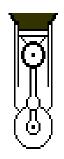
The Relationships Among Neurotransmitters, Their Functions, Street Drugs, Mental Illness and Psychiatric Medications

NEUROTRANSMITTER	NORMAL FUNCTIONS	STREET DRUGS THAT DISRUPT THE NEUROTRANSMITTER	ASSOCIATED MENTAL ILLNESSES	SOME EXAMPLES OF MEDICATIONS USED TO REBALANCE NEUROTRANSMITTERS
Serotonin	Mood stability, appetite, sleep control, sexual activity, aggression, self-esteem	Alcohol, nicotine, amphetamine, cocaine, PCP, LSD, MDMA (ecstasy)	Anxiety disorders (e.g., PTSD, panic disorder, OCD, generalized anxiety disorder), mood disorders (e.g., bipolar disorder, major depressive disorder, depression)	SSRIs (e.g., Prozac,® Zoloft,® Paxil,® Luvox,® Lexapro,® Celexa®); serotonin and SNRIs (Cymbalta,® Effexor®); tricyclic and other antidepressants (e.g., Elavil,® Tofranil®); atypical antidepressants (Desyrel,® Remeron,® BuSpar®)
Dopamine	Muscle tone/ control, motor behavior, energy, reward mechanisms, attention span, pleasure, mental stability, hunger/ thirst/sexual satiation	Cocaine, nicotine, PCP, amphetamine, caffeine, LSD, marijuana, alcohol, opioid	Psychotic disorders (e.g., schizophrenia, schizoaffective disorder); Parkinson's disease	Dopamine antagonists (e.g., Risperdal,® Clozaril,® Zyprexa,® Abilify,® Invega®); anti-Parkinson's or dopamine agonist (e.g., L-dopa, amantadine, bromocriptine, rasagiline, selegiline); some antidepressants (Wellbutrin®)

Psychoactive Drug/Neurotransmitter Relationships

DRUG	NEUROTRANSMITTERS DIRECTLY AFFECTED		
Alcohol	GABA (gamma-aminobutyric acid), met-enkephalin, serotonin		
Benzodiazepines	GABA, glycine		
Marijuana	Anandamide, arachidonylglycerol (2AG), noladin ether, acetylcholine, dynorphin		
Heroin	Endorphin, enkephalin, dopamine		
LSD	Acetylcholine, dopamine, serotonin		
Nicotine	Epinephrine, endorphin, acetylcholine		
Cocaine and amphetamines	Dopamine, epinephrine, norepinephrine, serotonin, acetylcholine		
MDA, MDMA	Serotonin, dopamine, epinephrine, norepinephrine		
PCP	Dopamine, acetylcholine, alpha-endopsychosin		

Metaphor of Addiction



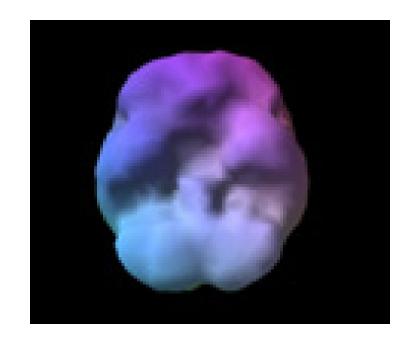
Our NT "pump" shut down by "look alike" molecules (addictive substances)—

Message body gets is --don't produce NT body is using "foreign imports"—

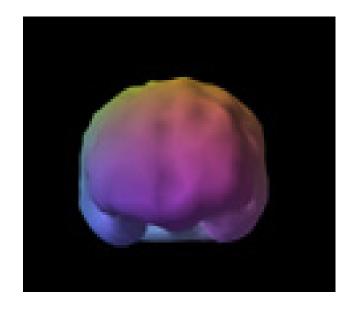
"Out source-ing" creates addiction



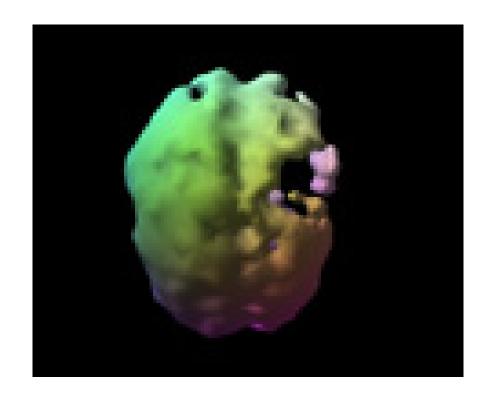
Healthy Brain

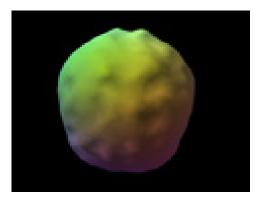




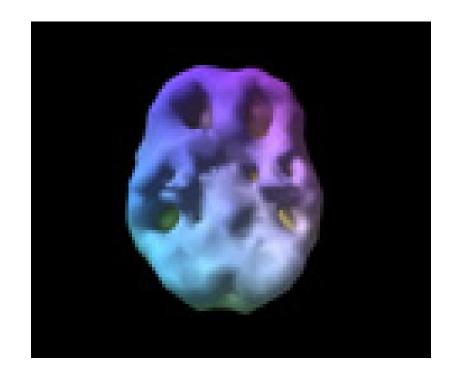


Head trauma

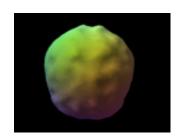




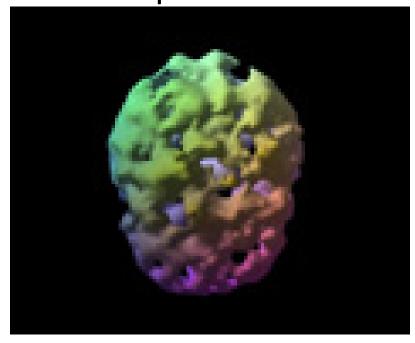
depression



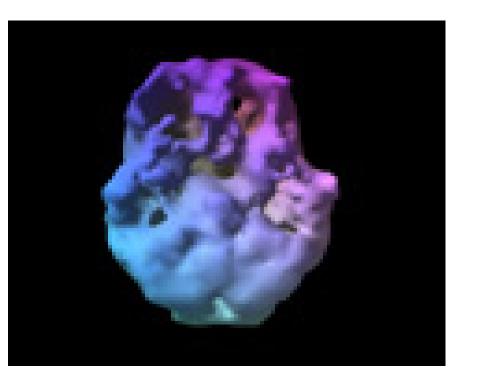




Schizophrenia





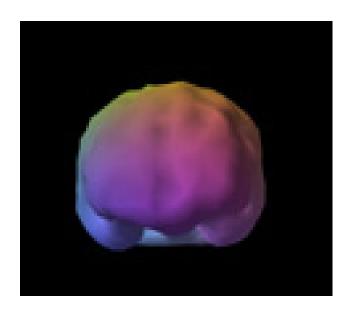




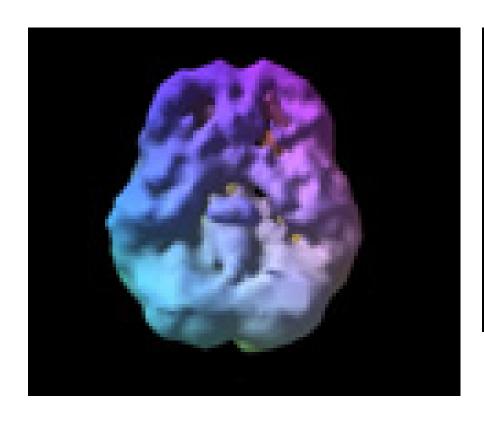


39 yr old-25 yr heroin use





10 yr weekend pot use





All brain slides shown and more

Can be found at Brainplace.com Work of Daniel Amends MD

So what happens when a person with an addiction stops using???

Immediate symptoms of drug withdrawal

- Nausea
- Vomiting
- Diarrhea
- Shakes
- Body pain-spasms
- Can include: seizures, hallucinations, multiple physical and emotional responses
- SEVERE cravings
- If severe enough withdrawal can cause death (alcohol and benzodiazepines)



The major goal of medical detoxification is to avoid seizures and a special state of delirium called delirium tremens (DTs) with aggressive use of the primary detoxification drug. Death and disability may result from DTs or seizures without medical care.

Not all addictive drug withdrawal is life threatening but extremely difficult nonetheless.

Other medications used as needed in detox

- Barbiturates
- Anticonvulsants
- Beta blockers/alpha adrenergic agonists
- Antipsychotics
- Relapse prevention agents
 :Suboxone:Buprenorphine / naloxone,
 Subutex, Vivatrol



Treatment for addiction

- Detox-period for addictive drugs use 3-5 days
- Use of other drugs (benzodiazepines: Valium, Ativan etc) to stabilize the body
- Gradual withdrawal of benzo's
- Allowing body neurotransmittic system to gradually rebuild
- PAWS- days-weeks-month these are the symptoms experienced while NT system rebuilding



NCCIH Integrative Medicine

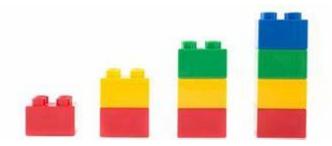
There are 5 domains of alternative/complementary/Integrative medicine:

- -Alternative systems: homeopathy/acupuncture/Traditional Chinese medicine
- -Mind body: spirituality/meditation/prayer/cognitive approaches/visualization/12 step work/DBT/EMDR/group work
- -Biologically based: supplements/nutrition/herbal
- -Body based: Yoga/Tai Chi/Feldenkrais method/exercise
- -Energy medicines: EFT/Reiki/music/homeopathy



Integrative Approaches <u>at different stages</u> of treatment

- Detoxification: acupuncture, herbal, homeopathy
- PAWS: Consciousness, acupuncture, homeopathy, imagery, yoga, tai chi
- Rehabilitation: full range of integrative approaches
- Relapse Prevention: full range



PAWS (Post Acute Withdrawal Syndrome)

- Severe cravings for any drug which causes addiction
- Irritability, agitation
- Nausea, diarrhea, sleep disturbance
- Memory disturbance
- If you have ever had a craving for chocolate multiply that physical-emotional experience by 1000 and you might get the idea of what client is experiencing

Relapse rates and characteristics

Deaths from Opioid Overdoses MA

- •143 deaths a day in US in 2015
- 2017 4 deaths a day in MA
- Between 2000 and 2013 death rate had increased 273%

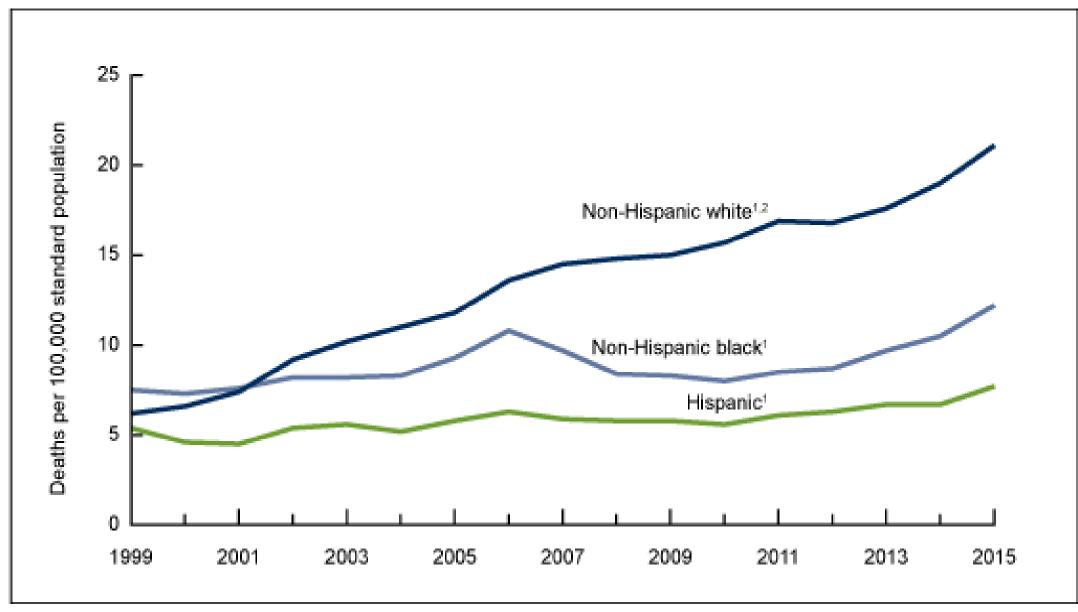
-CDC • National Center for Health Statistics • National Vital Statistics System 2017

Biggest risk group

- According to CDC report released Nov 2017—adults between 45-54
- -CDC National Center for Health Statistics National Vital Statistics System 2017
- 4 out of 5 people addicted to opioids started off using prescribed painkillers
- -Boscarino JA, Rukstalis M, Hoffman SN, et al. Risk factors for drug dependence among out-patients on opioid therapy in a large US health-care system. Addiction 2010;105:1776–82. http://dx.doi.org/10.1111/j.1360-0443.2010.03052.x
- 2012 Wall St Journal published "Pain as the Fifth Sign"

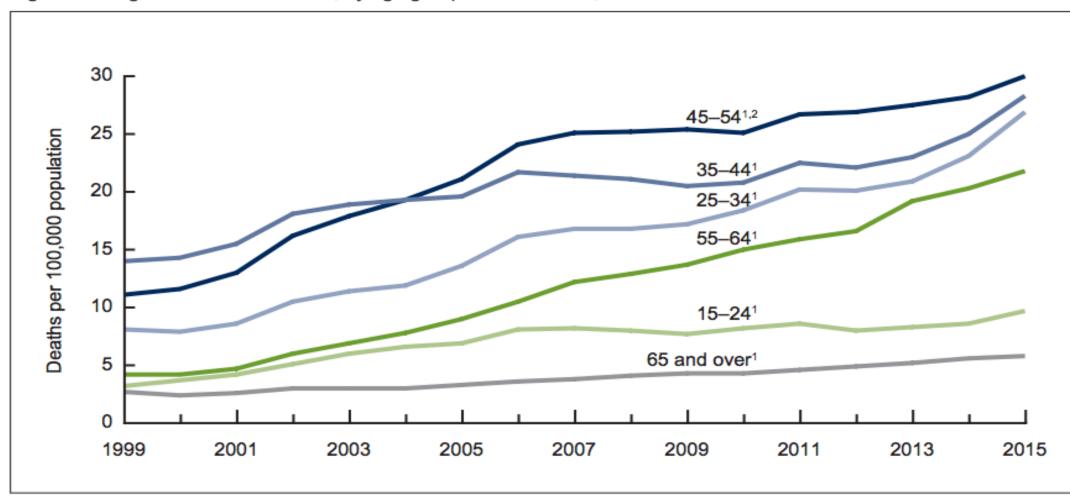
-Wall Street Journal (US)Copyright: 2012 Dow Jones & Company, Inc. Dec 15,2012 Thomas Catan and Evan Perez

- •Centers for Disease Control and Prevention,
- National Center for Injury Prevention and Control,
- Division of Unintentional Injury Prevention



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Figure 2. Drug overdose death rates, by age group: United States, 1999–2015



Significant increasing trend, p < 0.005.

NOTES: Deaths are classified using the International Classification of Diseases, Tenth Revision. Drug overdose deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Access data table for Figure 2 at: https://www.cdc.gov/nchs/data/databriefs/db273_table.pdf#2.

²Rate for age group 45–54 in 2015 was significantly higher than for any other age group, p < 0.001.

Several reasons

- Lack of patient and often doctor education on addiction
- Less experienced users
- Purer more plentiful drugs
- Potent drug combos
- Multiple drug use as norm on the street
- Shorter treatment protocols
- AND I think—lack of client awareness that physical symptoms of withdrawal intermittent and lengthy: PAWS

PAWS: Post Acute Withdrawal Syndrome

PAWS

- •1959-Wellman-"protracted withdrawal syndrome"
- •1979 Kessin et al can last 6 months-2 year
- 1985 DeSoto, O'Donnell, Allred and Lopes detailed symptoms and that they are intermittent
- •1986 Miller and Gorski-relapse prevention

Complete citations: PAWS

- Wellman et al Late Withdrawal of Subjects with Alcohol Addiction, 1954, Can Med Ass J 70:526
- Kessin et al Acute Effects of Ethyl Alcohol on Certain Physiological Functions in Alcoholics, 1959 Quar J Study Alco, 20:480-492
- DeSoto et al Symptomology in Alcoholics at Various Stages of Abstinence, 1985, **Alco Clinical and Exper Vol 9**,

•

Withdrawal: Acute and Protracted

- Acute withdrawal-typically detox days to weeks for some drugs like benzoes
- Protracted/Extended withdrawal: PAWS

- -Wellman et al Late Withdrawal of Subjects with Alcohol Addiction, 1954, Can Med Ass J 70:526
- -Kessin et al Acute Effects of Ethyl Alcohol on Certain Physiological Functions in Alcoholics, 1959 **Quar J Study** Alco, 20:480-492
- -DeSoto et al Symptomology in Alcoholics at Various Stages of Abstinence, 1985, **Alco Clinical and Exper Vol 9**,



- Post-acute withdrawal occurs because your brain chemistry is gradually returning to normal. As your brain improves the levels of your brain chemicals fluctuate as they approach the new equilibrium causing post-acute withdrawal symptoms.
- At first acute symptoms especially cravings
- Then a protracted Roller coaster-out of blue- sudden onset-can last up to 2 years

Imagine.....

Post Detox and PAWS

- **Physical** : cravings-symptoms
- **Mental**: obsessions-fixations
- Emotional: irritability-resentment-highs and lows
- Spiritual: disregard-cynicism -distain
- Consciousness: blankness-lack of awareness



To

When recovering gradual changes in symptoms

- Physical: ease-return of appetite-sleep-well being
- Mental: clarity-memory-decision making capacity
- Emotional : equilibrium-emotions appropriate to event-evenness
- Spiritual: wonder, gratitude, ability to experience awe
- Consciousness: being present-noticing-choosing different behaviors

Most clients

- Expect to feel better soon
- Are not aware of PAWS
- Are not aware of their relapse history and pattern
- Leave a 3-5 day detox back to a VERY stressful life: anxious family, probation, court, child protective, health issues, job issues
- How do we help them prepare for their personal protracted withdrawal?

Client awareness

• Of sixty five clients interviewed over past year for this talk

76%

- a. had never heard of PAWS
- b. did not know it was intermittent
- c. Did not know it could last 6month-2 years
- 81% had never done a relapse history
- 96% had multiple detoxes, relapses and using multiple drugs

The most significant "alternative" strategy

• AWARENESS-CONSCIOUSNESS......being aware....seeing...knowing... "AHA!"....a wake up....light dawning....



Experience based neuroplasticity: Thinking changes grey matter:

Immaterial mental activity maps to material neural activity.

This produces temporary changes in your brain and lasting ones.

Temporary changes include:

- Alterations in brainwaves (= changes in the firing patterns of synchronized neurons)
- Increased or decreased use of oxygen and glucose
- Ebbs and flows of neurochemicals

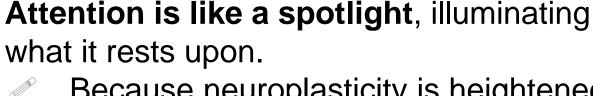


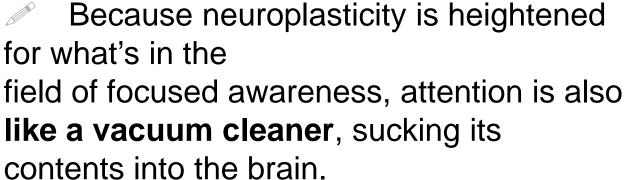
What flows through the mind sculpts your brain. Immaterial experience leaves material traces behind.

- Increased blood/nutrient flow to active regions
- Altered epigenetics (gene expression)
- "Neurons that fire together wire together."
- Increasing excitability of active neurons
- Strengthening existing synapses
- Building new synapses; thickening cortex
- Neuronal "pruning" "use it or lose it"



Self directed neuroplasticity





Directing attention skillfully is therefore a fundamental way to shape the brain - and one's life over time





Relapse prevention framework for client

- What is my relapse history and pattern
- Acknowledging PAWS—what are my specific symptoms of physical recovery
- **Developing tools and strategies** to cope with life on life's terms-with emphasis on the range of adjuncts from the complementary/integrative field
- Monitoring my stability
- That recovery is a step by step process: Acceptance of my condition-Repairing damage to self and others- Helping other people

A framework because



- Client's access to a healthy and fully functional prefrontal lobe has been sidetracked and impaired by high jacked neurotransmitters
- A large majority of clients have trauma histories which influence their information processing and memory
- A step by step, **muti sensory approach**, with frequent repetition is needed for pattern change:
- -debriefing
- -awareness
- -new skills-practice
- -reinforcement-practice



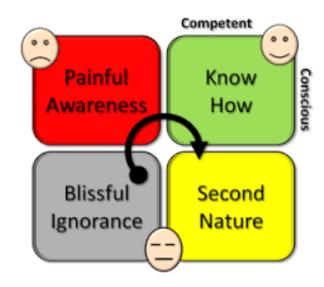
Skill development

- Unconscious incompetence
- Conscious incompetence
- Conscious competence
- Unconscious competence

-attributed to Maslow

Developed by Noel

Burch at Gordon Training International CA



Quality of Life Changes During Treatment (Bell et al. 2003)



Freedom/ Unstuckness	Coping	Creativity
Adaptiveness	Emotional	Energy
Dreams	Life Changes, Lifestyle	Mental Functioning
Memory	Perception by Others	Physical Generalities
Physical Functioning	Specific Personal Perception	Relationships
Sleep	Spiritual Function	Global Well- being

The new "normal"

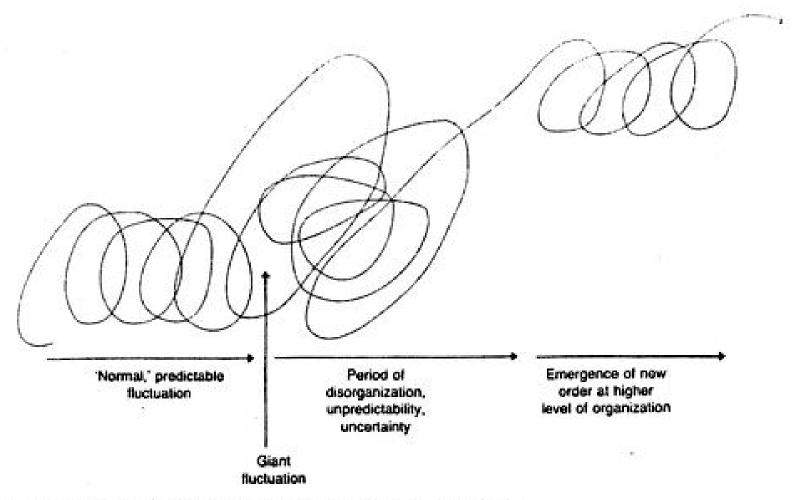
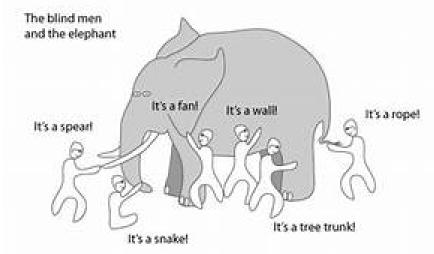


Figure 3.2 The process depicted by Prigogine's theory of dissipative structures.

Our Paradigms are filters collecting

- 600 billion pieces of sensory data per second
- 2000 per second can be noticed consciously
- 60 per second if trying to pay attention
- We create filters to "catch" what we pay attention to: expectationsprejudices-attributions-worries-strong preferences



If brain has been high jacked by drugs

- Both mind and body are focused on
- -Craving for relief...without intervention
- Relapse inevitable.....



Tools for helping brain and skill grow

General factors: See clearly.
 Have compassion for yourself.
 Take life less personally. Take in the good. Deepen equanimity.

Approach system

- Be glad.
- Appreciate your resources.
- Give over to your best purposes.

Attach system

- Sense the suffering in others.
- Be kind.
- Act with unilateral virtue.

Avoid system

- Cool the fires.
- Recognize paper tigers.
- Tolerate risking the dreaded experience

-From the work of R. Hanson PhD

Dialectic thinking and Integrative Medicine

- Holistic view of medicine=whole is greater than sum of its parts
- In complex systems (i.e. the mindbody) small shifts can create system wide changes

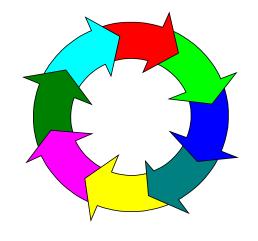


DBT: Dialectic Behavioral Therapy

- Group and Individual Therapy
- Approach, Theory & Structure
- Science Based
- Array of cognitive-behavioral strategies
- Melding of Eastern & Western Psychologies

CORE

- Problem solving
- Exposure techniques
- Skill training
- Contingency management
- Cognitive modification
- -Lenihan, <u>Dialectical Behavioral</u> <u>Therapy</u>, 2010



Approaches **Most Useful** with **PAWS** and Relapse Prevention

Acupuncture-Cognitive Therapy-DBT-Herbal-Homeopathy- Self Help-Tai chi-Yoga

- Because they can sooth the cravings and allows for enough comfort to develop greater awareness-consciousnessmindfulness
- Being physically comfortable is the first step
- Paying attention (awareness/mindfulness/consciousness) is the second step in relapse prevention

Herbal: Ibogaine

- Class One Drug in US-Not a legal substance
- Research moving forward—May 2017 NY
 University School of Medicine-Brown and Alper
- Legal in Canada, Mexico, UK, South Africa and the Netherlands
- Long term craving reduction, elimination

Tabernanthe iboga or simply iboga is a perennial rainforest shrub and psychedelic, native to western Central Africa. Iboga stimulates the central nervous system when taken in small doses and induces visions in larger doses. In parts of Africa where the plant grows, the bark of the root is chewed for various pharmacological or ritualistic purposes. Ibogaine, the active alkaloid, is also used to treat substance abuse disorders and depression



Research supporting all therapies for reducing PAWS in accompanying bibliography

Homeopathy

One picture is worth a thousand words

Three common sound bites

Must be placebo

Too small a dose to "do" anything

• There is no research



ALL Incorrect.....

Is it placebo?

Replace use of antibiotics in livestock



Altern Ther Health Med. Homeopathy versus antibiotics in metaphylaxis of infectious diseases. 1999. Albrecht H, Schutte A. PMID 10484832

Homeopathy worked better than placebo,, at preventing URIs, a common problem in piglets raised commercially.

Recent study of laboratory mice and anxiety

- Comparing use of Diazepam (Valium) and Gelsenium (homeopathic made from Jessamine plant)
- Significant reduction in anxiety with homeopathy-superior to Valium results

Homeopathic Doses of Gelsemium sempervirens Improve the Behavior of Mice in Response to Novel Environments

Evidence-Based Complementary and Alternative Medicine, Vol 2011 Art ID 362517. Paolo Bellavite, 1 Paolo Magnani, 1 Elisabetta Zanolin, 2 and Anita Conforti Department of Morphological Biomedical Sciences (Chemistry and Microscopy Section), University of Verona, Verona

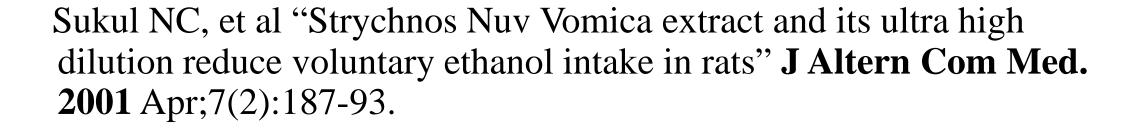
Babies and children respond to homeopathy

- Jacobs, J., et al. (2003). "Homeopathy for childhood diarrhea: combined results and meta-analysis from three randomized, controlled clinical trials." The Pediatric Infectious Disease Journal 22(3): 229-234.
- Jacobs, J., et al. (2006). "Homeopathic combination remedy in the treatment of acute childhood diarrhea in Honduras." **Journal of Alternative and Complementary Medicine** 12(8): 723-732.



Animal studies

- Controlled study rats and alcohol
- 15 day protocol
- Choice of alcohol and non alcohol bottles
- Significantly reduced alcohol intake rats having Nux





Is it really too small a dose?

Nano medicine

• A nanometer is one-billionth of a meter, too small even to be seen with a conventional lab microscope.

• As part of the <u>National Institutes of Health (NIH) Common Fund</u> [nihroadmap.nih.gov], the <u>NIH</u> [nih.gov] has established a handful of nanomedicine centers. These centers are staffed by a highly interdisciplinary scientific crew, including biologists, physicians, mathematicians, engineers and computer scientists. Research conducted over the first few years was spent gathering extensive information about how molecular machines are built.

Luc Montangier MD: 2008 Nobel Prize 2008 for discovering AIDS virus

- Demonstrated Ultrahigh dilutions of an HIV drug affect the virus through electromagnetic signaling even when diluted beyond Avogadro's number
- "I can't say that homeopathy is right in everything. What I can say now is that the high dilutions (used in homeopathy) are right. High dilutions of something are not nothing. They are water structures which mimic the original molecules."

-Science Dec 2010

There is no research—REALLY?

Research reminder:

- Research does not prove-only provides support for a hypothesis
- For any topic one gets both successful and unsuccessful results-no single piece of research "proves" or "disproves"
- There is a difference between efficacy and effectiveness:
- Efficacy can be defined as the performance of an intervention under ideal and controlled circumstances, whereas effectiveness refers to its performance under 'real-world' conditions.
- RCTs determine efficacy
- Comparative or other non RCT studies determine effectiveness



Homeopathy Research Data Base

- American Institute of Homeopathy: Since 1844 The Voice of the Homeopathic Medical Profession www.homeopathyusa.org released in 2017 has a 6000 research database compiled by Drs Iris Bell, Peter Fisher and researcher Peter Gold.
- National Center for Homeopathy <u>www.homeopathycenter.org</u> has educational videos and consumer friendly data base
- Sept 2017 George Washington University's School of Medicine hosted a 90 minute research webinar on homeopathy featuring Drs. Bell and Fisher.

Here is the link: https://youtu.be/BKAhgHolG9c

Homeopathy for PAWS

- Since 2006 in 3 different programs a simple homeopathic protocol reduced PAWS symptoms 87% (n=901)
- Program one completed program 66% H vs 33% NH
- Program two completed program 64% H vs 36%NH
- Program three: Relapse rates/leaving treatment AMA was 40% non H versus 24% H

Homeopathic protocol: Nux vomica 3 pellets in 8 oz water-using as need for cravings—typically 1-3 doses for effectiveness.

Butehorn et al April 2016 International Jour of Com/Alt Medicine- peer reviewer-

Homeopathy

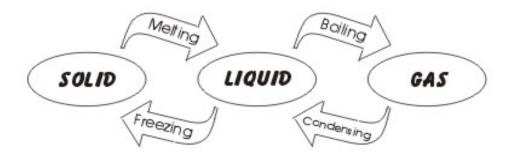
Built on ideas of Hippocrates, Paracelsus and other giants of medical history Hahnemann a German MD postulated:

- That is was shifts in person energy "state" that created illness
- Using small doses of natural materials (nano doses) of -plantsminerals-animal substances (i.e. mammal milk) that might have created the malady (like cures like) to shift
- The "state" of a person to a healthier place

Video cases:

What is a **state**

- Complex of cognitive-emotional-espoused values characteristic energy which manifests as this person we experience.....
- "State" can shift due to illness-trauma-strong response to an event

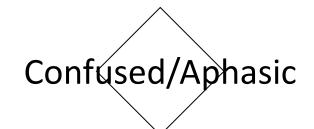


Acute rx of PAWS to rx of the "state"

- After treating clients for acute symptoms of PAWS
- Did workup on underlying "state" depressiongrief-guilt
- Never well since.....

For example: Jane

Client comes in for depression. Is having trouble concentrating at work, forgetting words, phone numbers. Very weepy, weeps telling you about breakup of current relationship-alcoholic husband who has run off with girlfriend. Can't believe this could happen to her-she has always been a good wife. Has gone to Alanon which she finds helpful. Doesn't know how she will make it without him!



Feels abandoned weeps telling her tale

Changeable symptoms

Jane



Codependent/wants sympathy







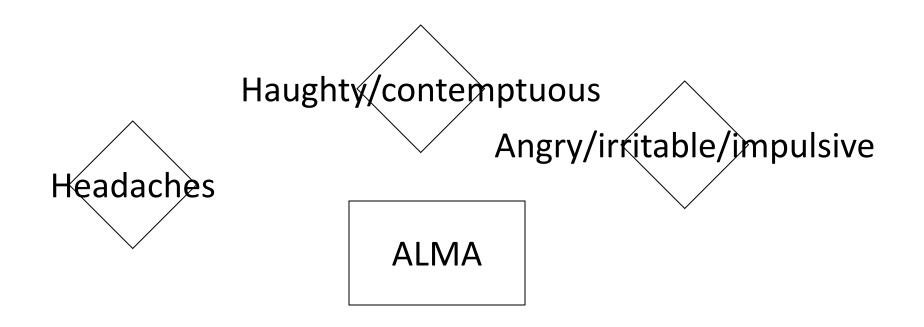
Pulsatilla/Windflower

Seeing own specialness
Deserves goodness from others



Alma

Alma comes in with an agitated depression, headaches, can't get to work. Can't sleep- angry- wants to kill her husband "the son of a b---" who ran off with some "floozy." Had an affair last year but that didn't count as he didn't know about it. Is very impulsive and flirtatious and has always been a "sexual animal." He on other hand always been a wimp! So angry she cries; tells rx not to give that stupid sympathy-it won't help; furious with daughter who is "her father's daughter," and doesn't blame him for leaving.



Either/or world And I am right

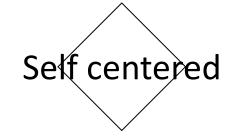
Sexual animal Aggravated by sympathy







Platina



Superior
Sexual
Aversion to own family

What homeopathy can do

- Reduce PAWS for early recovery
- Provide **non liver affecting treatment** for life's common maladies (colds, flus, menses, headaches etc...)
- Professional treatment for overall medical issues (HIV-Hep C-Diabetes- etc)
- Adjunct and/or primary treatment for mental health conditions
- Palliation during chemotherapy
- Rebalancing overall "state" of client: physical-psycho-social-spiritual
- Motivates clients to seek treatment

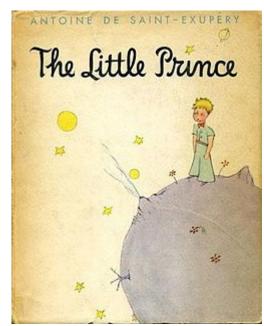
In summary

- Help clients clearly understand PAWS and prepare for "roller coaster of symptoms" with coping tools
- Use multi-sensory teaching and practice remembering you are dealing with an impaired brain which can be re wired with practice
- Do a **relapse history** with clients to alert them to their personal pitfalls
- In early recovery Consciousness/Mindfulness-Tai Chi-Acupuncture-Yoga-Imagery and Homeopathy are the most useful integrative approaches
- Consider using the simple protocol of homeopathic Nux vomica in water as needed as for severe cravings to minimize immediate relapse
- Remember consciousness of the most valuable tool of the entire alternative/complementary/integrative tool kit.

A rose or a recovery

"Life as we have seen again and again is one of those phenomena that cannot be explained in reductionist terms. One could never grasp the essence of the rose by saying that it is composed of atoms and molecules. The emergence approach to understanding the essence of the rose would be to consider its ontogeny (development) pausing at each level of growth complexity in order to study its corresponding emergent properties—from the formation of the various flower cells, to the interaction between all these cells and up to the characteristics of the complex organs such as petals and stems including odor and color. We would then consider the rose as the final flowing of all its emergent properties." p181 Capri and Luisi 2014 Systems View of Life

 "it is the time you have wasted on your rose that makes your rose so important" –de Saint Exupery



Thank you



