



Opioid Effects on the Brain Stigma in OUD

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Learning Objectives

- Describe the effects of opioids on brain function
- Define the effects of opioids on pain relief over time
- Identify the stages of addiction and associated brain structures
- Recognize the impact of Stigma on getting people into treatment for SUD.
- Recognize the importance of using non-stigmatizing language for substance use and people with SUD.





Opioid Agonists

Endogenous Opioids

Mu receptor: beta-endorphin
endomorphin

Delta receptor: enkephalins,
beta-endorphin

Kappa receptor: dynorphin

Exogenous Opioids

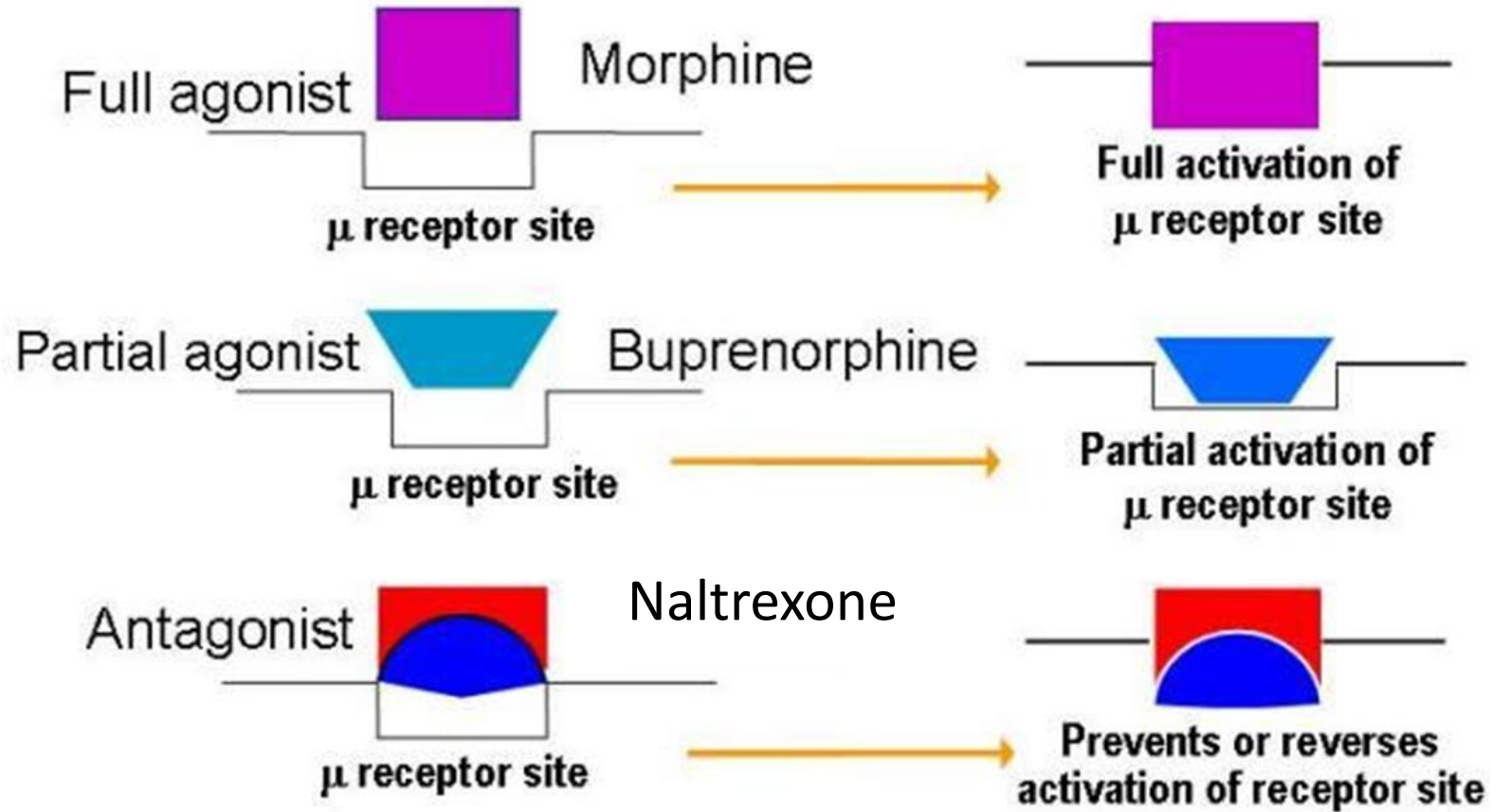
Mu receptor: morphine, fentanyl,
methadone, hydrocodone,
oxycodone, meperidine, tramadol

Delta receptor: morphine, fentanyl

Kappa receptor: morphine, fentanyl

Naloxone and naltrexone are mu, delta,
and kappa receptor antagonists

Mu (μ) Receptor Activation



Cherny NI. Opioid Analgesics. Comparative Features and Prescribing Guidelines. *Drugs*. 1996;51:713-37.
Walsh SL, et al. *Clin Pharmacol Ther*. 1994;55:569-80.
Walsh SL, et al. *J Pharmacol Exp Ther*. 1995;274:361-72.



HOW Rx PAINKILLERS AFFECT THE BRAIN

When a painkiller such as oxycodone (OxyContin, Tylox, Percocet) enters the body, it works by stimulating certain opioid receptors that are located throughout the central nervous system, in the brain and along the spinal cord. When the chemical binds to these receptors, a variety of physiologic responses can occur, ranging from pain relief to slowed breathing and euphoria.

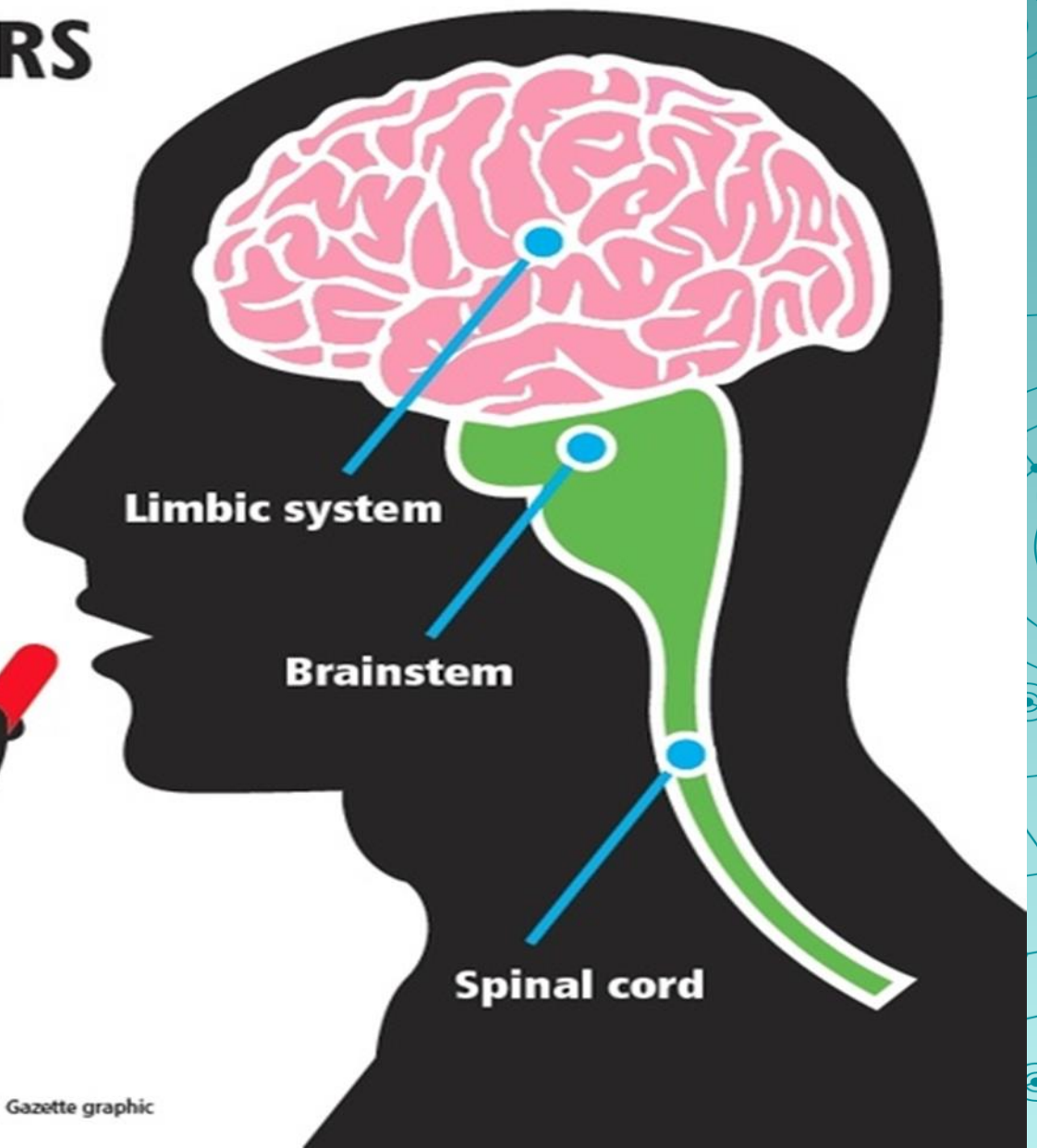
The **limbic system** controls emotions. Acting here, painkillers can produce feelings of pleasure, relaxation and contentment.

The **brainstem** controls automatic body functions such as breathing. Acting here, painkillers can slow breathing, stop coughing and lessen the intensity of pain.

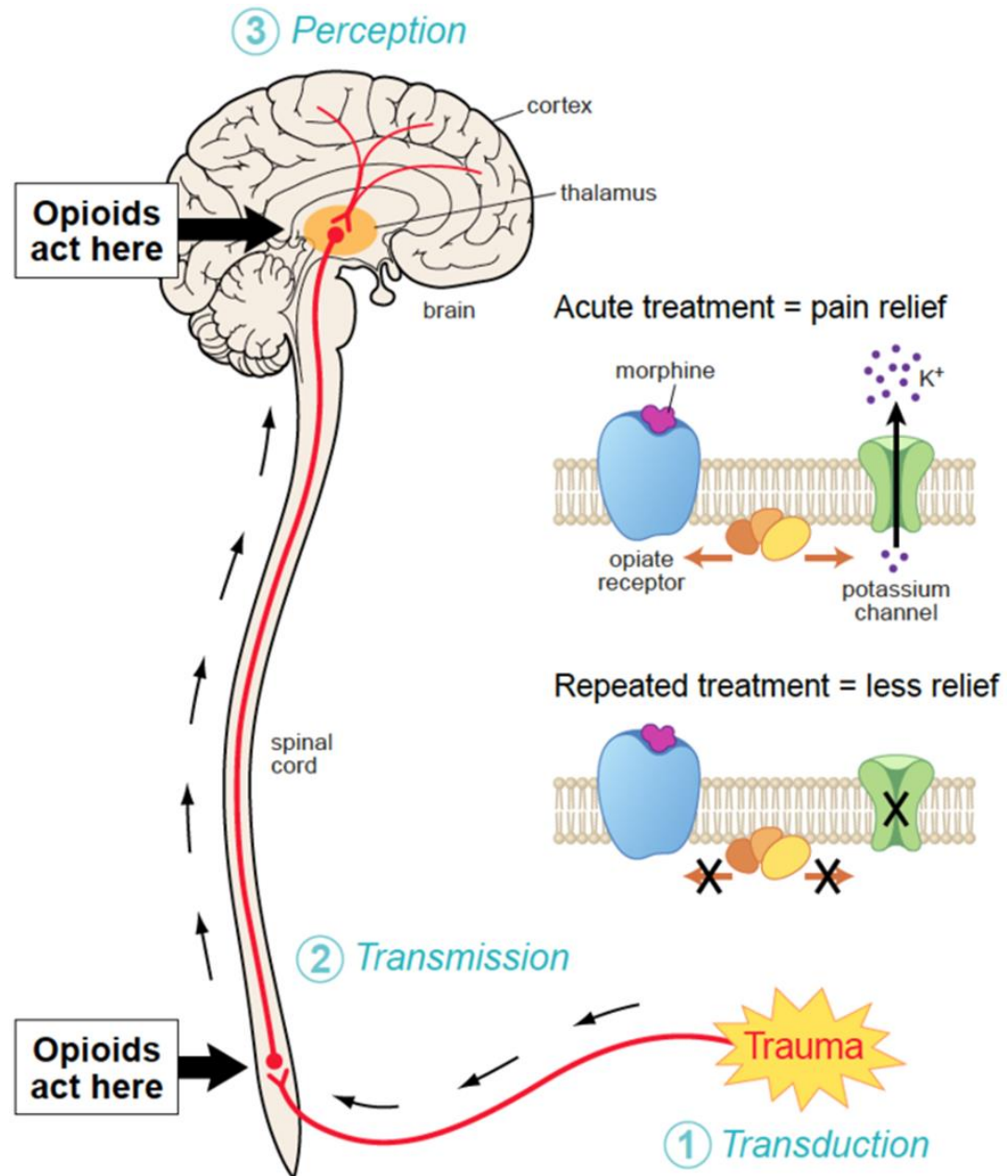
The **spinal cord** transmits sensations from the body. Acting here, painkillers bond with the spinal cord to decrease the intensity of pain.

SOURCES: National Institute for Drug Abuse, Discovery Health, Drug Enforcement Agency

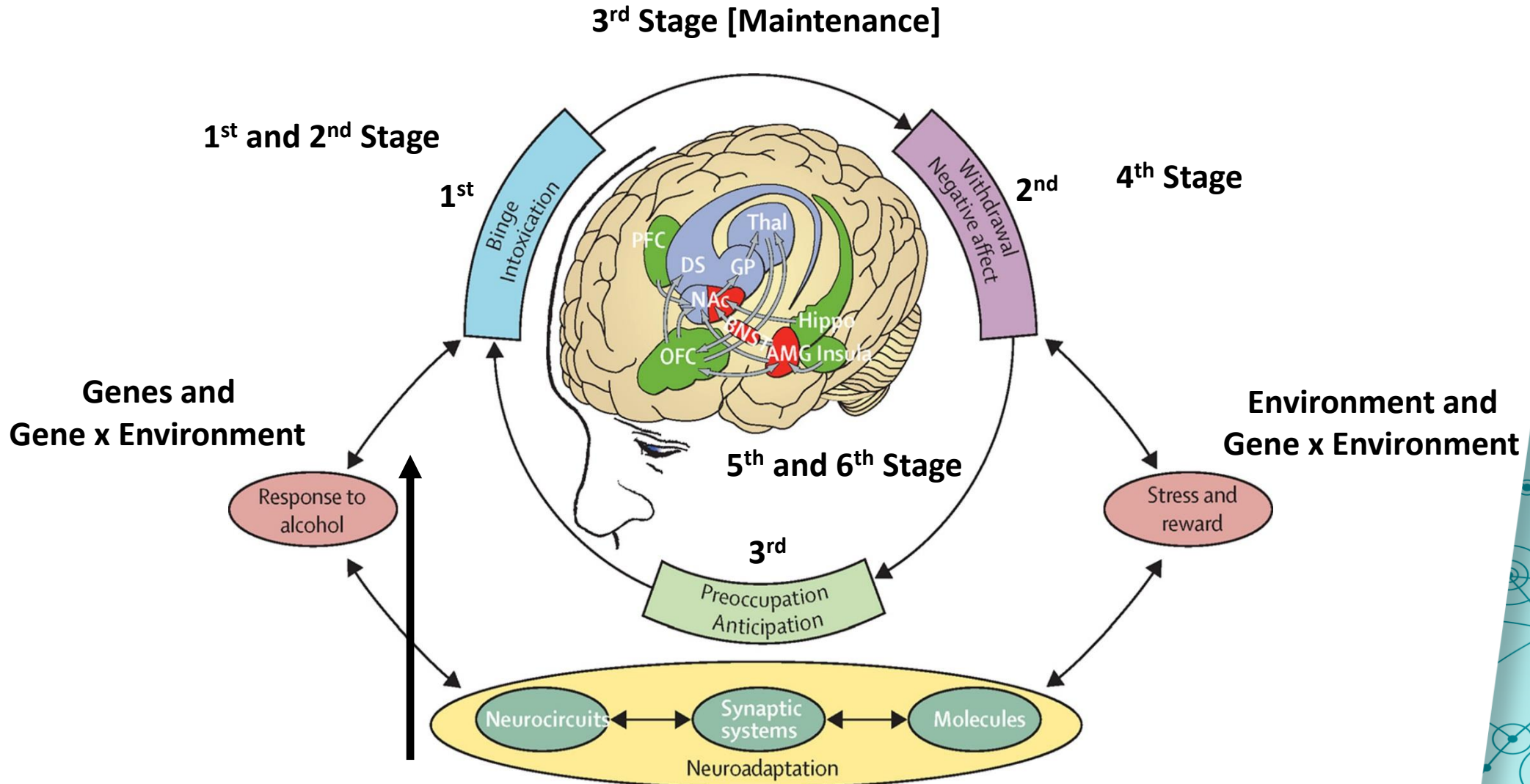
KYLE SLAGLE | Gazette graphic



Effect of Opioids on Pain Relief Over Time



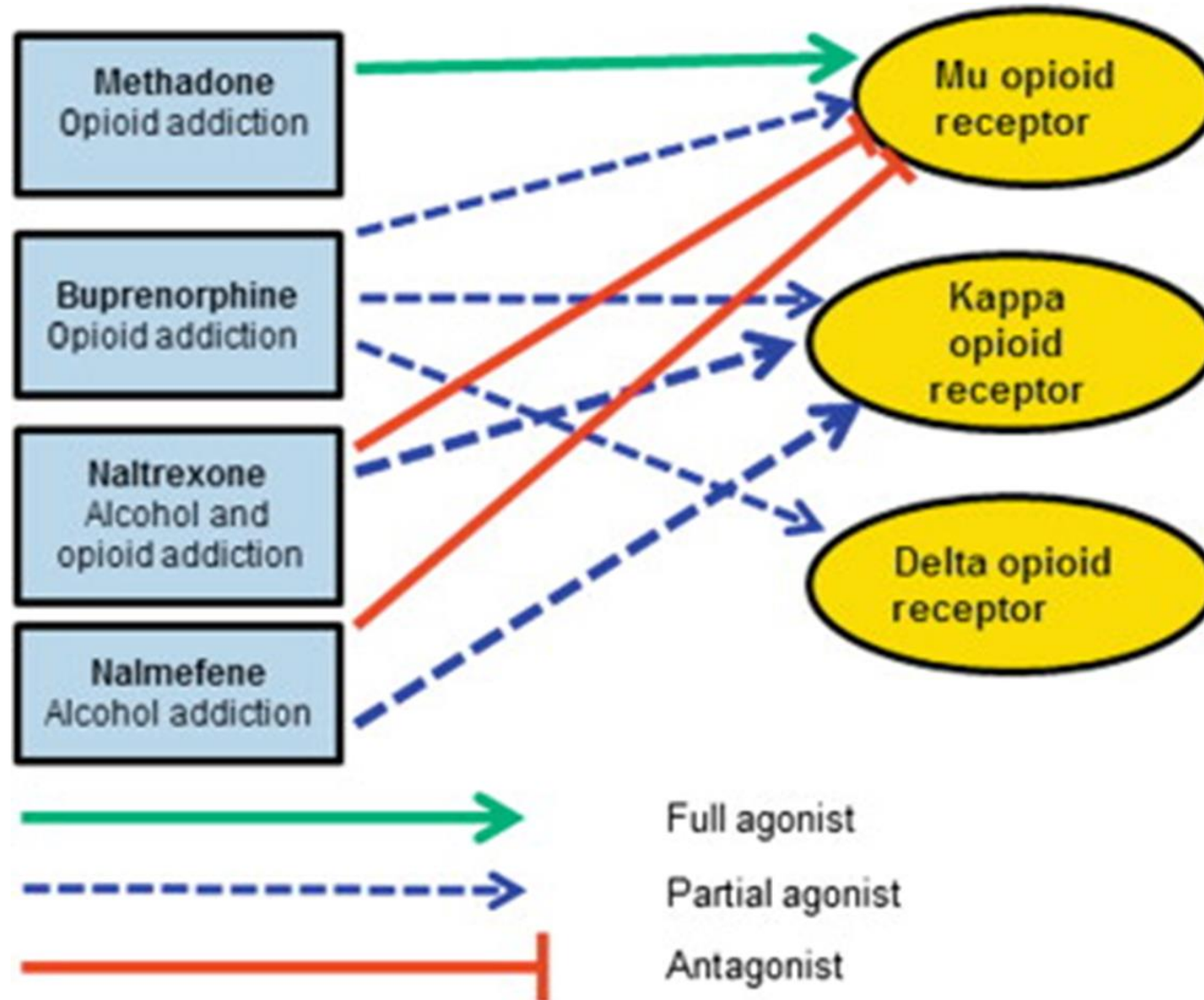
Stages of Addiction



This neurocircuitry is just as relevant for other drugs of abuse (i.e., opiates/opioids).

Koob et al., multiple publications

Medications for Opioid Use Disorder



Important to Remember



- Substance use disorder is a chronic brain disorder from which people can and do recover.
- Addictive substances can lead to dramatic changes in brain function and reduce a person's ability to control his or her substance use.





Stigma Definition

Dehumanization of the individual based on their social identity or participation in a negative or an undesirable social category.





Four Identified Types of Stigma

- Public
 - Endorsement by the public of negative attitudes against a specific stigmatized group, which manifests in discrimination towards individuals belonging to that group.
- Perceived
 - Stigmatized individuals think that most people believe common negative stereotypes about individuals belonging to the same stigmatized category.
- Enacted
 - Direct experience of discrimination and rejection from members of the larger society.
- Self
 - Negative thoughts, feelings, and diminished self-image resulting from identification with the stigmatized group and anticipation of rejection from the larger society.





Consequences of Stigma

- People with substance use disorders are viewed more negatively than people with physical or psychiatric disabilities.
- The terminology often used can suggest that substance use disorders are the result of a personal failing/choice.
- The term “abuse” is highly associated with negative judgments and punishment.
- Even trained clinicians are likely to assign blame when someone is called a “substance abuser” rather than a “person with a substance use disorder.”
- Negative attitudes among health professionals have been found to adversely affect quality of care and subsequent treatment outcomes.





Language Matters

- American Society of Addiction Medicine and others have recommended the adoption of clinical, non-stigmatizing language for substance use.
- “Person-first language” has been widely adopted by professional associations to replace negative terms that have been used to label people with other health conditions and disabilities.
- “Person with a mental health condition” or “person with a disability” carry neutral rather than pejorative connotations, and distinguish the person from his/her diagnosis.





Person with a Substance Use Disorder

- Person-first language is the accepted standard for discussing people with disabilities and/or chronic medical conditions.
- Use of the terms “abuse” and “abuser” negatively affects perceptions and judgments about people with substance use disorders.
- Terms such as “addict” and “alcoholic” can have similar effects.





Person in Recovery

- Various terms are used colloquially to label the people with SUD, including the terms “clean” and “dirty.”
- Instead of “clean,”
 - “negative” (for a toxicology screen)
 - “not currently using substances” (for a person)
- Instead of “dirty,” the term
 - “positive” (for a toxicology screen)
 - “currently using substances” (for a person)
- The term “person in recovery” refers to an individual who is stopping or at least reducing substance use to a safer level, and reflects a process of change.





Medication-Assisted Treatment

- Terms “replacement” and “substitution” have been used to imply that medications merely “substitute” one drug or “one addiction” for another. This is a misconception.
- The dosage of medication used in treatment for opioid use disorder does not result in a “high,” rather it helps to reduce opioid cravings and withdrawal.
- “Medication-assisted treatment” (MAT) is used to refer to the use of any medication approved to treat substance use disorders and may be combined with psychosocial support services.



1

FACT 1

**It's a
disease.**

**2****FACT 2****There is
treatment.**

A large graphic with a yellow top bar and a dark blue bottom section. On the left, a large yellow circle contains the number "3" in dark blue. To the right, the text "FACT 3" is in white, and "Recovery is possible." is in large yellow letters. The right edge of the blue section is decorated with a light blue background featuring a network of circles and lines.

Language matters

SAY THIS → **NOT THIS**

Person with Opioid Use Disorder	Addict, user, druggie, junkie, abuser
Disease	Drug habit
Person living in recovery	Ex-addict
Person arrested for a drug violation	Drug offender
Substance dependent	Hooked

Know the facts.



Language matters

SAY THIS  **NOT THIS**

Medication is a treatment tool	Medication is a crutch
Had a setback	Relapsed
Maintained recovery; substance-free	Stayed clean

Sources: Office of National Drug Control Policy, *Changing the Language of Addiction.*, 01/09/17.
National Council for Behavioral Health, *Language Matters*, September 2015.