Adolescents and Substance Use: Using Our Knowledge and Their Strengths to Find Recovery

Dr. Kenneth Zoucha, Dr. Varun Sharma, Dr. Tianqi Luo, and Laura Schutte-Lundy

University of Nebraska Medical Center/Nebraska Medicine
Addiction Division-Department of Psychiatry

University of Nebraska Medical Center Nebraska Medicine

Introductions

Dr. Kennth Zoucha (he/him/his)

Dr. Tianqi Luo (she/her/hers)

Dr. Vaurn Sharma (he/him/his)

Laura Lundy (she/her/hers)

Agenda

Adolescent Brain Development – Why alcohol and drugs are so impactful
Varun Sharma and Ken Zoucha

Co-occurring Disorders: How do we know?
Nina Luo and Varun Sharma

Break - 10:00 – 10:15 AM

SBIRT-Effective Screens and Assessment Tools for Adolescent SUD
Ken Zoucha and Laura Schutte-Lundy

Evidence Based Treatment for Adolescent Substance Use Disorder
Laura Schutte-Lundy and Ken Zoucha

Disclosures

None of our speakers have any disclosures

We will be addressing some off label use of medications to treat addiction, but will be clearly identified as such

Adolescent Brain Development – Why alcohol and drugs are so impactful

Kenneth Zoucha, MD and Varun Sharma, MD
University of Nebraska Medical Center

Objectives

1. Understand the neurobiological difference of adolescents and how substance use impacts that development
2. Explain changes in the brain associated with substance use in adolescents.
3. Identify how recovery can impact neurological development

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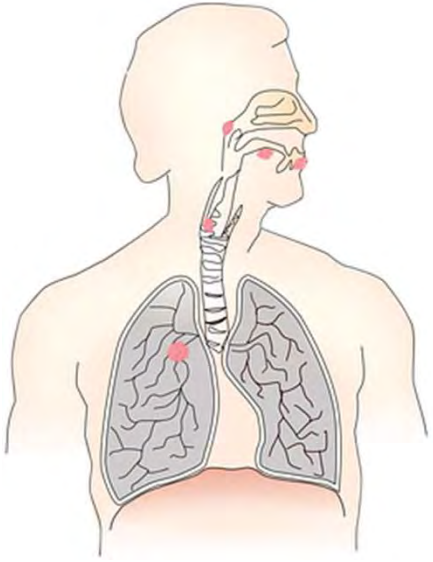

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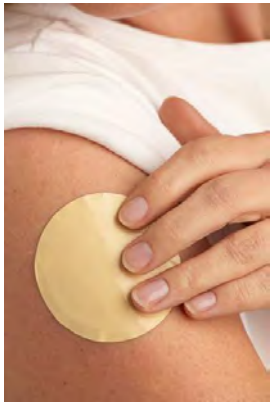

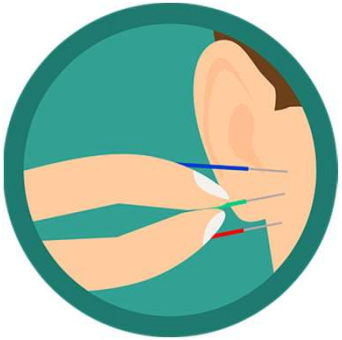

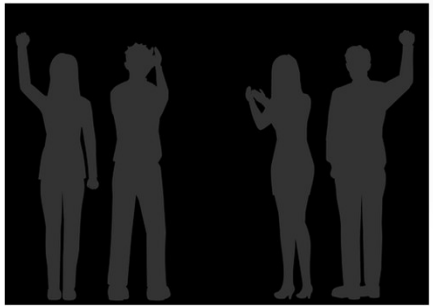

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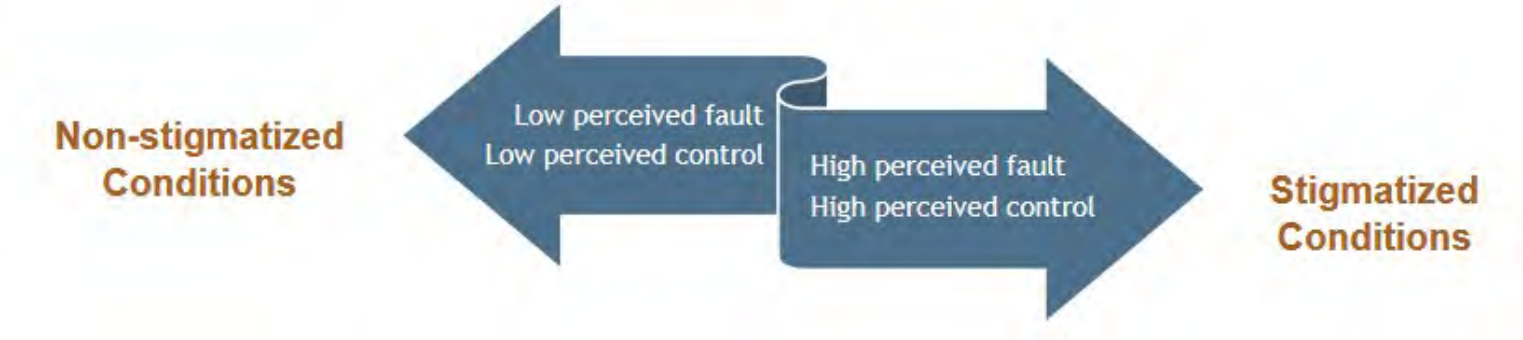
Reflection Exercise #1

- What do all these cases have in common?
- Started using substances in adolescence
- Continued Use Despite Negative Consequences!
- Who has had personal experience with someone with a substance use disorder?

Stigma

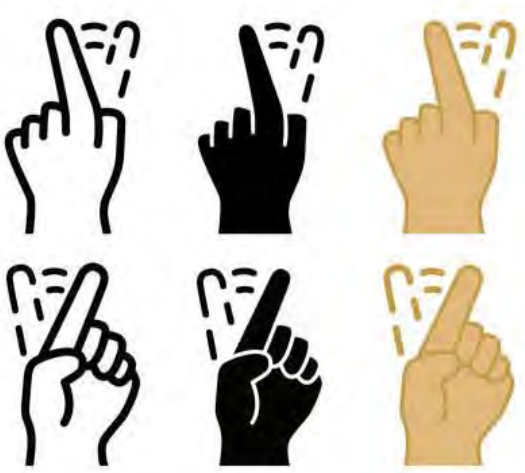
- Stigma is defined as “a mark of disgrace or reproach” or a negative attribute that causes someone to devalue or think less of the whole person
- Burden of stigma affected by two main factors
  - Perceived control over the condition
  - Perceived fault in acquiring the condition
- Example
  - Cancer vs substance use disorders



SAMHSA 2017

Stigma

- Stereotyping can occur when public perception connects labeled individuals to negative traits
- Stereotyping causes an emotional reaction by the general public
- Consequences for individuals
  - Discriminated against
  - Treated unjustly
  - Perceived as less valued by others



Yang LH et al 2017

Types of Stigma

- Self-stigma
- Social stigma
- Structural stigma
  - Livingston JD et al 2011

Effects of Substance Use Disorder-Related Stigma

- Exacerbates social alienation
- Can worsen mental and physical health
- Non-completion of substance use treatment, delayed recovery, increase in risk taking behaviors

Livingston JD et al 2011

Health Care Provider Attitudes

- Overuse system resources
- Not vested in their own health
- Abuse the system through drug-seeking, diversion and failure to adhere to recommended care

Livingston JD et al 2011

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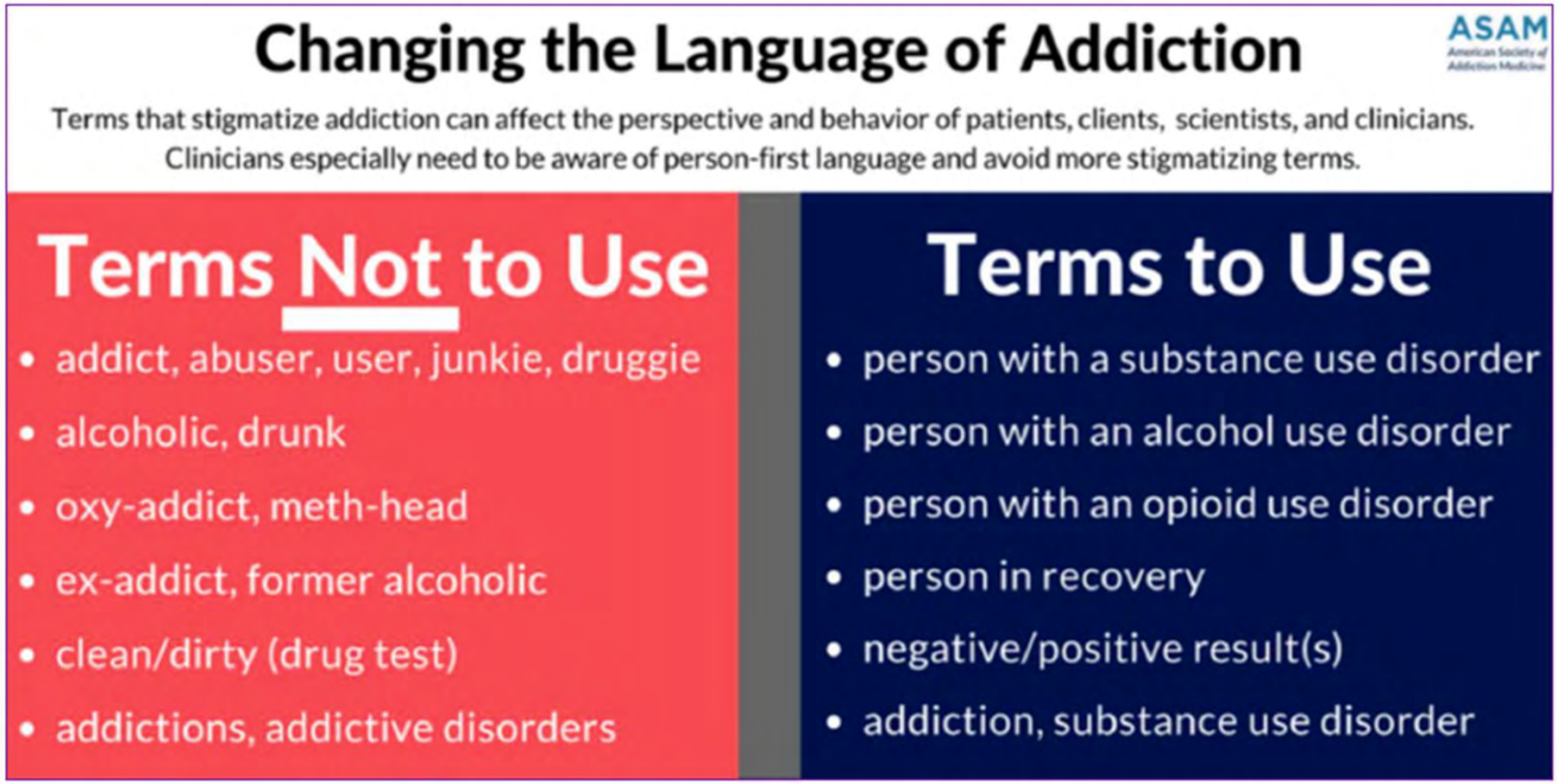
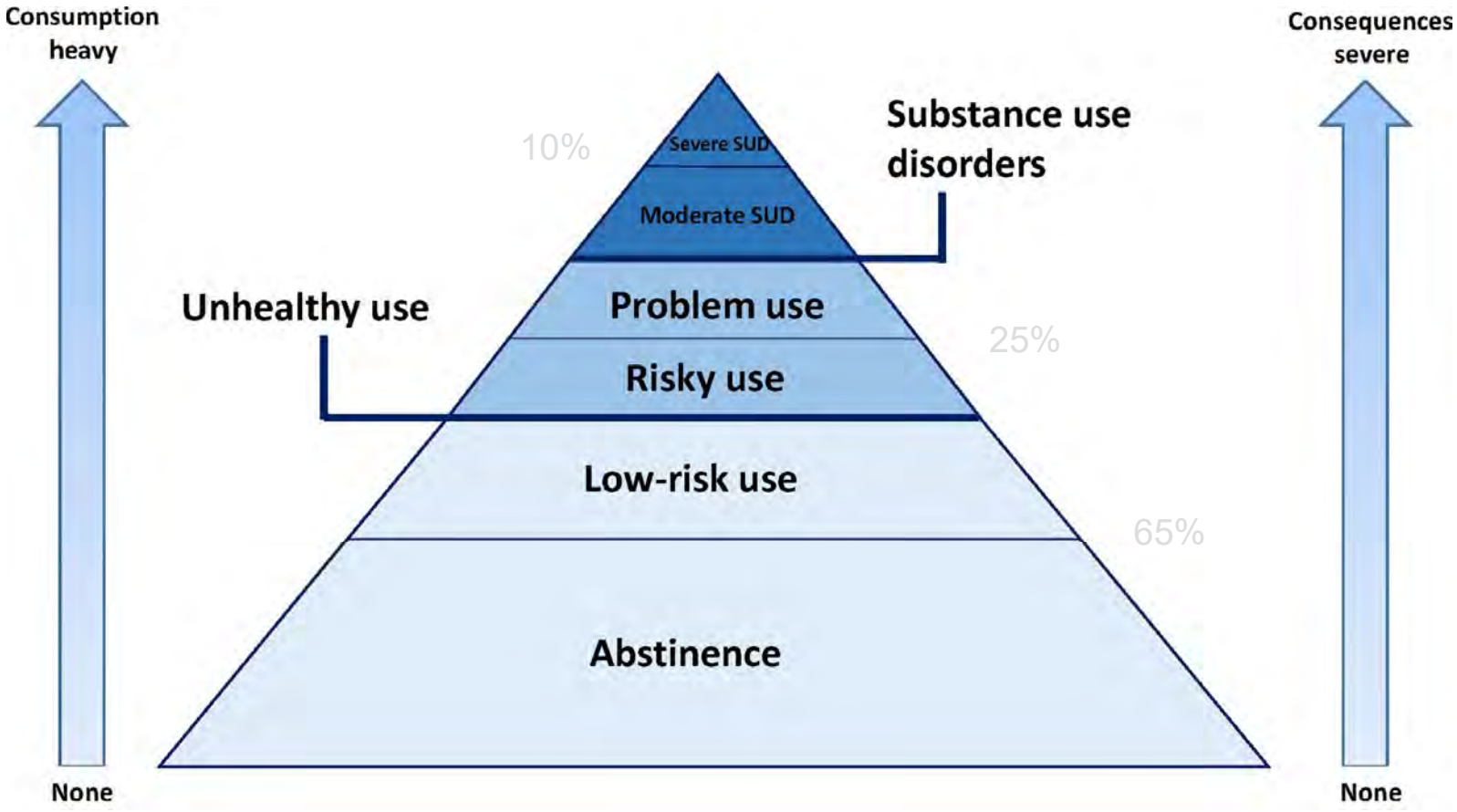
Language Affects Stigma



Clean vs Dirty Urine

UDTs are Positive or Negative

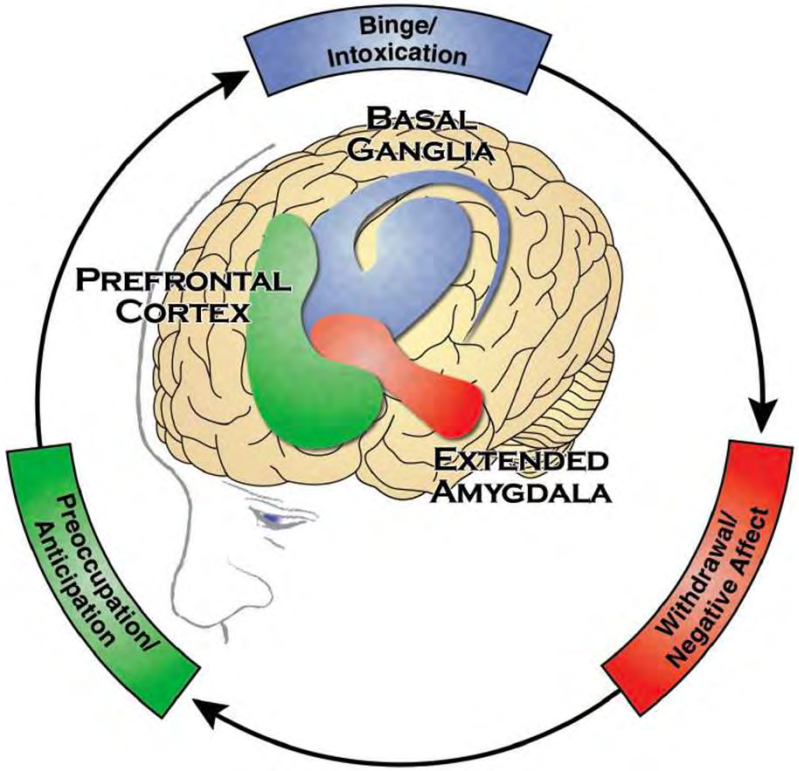
Substance Use Severity



Resident Related Attitudes

- Only seeing patients in ED, severely hospitalized, end stage substance users or repeat detoxification where they are more likely to have a negative experience with the patient and the possibility of recovery may feel remote
- Should see patients succeeding in recovery and longitudinal care to develop an understanding of the recovery process

Greenberg WM et al 2002, Avery J et al 2017, Patil D & Andry T 2016, Agrawal S etal 2016



SOURCE: Koob et al. 2008.

Cycle Of Addiction

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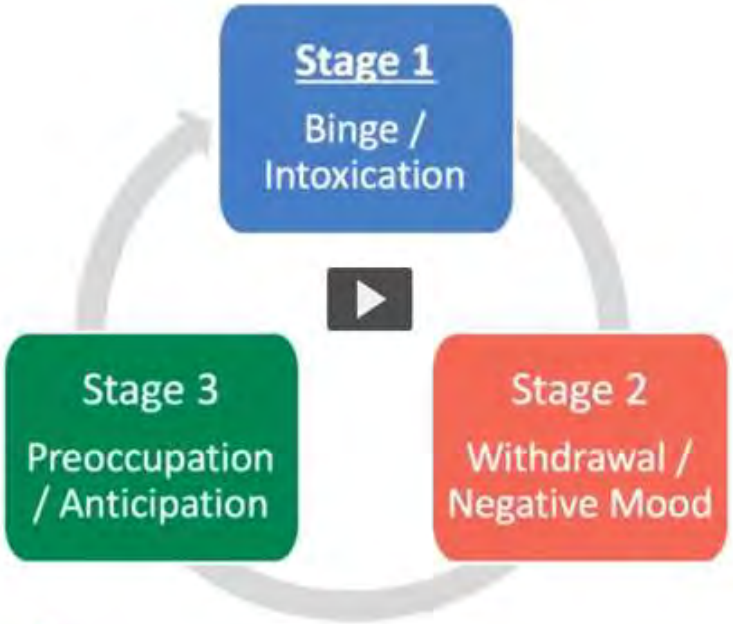
Three Stage Model of Addiction



Koob & Le Moal 2008

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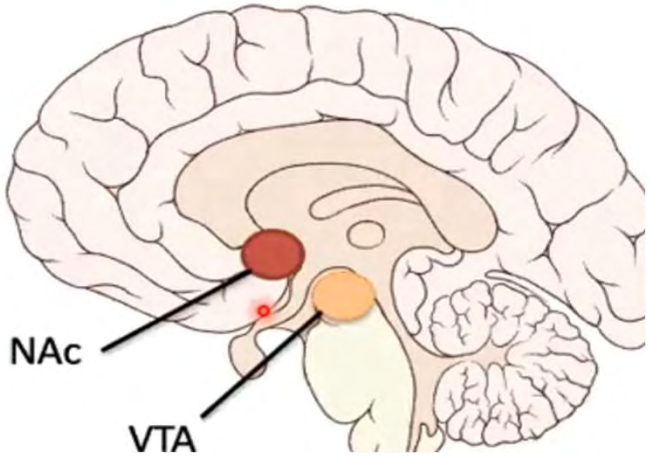
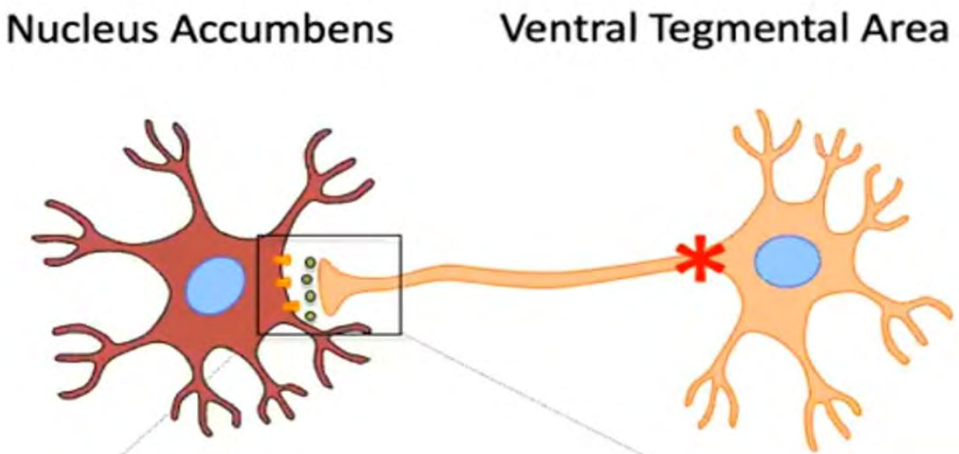
Three Stage Model of Addiction

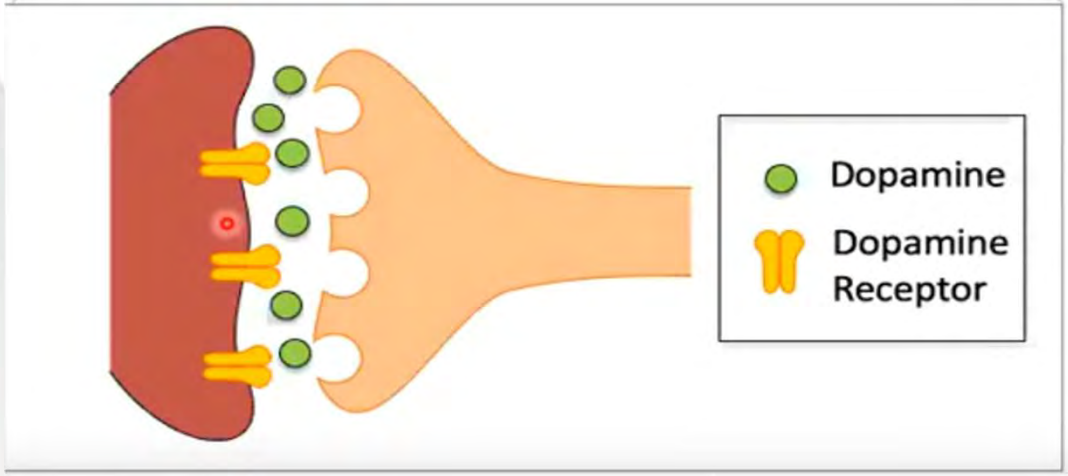
Stage 1

Binge / Intoxication

1. **Binge / Intoxication**
   - **Associated with positive reinforcement & motivational learning**
   - **Associating cues with reward delivery**







What does ↑ dopamine signal

- ↑ Value of future reward / of work to gain the reward
- ↑ Motivation to obtain rewar
- ↑ WANT

– ***Evolved out of survival*** –

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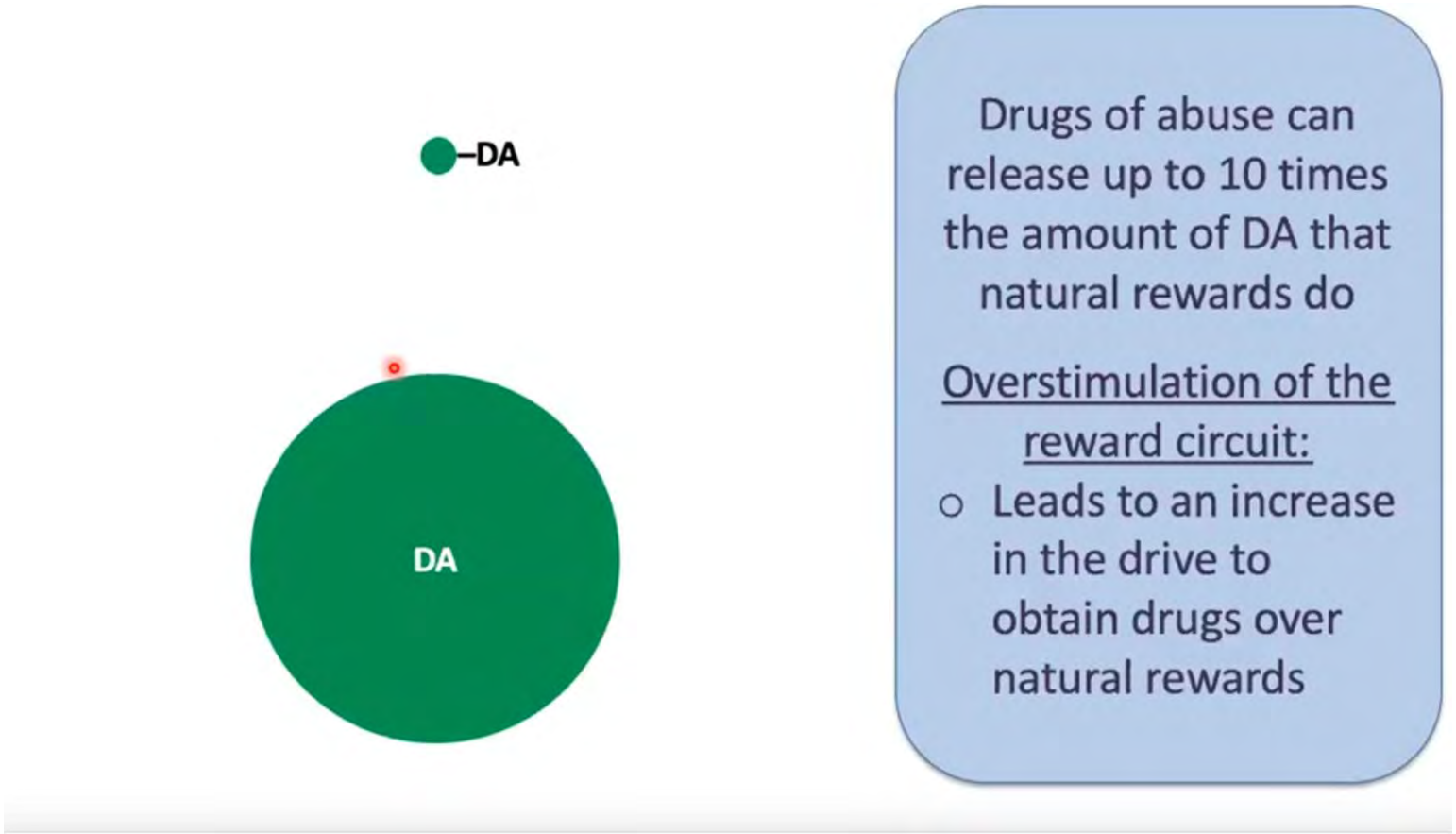
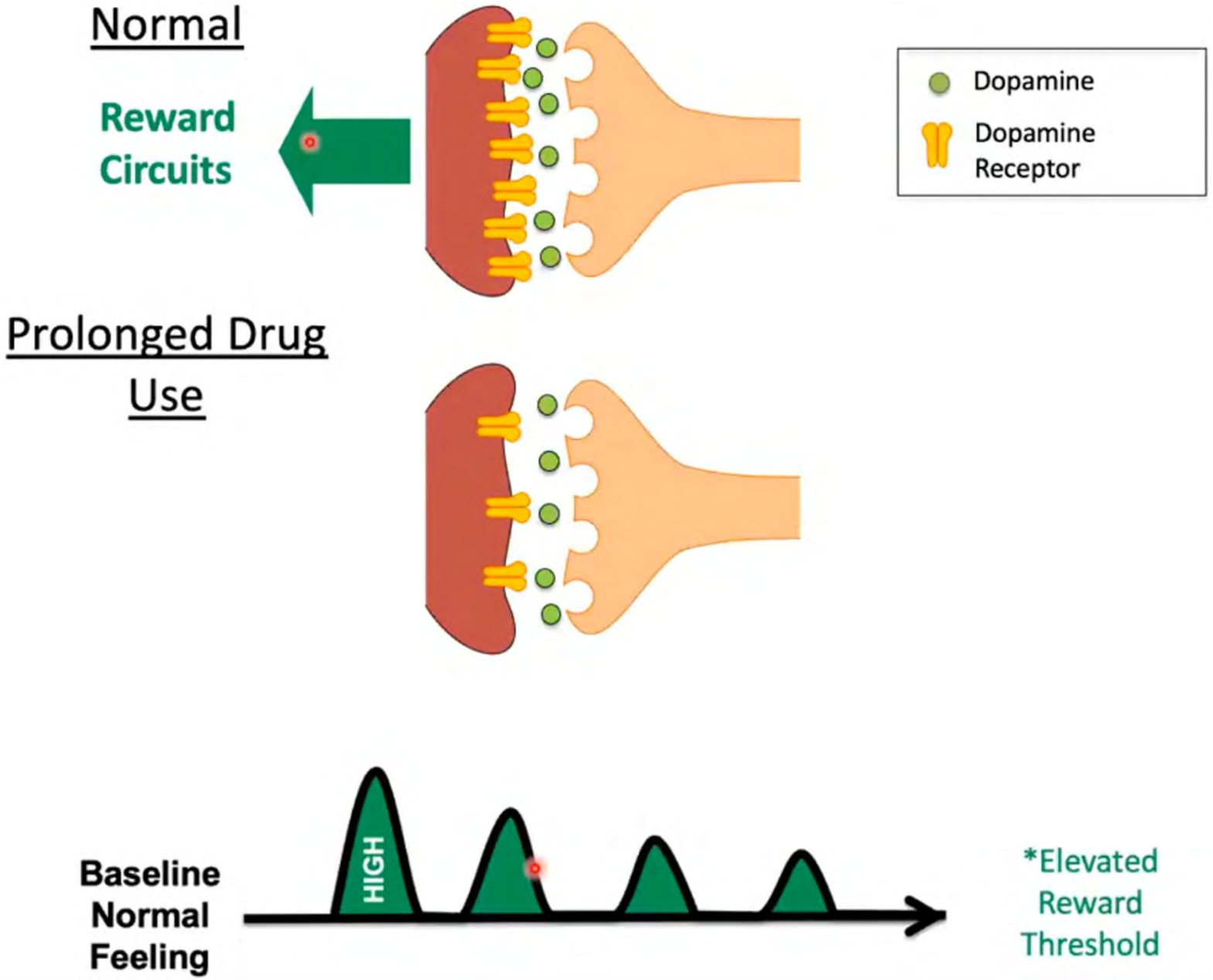
Drugs of abuse can be more reinforcing than natural rewards



DA neurons will eventually fire in response to cues the predict the reward

Conditioned stimuli paired formerly paired with the drug elicit DA release

- Trigger craving
- Increase motivation to seek out drug
- May lead to binge use



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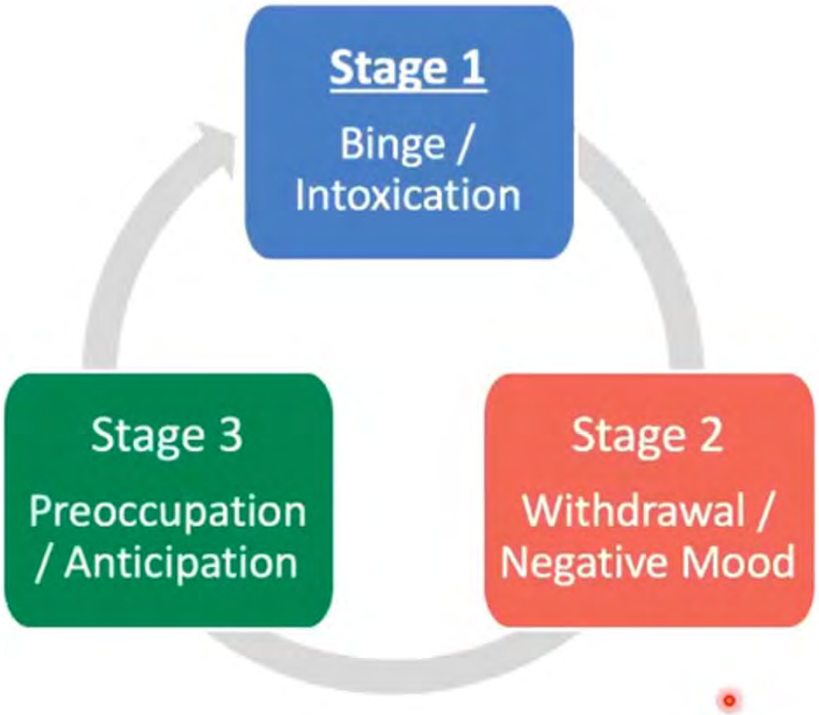
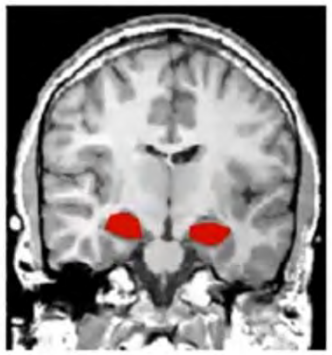
Three Stage Model of Addiction



2. **Negative Affect & Withdrawal**
   - **Associated with negative reinforcement and increases in stress**

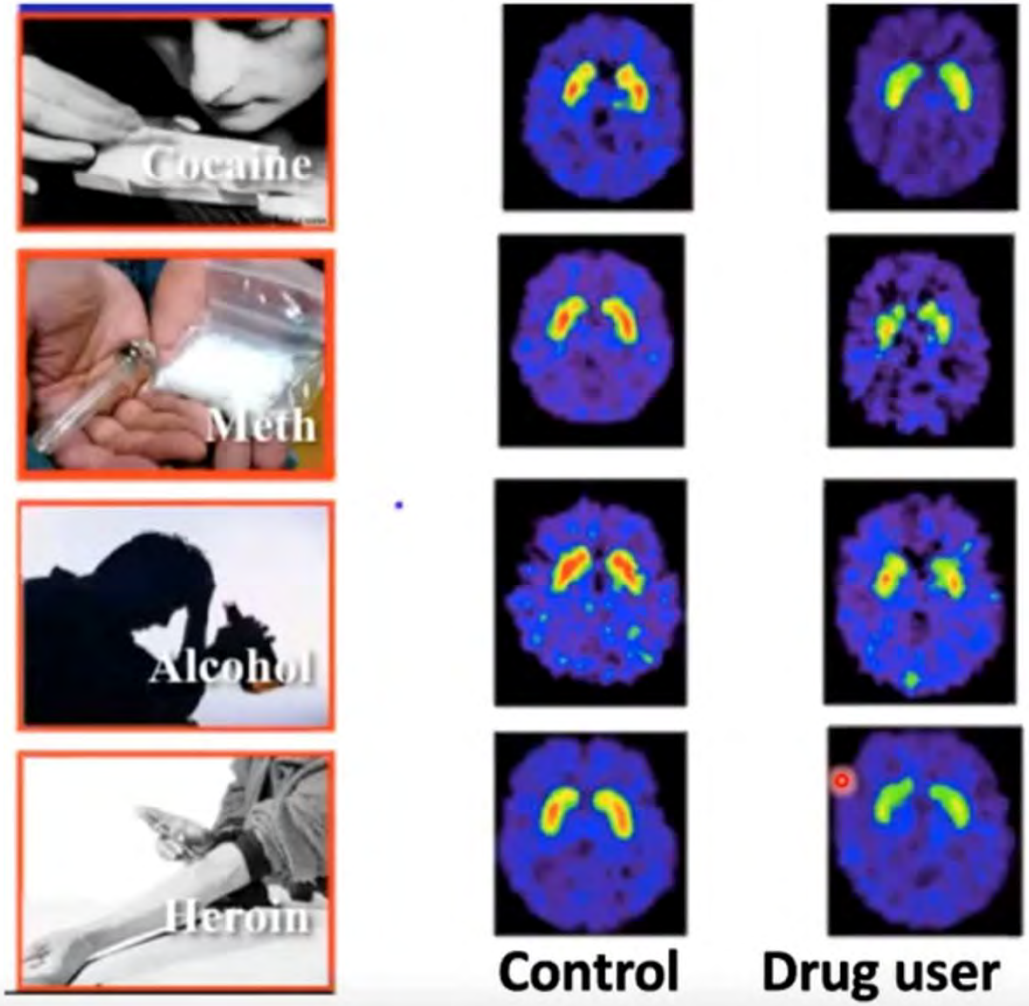


Koob & Le Moal 2008

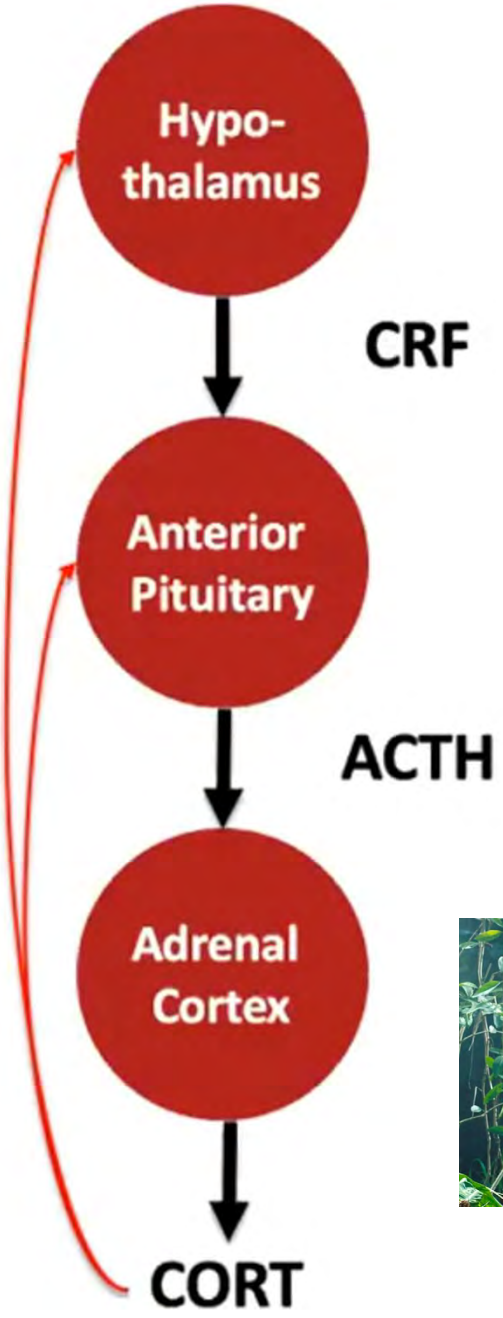
Neuroadaptations as a result of *prolonged* drug use: Dopamine

- At baseline, dopamine receptor concentration is reduced to compensate for the frequent, large dopamine surges elicited by drug use

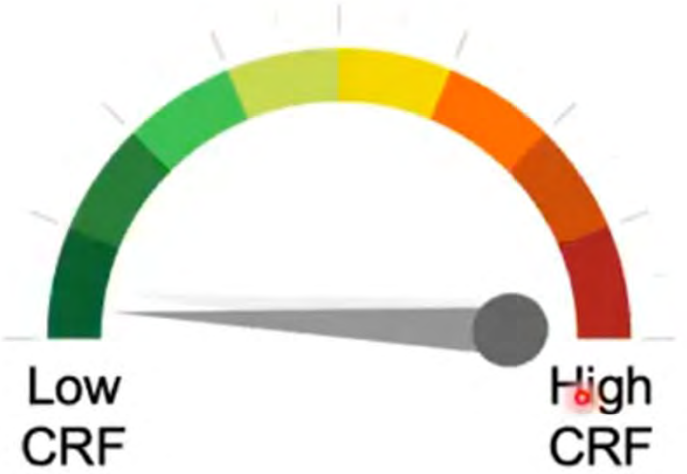
Volkow et al 2009



HPA/Stress Axis



Stress Systems Dysregulated



Stress Systems
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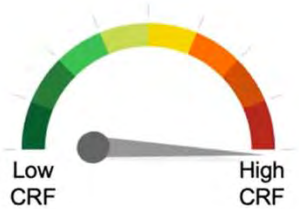

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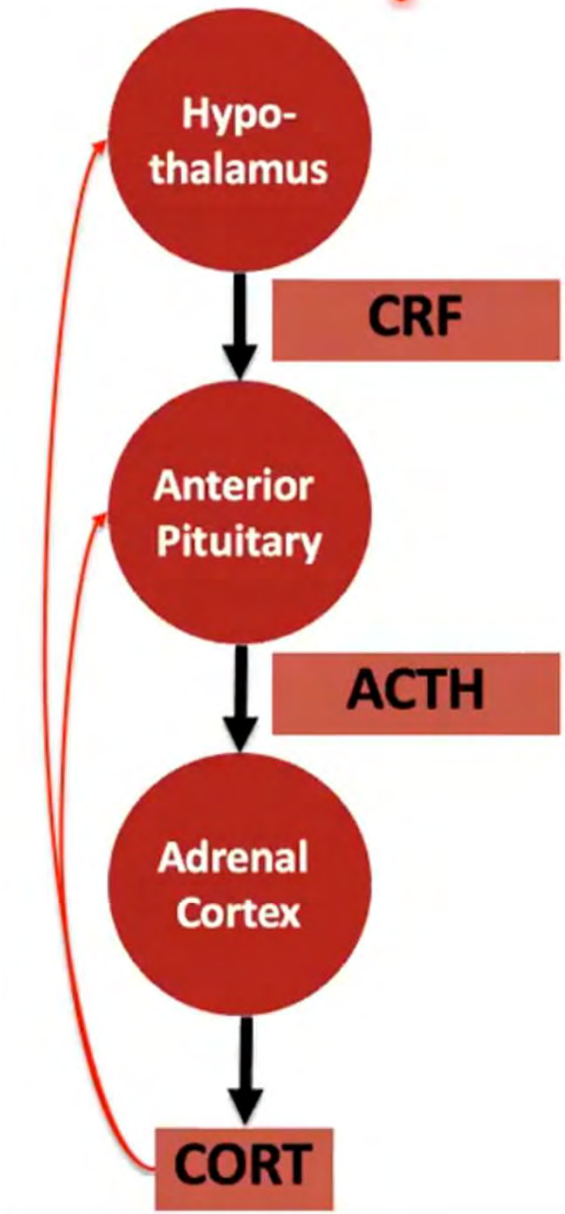

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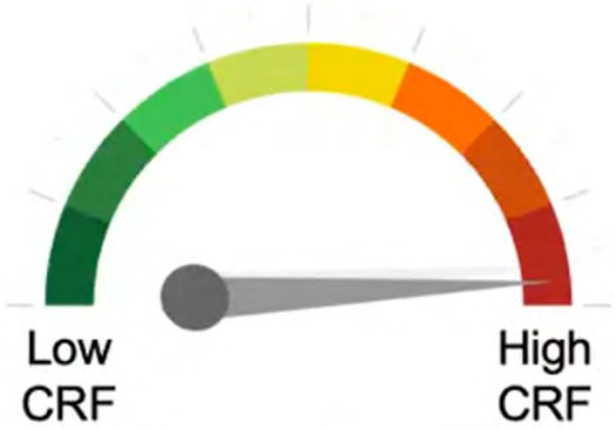

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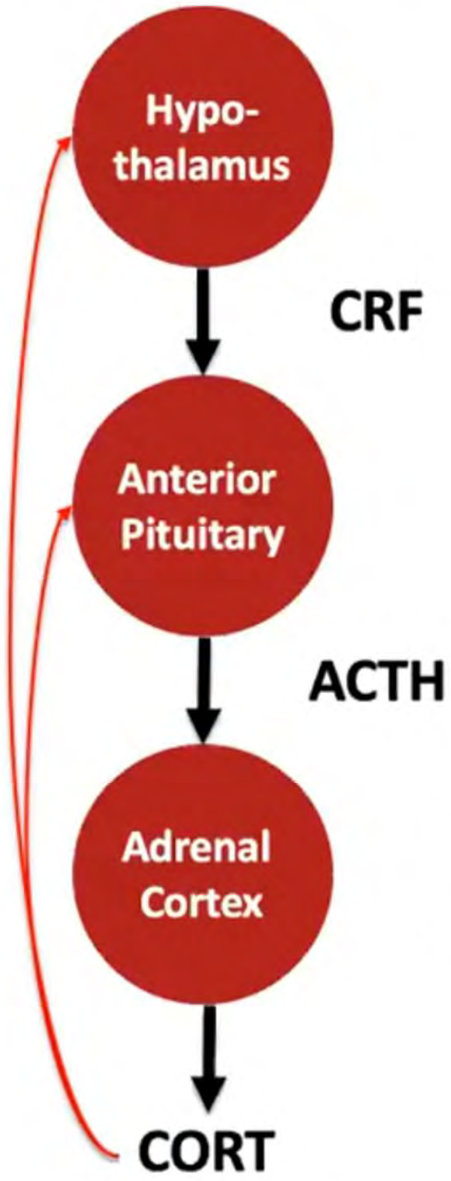

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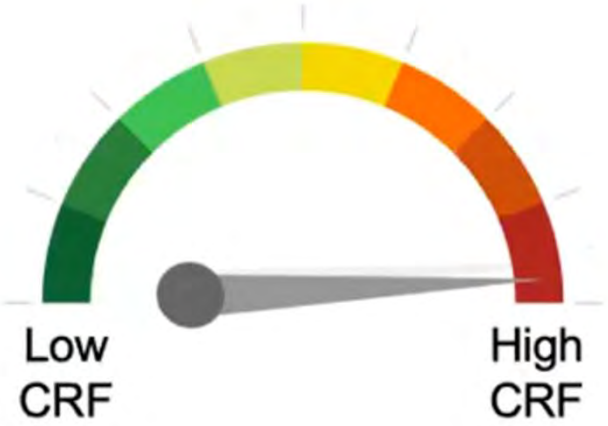

*Negative Motivational / Affective state

Long-term Result of Neuroadaptations

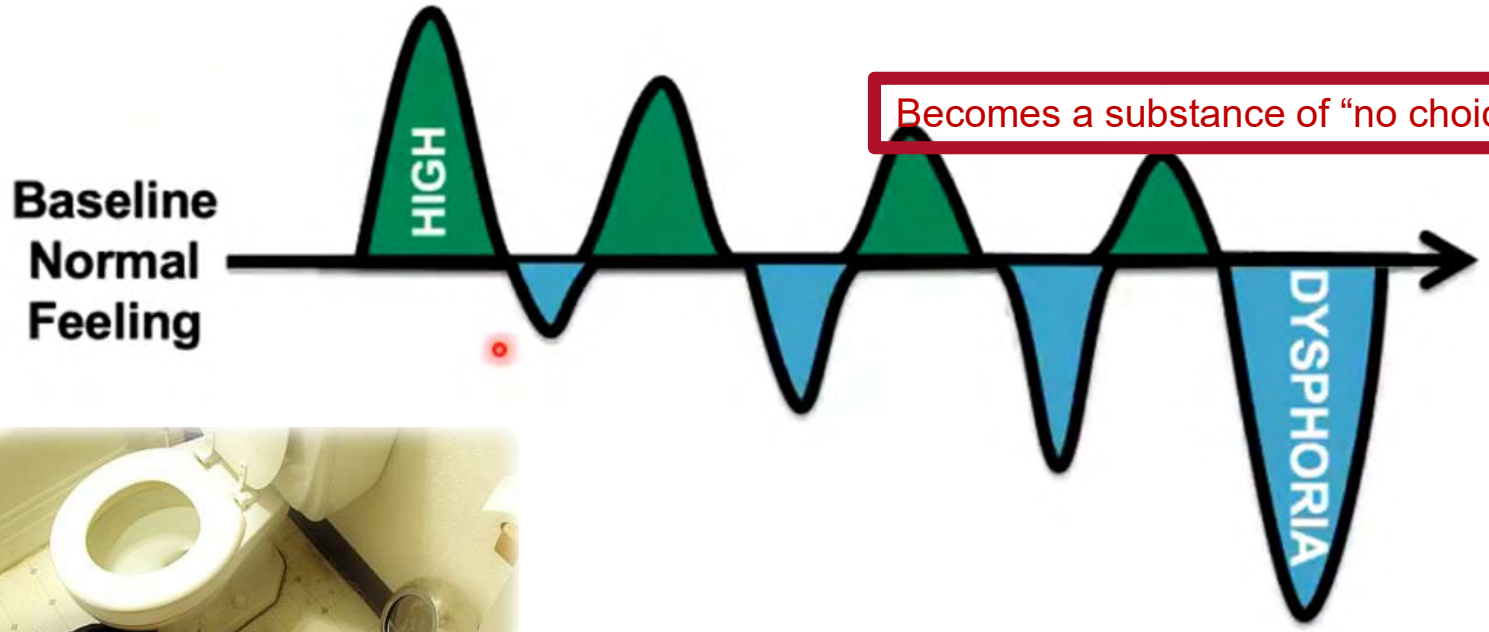

Exhibit 4. Possible Symptoms of Protracted Withdrawal

- Anxiety
- Sleep difficulties
- Problems with short-term memory
- Persistent fatigue
- Difficulty concentrating and making decisions
- Alcohol or drug cravings
- Impaired executive control
- Anhedonia
- Difficulty focusing on tasks
- Dysphoria or depression
- Irritability
- Unexplained physical complaints
- Reduced interest in sex

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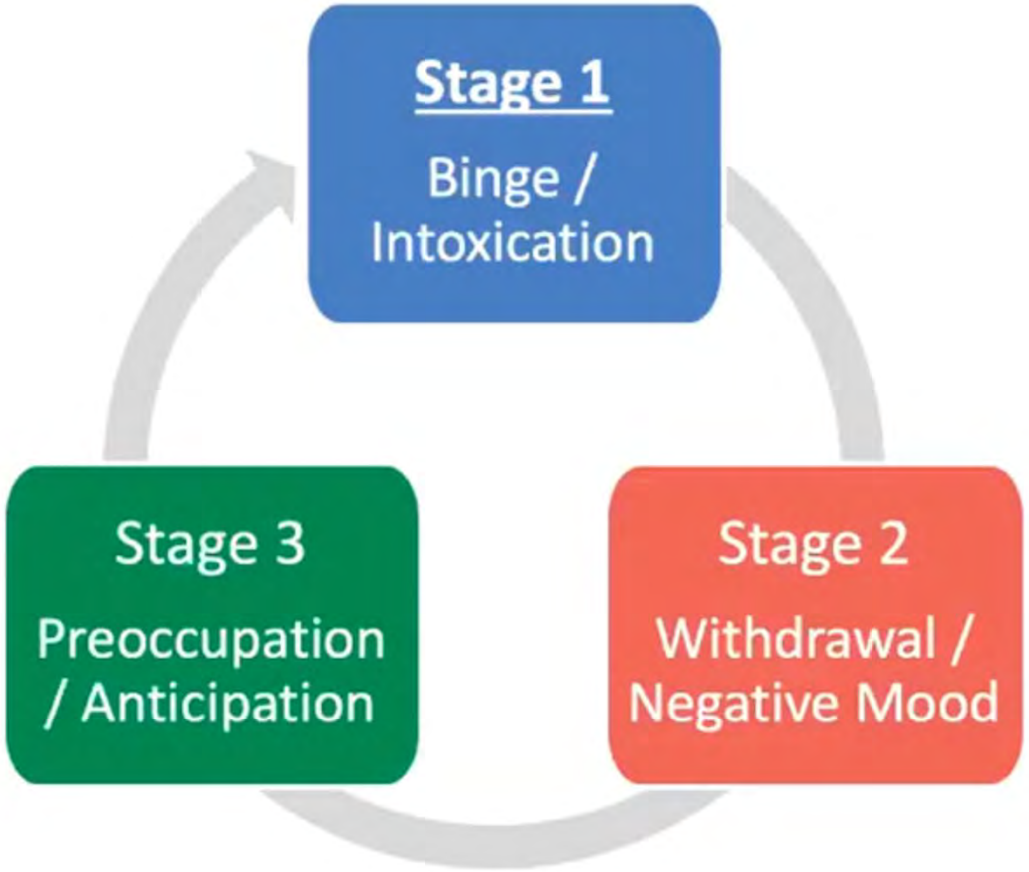
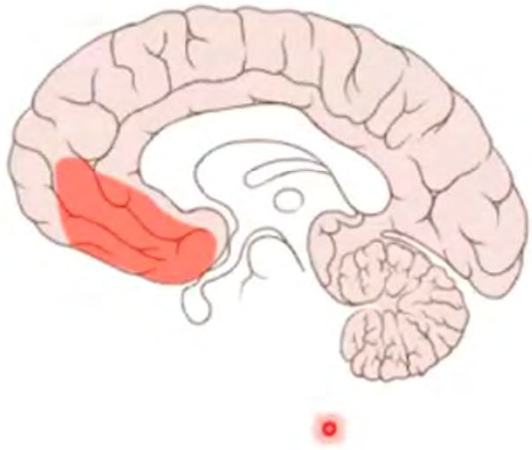
What's Going On Inside?
Why Is It Not Like the Outside?

Zerbo, Schlechter, Desai, and Levounis, *Becoming Mindful*, 2017.

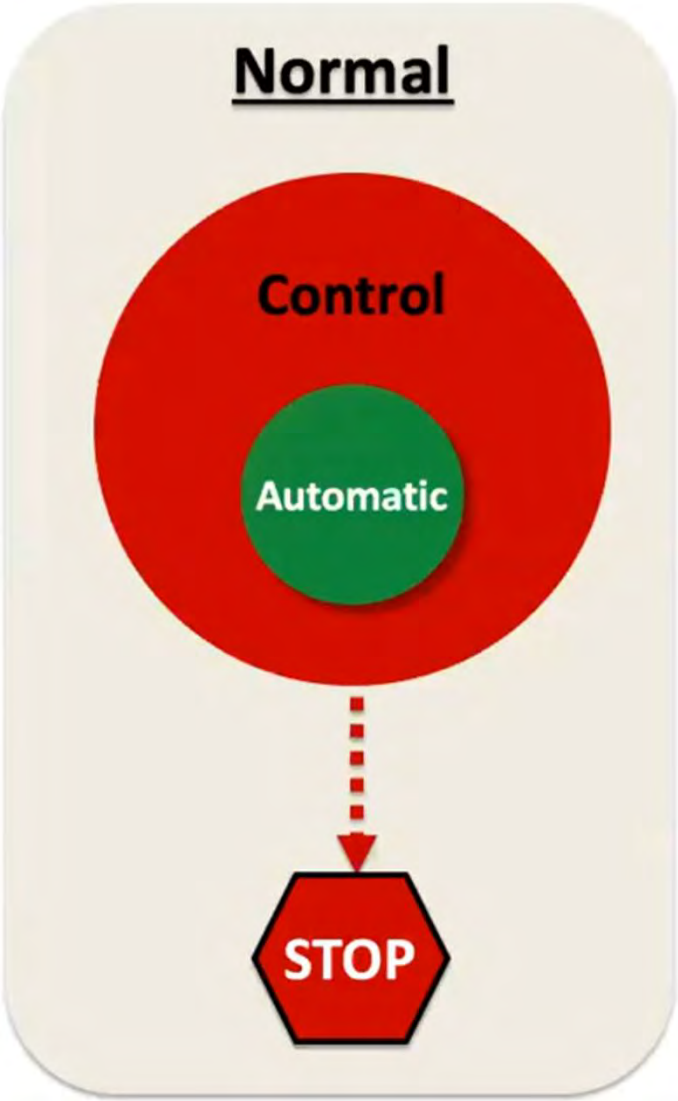
Three Stage Model of Addiction

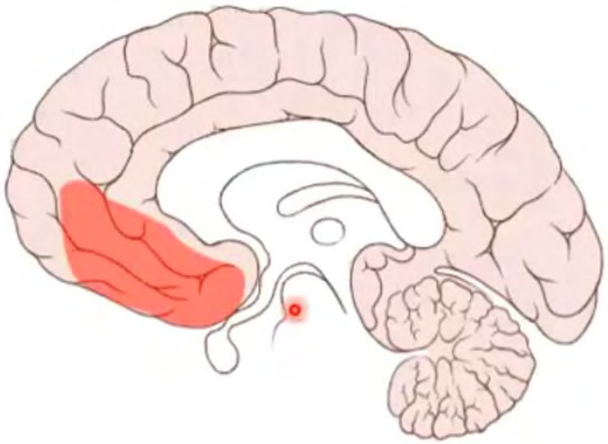


3. **Preoccupation & Anticipation**
   - **Associated with changes to executive functioning**



Koob & Le Moal 2008





OUCH!

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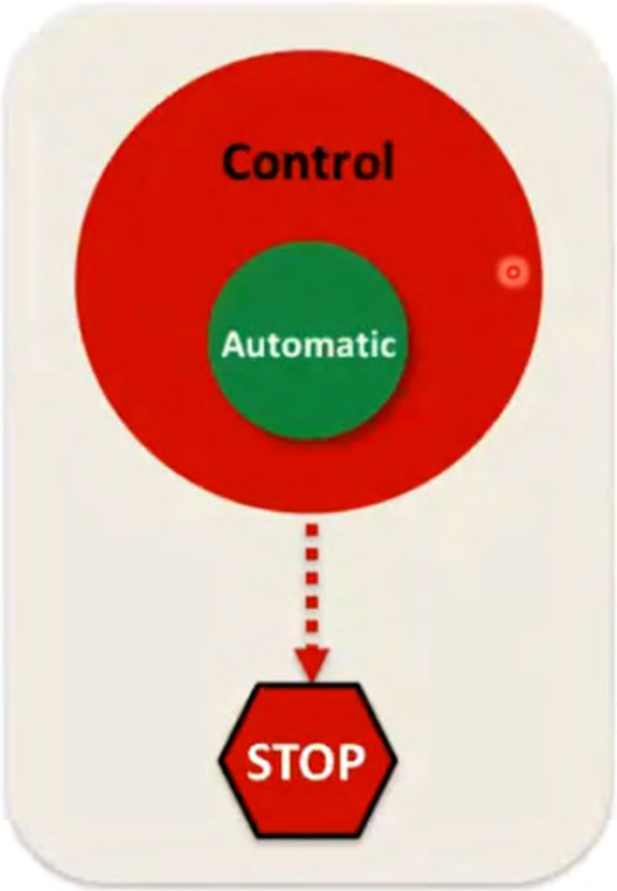
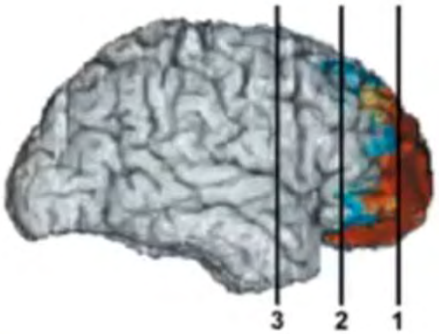
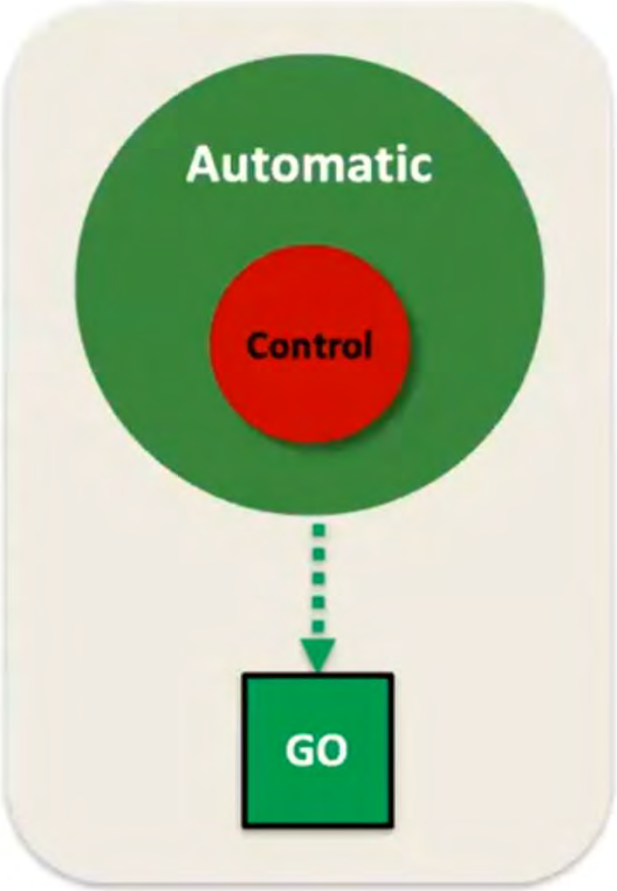
What happens if there is PFC dysfunction?

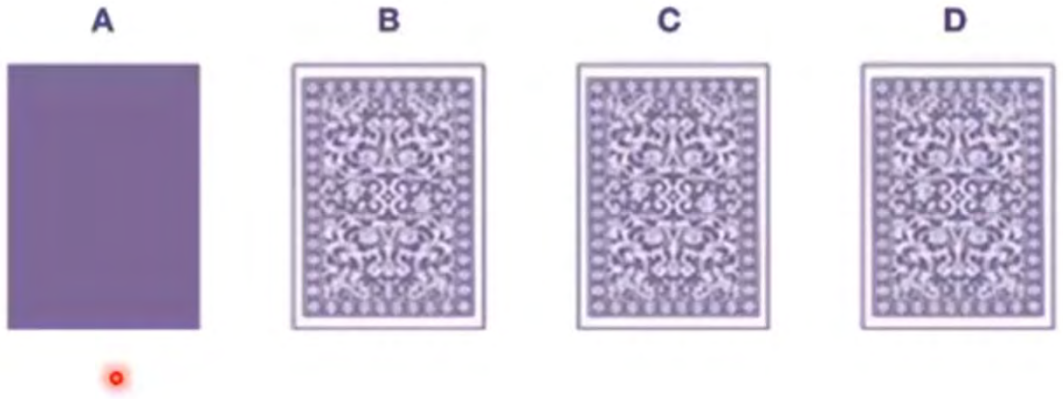




Bechara 2008



Iowa Gambling Task



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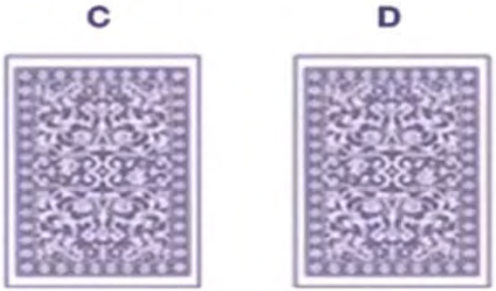
Iowa Gambling Task

GOOD



- WINS: Small, Frequent
- LOSSES: Moderate, Rare

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Iowa Gambling Task

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Iowa Gambling Task

GOOD

- WINS: Small, Frequent
- LOSSES: Moderate, Rare

BAD

- WINS: Large, Rare
- LOSSES: Large, Frequent

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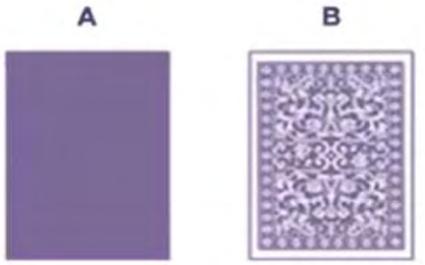
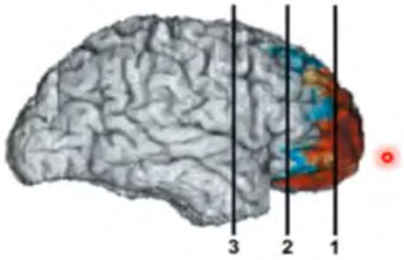
Iowa Gambling Task



BAD

- WINS: Large, Rare
- LOSSES: Large, Frequent



Bechara 2008

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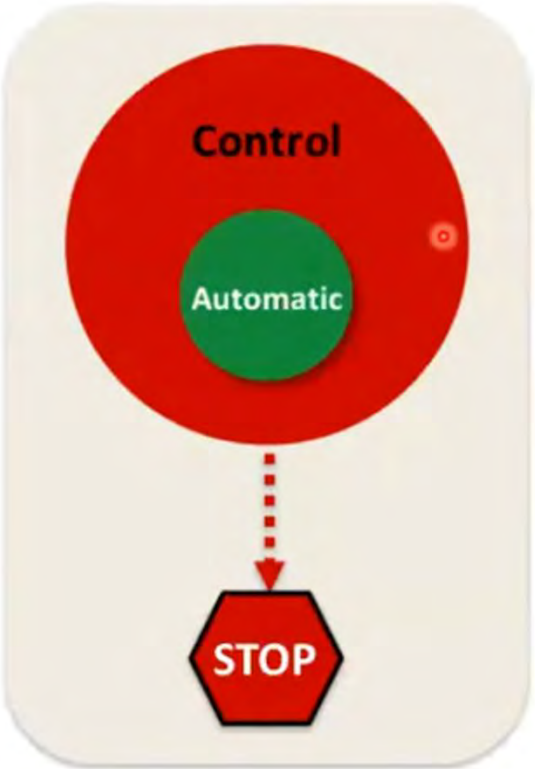
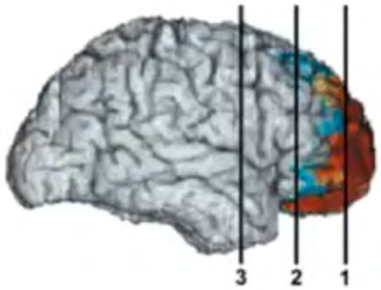
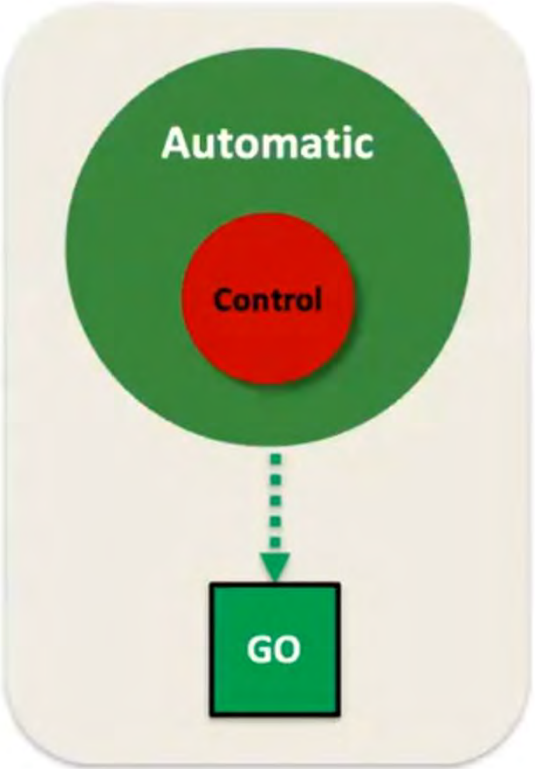




Bechara 2008



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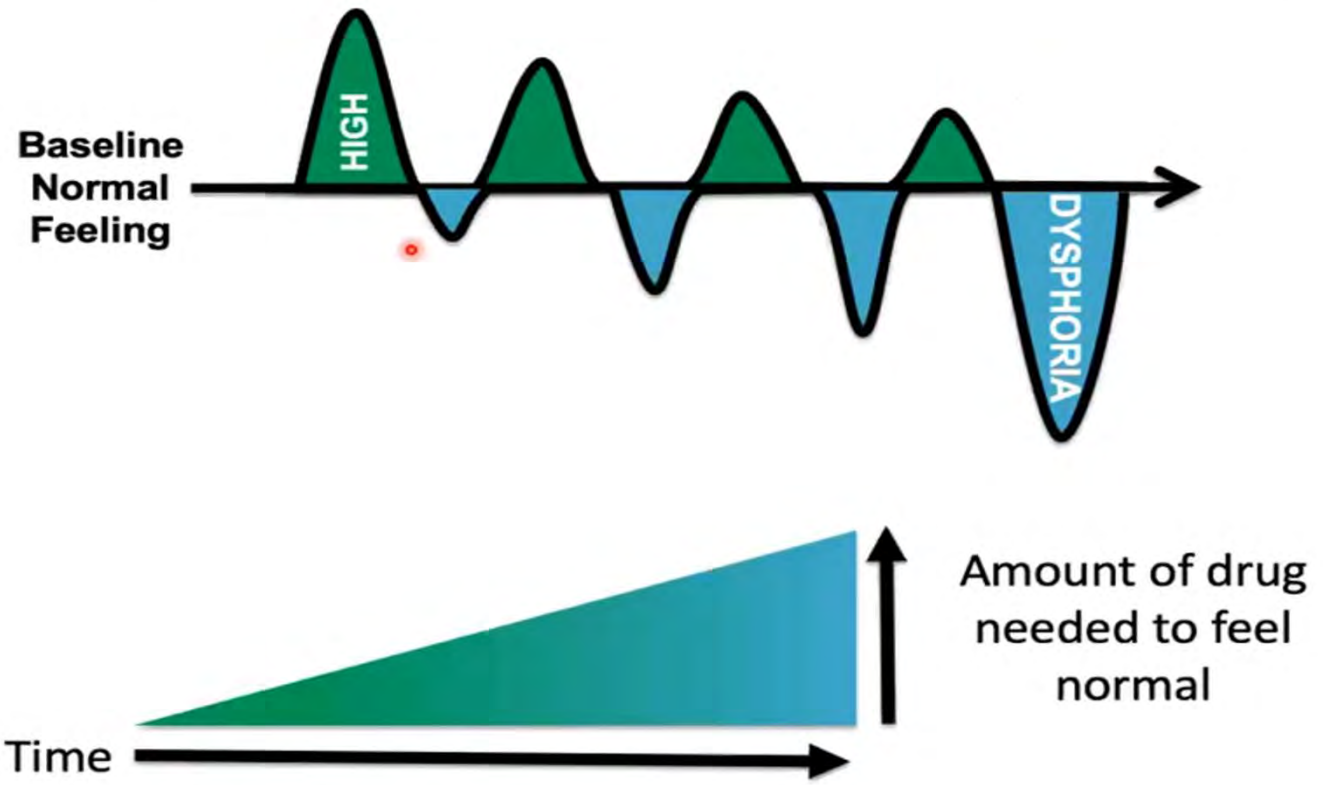
Long-term Result of Neuroadaptations



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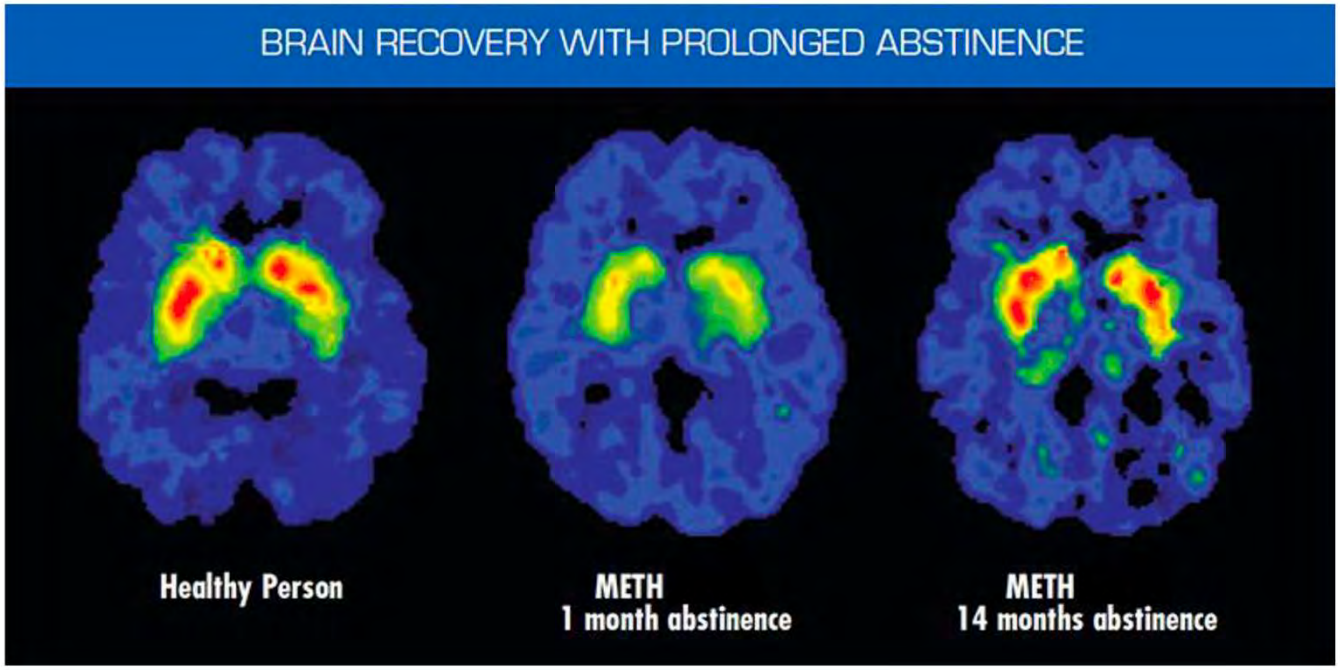
Visualizing Recovery



Volkow et al. J. Neurosci., December 1, 2001, 21(23):9414–9418

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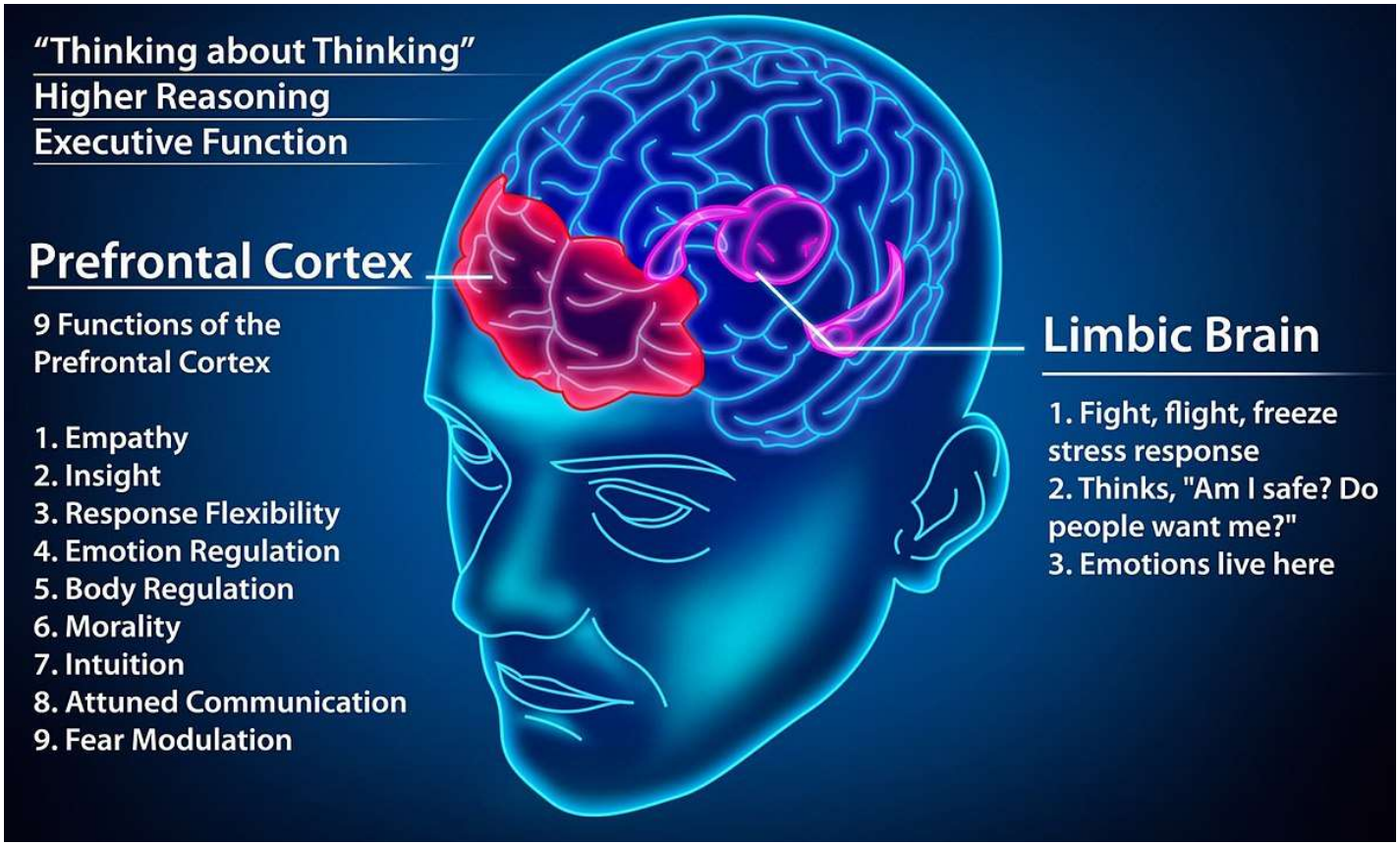
Addiction: ABC's

- Inability to ***A***bstain
- Little control over ***B***ehavior
- ***C***raving for substances or rewarding experiences
- ***D***ecreased ability to see problems with behavior and relationship
- A problematic ***E***motional response

Who Acts as the Prefrontal Cortex when it is Offline?



Strategies to Improve Attitudes

- Education on the stigmatized attitudes that clinicians hold towards individuals with SUDs
- Exposure to maintenance pharmacotherapy (e.g. buprenorphine training)
- Exposure to patients in recovery
- Mentorship from senior clinicians trained in addiction psychiatry
- Reflection exercises

Reflection Techniques

- Facilitate the development of increased awareness of deeply held, yet often unexamined attitudes, values, and beliefs related to working with people with substance use disorders
- Internally examines and explores issues, triggered by an experience which clarifies the meaning to the individual
- Increase self-awareness of embedded beliefs
- Humanize the understanding of mental health and addiction problems and enhance the compassion and understanding of these problems
- Examples
  - Reflection journaling
  - Reflection papers

Ballon BC et al, 2008
Shepherd R 2009

Addiction Medicine Fellowship

- **Addiction Medicine Fellowship**
  - Meet Our Core Faculty
  - Goals and Objectives
  - Curriculum
  - Eligibility Requirements
  - Application Process
  - Addiction Medicine Executive Fellowship
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Fellowship Director

Director:
Kenneth Zoucha, MD
402.552.6002
kenneth.zoucha@unmc.edu

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Questions?

Varun Sharma, MD
University of Nebraska Med Center
vasharma@unmc.edu

Ken Zoucha, MD
University of Nebraska Med Center
Kenneth.Zoucha@unmc.edu
Twitter: @DrKenZoucha

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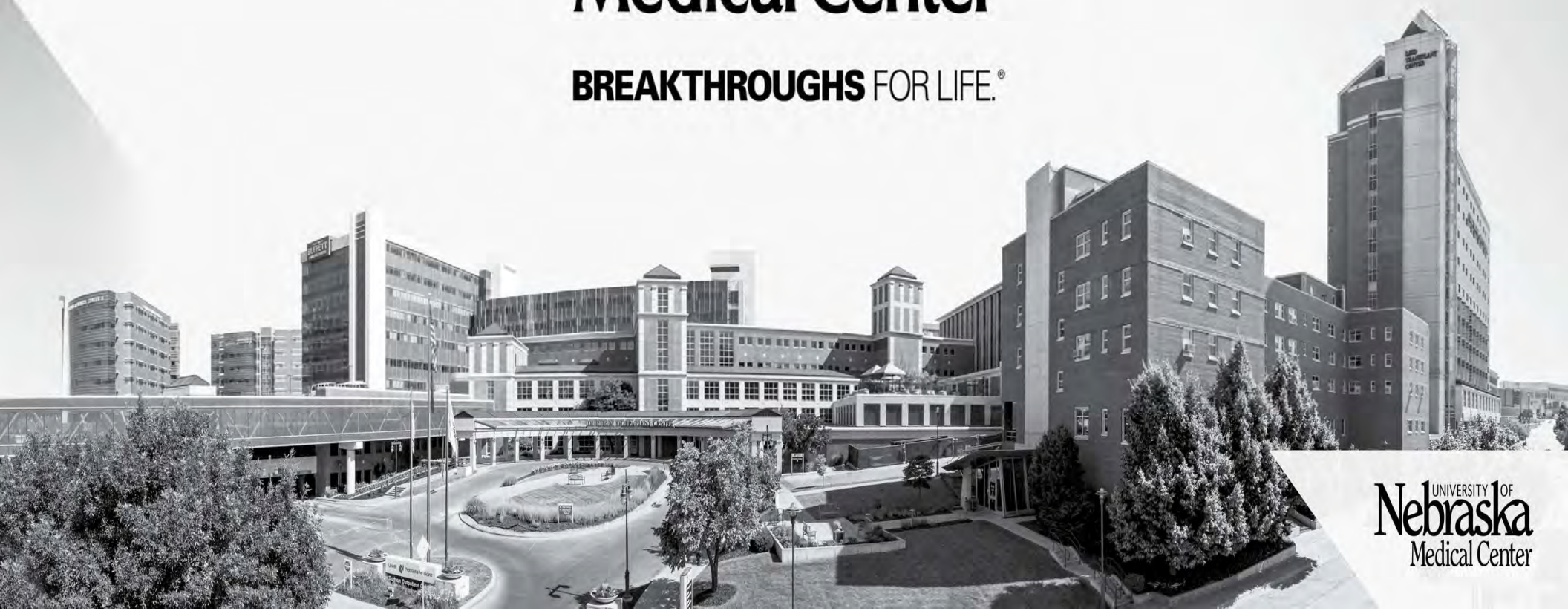

Co-occurring Disorders

Tianqi Luo, DO
Varun Sharma, MD
UNMC Department of Psychiatry

University of Nebraska Medical Center
Nebraska Medicine

Why does it matter?

- Co-occurring mental disorders increase risk of substance use disorder (SUD) and can develop due to SUD
- SUD is an independent factor for increased suicidal ideation and suicide attempts
- Dual diagnosis and treatment is critical

Internalizing vs Externalizing

Internalizing: Negative emotions and cognitions are directed inwards, ex. Anxiety, depression

Externalizing: Maladaptive behaviors directed outwardly towards others or environment, ex. ADHD, conduct disorder, oppositional defiant disorder

Statistics

In 13-18 year olds with mental disorders, rates of a co-occuring SUD range from 61-88%.

Most common internalizing disorders in adolescent SUD:

Depression: 30%

Anxiety: 38%

Most common externalizing disorders in adolescent SUD:

Conduct disorder: 69%

ADHD: 28%

Major categories of psychiatric symptoms:

1. Externalizing disorders:
   - ADHD
   - Behavioral problems
     - Conduct disorder
     - Oppositional defiant disorder

2. Internalizing disorders
   - Mood disorders
     - Depression
     - Bipolar disorder
     - DMDD (disruptive mood dysregulation disorder)
   - Anxiety disorders
     - Panic disorder,
     - Generalized anxiety
     - School avoidance

3. Psychosis

Case 1:

Tommy is a 7-year-old boy who often forgets to do his homework. His parents say that he is bright and curious. However, his school performance has been poor, and he is at risk of repeating second grade. He is known to his friends as the “class clown” and will frequently interrupt the teacher with silly comments to make his classmates laugh.

ADHD

- Attention-Deficit/Hyperactivity Disorder: Core symptoms of hyperactivity or inattention present in more than one setting and affecting academic, behavioral, and emotional functioning
- Inattention predominant, hyperactivity predominant, and combined subtypes

Criteria of ADHD

Symptoms of hyperactivity or inattention must:

- Be present before the age of 12 years.
- Occur in multiple environments—at least 2, such as home and school. If only at home, then possibly oppositional defiant disorder (ODD) or parental expectations. If only at school, and not home, Sunday School, or extracurricular settings, then symptoms may be an undiagnosed learning disability (LD).
- Interfere with or decrease quality/productivity of academic, occupational, or social functioning.
- Be present for at least 6 months.
- Be inconsistent with the developmental level of the child.

SYMPTOMS OF **inattention**

- Often fails to give close attention or makes careless mistakes.
- Often has difficulty sustaining attention in tasks or play.
- Often doesn't pay attention when spoken to directly.
- Often does not follow through (instructions/school work/ chores).
- Often has difficulty organizing tasks/activities.
- Often avoids/dislikes/reluctant to perform sustained mental effort.
- Often loses things necessary to accomplish tasks or activities.
- Often easily distracted.
- Often forgetful in daily activities.

SYMPTOMS OF **hyperactivity**

- Often fidgets with hands or feet, squirms in seat.
- Often leaves seat in class or other settings.
- Often runs about or climbs excessively.
- Often has difficulty playing quietly.
- Often "on the go," acts like "driven by a motor."
- Often talks excessively.
- Often blurts out answers before questions are asked.
- Often has difficulty awaiting his/ her turn.
- Often interrupts or intrudes on others.

ADHD

- More common in males than females
- First line treatment of ADHD is stimulants
- Research shows that stimulant treatment of ADHD in childhood reduces SUD in adolescents
- Diagnosis of ADHD can be tricky if there is co-morbid substance use
- There is evidence that shows therapy (CBT/MI) is beneficial

Vanderbilt ADHD Diagnostic Parent Rating Scale

Patient Name: _____ Today's Date: _____

Date of Birth: _____ Age: _____

Grade: _____

Each rating should be considered in the context of what is appropriate for the age of your child.

Frequency Code: 0 = Never; 1 = Occasionally; 2 = Often; 3 = Very Often

1. Does not pay attention to details or makes careless mistakes, such as in homework	0	1	2	3
2. Has difficulty sustaining attention to tasks or activities	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through on instruction and fails to finish schoolwork (not due to oppositional behavior or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (school assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by extraneous stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected	0	1	2	3
12. Runs about or climbs excessively in situations when remaining seated is expected	0	1	2	3
13. Has difficulty playing or engaging in leisure activities quietly	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes on others (butts into conversations or games)	0	1	2	3
19. Argues with adults	0	1	2	3
20. Loses temper	0	1	2	3
21. Actively defies or refuses to comply with adults' requests or rules	0	1	2	3
22. Deliberately annoys people	0	1	2	3
23. Blames others for his or her mistakes or misbehaviors	0	1	2	3
24. Is touchy or easily annoyed by others	0	1	2	3
25. Is angry or resentful	0	1	2	3

Common Medications

Type of medication	Brand name	Generic Name	Duration
Short-acting amphetamine stimulants	Adderall	Mixed amphetamine salts	4 to 6 hours
	Dexedrine	Dextroamphetamine	4 to 6 hours
	Dextrostat	Dextroamphetamine	4 to 6 hours
Short-acting methylphenidate stimulants	Focalin	Dexmethylphenidate	4 to 6 hours
	Methylin	Methylphenidate (tablet, liquid, and chewable tablets)	3 to 5 hours
	Ritalin	Methylphenidate	3 to 5 hours
Intermediate-acting methylphenidate stimulants	Metadate CD	Extended-release methylphenidate	6 to 8 hours
	Ritalin LA	Extended-release Methylphenidate	6 to 8 hours
Long-acting amphetamine stimulants	Adderall-XR	Extended-release amphetamine	10 to 12 hours
	Dexedrine Spansule	Extended-release amphetamine	6+ hours
	Vyvanse	Lisdexamfetamine	10 to 12 hours
Long-acting methylphenidate stimulants	Concerta	Extended-release methylphenidate	10 to 12 hours
	Daytrana	Extended-release methylphenidate (skin patch)	11 to 12 hours
	Focalin XR	Extended-release dexmethylphenidate	8 to 12 hours
	Quillivant XR	Extended-release methylphenidate (liquid)	10 to 12 hours
Long-acting non-stimulants	Intuniv	Guanfacine	24 hours
	Kapvay	Clonidine	12 hours
	Strattera	Atomoxetine	24 hours

Products are mentioned for informational purposes only and do not imply an endorsement by the American Academy of Pediatrics. Your doctor or pharmacist can provide you with important safety information for the products listed.

Case 2:

Michael is a 13-year-old boy who is facing expulsion for beating up a classmate. In addition, he has gotten into trouble for smoking marijuana in the bathroom and for trying to shoplift cigarettes at a local convenience store. He was removed from the care of his single mother who has substance use problems last year and is in foster care.

Conduct Disorder

- Persistent and repetitive pattern of behavior violating basic rights of others or major societal norms
- 2:1 male to female ratio
- 25% of girls and 40% of boys with conduct disorder develop antisocial personality disorder
- High co-occurance with ADHD

Diagnostic Criteria for Conduct Disorder

TABLE 9.2 | Diagnostic Criteria for Conduct Disorder

DSM-5

(A) A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of at least three of the following 15 criteria in the past 12 months from any of the categories below, with at least one criterion present in the past 6 months:

Aggression to People and Animals

(1) Often bullies, threatens, or intimidates others.

(2) Often initiates physical fights.

(3) Has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun).

(4) Has been physically cruel to people.

(5) Has been physically cruel to animals.

(6) Has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery).

(7) Has forced someone into sexual activity.

Destruction of Property

(8) Has deliberately engaged in fire setting, with the intention of causing serious damage.

(9) Has deliberately destroyed others' property (other than by fire setting).

Deceitfulness or Theft

(10) Has broken into someone else's house, building, or car.

(11) Often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others)

(12) Has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery).

Serious Violations of Rules

(13) Often stays out at night despite parental prohibitions, beginning before age 13 years.

(14) Has run away from home overnight at least twice while living in parental or parental surrogate home, or once without returning for a lengthy period.

(15) Is often truant from school, beginning before age 13 years

(B) The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

(C) If the individual is 18 years or older, criteria are not met for Antisocial Personality Disorder.

Conduct Disorder

- Vulnerabilities: Both genetic and environmental. Parents may have poor parenting skills, struggle with SUD, or have antisocial traits themselves
- Medications are not primary treatment for conduct disorder
- Research shows that therapy including MST (multi systemic therapy), multidimensional family therapy, and A-CRA (Adolescent community reinforcement approach) decrease criminal activity

ODD

- Oppositional defiant disorder is characterized by a pattern of irritable mood, argumentative and defiant behavior, or vindictiveness
- Lifetime prevalence 11% in males, 9% in females
- Diagnosed by parent and teacher questionnaires
- Similar to conduct disorder in treatment

Oppositional Defiant Disorder (ODD)

Signs and symptoms of ODD can be grouped into three categories:

Anger and irritability

- Lose their temper easily.
- Frequent outbursts of anger and resentment.
- Touchy and/or easily annoyed by others.
- Frequently angry and/or disrespectful.

Argumentative and defiant behavior

- Excessively argue with adults.
- Actively refuse to comply with requests and rules.
- Blame others for their own mistakes.
- Deliberately try to annoy or upset others.

Vindictiveness

- Spiteful and seeking revenge.
- Saying mean and hateful things when angry or upset.

Cleveland Clinic

Case 3

Jillian is a popular and athletic 16-year-old high school sophomore. She runs track and field and is vice president of student council. Lately, her parents noticed that she has become moody and withdrawn. She no longer wants to go out with her friends, spends long periods of time in bed, and has lost weight.

Depression

- Among adolescents with SUD, prevalence of co-morbid depression is 3-6x higher than the general population
- Co-morbid depression leads to increased substance use treatment dropout, poorer treatment outcomes for SUD and depression, and earlier relapse of substance use

TABLE 1 DSM-5 criteria for major depressive disorder and persistent depressive disorder

Major depressive disorder (in children and adolescents, mood can be irritable)

5 or more of 9 symptoms (including at least 1 of depressed mood and loss of interest or pleasure) in the same 2-week period; each of these symptoms represents a change from previous functioning

- Depressed mood (subjective or observed)
- Loss of interest or pleasure
- Change in weight or appetite
- Insomnia or hypersomnia
- Psychomotor retardation or agitation (observed)
- Loss of energy or fatigue
- Worthlessness or guilt
- Impaired concentration or indecisiveness
- Thoughts of death or suicidal ideation or suicide attempt

Persistent depressive disorder (in children and adolescents, mood can be irritable and duration must be 1 year or longer)

Depressed mood for most of the day, for more days than not, for 2 years or longer

Presence of 2 or more of the following during the same period

- Poor appetite or overeating
- Insomnia or hypersomnia
- Low energy or fatigue
- Low self-esteem
- Impaired concentration or indecisiveness
- Hopelessness

Never without symptoms for more than 2 months

PHQ-9

		Not at all	Several days	More than half the days	Nearly every day
1.	Little interest or pleasure in doing things	0	1	2	3
2.	Feeling down, depressed, or hopeless	0	1	2	3
3.	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4.	Feeling tired or having little energy	0	1	2	3
5.	Poor appetite or overeating	0	1	2	3
6.	Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7.	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8.	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9.	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

Therapy

- Motivational enhancement therapy (MET): identify problem behavior and increase motivation to change
- Cognitive behavioral therapy (CBT): structured, goal oriented therapy that identifies and changes thought and behavioral patterns

Medications

- Antidepressants: SSRIs, SNRIs (Prozac, Lexapro, and Zoloft are FDA approved)
- FDA black box warning: increased suicidal thinking in children and adolescents
- First line treatment for mild depression is therapy
- For moderate to severe depression, start an SSRI. SSRI combined with therapy is more efficient than SSRI or therapy alone.

Bipolar Disorder

- Mood disorder characterized by periods of mania/hypomania and depression
- Mood swings are not bipolar disorder!
- Substance use can mimic mania, which can lead to misdiagnosis
- Important to distinguish between bipolar disorder and depression because they are treated with different medications
- Bipolar disorder is treated with mood stabilizers and antipsychotics

TABLE 2: Diagnostic Criteria for Manic Episode (DSM-5)

A. A distinct period of abnormally & persistently elevated, expansive or irritable mood & goal-directed activity or energy lasting at least 1 week & present most of the day, nearly every day.
B. During the period of mood disturbance, three of the following (or four of the following if the mood is only irritable) are present & represent a noticeable change from usual behavior:
    1. Inflated self-esteem or grandiosity
    2. Decreased need for sleep (e.g. feels rested after 3 hrs of sleep)
    3. More talkative than usual, or pressure to keep talking
    4. Flight of ideas or subjective experience that thoughts are racing
    5. Distractibliity (as reported or observed)
    6. Increase in goal-directed activity or psychomotor agitation
    7. Excessive involvement in activities that have a high potential for painful consequences (e.g. unrestrained buying sprees, sexual indiscretions, foolish business investments)
C. The mood disturbance is sufficiently severe to cause marked impairment in social or occupational activities to necessitate hospitalization to prevent harm to self or others; or there are psychotic features.
D. The episode is not attributable to substance abuse or another medical condition.

Criteria A-D constituted a manic episode. At least one lifetime manic episode is required for the diagnosis of bipolar I disorder.

Reference: American Psychiatric Association (2013)


MINDJOURNAL
Signs And Symptoms Of
Disruptive Mood
Dysregulation Disorder
Frequent display of tantrums and outbursts that are not age-appropriate
1
2
verbal (yelling, screaming) or behavioral (physical aggression) temper outbursts for at least 3 times per week
Persistent angry or irritable mood between tantrums
4
3
Irritability causing difficulty in functioning in more than one aspect of life
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DMDD Vs. Bipolar Disorder

In Children

DMDD	BIPOLAR DISORDER
Does not necessarily involve hypomania/ mania	Necessarily involves a manic/ hypomanic episode
Persistent low mood lasts for more than 3 months in a 12 month period	Low mood may last for several days or weeks
Irritability is constantly experienced	There are frequent mood swings

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Anxiety

- Prevalence rates for anxiety disorders (generalized anxiety disorder, social anxiety, panic disorder, specific phobia) in children and adolescents is 10-30%
- Anxiety in childhood may predict substance use in later adolescence
- Strong association between anxiety and alcohol use
- Substance use as a coping mechanism for anxiety

Anxiety

- Symptoms: avoidance of activities, somatic symptoms, sleep problems, excessive need for reassurance, poor school performance, explosiveness and oppositional behavior, eating problems, suicidal thoughts/behavior
- Generalized anxiety: preoccupation with academic performance, perfectionism, sleep problems
- Social anxiety: self-conscious, fear of saying/doing wrong things, focus on what others think of them

GAD-7

Over the last 2 weeks, how often have you been bothered by the following problems? *(Use "✔" to indicate your answer)*	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

(For office coding: Total Score T____ = ____ + ____ + ____)

Treatment

- Medications: SSRIs, SNRIs
- SSRI and CBT superior to either modality alone
- For mild anxiety, CBT alone.
  For moderate to severe anxiety, CBT+SSRI

Psychiatric symptoms of substance use

- Depends on the substance! Can exhibit different symptoms during intoxication and withdrawal
- Uppers: Cocaine, methamphetamine, PCP
- Downers: Alcohol, benzodiazepines
- Hallucinogens: Mushrooms, LSD, ecstasy
- Cannabinoids
- Opiates

Substance Use

Intoxication: Euphoria, dysphoria, decreased social inhibition, increased/slowed activity, impaired cognition, delusions, hallucinations

Withdrawal: Irritability, anxiety, depression, somnolence, hallucinations

Substance induced psychosis

- Substance use can cause psychotic symptoms including hallucinations, delusions, paranoia
- True schizophrenia in children is exceedingly rare
- Substance use complicates diagnosis of primary psychotic disorders

Psychosis:

- Hallucinations can be seen in healthy children.

- Compared with matched controls without hallucinations - hallucinations were not a significant predictor of outcome, nor increased risk for psychosis, depression or other psychiatric illnesses

- Compared subjects with CD/ODD and hallucinations with adolescents (over age 16) - Found second group had more delusions, abnormalities in language production, inappropriate affect, bizarre behavior, hypoactivity and social withdrawal. Ref Garralda ME, Psychol Med (1985)

Psychosis doesn't mean schizophrenia:

For patients with definite psychotic symptoms:

- 24% Bipolar disorder
- 41% MDD
- 21% Depressive Disorders but not MDD
- 14% Schizophrenia Spectrum Disorders – 4 patients with schizophrenia; 9 with SAD Ulloa RE, JAACAP (2000)
- Psychosis is also common with kids who have h/o trauma.

Substance Use Disorders

- Schizophrenia & SUD – highly comorbid
- Amphetamines
- PCP
- MDMA
- Cannabis

References

Black, D. (2022). Antisocial personality disorder: Epidemiology, clinical manifestations, course and diagnosis. UpToDate. Retrieved November 10, 2022, from https://www.uptodate.com/contents/antisocial-personality-disorder-epidemiology-clinical-manifestations-course-and-diagnosis?search=conduct%20disorder&sectionRank=1&usage_type=default&anchor=H335149180&source=machineLearning&selectedTitle=1~77&display_rank=1#H335149180

Brewer, S., Godley, M. D., & Hulvershorn, L. A. (2017). Treating Mental Health and Substance Use Disorders in Adolescents: What Is on the Menu?. *Current psychiatry reports*, *19*(1), 5. https://doi.org/10.1007/s11920-017-0755-0

Bukstein, O. G., & Horner, M. S. (2010). Management of the adolescent with substance use disorders and comorbid psychopathology. *Child and adolescent psychiatric clinics of North America*, *19*(3), 609–623. https://doi.org/10.1016/j.chc.2010.03.011

Hinckley, J. D., & Riggs, P. (2019). Integrated Treatment of Adolescents with Co-occurring Depression and Substance Use Disorder. *Child and adolescent psychiatric clinics of North America*, *28*(3), 461–472. https://doi.org/10.1016/j.chc.2019.02.006

Krull, K. (2022). Attention deficit hyperactivity disorder in children and adolescents: Overview of treatment and prognosis. *UpToDate*. Retrieved November 10, 2022, from https://www.uptodate.com/contents/attention-deficit-hyperactivity-disorder-in-children-and-adolescents-overview-of-treatment-and-prognosis

McCauley Ohannessian C. (2014). Anxiety and substance use during adolescence. *Substance abuse*, *35*(4), 418–425. https://doi.org/10.1080/08897077.2014.953663


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