



Demystifying the Science Behind Psychiatric Medications: Understanding Their Mechanisms of Action and Managing Side Effects in African American Patients

Lester E. Love, M.D.

Shadi Doroudgar, Pharm.D., APh, BCPS, BCGP, BCPP

MODULE 1

Prevalence

Adherence and
Effectiveness.

Pharmacogenomics



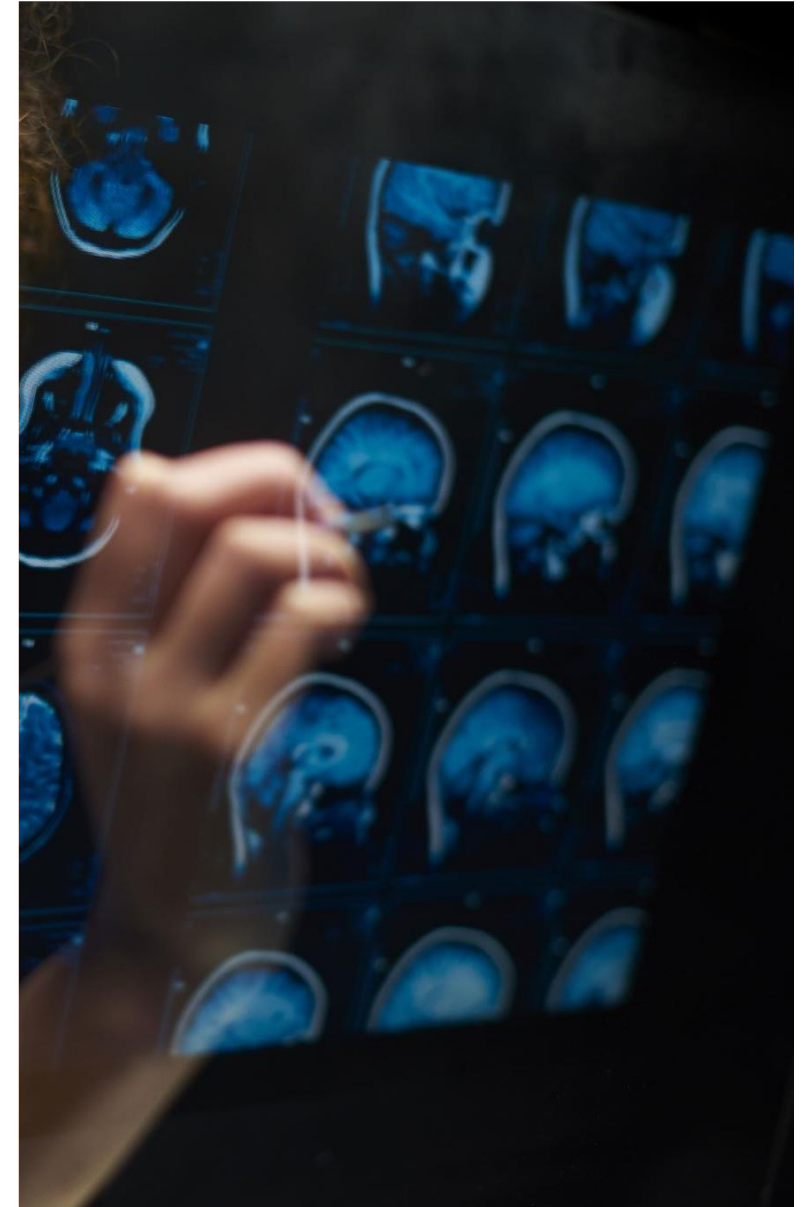
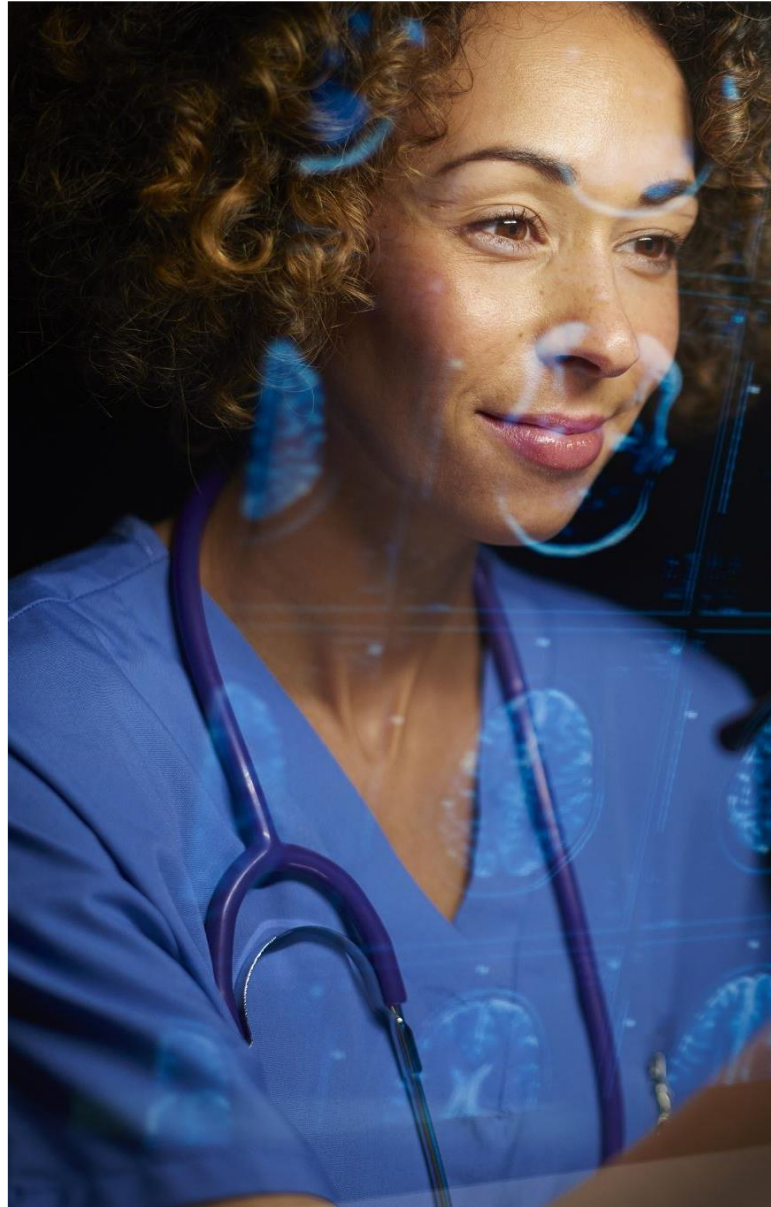
MODULE 2

Electrochemical Functioning of the Human Brain.

Mechanism of Action

Psychopharmacology

Interactions



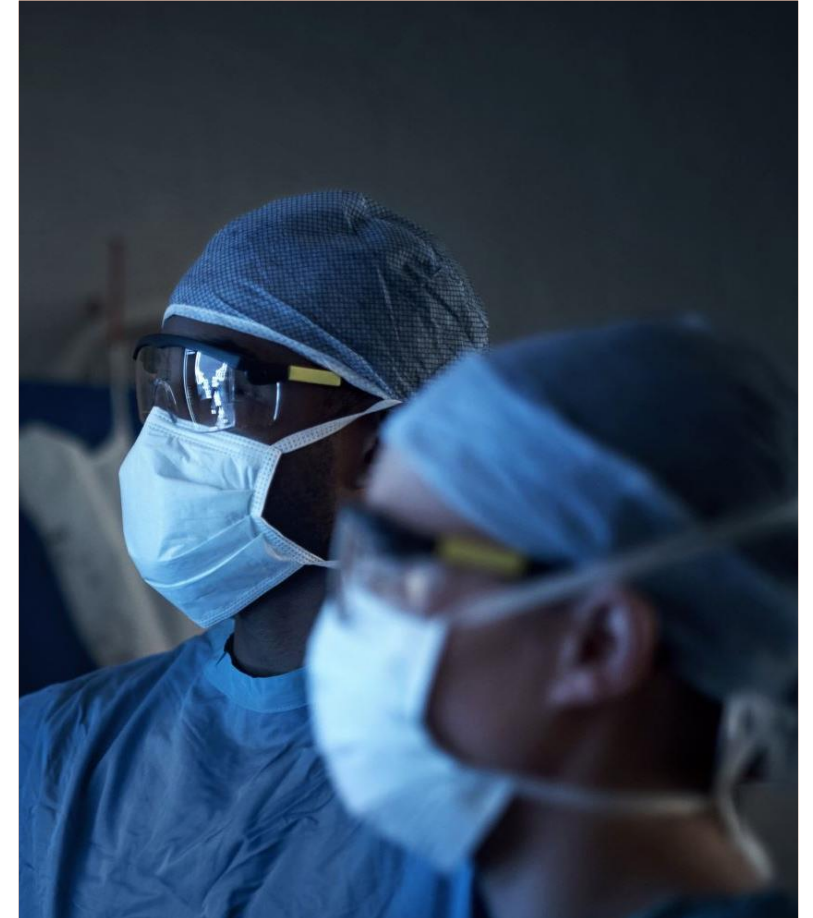


EXAMINE THE PREVALENCE AND SPECIFIC MENTAL HEALTH CONCERNS AFFECTING AFRICAN AMERICANS.

DESCRIBE THE
IMPACT OF
CULTURAL
FACTORS ON
MEDICATION
ADHERENCE AND
EFFECTIVENESS.



DISCUSS THE ROLE OF
PHARMACOGENOMICS IN
THE PROVISION OF
PERSONALIZED MEDICINE
TO AFRICAN AMERICANS.

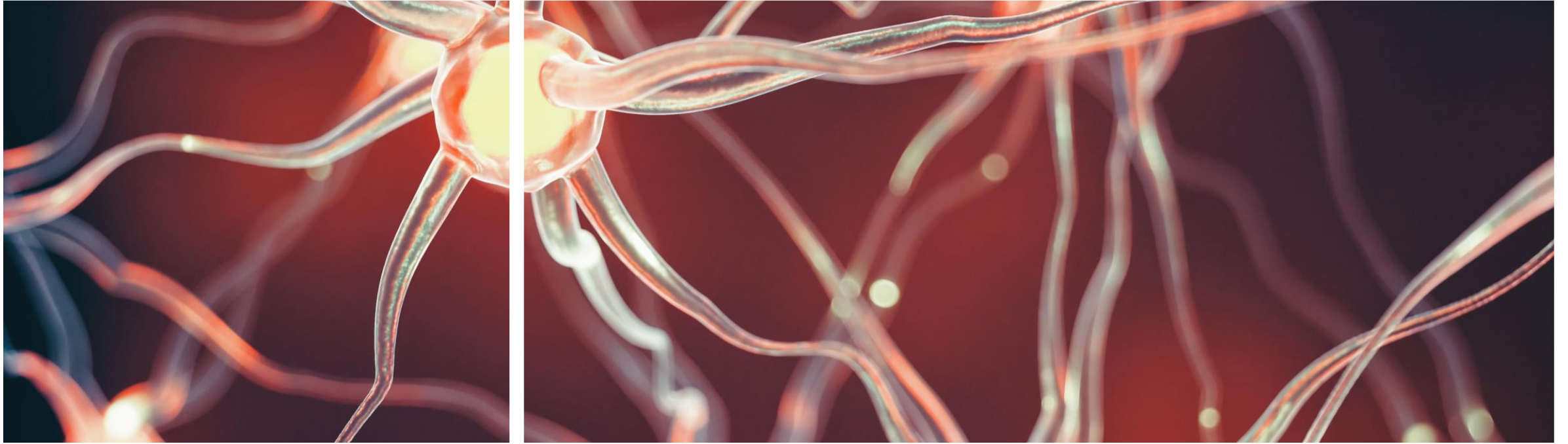


DESCRIBE THE
NEUROCHEMICAL
FUNCTIONING OF THE
HUMAN BRAIN.





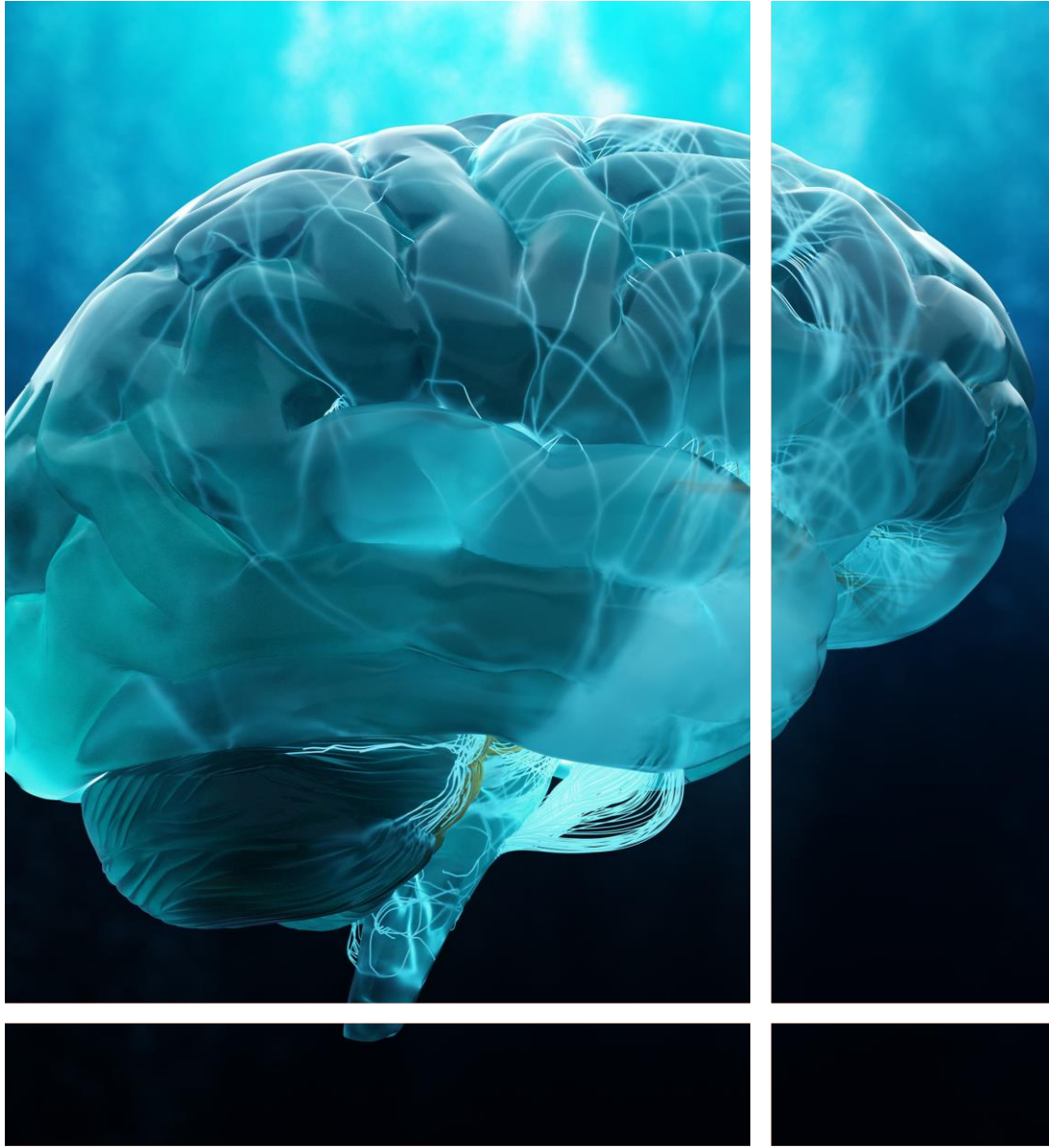
DIFFERENTIATE THE MECHANISMS BY WHICH VARIOUS PSYCHOTROPIC MEDICATIONS WORK.



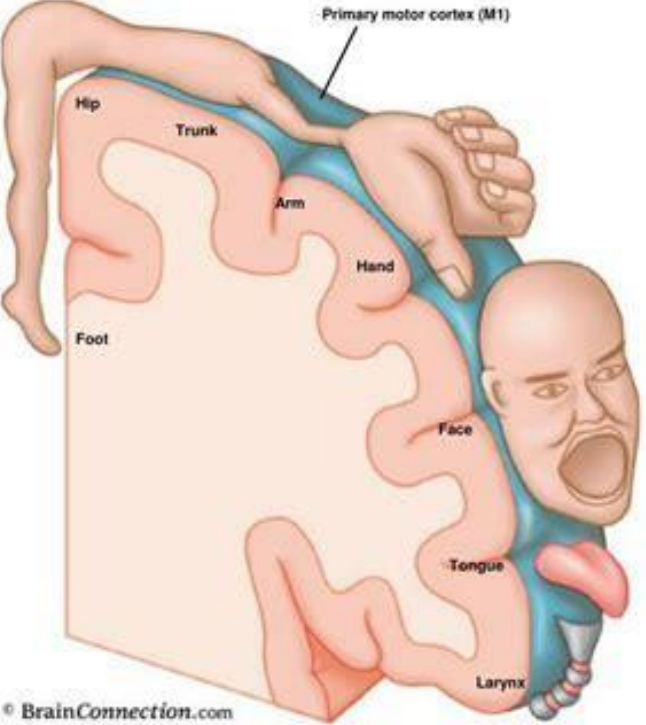
**DESCRIBE HOW EACH MEDICATION CLASS AFFECTS
NEUROCHEMICAL TARGETS AND PATHWAYS.**



IDENTIFY POTENTIAL
INTERACTIONS BETWEEN
MEDICATIONS BASED ON
THEIR MECHANISM OF
ACTION.

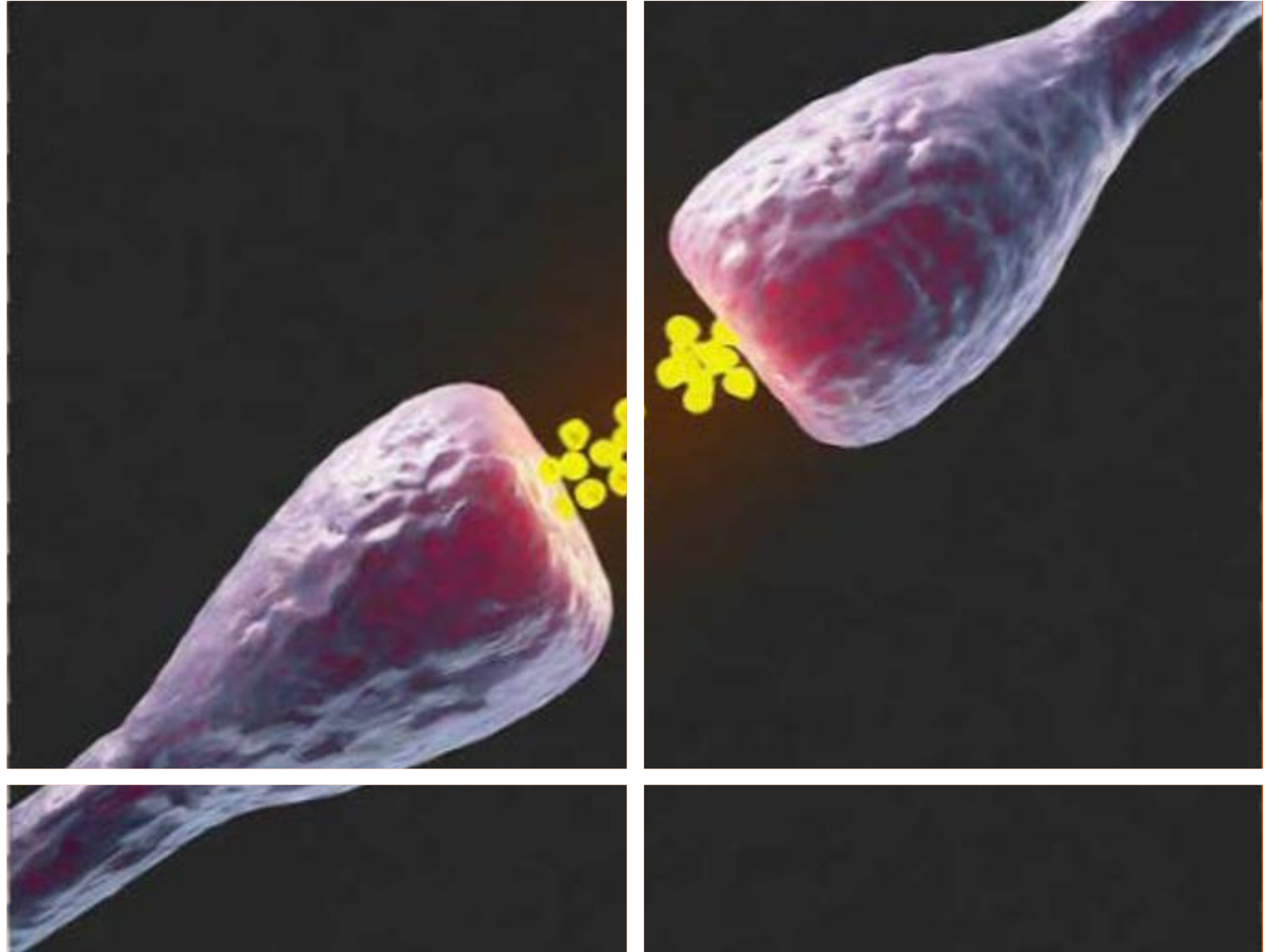


The Human Brain



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THE SYNAPSE



NEUROTRANSMITTERS:

DOPAMINE

SEROTONIN

NOREPINEPHRINE

GLUTAMATE

GABA

ACETYLCHOLINE

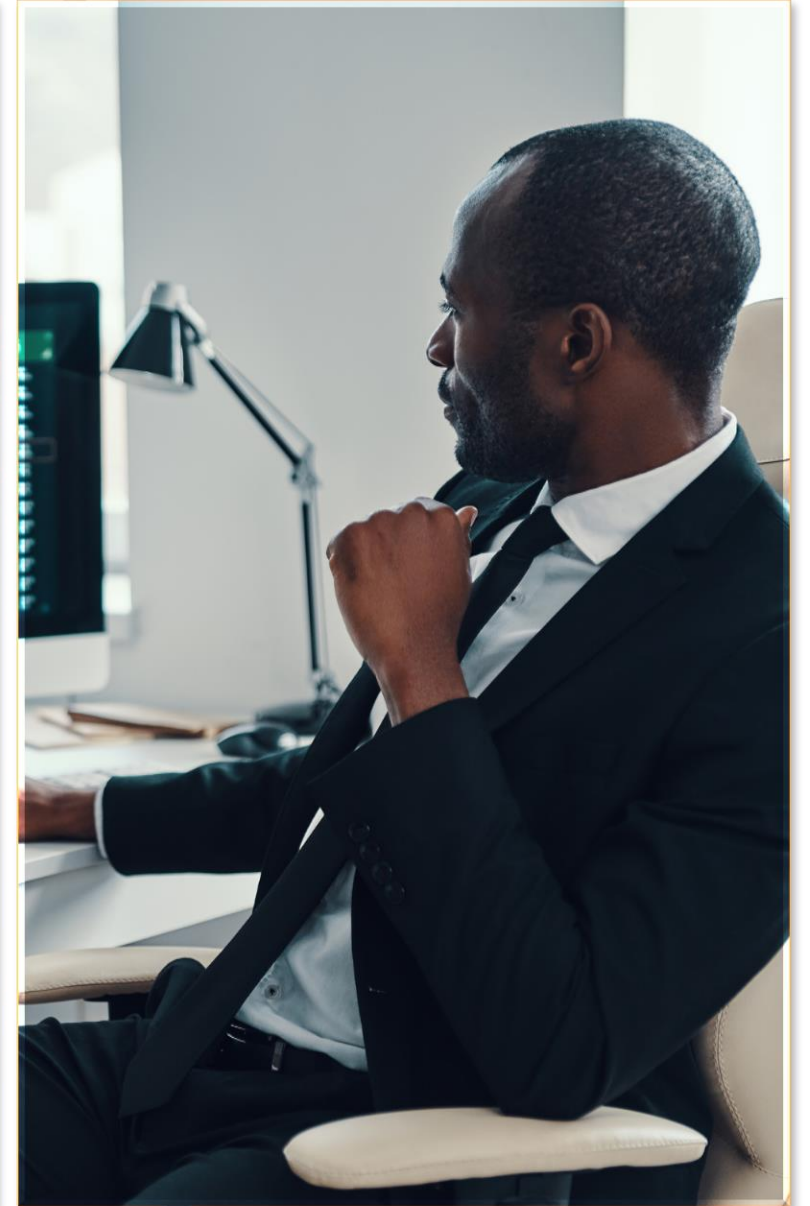


MODULE 3

Side effects

Minimize and manage side effects

Discuss medication concerns



MODULE 4

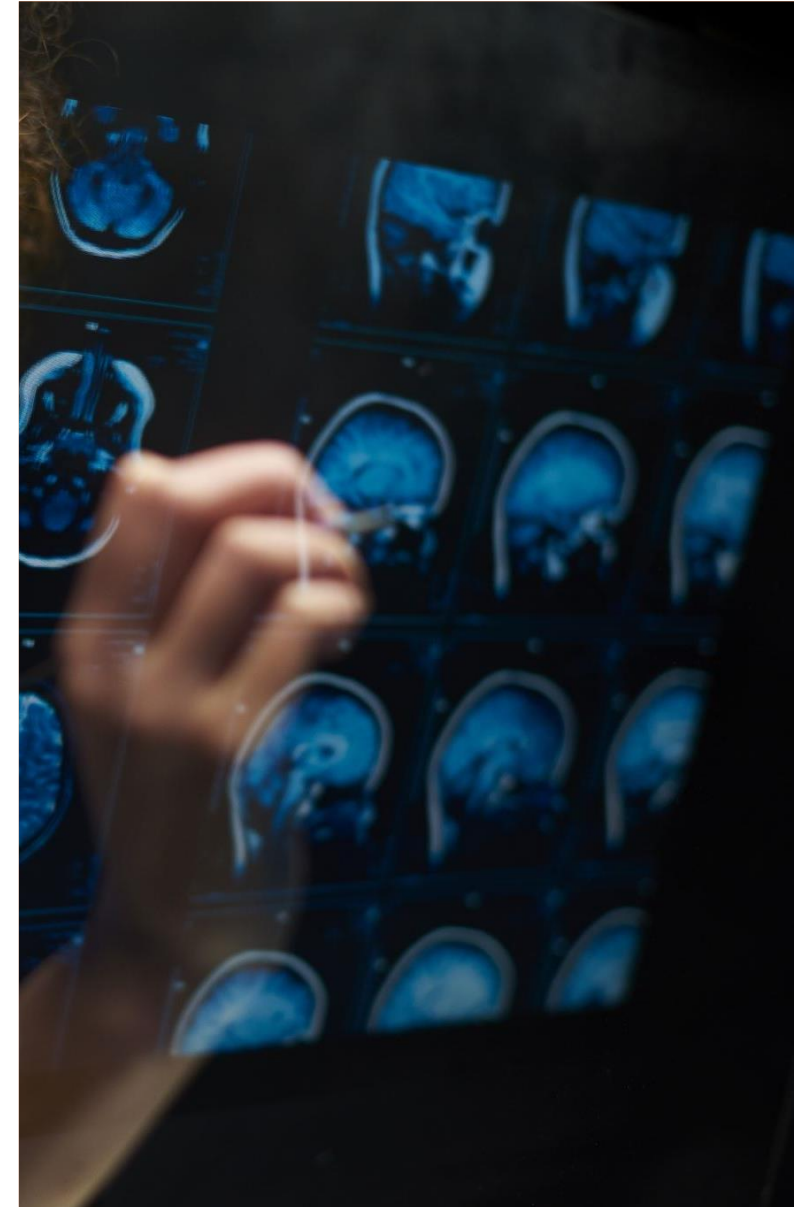
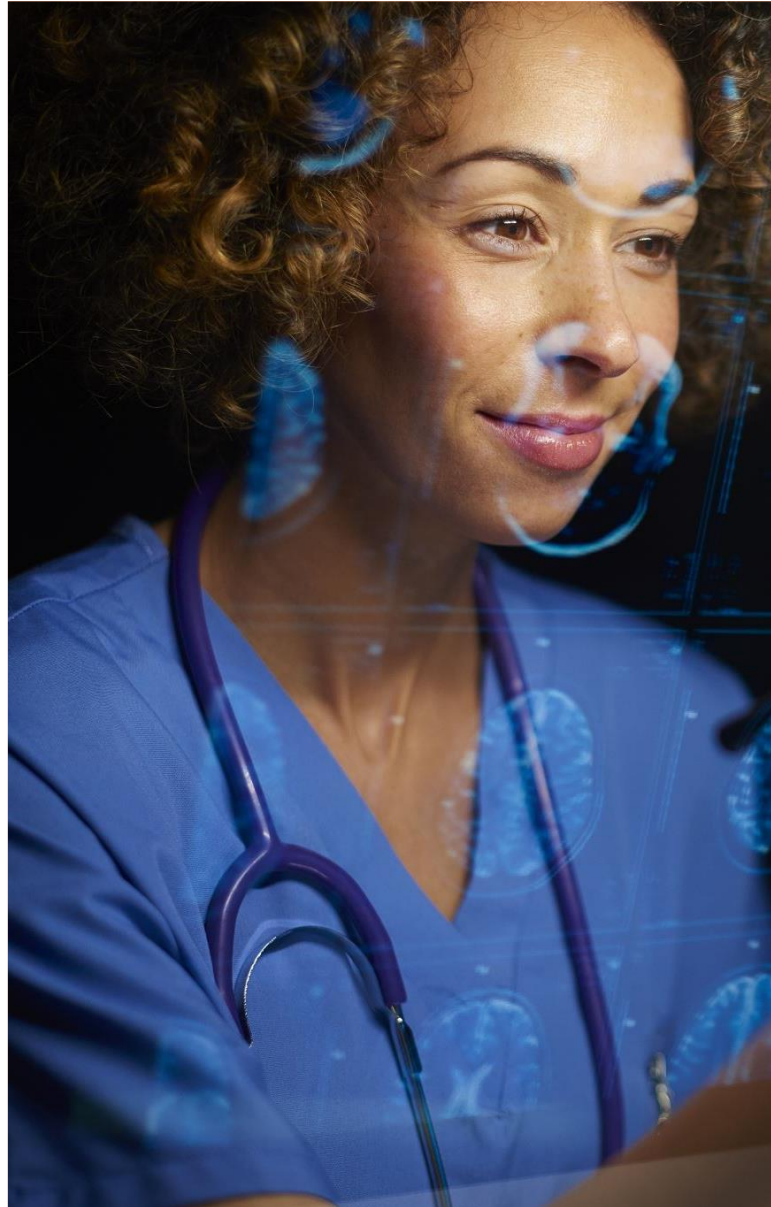
Adapt medication choices

Evaluate research in the context of bias

Analyze and manage complex clinical cases

Discuss factors influencing medication response and side effects

Potential biases in prescribing and managing psychiatric medications





African Americans are largely untreated or undertreated for mental health symptoms compared to White counterparts



Enhancing Inclusivity of African American in Mental Health Research

Lack of Inclusion in Trials

- Distrust
- Biases and racism in formation of hypotheses, design, data collection, and interpretation



Poll 3

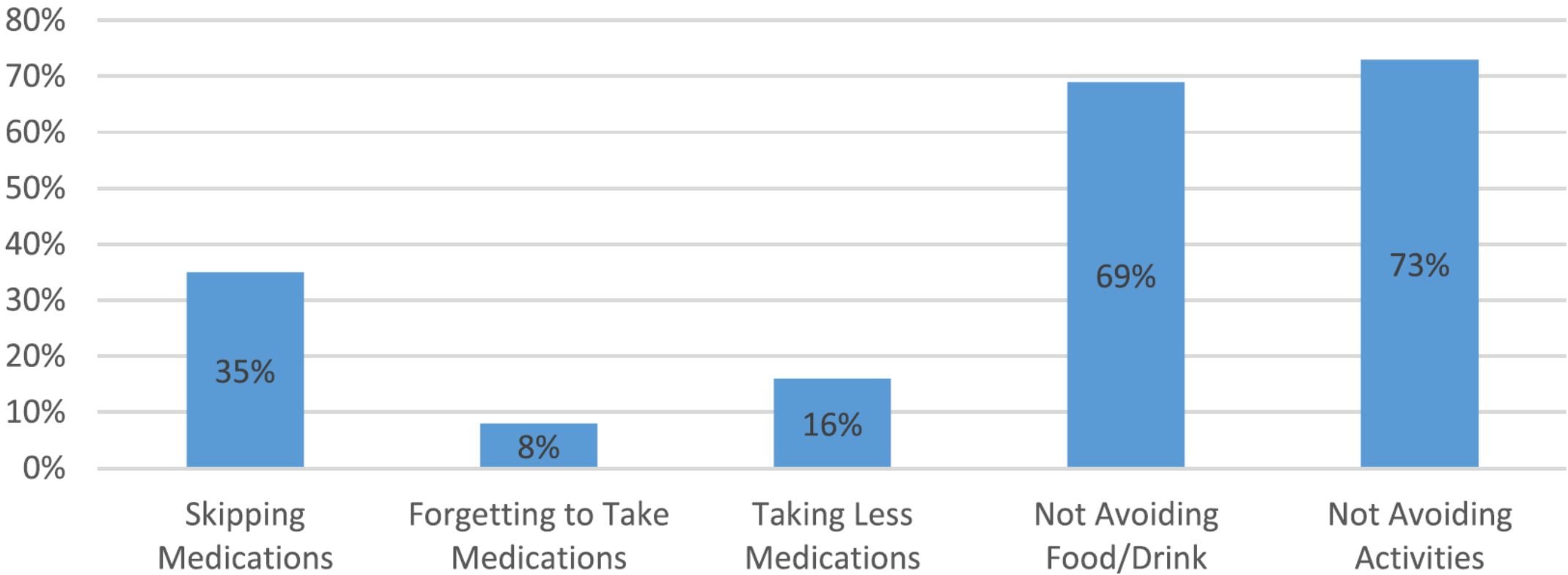


Psychotropic Treatment in African American Children and Adolescents

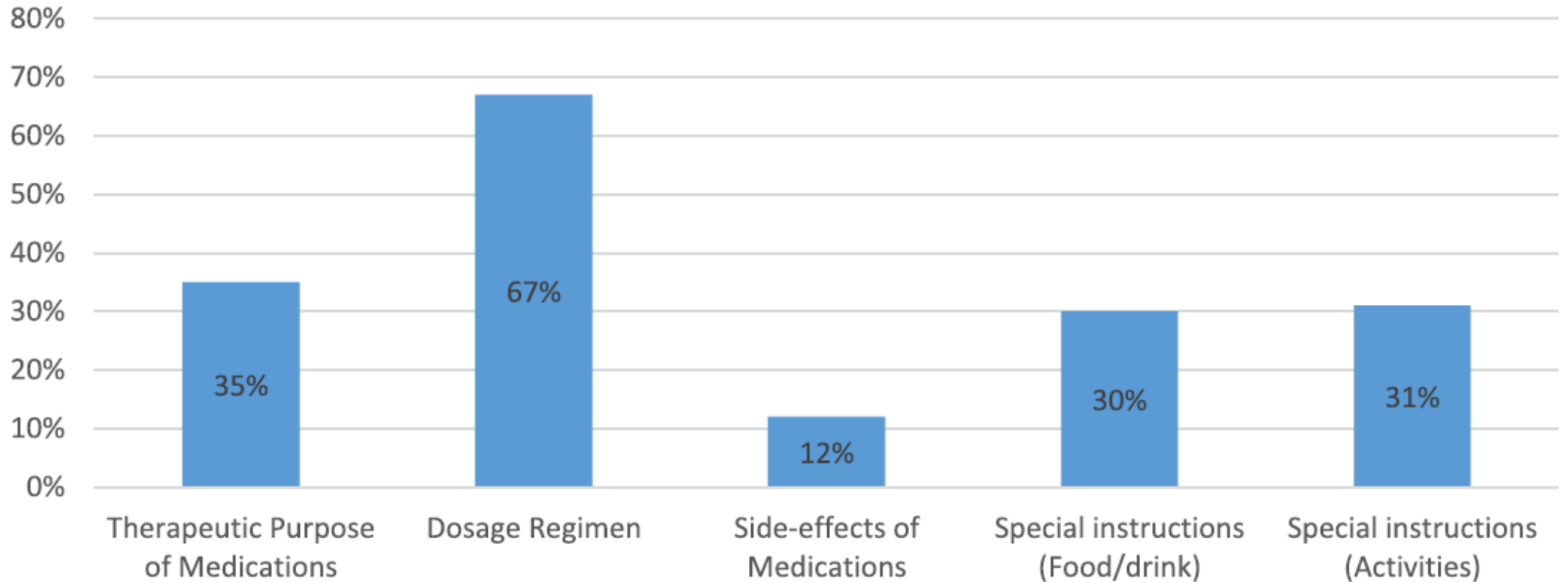
- Higher risk of adverse effects in African Americans
 - Antipsychotics → obesity, sexual/reproductive issues
 - Antidepressants → obesity, weight gain, dyslipidemia, type 2 diabetes
 - Antimanic medications → obesity, weight gain, dyslipidemia, sexual/reproductive
- Risk vs. benefit
- Consider pre-existing conditions, comorbid conditions, risk factors

Poll 4

Patterns of Nonadherence to Medication Regimens



Lack of Medication Related Knowledge



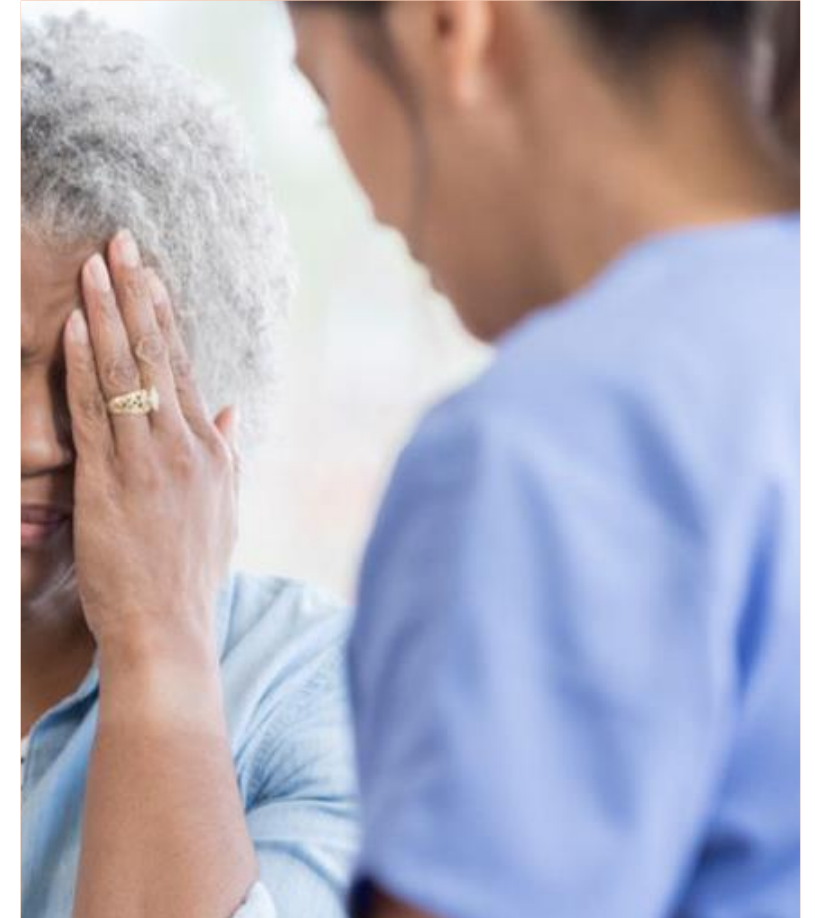


Factors Associated with Medication Adherence

- A study of African American (AA) and white patients with bipolar disorder
 - 50% of participants nonadherent with medication
 - > 20% denied having bipolar disorder
 - > 20% described physical side effects from medications contributing to nonadherence
 - AA participants had ↑ patient-related factors associated with nonadherence
 - “Fear of becoming addicted to medications”
 - “Medications were symbols of mental illness”

Prescribing in African American Patients

- ↑ High-potency typical antipsychotics
- ↑ Excessive antipsychotic dosing
- Clinician biases NOT pharmacogenetic racial differences





Concerns in Treatment of Depression

- Shortage of research data
- Lack of adequate and sufficient research
- Understudied and underserved
- Misdiagnosis
- Under-diagnosis
- Undertreatment of depression

Poll 5



Seek your patient's participation.

Help your patient explore & compare treatment options.

Assess your patient's values and preferences.

Reach a decision with your patient.

Evaluate your patient's decision.

SHARED DECISION MAKING



Barbers Screening for Mental Health

- Motivated to learn about mental health
- Motivated to refer clients that appear in need of assistance
- Providing screening and education of mental health disorders to the African American male community



Questions?