



**An Interactive Learning Experience: Revalidation of
Clinical Skills for AT Professionals & AT Educators**

Common Psychological Medications Prescribed for Athletes

Jeffrey R. Brown, MD

Dir. of Primary Care Sports Medicine, St . Francis Hospital/THONE
Assoc. Fellowship Dir., UCONN Primary Care Sports Medicine Fellowship
Team Physician, Central CT State University

Disclosure Slide

- No conflicts of interest
- No relevant financial relationships



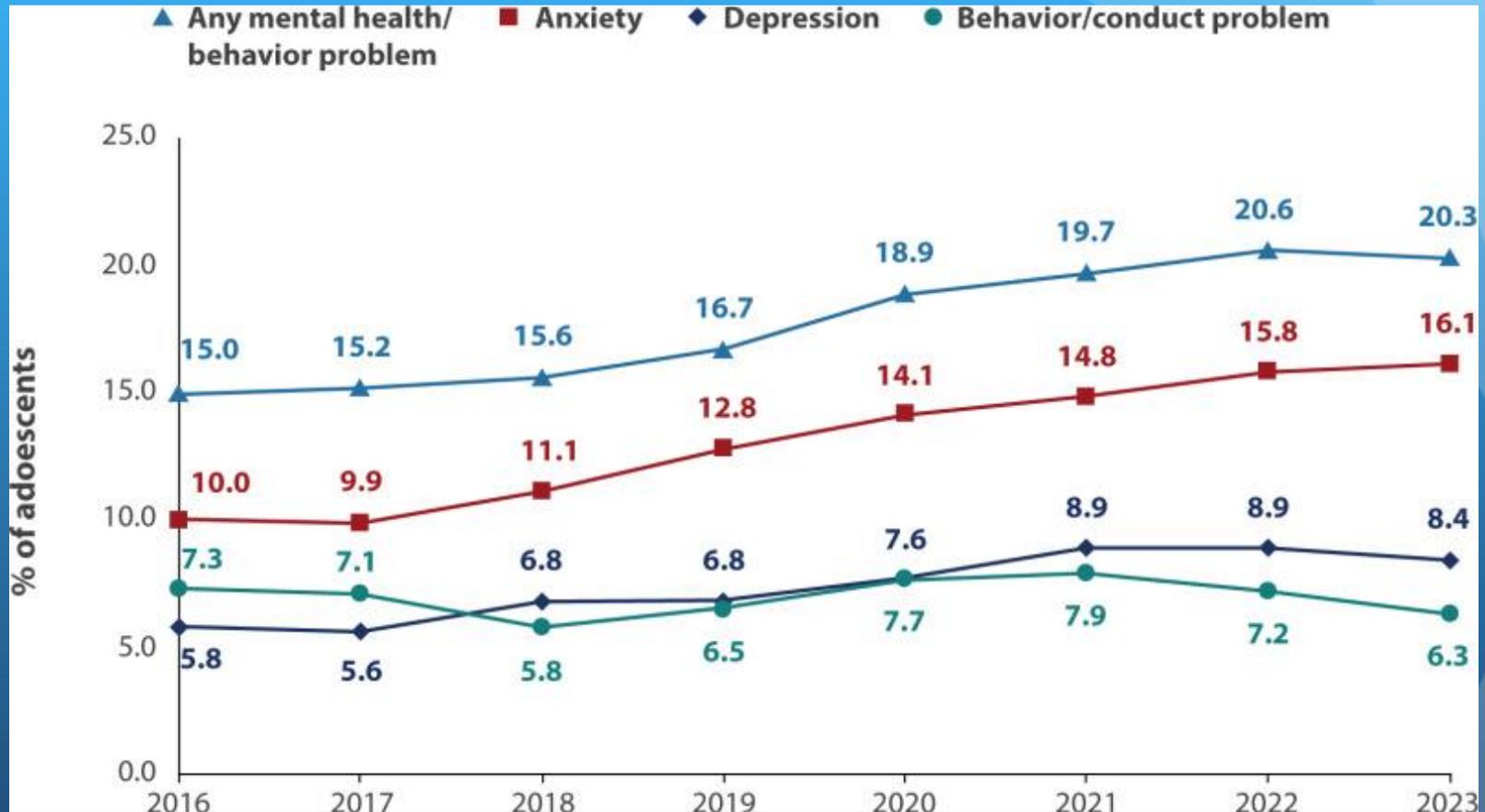
Background Info :

Mental Health in Adolescents

- Between 2016-2023, prevalence of diagnosed mental or behavioral health conditions among adolescents, ages 12-17, ↑ 35%, From 15% → 20.3%
- Diagnosed anxiety ↑ 61% (from 10% → 16.1%)
- Diagnosed depression ↑ 45% (from 5.8% → 8.4%)
- Diagnosed behavior/conduct problems stable (7.3% → 6.3%)

Sappenfield O, Alberto C, Minnaert J, et al. *Adolescent Mental and Behavioral Health*, 2023. 2024 Oct.

Mental Health 2016-2023



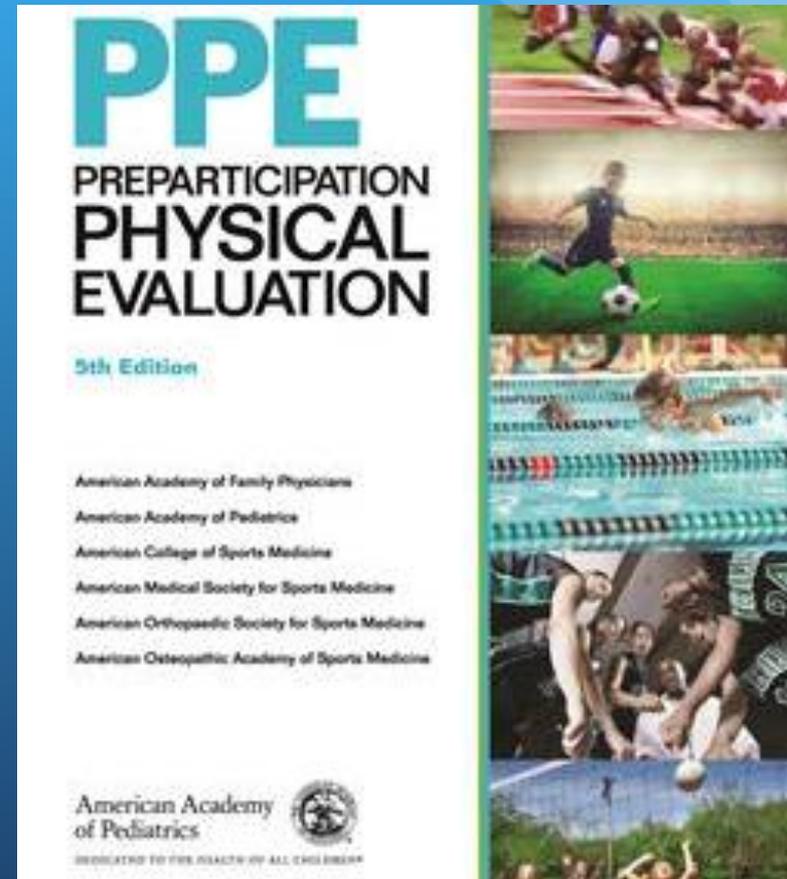
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1 in 5 adolescents have a current, diagnosed mental or behavioral health condition



PPE

- Mental health Medications



Learning Objectives

- At the end of the session, the participant will be able to:
 - Identify common psychological medications prescribed to athletes, and the mental health conditions they are used to treat.
 - Explain potential side effects of psychological medications that may impact athletic performance and safety.
 - Understand the importance of anti-doping regulations and therapeutic use exemptions when prescribing or using psychological medications in sports.

Anxiety



- Anxiety disorders are a group of mental health conditions characterized by:
 - Persistent, excessive, & uncontrollable fear/worry that interferes with daily life.
 - Unlike normal, temporary anxiety, these disorders last for:
 - 6 months+
 - Can cause physical symptoms
 - rapid heart rate
 - fatigue
 - insomnia
 - Common types include Generalized Anxiety Disorder (GAD), Panic Disorder, and Social Anxiety.

Medication for Anxiety



- **Selective Serotonin Reuptake Inhibitors (SSRIs):** Often considered first-line treatment → manage long-term symptoms.
 - Escitalopram (Lexapro)
 - Sertraline (Zoloft)
 - Fluoxetine (Prozac)
- **Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs):** Similar to SSRIs, these treat chronic anxiety.
 - Venlafaxine (Effexor XR)
 - Desvenlafaxine (Pristiq)
 - Duloxetine (Cymbalta)
- Common Side effects
 - nausea
 - dizziness
 - insomnia
 - sexual dysfunction
 - drowsiness
- Red flag side effects
 - Increased anxiety or depression
 - Serotonin syndrome/toxicity
 - Neuromuscular hyperactivity
 - Autonomic hyperactivity
 - Mental status changes
- Time for full effect = 4-12 weeks

Depression



- Depression (major depressive disorder or clinical depression) is a common, serious mood disorder characterized by:
 - persistent, intense feelings of sadness, worthlessness, or hopelessness
 - a loss of interest in activities
 - interferes with daily life, including sleeping, eating, and work.
 - >2 weeks of sx's

Medication for Depression



- **Selective Serotonin Reuptake Inhibitors (SSRIs):**

- **Fluoxetine (Prozac):** FDA-approved for adolescents, often effective and widely studied.
- **Escitalopram (Lexapro):** FDA-approved for adolescents (12+) with major depressive disorder.
- **Sertraline (Zoloft):** Commonly prescribed SSRI.
- **Citalopram (Celexa):** Another SSRI used in this age group.

- **Common Side effects**
 - headache
 - nausea
 - sleep changes
 - Agitation
- **Red flag side effects:**
 - increased suicidal thoughts
 - impulsive behavior
 - Serotonin syndrome/toxicity
- **Time for full effect**
 - 4-8 weeks

Bipolar Disorder



- Characterized by extreme, often debilitating, mood swings that include emotional highs (mania or hypomania) and lows (depression).
- It affects energy, sleep, behavior, and cognitive function, making daily tasks challenging.
- Affects 5.7 million Americans or 2.6% of US population

Bipolar Disorder



- Manic Episodes (Highs)
 - Euphoria, impulsiveness, irritability, endless energy, racing thoughts
- Depressive Episodes (Lows)
 - Overwhelming sadness, anxiety, or emptiness
 - Loss of interest or pleasure in activities.
 - Significant fatigue, low energy, or feeling slowed down.
 - Feelings of worthlessness, guilt, or hopelessness.
 - Difficulty concentrating, making decisions, or remembering.
- Mixed Episodes
 - Experiencing sx's of both mania and depression simultaneously

Types of Bipolar Disorder

- Bipolar I Disorder: manic episodes that last at least 7 days or are so severe that hospital care is needed.
- Bipolar II Disorder: A pattern of depressive episodes and hypomanic episodes (less severe than full mania).
- Cyclothymic Disorder: A milder form involving chronic, fluctuating mood swings that do not meet the criteria for full mania or depression.
- These episodes cause significant impairment in daily life and relationships.

Medication for Bipolar Disorder

- Mood stabilizers
 - Lithium
 - Valproic acid/Divalproex sodium (Depakote)
 - Lamotrigine (Lamictal)
- Anti-psychotics
 - Quetiapine (Seroquel)
 - Aripiprazole (Abilify)
 - Lurasidone (Latuda)
 - Olanzapine (Zyprexa)
 - Risperidone (Risperdal)
- Combo tx
- Common Side effects
 - Weight Gain
 - GI issues
 - Restlessness
 - Drowsiness
 - Dry mouth
 - ↓ Sexual interest
 - Blurry vision
 - ↓ concentration
- Red flag sx's
 - Worsening manic or depressive episodes
 - Worsening side effects
- Time for full effect
 - 4-8 weeks

Attention Deficit/Hyperactivity Disorder - ADHD



- Common neurodevelopmental disorder typically diagnosed in childhood that often lasts into adulthood
- characterized by:
 - persistent pattern of:
 - **Inattention** - difficulty controlling and directing attention
 - **Hyperactivity** - excessive movement, restlessness, or talking
 - **and/or Impulsivity** - hasty actions without thought
 - interferes with daily functioning or development
 - Sx's usually appear before age 12 → impairment in social, academic, or occupational settings

Deficit/Hyperactivity Disorder - ADHD

- Stimulants - ↑ dopamine & norepinephrine
 - Methylphenidate
 - Ritalin, Focalin
 - Amphetamine
 - Adderall, Vyvanse
- Non-Stimulants - ↑ nor-epi
 - Atomoxetine (Strattera)
 - Clonidine
 - Guanfacine
- Anti-depressants
 - Bupropion
 - Nortriptyline
- Common Side effects
 - ↓ appetite
 - Weight loss
 - Diff sleeping
 - Anxiety
 - Upset stomach
 - ↑ heart rate
- Red flag side effects:
 - Sig weight loss
 - ↑ anxiety
 - ↑ GI sx's
- Time for full effect
 - 1-4 weeks

Therapeutic Use Exemption - TUE

Medical Exemption - ME

- Therapeutic Use Exemption (TUE) - official authorization allowing an athlete to use a substance or method on the World Anti-Doping Agency's (WADA) or USADA
- The athlete, with their doctor, submits a detailed application to their anti-doping organization (ADO), NCAA, or international federation, which demonstrates:
 - A clear diagnosis & documented medical need.
 - The prohibited substance is the only or best treatment.
 - The treatment won't significantly enhance performance beyond normal health.
 - The condition isn't from prior non-therapeutic use of a prohibited substance.
- TUE Committee (TUEC) reviews application & grants permission for a specific substance, dosage, and time period.
- Medical Exemption - NCAA's Prohibited List to treat a legitimate medical condition
 - Medical notes or letter from Rx physician in athlete's medical record on campus
 - How diagnosis reached
 - Demonstrated need for tx
 - Dosage

Therapeutic Use Exemption (TUE) - WADA/USADA or Medical Exemption (ME) - NCAA

- ADHD stimulants
 - Methylphenidate
 - Ritalin, Focalin
 - Amphetamine
 - Adderall, Vyvanse
- Anxiety
 - Beta-Blockers (for rifle & golf teams)
- NCAA - Medical Exemption
 - Medical notes or letter from Rx physician
 - How diagnosis reached
 - Demonstrated need for tx
 - Dosage



References

- Cortese, Samuel, et al. Comparative efficacy and tolerability of medications for attention-deficit hyperactivity disorder in children, adolescents, and adults: a systematic review and network meta-analysis. *Lancet Psychiatry*, 2018 Sep; 5(9): 727-738.
- Kovich H, Kim W, Quaste AM. Pharmacologic Treatment of Depression. *American Family Physician*. 2023; 107(2): 173-181.
- Marzani G, Neff AP. Bipolar Disorders: Evaluation and Treatment. *American Family Physician*. 2021;103(4):227-239.
- NCAA Medical Exemption Procedures, updated June 2025.
<https://www.ncaa.org/sports/2015/1/23/medical-exceptions-procedures.aspx>
- Sappenfield O, Alberto C, Minnaert J, et al. Adolescent Mental and Behavioral Health, 2023. 2024 Oct. In: National Survey of Children's Health Data Briefs [Internet]. Rockville (MD): Health Resources and Services Administration; 2018-. Available from:
<https://www.ncbi.nlm.nih.gov/books/NBK608531/>
- Sauhany KL, Simon, NM. Anxiety Disorders: a review. *JAMA*, 2022, jamanetwork.com.