

The Nexus of Anxiety and Substance Use: Motivational Interviewing for Behavior Change

Anxiety and Depression Conference 2014

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No Disclosures

Off label disclosure (do my best)

References (a little funky)

Too many slides– (fast talker-slide emphasis)

--other disclosures??

Anxiety and Substance Use

Educational Objectives:

1. Apply chronic illness model of addiction
2. Describe different interactions
3. Use motivational interviewing techniques
4. Assess medication prescribing

Anxiety and Substance Use

Session Outline

- Chronic Illness model of substance dependence
- Basics of co-occurring disorders (COD)
- Interactions—Substance use and anxiety
- Motivational interviewing
- Medication treatment

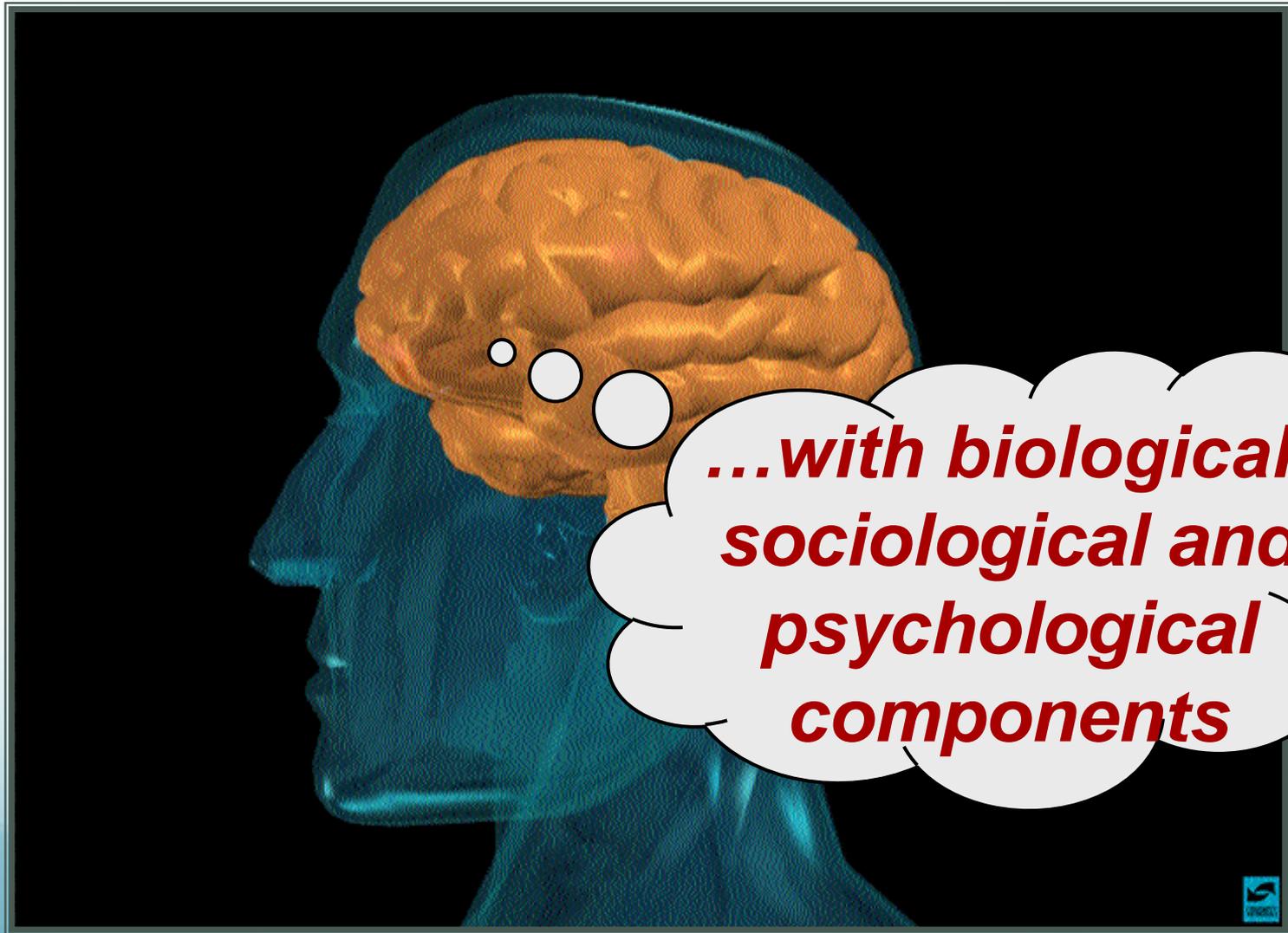
About Me

- Psychiatric Residency in San Francisco
- Child Psychiatry (1980)—Addiction Psych
- CA, HI, IN, IL, GA
- Marin Phobia Center (1985)
- Co-occurring Disorders
- NMH-NMFF—Dir. Addiction Psych (2002)
- Illinois DHS-DASA medical director
 - SBIRT Brief Intervention training

About YOU

- **Who (among you) are *prescribers*?**
- **Work mostly with adolescents?**
- **Specialty trained to treat SUD?**
- **Specialty trained—other?**
- **Have had training for Motivational Interviewing?**
- **Certified MINT trainer?**
- **Traveled here from another State?**

Addiction is a Complex Illness



*...with biological,
sociological and
psychological
components*

BIO-PSYCHO-SOCIAL RISK FACTORS

BIOLOGICAL

- GENETIC VULNERABILITY – (TWIN STUDIES)
- PHARMACOKINETICS - FASTER IS WORSE
- DEPRESSION

PSYCHOLOGICAL

- EXPOSURE TO TRAUMA
- INADEQUATE PARENTING/ GUARDIANSHIP

SOCIAL/ENVIRONMENTAL

- PEER INFLUENCES
- POVERTY
- ACCESS TO DRUGS

Theories of Addiction

- Spiritual/possession
 - “Rum and spirits”
 - Sometimes behavior of someone with addiction seems more like an animal than a human
- Moral failing
 - Weakness or “lack of moral fiber”
 - Inability to cope or handle stress except with use
 - Demonization of addicts
 - Spiritual health a key to recovery from addiction
- Medical Model—agent, vector, susceptible host: healed with medical treatment
- Chronic Health Condition
 - Disease management
 - Holistic and global health

Addiction

- A chronic but treatable brain disease characterized by
 - loss of control
 - compulsive use
 - use despite known harm
 - relapse

DRUG DEPENDENCE, A CHRONIC MEDICAL ILLNESS

- Usual (medical) approach to addiction takes perspective of drug dependence as an acute and curable condition
- Perhaps more like a chronic illness such as diabetes, hypertension, asthma
- A change in perspective, treatment strategies and outcome expectations

O' Brien CP, McLellan AT. Myths about the Treatment of Addiction (1996). The Lancet, Volume 347(8996), 237-240.

CHARACTERISTICS OF CHRONIC ILLNESS

- Diagnosis
- Heritability
- Etiology
- Pathophysiology
- No reliable cure
- Requires long term continuing care with components of education, counseling and medication

THE NATURE OF CHRONIC ILLNESSES

- Chronic illnesses are *progressive*
- *Get worse* if left untreated
- Symptoms *ebb and flow* over time
- Chronic illnesses often *lead to other illnesses*

- Often improve when treatment is followed;
- Get worse when treatment is discontinued.

CHARACTERISTICS OF CHRONIC ILLNESS

p Treatment adherence and poor outcomes associated with

ã low socioeconomic status

ã lack of family and social supports

ã psychiatric comorbidity

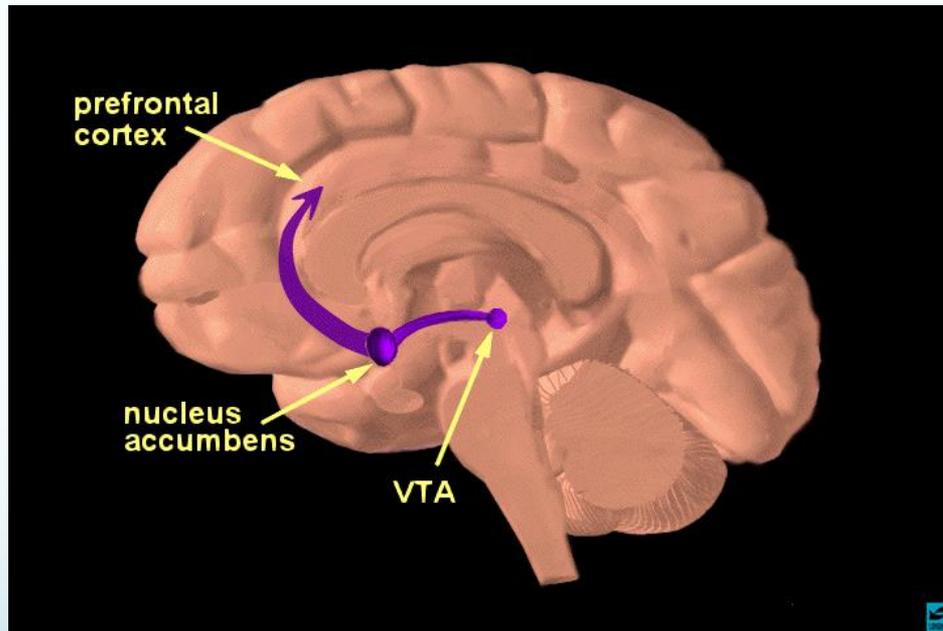
p Relapse rates similar for these chronic illnesses

Addiction/Chronic Illness

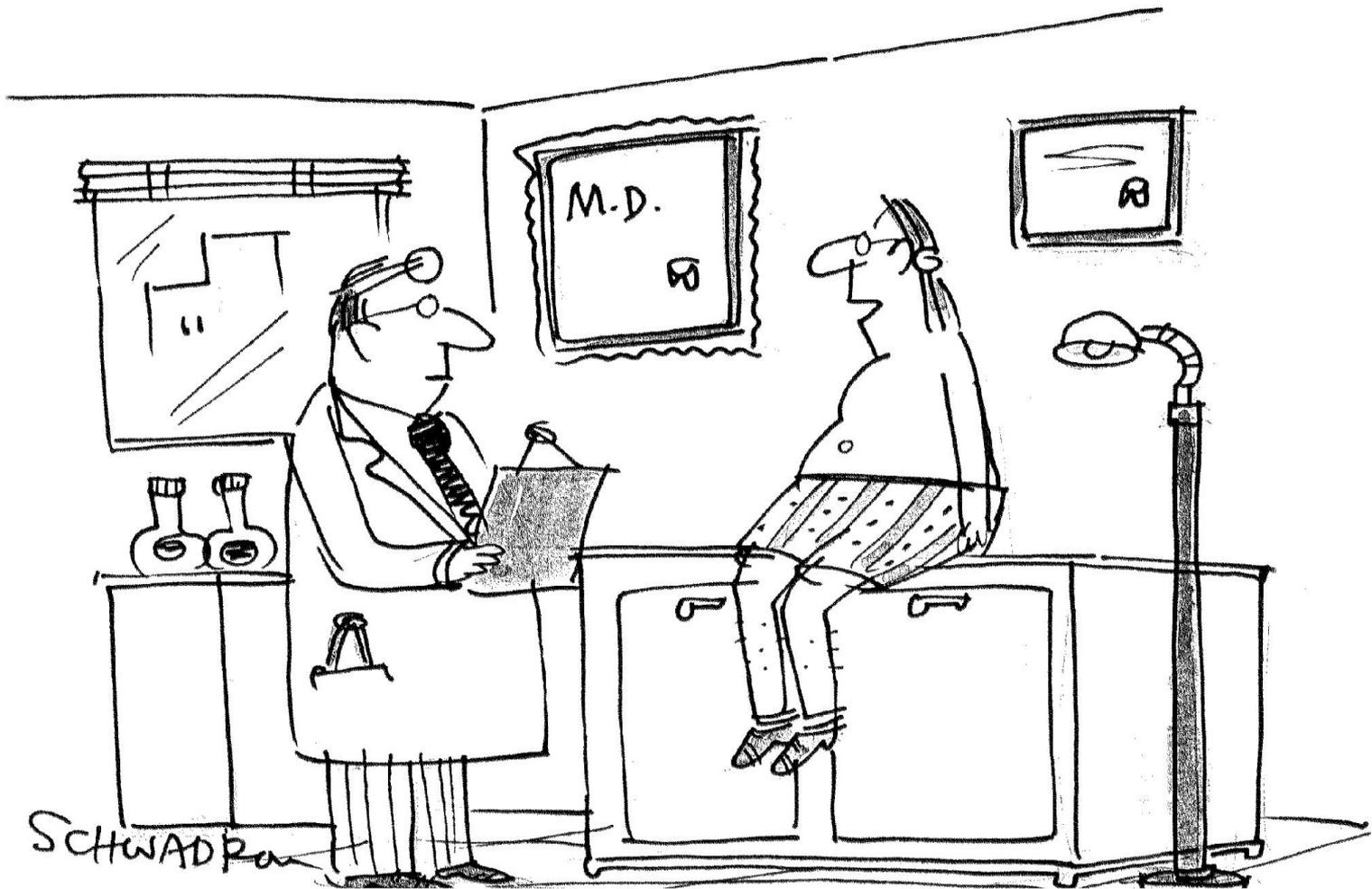
Addiction/Chronic Illness	Compliance Rate (%)	Relapse Rate (%)
Alcohol	30-50	50
Opioid	30-50	40
Cocaine	30-5	45
Nicotine	30-50	70
Insulin Dependent Diabetes		
Medication	<50	30-50
Diet and Foot Care	<50	30-50
Hypertension		
Medication	<30	50-60
Diet	<30	50-60
Asthma		
Medication	<30	60-80

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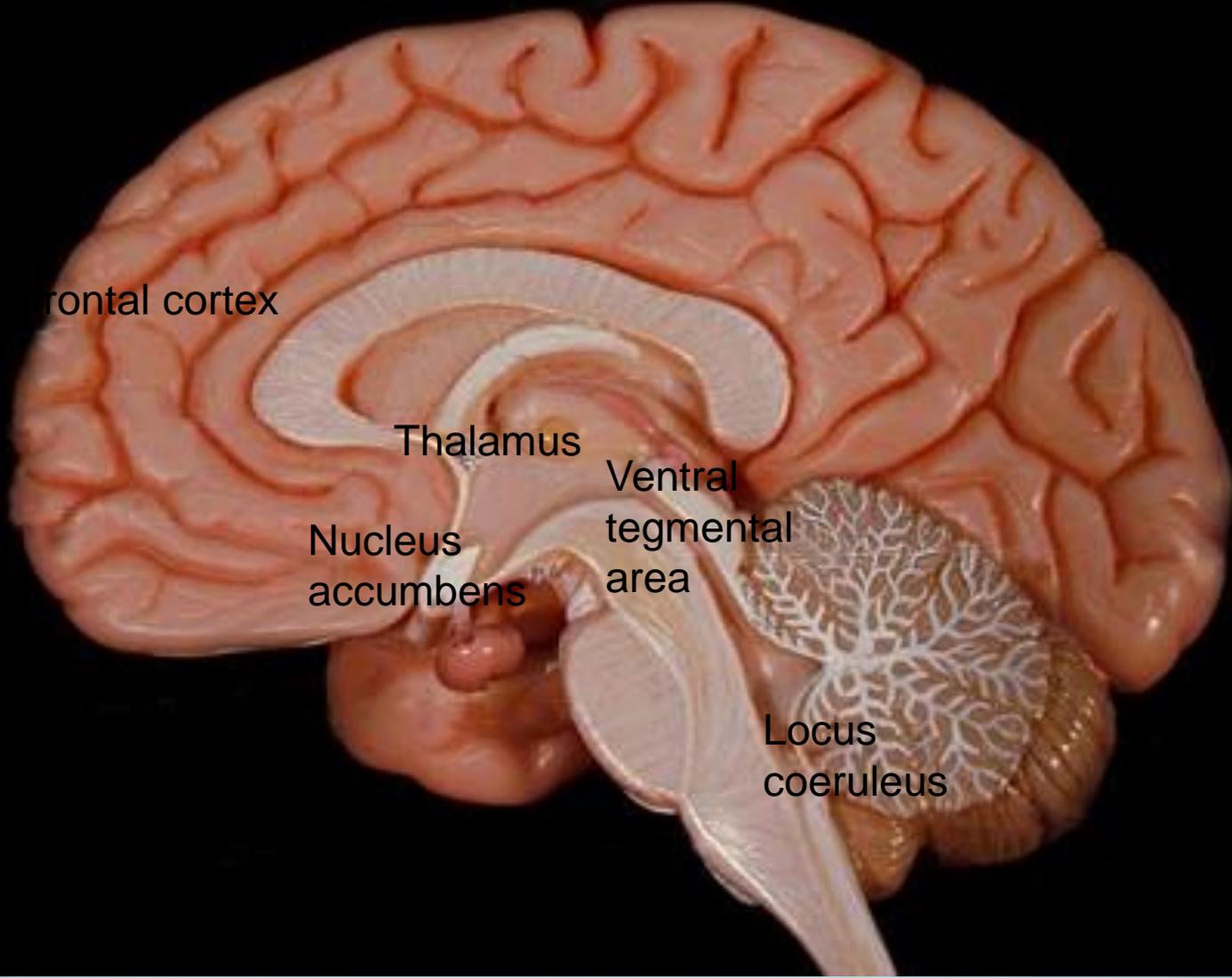
Neural circuitry of reward



- Present in all animals
- Produces pleasure for behaviors needed for survival:
- Eating
- Drinking
- Sex
- Nurturing
 - ALSO Alcohol, drugs, gambling, exercise, thrills



"No, I don't take any drugs, but I do have a \$50 a day latte habit."



Frontal cortex

Thalamus

Nucleus accumbens

Ventral tegmental area

Locus coeruleus

Brain areas involved in the reward pathway, and in addiction

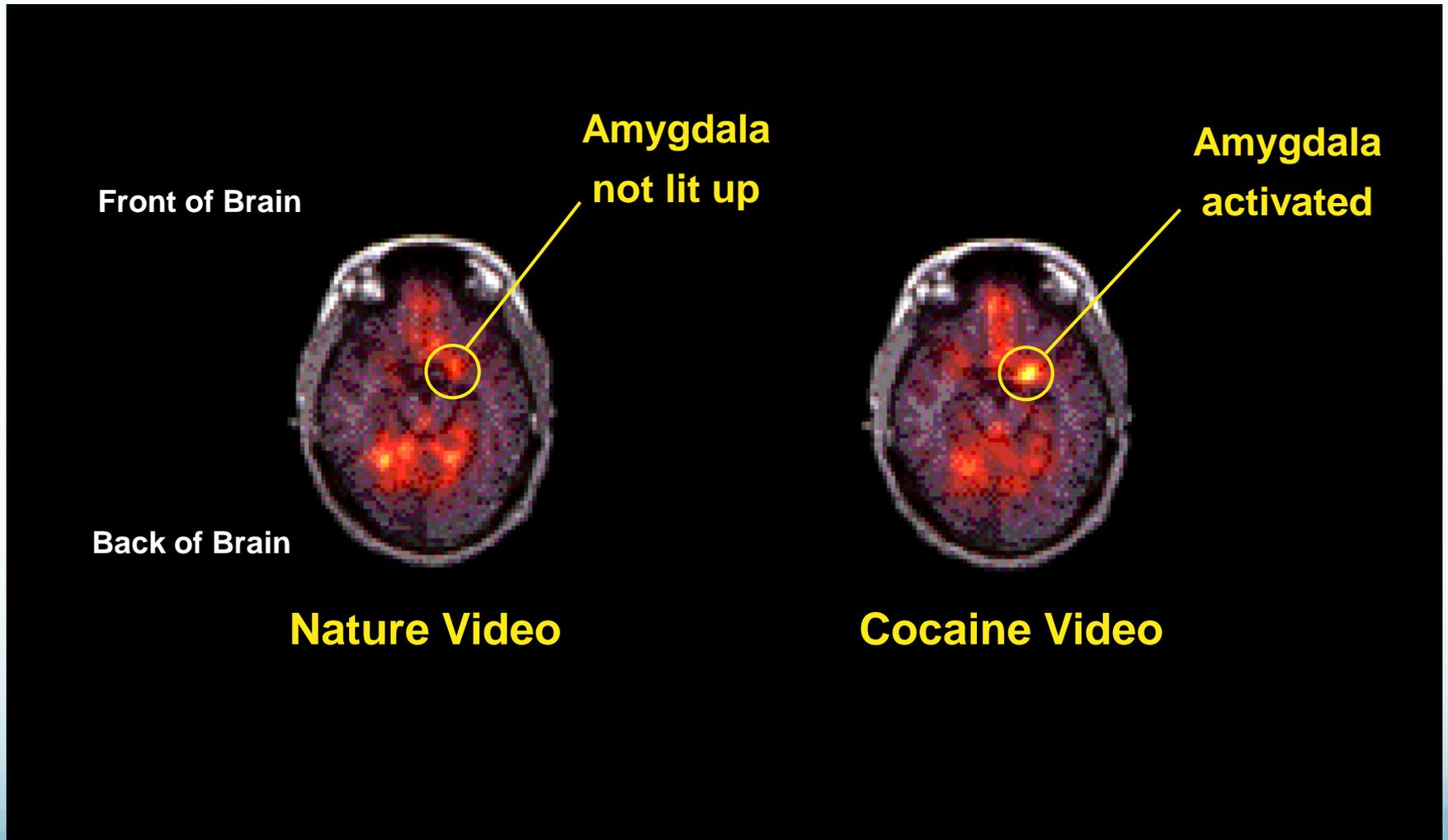
- Ventral tegmental area (VTA)
- Nucleus accumbens (NA)
- Prefrontal cortex (PC)
- Locus coeruleus (LC)
- Thalamus
- Amygdala

Four Interdependent Overlapping Circuits

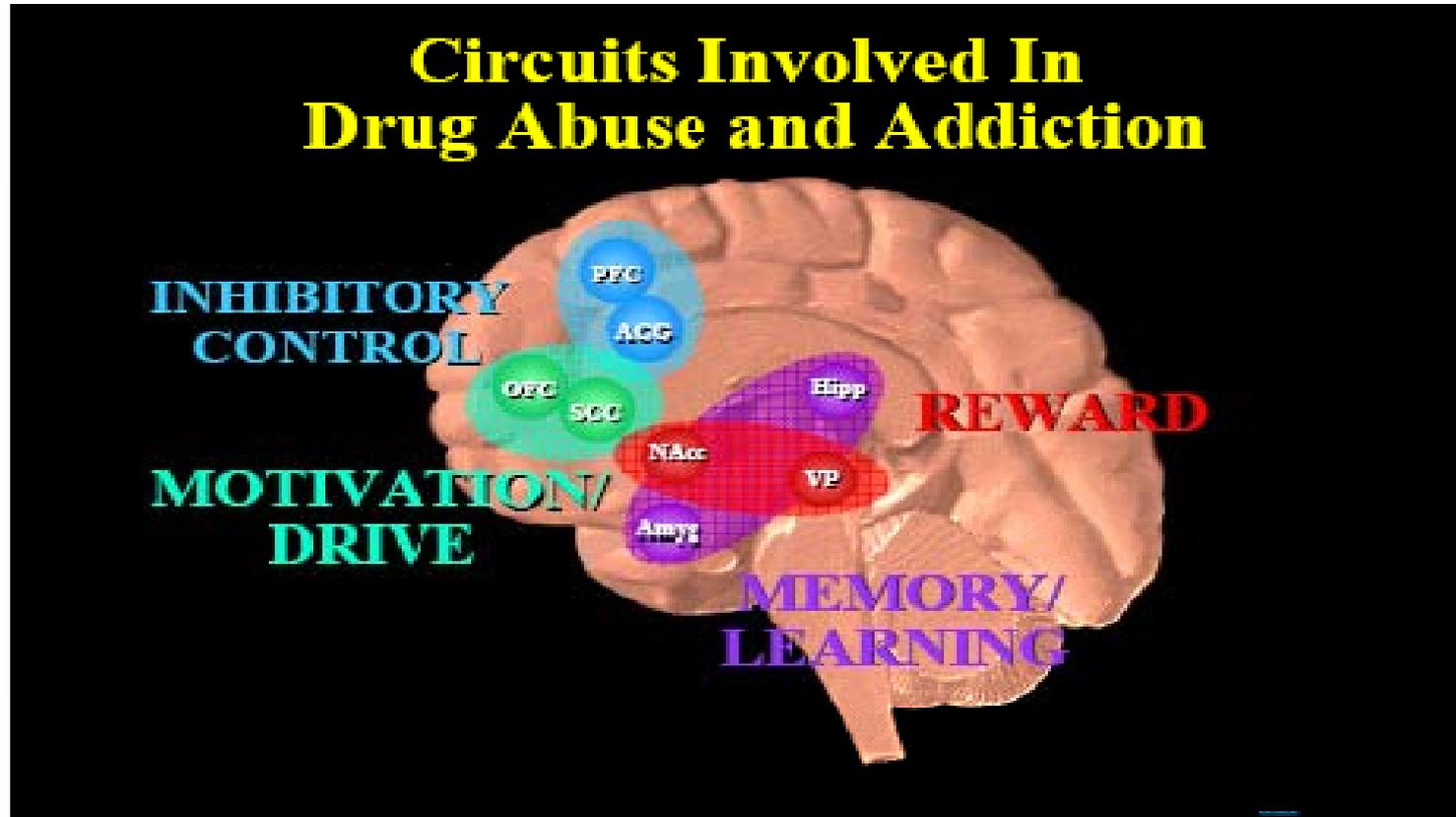
1. Reward—NA, VP (ventral pallidum), hypothalamus
2. Motivation/drive—OFC (affective value of reinforcers; decision making, expectation)
3. Memory and learning—amygdala and hippocampus
4. Cognitive control (relating thoughts and actions to internal goals)—PFC and dorsal ACG (anterior cingulate gyrus)

Also brain sensitivity to stress (amygdala) and mood (ventral cingulate)

The Memory of Drugs



Addiction is a Brain Disease



All drugs abuse increase dopamine in the nucleus accumbens

- alcohol
- cocaine
- heroin
- marijuana
- nicotine
- amphetamines
- sedatives
- hallucinogens
- pcp
- caffeine

ROLE OF THE PREFRONTAL CORTEX

- Capacity to exercise judgment and inhibit impulses
- Determines adaptive value of expectation and pleasure through nucleus accumbens
- Checks unwise urges to use drugs
- Prefrontal cortex is not fully developed in adolescence

Role in therapeutic change?

Neurotransmitters

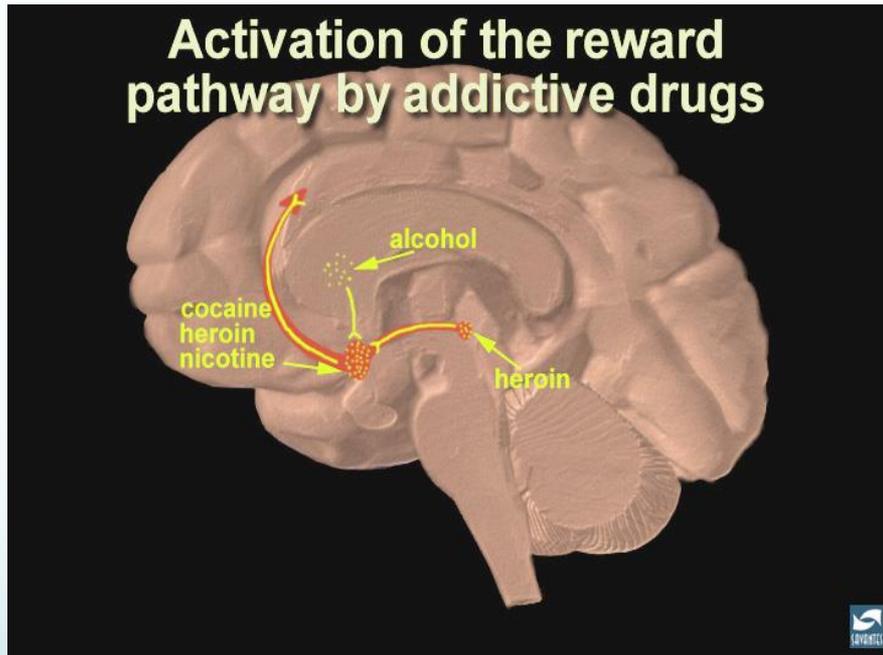
Addiction

- Dopamine
- **Serotonin**
- Opioids
- **Glutamate**
- **GABA**
- Cannabinoids
- **Norepinephrine**

Anxiety

- **Serotonin**
- **GABA**
- **Glutamate**
- **Norepinephrine**

Addiction is a Brain Disease

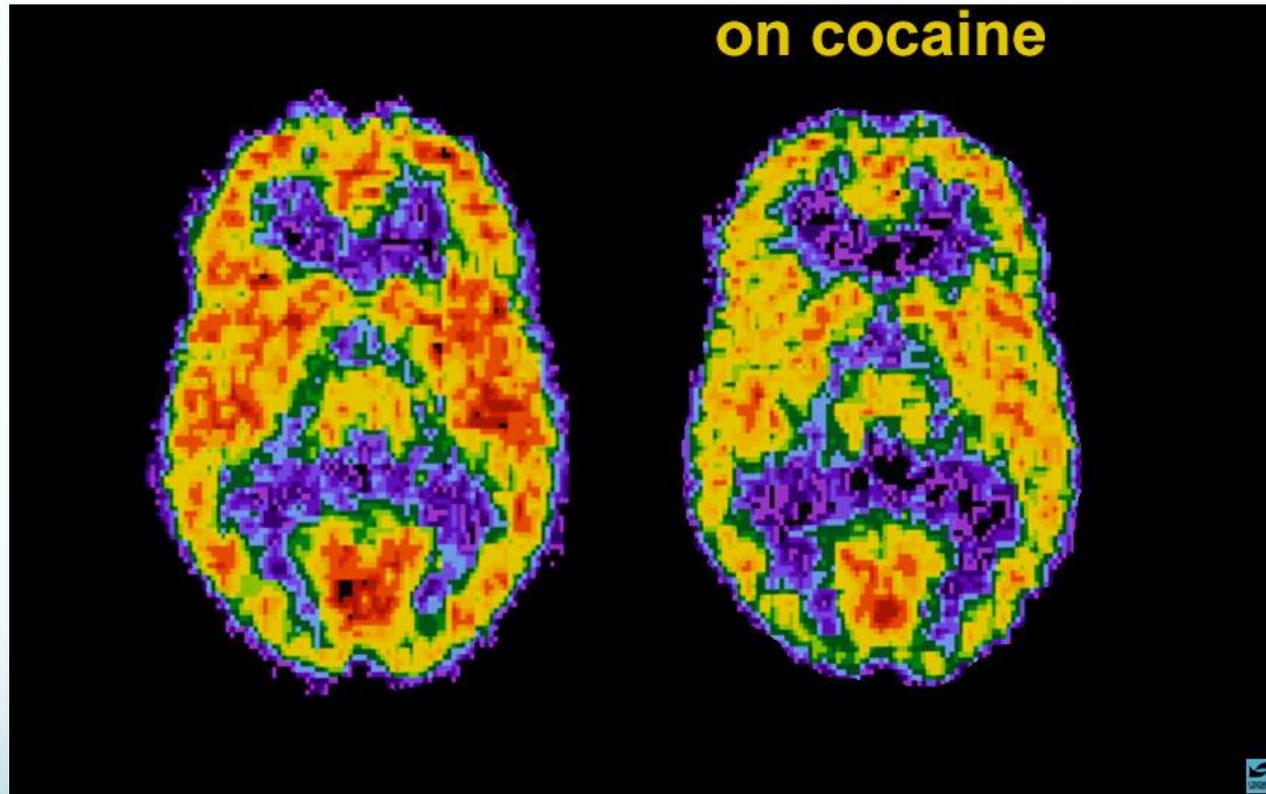


- Using drugs (or gambling) repeatedly over time changes brain structure and function in fundamental and long-lasting ways
- Long-lasting brain changes in the brain's natural motivational control circuits are responsible for the compulsion to use drugs that is the essence of addiction

Neuroadaptation

- drugs (exogenous) change the brain's balance
- the brain has mechanisms to adjust to this change
- the balancing action 'overshoots'
- the stronger the drug, the higher the dosage and the longer the use, the more the opposing change

Your Brain on Drugs



Your Brain After Drugs

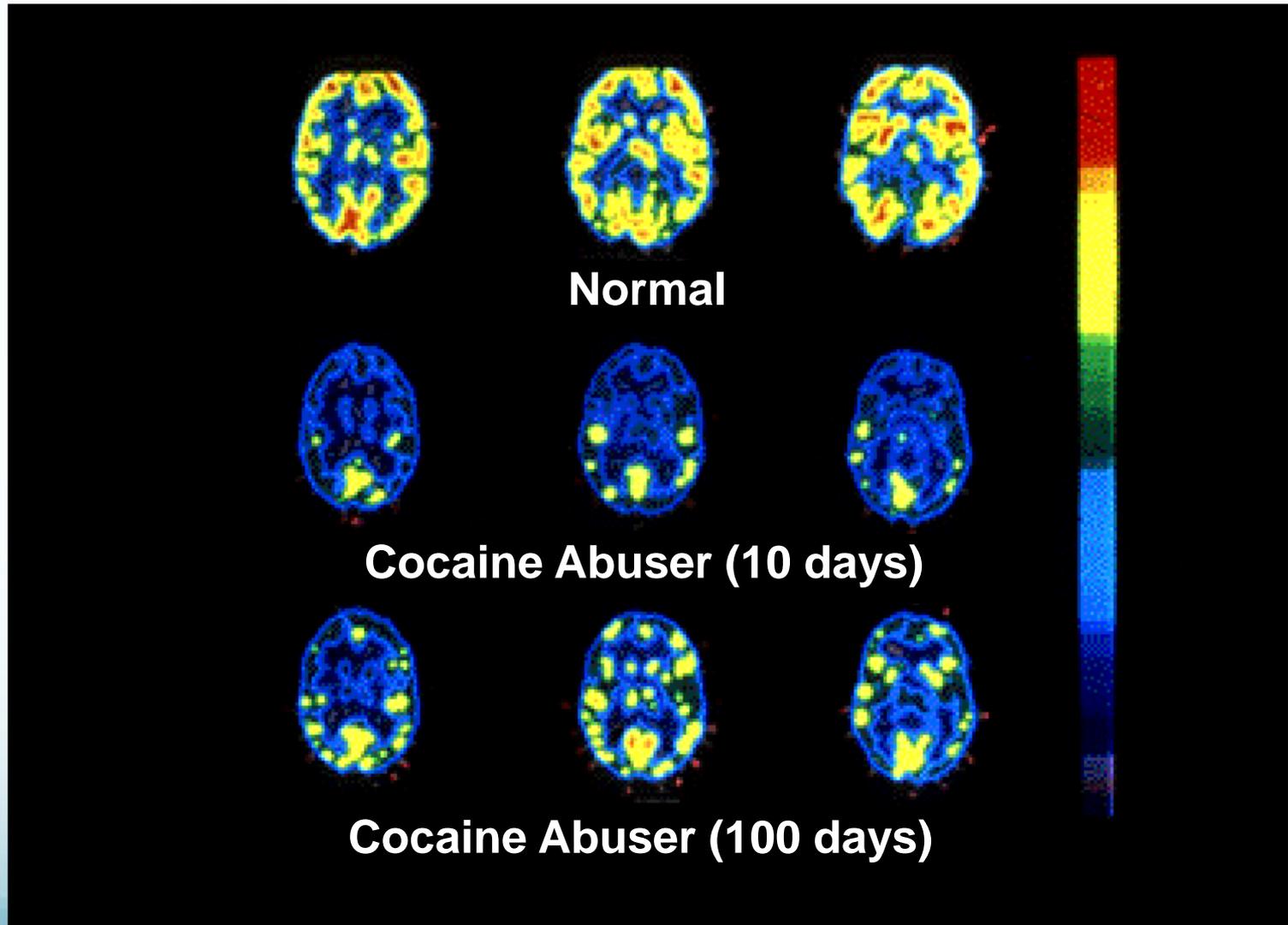


Photo courtesy of Nora Volkow, Ph.D. Volkow ND, Hitzemann R, Wang C-I, Fowler IS, Wolf AP, Dewey SL. Long-term frontal brain metabolic changes in cocaine abusers. *Synapse* 11:184-190, 1992; Volkow ND, Fowler JS, Wang G-J, Hitzemann R, Logan J, Schlyer D, Dewey S, Wolf AP. Decreased dopamine D2 receptor availability is associated with reduced frontal metabolism in cocaine abusers. *Synapse* 14:169-177, 1993.

NEUROBIOLOGY OF ALCOHOL

- **GABA Binding:** depressant effect
- **Release DOPAMINE & ENDORPHINES:** positive brain reinforcement, thus endogenous opiate contribute to the rewarding properties of alcohol
- **Inhibits the NMDA (Glutamate System) receptors** (the principle excitatory neurotransmitter)
- **Activate SEROTONIN** systems by facilitating activity at the 5-HT1B, 5-HT2C, 5-HT3 receptors

NEUROBIOLOGY OF ALCOHOL

With Chronic Use:

- Down regulation of inhibitory GABA receptors
- Increased NE activity
- Up regulation of NMDA receptors, primary cause of withdrawal symptoms

Neurobiological Effects of Alcohol Withdrawal:

- CNS Hyperactivity via NMDA hyperactivity- no opposition to alcohol induced excitatory state
- Release of CRF (corticotrophin releasing factor)

AMYGDALA

- Site for the primary action of alcohol in the brain
- Links the sites for brain reward with sites for emotional behavior

Substance Induced Anxiety

can be caused by any drug

- Alcohol
- Caffeine
- Cannabis
- PCP
- Other hallucinogen
- Inhalant
- Opioid
- Sedative, anxiolytic
- Amphetamine
- Cocaine

Commonality of Effects



He's either got swamp fever, beri-beri or he's teething.

Epidemiologic Catchment Area (ECA) Data

Mental Disorders increase risk for Substance Use Disorders (SUD' s)

- **Major Depression - Risk for SUD increased x 2**
- **Panic Disorder - Risk for SUD increased x 3**
- **Schizophrenia - Risk for SUD increased x 5**
- **Bipolar Disorder - Risk for SUD increased x 7**

Mental Disorders are more common amongst substance abusers than the general population.

- **Phobic Disorder 39%**
- **GAD - 10%**
- **MDD - 24%**
- **Bipolar Disorder - 37%**
- **Dysthymia - 12%**

DUAL DIAGNOSIS

Complications of Comorbidity

- **Earlier Age of Onset**
- Increased **Severity** of Symptoms
- Increased Psychiatric **Hospitalization**
- Increased Use of **Emergency Services**
- Increased **Violent and Suicidal Behavior**
- Increased **Homelessness**
- Increased **Unemployment**
- Increased **Vocational Disability**
- Lack of Social Support Systems
- Treatment **Chronicity**

AOD Use and Psychiatric Symptoms

AOD use can cause psychiatric symptoms and mimic psychiatric syndromes.

AOD use can initiate or exacerbate a psychiatric disorder.

AOD use can mask psychiatric symptoms and syndromes.

AOD withdrawal can cause psychiatric symptoms and mimic psychiatric syndromes.

Psychiatric and substance use disorders can independently coexist.

Psychiatric behaviors can mimic substance use problems.

Comorbid Anxiety and Alcohol Epidemiology

Table
Comorbidity rates of anxiety disorders and alcohol dependence*

Anxiety disorder	Odds ratio for having alcohol dependence	
	Men	Women
Any	3.2	3.3
Panic disorder	3.8	3.7
Social phobia	2.6	3.6
Generalized anxiety disorder	3.6	3.4
Specific phobia	2.8	2.9

* Numbers indicate odds of having alcohol dependence when the anxiety disorder is present vs absent.

Source: 2001-2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), reference 1

DUAL DIAGNOSIS

Commonality of Symptoms

Anxiety Symptoms?

- autonomic hyperactivity
- increased hand tremor
- insomnia
- nausea or vomiting
- psychomotor agitation
- Anxiety

Substance Symptoms?

DIFFERENTIAL DIAGNOSIS

Commonality of Symptoms

- Symptoms of intoxication
- Symptoms of withdrawal
- Symptoms of chronic substance use
- Substance induced disorders
- Primary psychiatric disorders

Co-occurring Disorders Diagnostic
Dilemma

Anxiety Disorders and SUD Prevalence

- 18% with SUD--at least one anxiety disorder
- 15% with AD had at least one SUD
- Treatment seekers for AUD—23-69% w AD
- Treatment seekers for SUD—50% w AD
- Treatment seekers for AD—12% w AUD
- Treatment seekers for AD—7% w SUD

Clear need for cross discipline screen, assessment and treatment

Anxiety Disorders and SUD

Explanatory Models

- **Common factor model**
 - Shared vulnerabilities or risk factors (ASPD, but not identified common gene)
- **Secondary substance use model**
 - Self medication: substance interacts with psychiatric disturbance to make use compelling in susceptible individuals
 - Supersensitivity model (in schizophrenia)

Anxiety Disorders and SUD

Explanatory Models

- Self Medication Hypothesis
 - People with anxiety and SUD would report that they use substances to manage anxiety
 - People with more severe anxiety would be at increased risk for SUD
 - Anxiety would precede substance use
 - Substances used by people with anxiety and SUD would be anxiolytic

Anxiety Disorders and SUD

Explanatory Models

- **Secondary psychopathology model**—SUD leads to the development of psychiatric d/o
 - Substance use may sensitize neurobiological stress systems and lead to higher level of vulnerability to PTSD systems after trauma
- **Bi-directional model**
 - Both the SUD and anxiety disorder play a role in either developing or maintaining each other
 - Negative effects of each disorder would account for high rates of co-morbidity
 - Failure to treat one disorder negatively effects outcome of the other

Comorbid Anxiety and Alcohol Comorbidity Models

1. Having an anxiety disorder predisposes one to develop an SUD via self medication
 - “anxiety induced” substance use disorder
2. The social, occupational and physiologic effects of substance use can generate new anxiety symptoms in vulnerables
 - Not the same as “substance induced”
 - Social phobic uses alcohol, develops more problems, increased anxiety and more ETOH
 - More things for worry in GAD
 - Anxiety “kindling” with long term use

Comorbid Anxiety and Alcohol

Which Comes First?

- Risk of getting new ETOH Dep as a Jr/Sr more than tripled among students with anxiety dx as a freshman.
- Students with ETOH Dep as freshman were 4x more likely to dev. an anxiety d/o (6yrs)
- So having either an anxiety or ETOH d/o earlier in life appears to increase the probability of developing the other later

Comorbid Anxiety and Alcohol Treatment Approaches

- Serial (sequential) approach—treatment comorbid disorders one at a time
- Parallel approach—providing simultaneous but separate treatments for each comorbidity
- Integrated approach—providing one treatment that focuses on both comorbid disorders, especially as they interact with one another
- Tx determined by clinical and resources

Comorbid Anxiety and Alcohol Treatment Approaches

Serial Treatment—treat disorder one at a time

- May help empirically evaluate whether the untreated condition is resolved by treating other
- Allows use of established treatment resources
- Initially untreated comorbid disorder could undermine resolution of the treated disorder.
- Not always clear which disorder to treat first—may depend on presenting symptom
- Tx with meds for anxiety and then address ETOH with brief intervention

Comorbid Anxiety and Alcohol Treatment Approaches

Parallel Treatment—simultaneous/separate

- Requires coordination of clinicians, tx strategies, times, locations
- Impact of other disorder not appreciated
- MH vs SUD treatment programs may have conflicting values

Comorbid Anxiety and Alcohol Treatment Approaches

Integrated Treatment—one treatment plan (or one tx) for both disorders (not many)

- CBT-based integrated approach
 - Psychoeducation
 - Cognitive restructuring
 - Cue exposure

Comorbid Anxiety and Alcohol

CBT-based integrated approach

Psychoeducation—explain biopsychosocial model of anxiety/alcohol disorders

- Basic epidemiology
- Negative interactions between the two
- Introduce role of cognitions, thoughts, beliefs and expectations
- Teach diaphragmatic breathing to reduce hyperventilation

Comorbid Anxiety and Alcohol

CBT-based integrated approach

Cognitive restructuring—(req.CBT skills)

- Thinking patterns that contribute to initiating and maintaining anxiety and panic
- Recognized and restructure thinking that promotes alcohol use to cope w anxiety
 - Relapse prevention

Comorbid Anxiety and Alcohol

CBT-based integrated approach

Cue exposure—therapist guided exposure to fear provoking situations and sensations to decouple from anxiety and catastrophe

Exposures expanded to include alcohol decouple self-medicating

- Helps with reality testing
- Practice anxiety management and refusal skills
- Enhance self-efficacy



"C'mon Fred. Knock it off."

Comorbid Anxiety and Alcohol CBT-based integrated approach

Effects of Integrated CBT TX for comorbid panic and alcohol disorders was more effective for patients with the strongest expectations that alcohol helps control their anxiety

Psychotherapy for DDX

Historical Context

- Addiction a symptom of underlying psychopathology
- Standard analytic technique without directly addressing substance use
- Others felt Tx not appropriate until sober or that patients were unanalyzable

Psychotherapy for DDX

Historical Context

- AA felt psychology had little to offer
- 12 Step, TCs, Self help, abstinence
- May have been anti-psychiatric care
- Patients in denial, not ready, haven't hit bottom

Things don't seem so bad since I started drinking heavily.



Psychotherapy for DDX

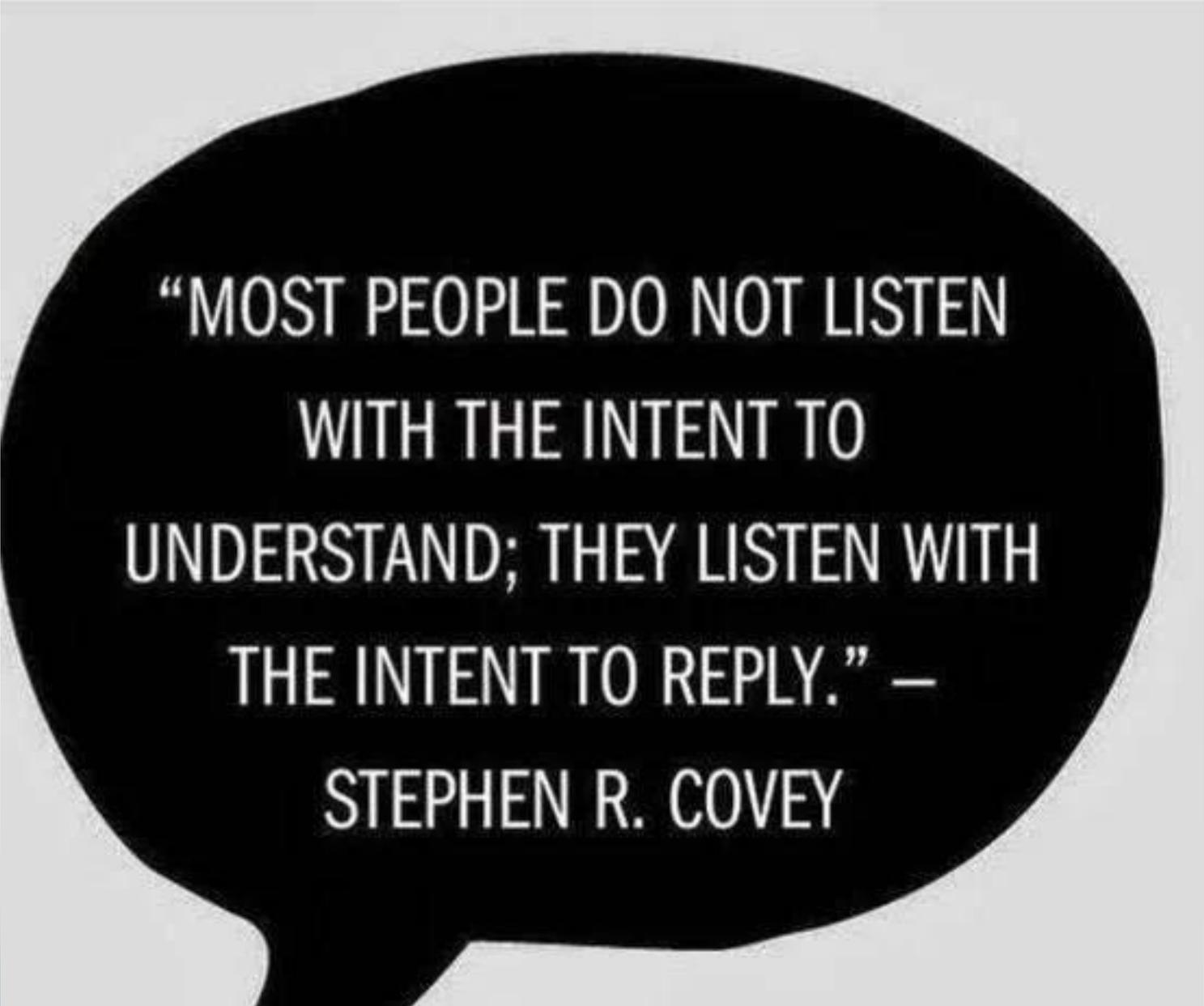
Recent advances in psychotherapy for addiction treatment

- Relapse Prevention
- Harm Reduction
- Motivational Interviewing

Motivational Interviewing

Definition:

- – A directive, client-centered counseling style that enhances motivation for change by helping patients explore and resolve ambivalence .



**“MOST PEOPLE DO NOT LISTEN
WITH THE INTENT TO
UNDERSTAND; THEY LISTEN WITH
THE INTENT TO REPLY.” —
STEPHEN R. COVEY**

Motivation to Change

- Motivation is a key to change
- Motivation is multidimensional
- Motivation is a dynamic and fluctuating state
- Motivation is interactive
- Motivation can be modified
- Clinician's style influences patient motivation

Motivational Interviewing

MI is evidence-based (as of 2011)

- > than 200 recent research projects
- > than 100 clinical trials
- 47 states encouraged MI for Tx of AOD
- 8 states mandate MI for AOD or MH Tx
- 11 books, >800 publications, 1200 trainers

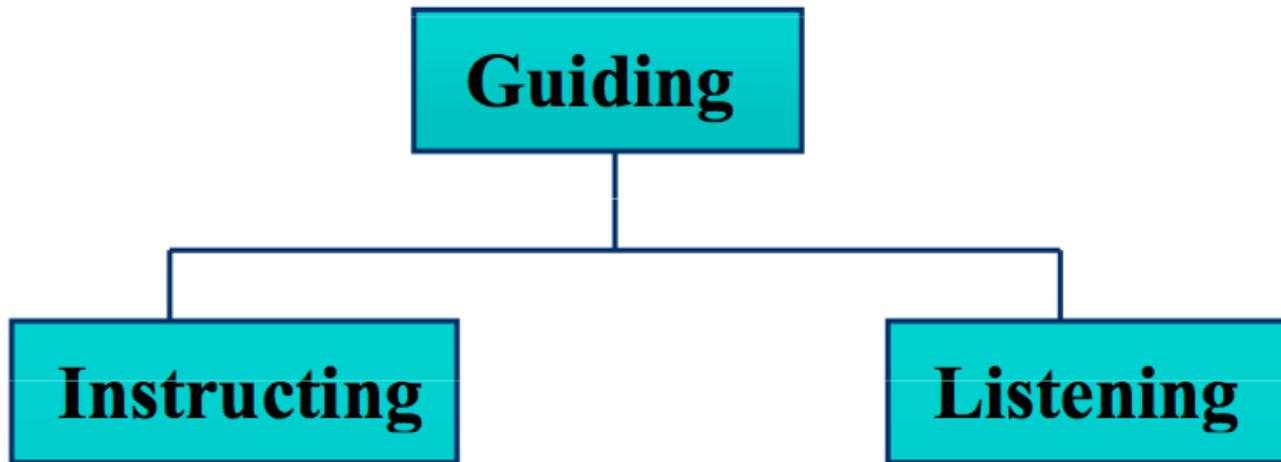
Motivational Interviewing

MI is widely used

- Treatment of substance use and gambling (risky drinking and Tx induction)
- Co-occurring disorders
- Smoking cessation
- Obesity (HIV risk reduction, diet, exercise)
- Medication nonadherence

Motivational Interviewing

A Continuum of Communication Styles



MI Research Findings

Effective therapeutic relationships in MI

- Influenced by the interpersonal style used (**How** to relate rather than **What** to say)
- Trusting and open
- Egalitarian
- Free of stigmatizing attitude and language
- Treatment must adjust to the patient
 - (person centered)

The Spirit and Style of MI

- Motivation to change is elicited from the client, and not imposed
- It is the client's task, not the counselor's, to articulate and resolve ambivalence
- Direct persuasion is not an effective method for resolving ambivalence
- The counseling style is generally a quiet and eliciting one

The Spirit and Style of MI

- The counselor is *directive in helping the client to examine and resolve ambivalence*
- Readiness to change is not a client trait, but a fluctuating product of interpersonal interaction
- The therapeutic relationship is more like a *partnership* or companionship than expert/recipient roles

Therapeutic Relationships

What Doesn't Work

- Confrontations
- Comments that are hostile, critical, blaming
- Assumptions or intuitions about the patient
- Therapist-centricity (the clients perspective on the therapy Rx best predicts outcome)
- Rigidity--inflexible and overly structured Tx
- “One size fits all” approach

MI Research Findings

Different ways one may be directive

- How often one initiates topics for discussion
- How often one offers interpretations
- How forceful one offers interpretations
- How and how often one confronts resistance
- Determining a plan of action not wanted by patient
- Rigidly adhering to a therapeutic model (forcing a reconsideration of patient decisions)

MI Research Findings

Different ways one may be directive

- Directive about the structure of the session
- Directive about the content
 - the problem, the conclusions
- The nature of the therapy
- The goals of the therapy

*The therapist can be **directive** about structure and content but still **flexible** about which, when, how*

MI Research Findings

Directiveness and resistance in MI

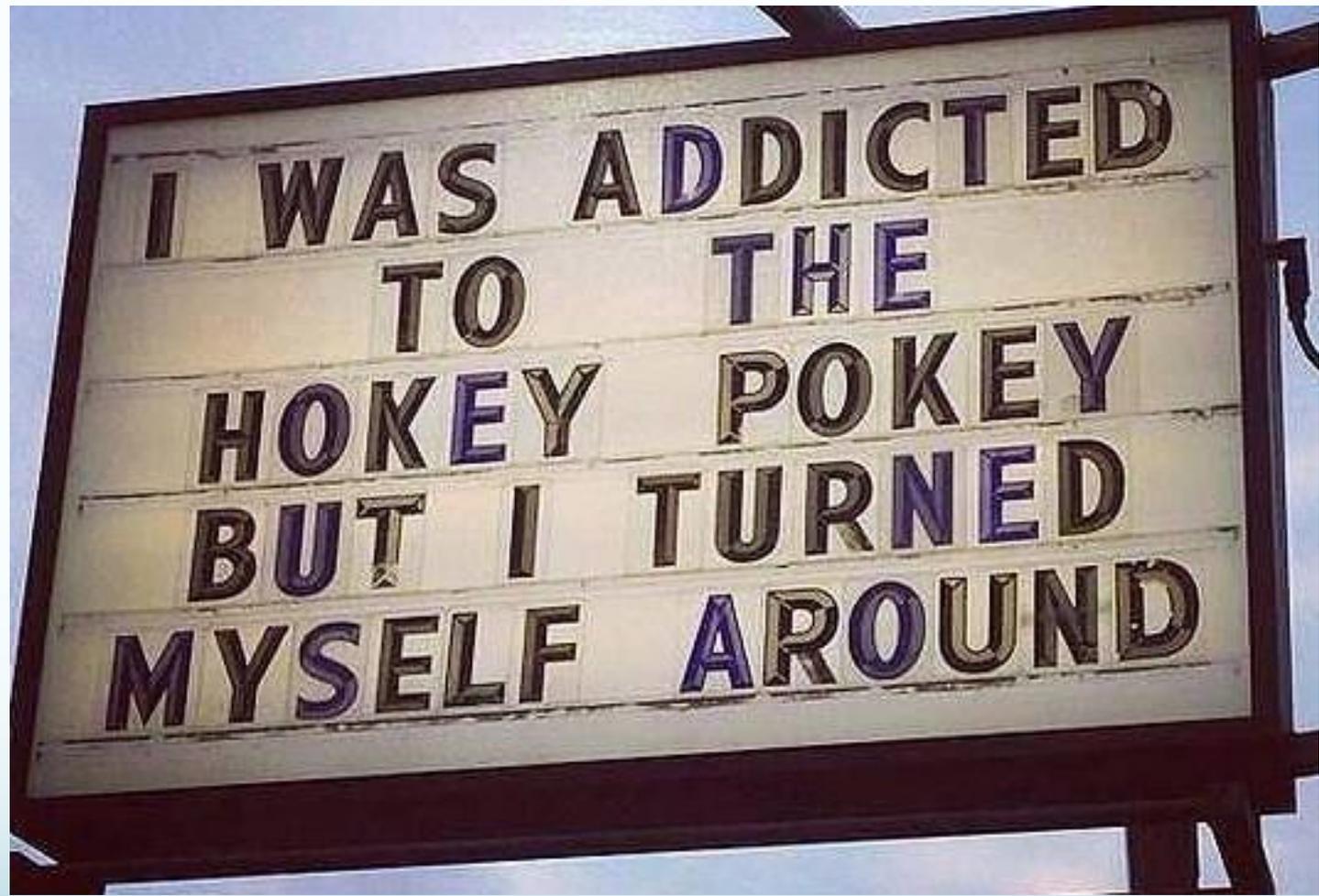
- Classic MI stance, **“It’s up to you”**
- Ability to assess which style might be best and adjust
- The style needs to fit the circumstance
- Type of therapy important do to how it influences the therapists style as some therapies are inherently more directive than others

Motivational Interviewing

- More directive and structured approach for clients who “welcome a lead”
- Non-directive styles better for clients with anger, defensiveness or resistance
- Especially better for those already committed to change— MI exploring the pros and cons may have negative effect on patients already committed to change

MI—Therapist Behaviors

- Reflective listening
- Acceptance, affirmation, empathy
- Develop discrepancy
- Monitor readiness to change
- Elicit and support change talk (DARN)
- Roll with resistance
- Enhance self direction, empowerment, self-efficacy



I WAS ADDICTED
TO THE
HOKEY POKEY
BUT I TURNED
MYSELF AROUND

Doing MI Right

Do I ??

- Listen more than talk
- Stay sensitive and open to their issues
- Invite person to explore their own ideas for change
- Encourage talk about reasons to not change
- Ask permission to give my feedback

Doing MI Right

Do I ??

- Reassure that *ambivalence is normal*
- *Identify successes* from the past
- Seek to understand *this person*
- *Summarize* for this person what I'm hearing
- Value their opinion *more than my own*
- Remind myself that this *person is capable* of making their own choices

Medication Treatment

General Principles

Psychoactive Potential: Ability of some medications to cause distinct change in mood or thought and psychomotor effects

- Stimulation, sedation, euphoria
- Delusions, hallucinations, illusions
- Motor acceleration or retardation

All drugs of abuse are psychoactive

Medication Treatment

General Principles

- Many medications are non-psychoactive (except for mild side effects including sedation or stimulation)
- Not considered euphorigenic(although can be misused and abused)
- Psychoactive drugs considered high risk for abuse and addiction
- Some psychoactive meds have less addiction potential (old antihistimines)

Medication Treatment

General Principles

Positive reinforcement—increase the likelihood of repeated use

- Amplification of positive symptoms or states
- Removal of negative symptoms or conditions
- Faster reinforcement, more prone to misuse

Tolerance and Withdrawal

- Higher risk for abuse and addiction

More concerns when prescribing to high-risk patients

Medication Treatment Stepwise Treatment Model

High risk patients with anxiety disorder

1. Non-pharmacologic approaches when possible
2. Non-psychoactive medications added next as adjunctive treatment
3. Psychoactive medications when other treatments fail

Medication Treatment Stepwise Treatment Model

- Non-pharmacologic approaches
 - Psychotherapy, MI, CBT, DBT, stress management skills, meditation, yoga, exercise, massage, biofeedback, acupuncture, education..
- Use meds with low abuse potential
- Conservative approach not the same as under-medicating
- Different treatments should be complementary, not competitive

Talking to Patients about Medications

- Make an inquiry every few sessions
- Are their Psych meds. Helpful? How?
- How many doses or how often do you miss?
- Acknowledge that taking pills everyday is a hassle and everybody misses sometimes
- Did they feel or act different? Or use?
- Explore connections of MH, meds, use
- Forget? Or choose not to take it.

Medication Adherence

Comorbid SUD a Risk Factor for Non-adherence

- May have conflicted feelings and attitudes about medication
- Meds may be sometimes discouraged or thought to be unneeded
- See it as a sign of weakness
- May stop meds during relapse
- May misused meds

Talking to Patients about Medications

- Problem solve strategies to not forget
 - Use a pill box, help set it up
 - Keep it where it cannot be missed or avoided
 - Link med taking with some daily activity
 - Use an alarm clock set for the time to take
 - Ask someone to help them take meds

Talking to Patients about Medications

- Some patients may choose not to take meds
 - They have a right to make that choice
 - Owe it to themselves to make sure their important health decision is well thought out
 - Explore-- “I just don’ t like pills (or meds)” .
 - Elicit a reason—never needed it, cured now, don’ t believe in it, means I’ m crazy, side effects, afraid, shame, cost, interpersonal, want to be in control, do it on my own, can’ t use
 - Motivational Interviewing

Anxiety Disorders and SUD

Medication Treatment

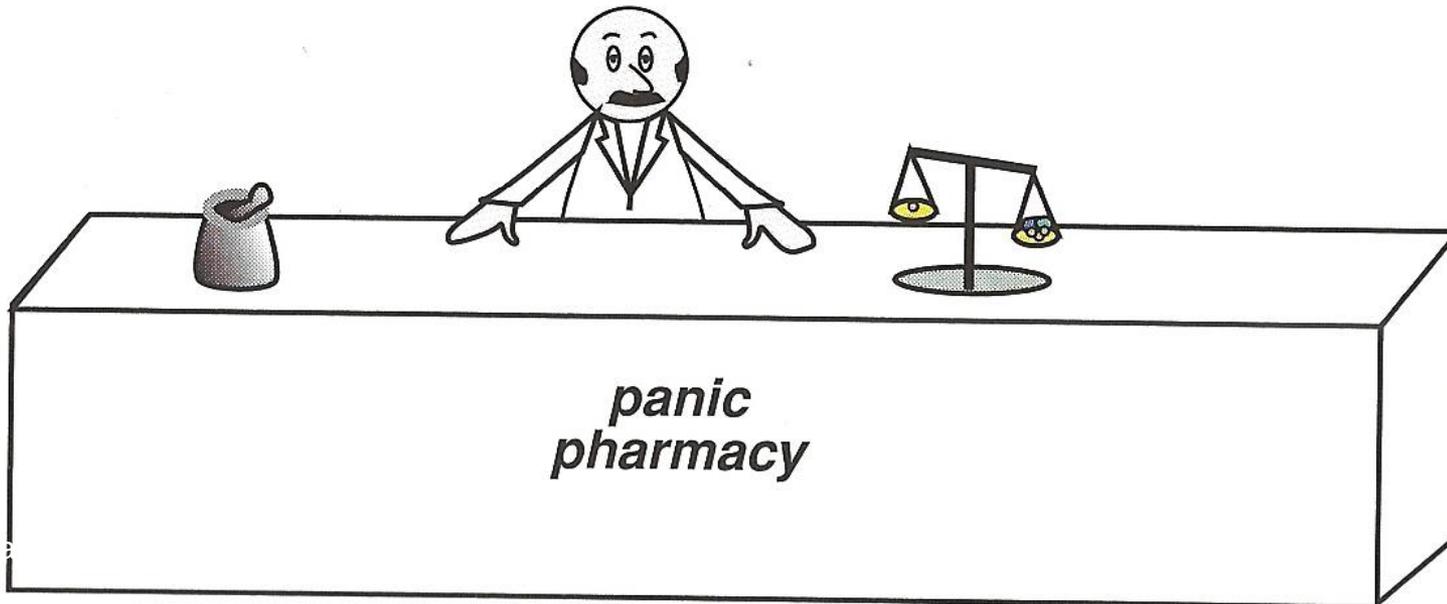
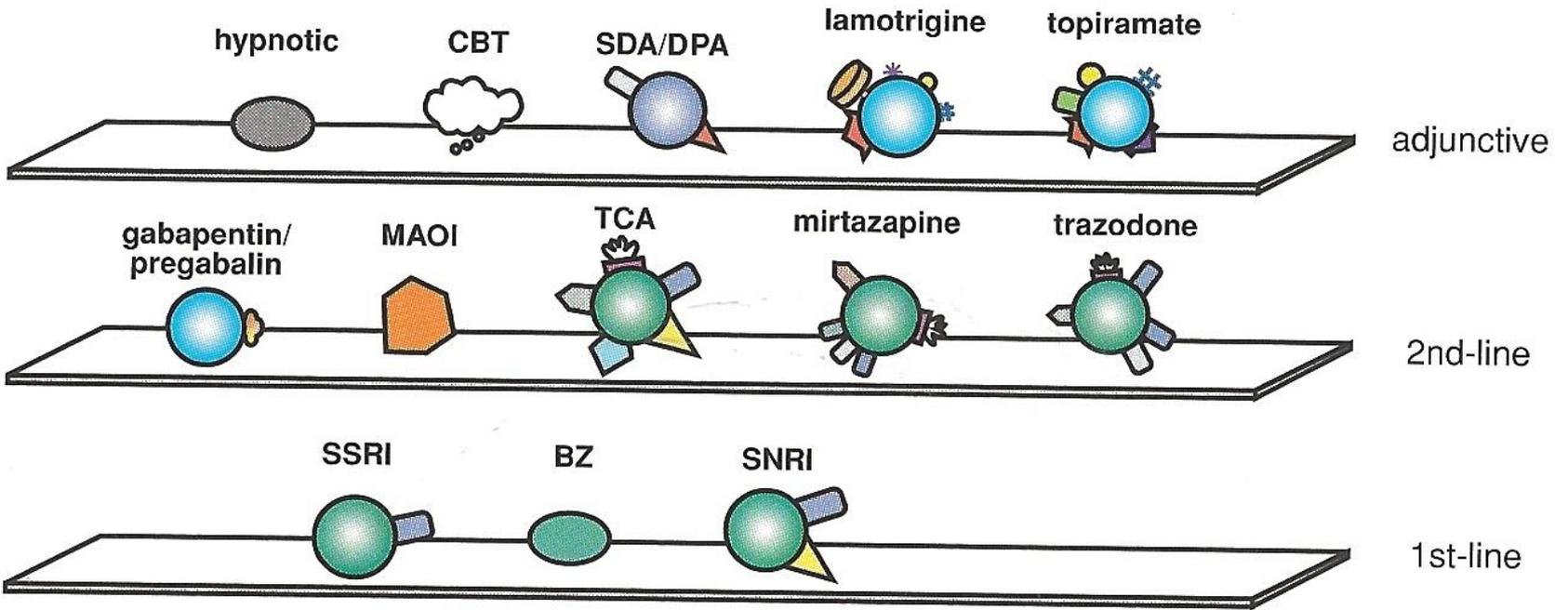
Panic Disorder (5-42% in AUD, 7-13% in MMT)

- SSRI, TCA, MAOI, benzodiazepines all effective (not studied in COD populations)
- May have initial activation with SSRI and TCA that could increase risk of relapse—use low dose initiation
- Latency of onset of effect, 2-6 weeks—short term use of benzo
- SSRIs—no abuse potential, safe, generally well tolerated, may help with ETOH

Anxiety Disorders and SUD

Medication Treatment

- Benzos usually avoided in SUD populations (but not an absolute contraindication)
- Panic disorder can also be treated with anticonvulsants (valproate or carbamazepine) and Panic with stimulant abuse may respond to these agents due to neuronal sensitization and limbic excitability
- TCAs carry risk of lower seizure threshold and interactions with ETOH, depressants and stimulants

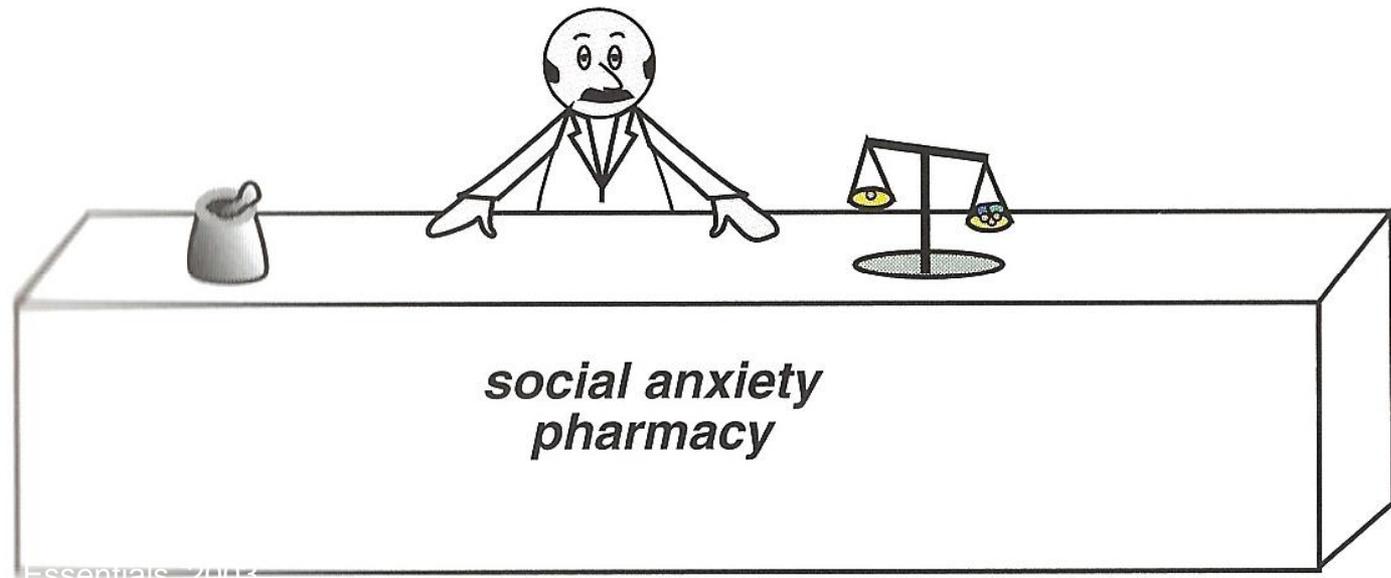
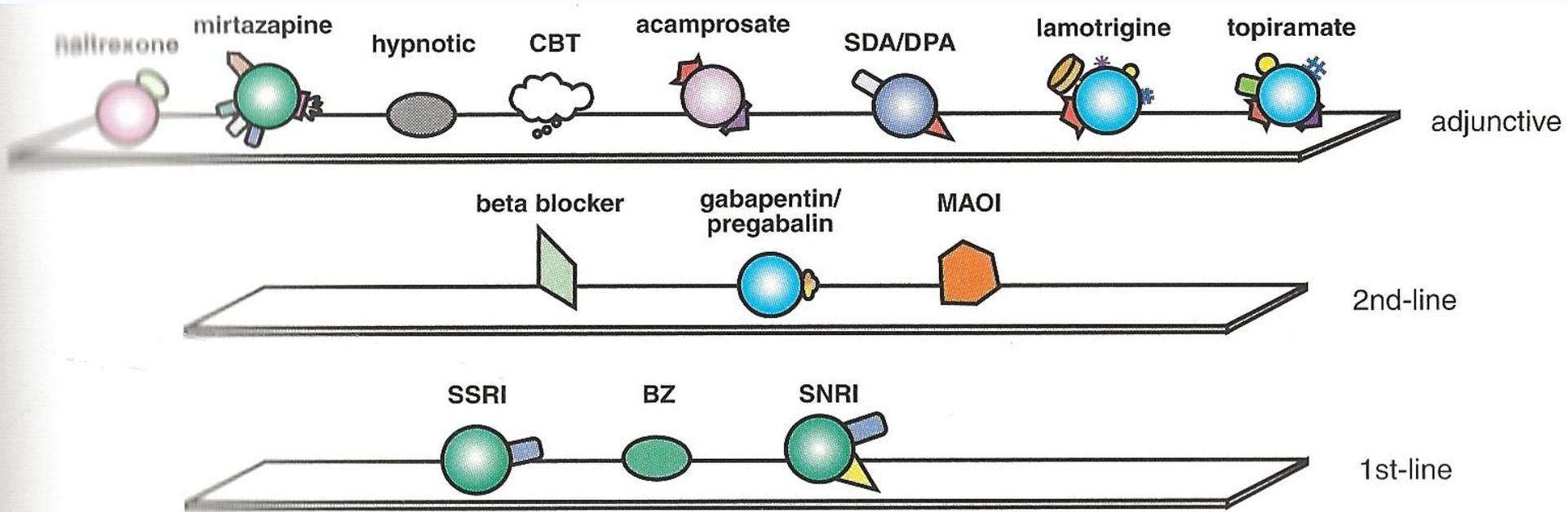


Anxiety Disorders and SUD

Medication Treatment

Social Anxiety Disorder (8-56% in AUD, 14% in cocaine, 6% in MMT)

- In most cases SAD precedes AUD so a period of abstinence not so important
- Early identification important with COD as SAD may interfere with SUD treatment
- SSRI have FDA indication (paroxetine) and may also reduce alcohol use
- Venlafaxine and gabapentin

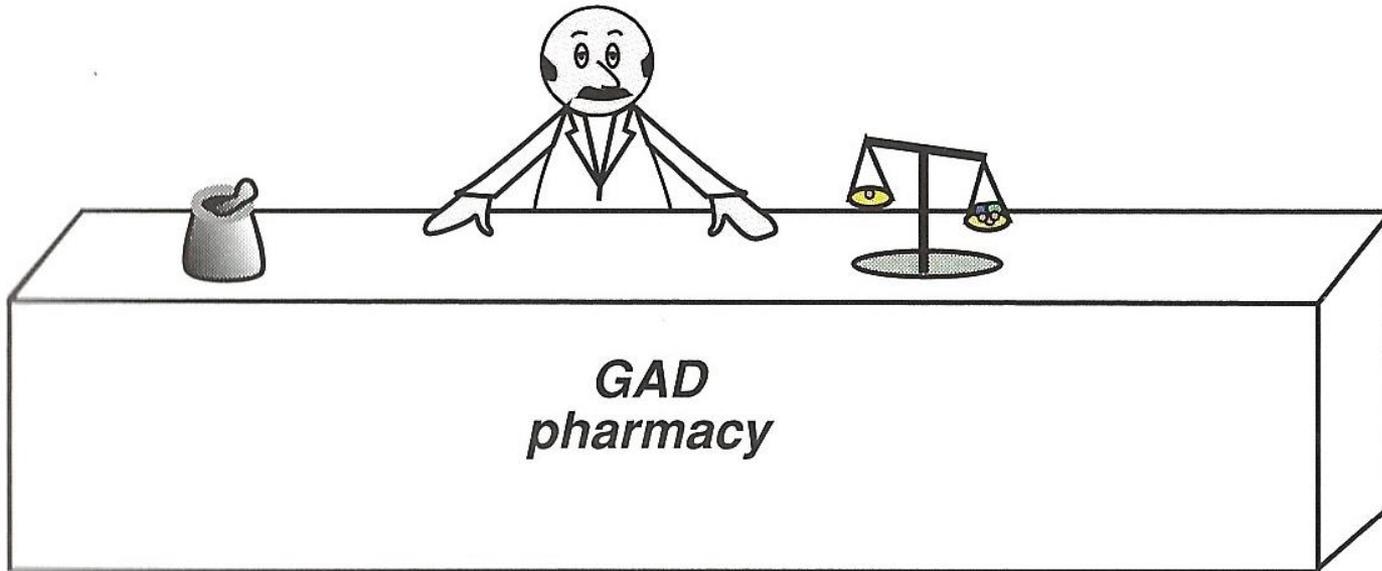
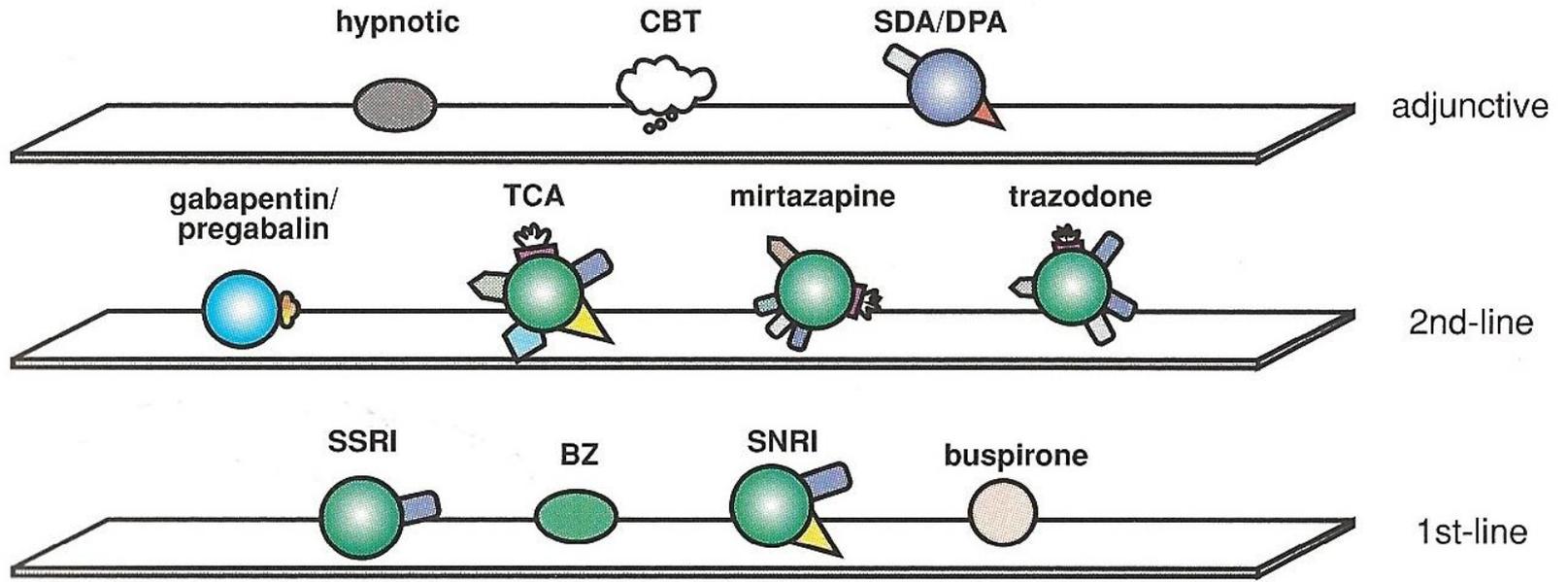


Anxiety Disorders and SUD

Medication Treatment

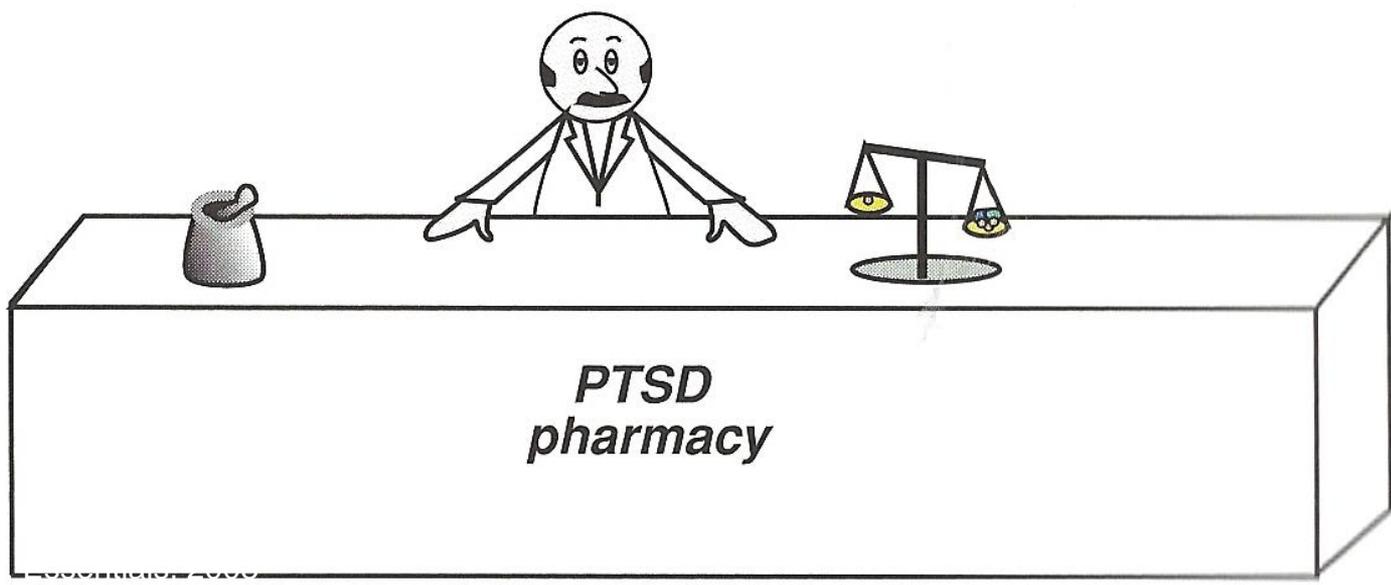
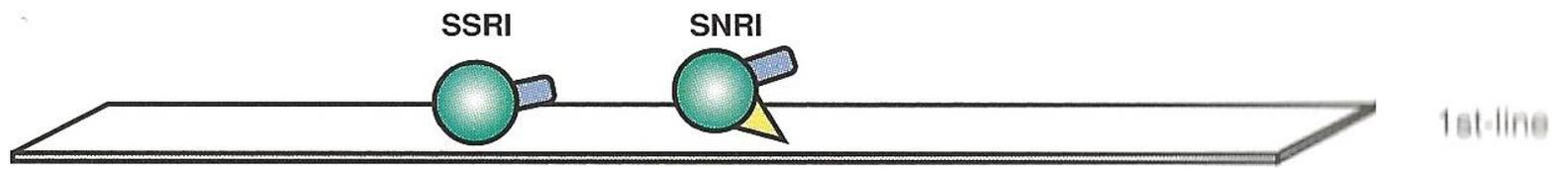
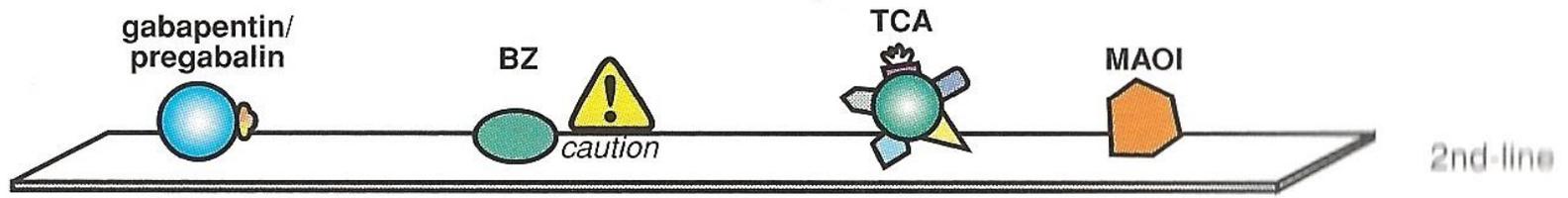
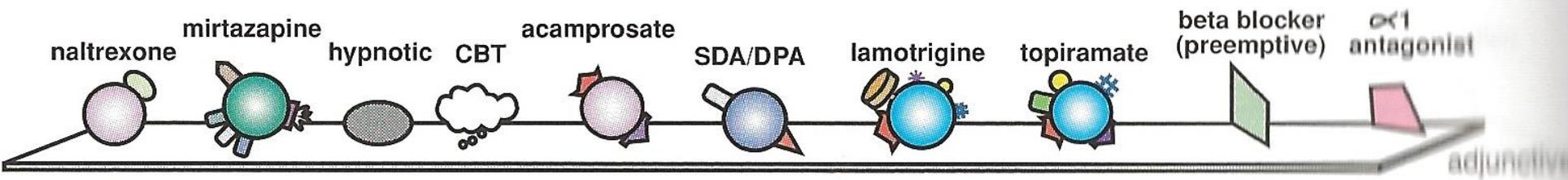
Generalized Anxiety Disorder (8-52% in AUD, 21% in MMT, 8% in cocaine)

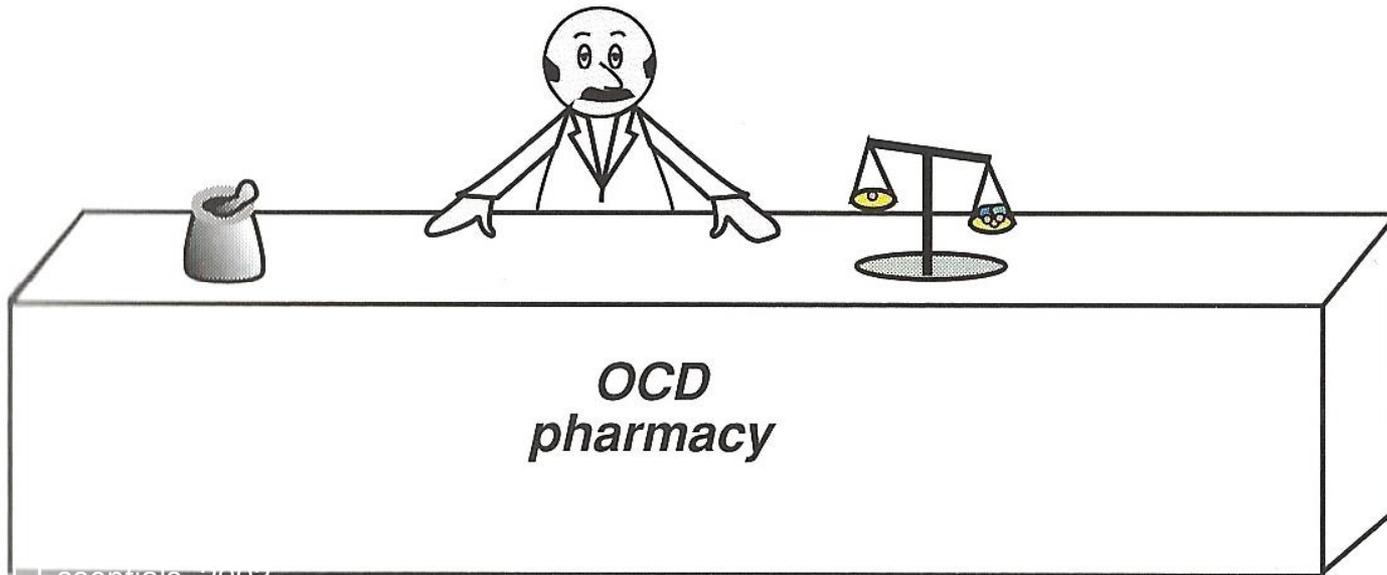
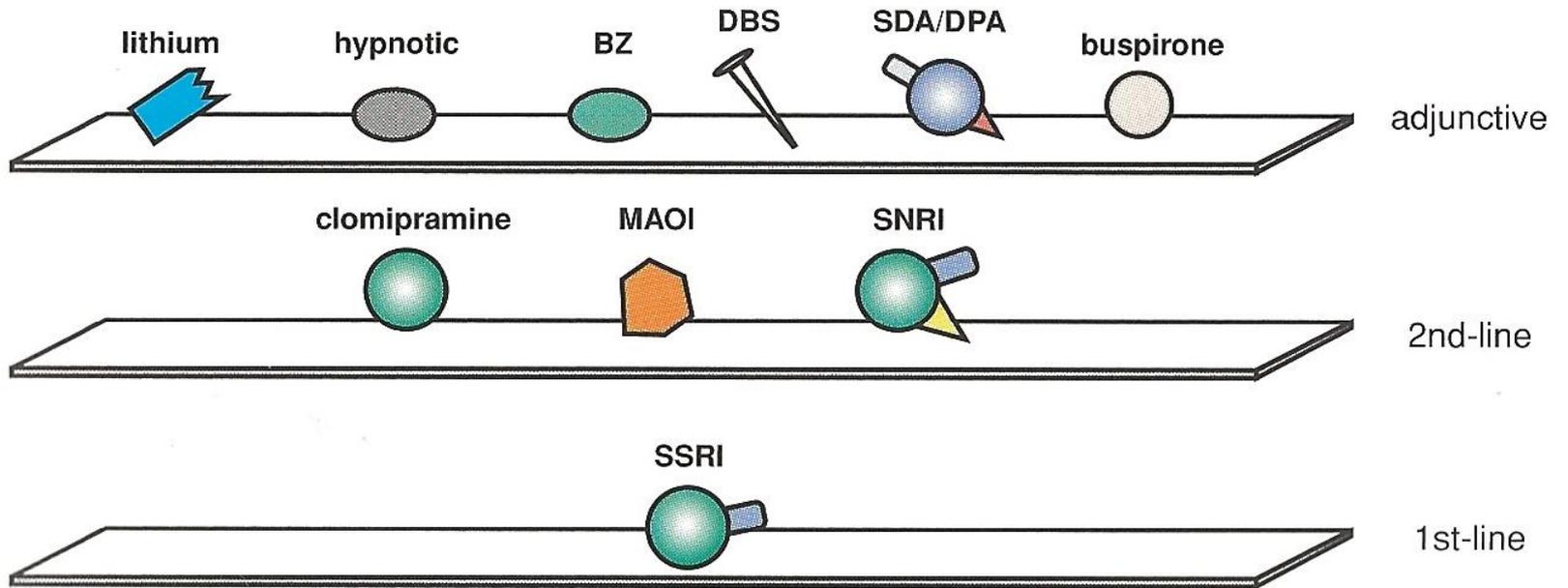
- Diagnostic difficulties—overlap with symptoms of acute intoxication with stimulants and withdrawal from alcohol and sedatives (and anxiety in early recovery)
- SSRI, TCA, venlafaxine, anticonvulsants
- Use of benzodiazepines is controversial
- Buspirone may be effective



Medications for Addiction

- Disulfiram
- Naltrexone
 - Oral
 - Long acting injectable
- Acamprosate
- Methadone
- Buprenorphine





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