APPROACHES TO DEPRESSIVE DISORDERS AS A PEDIATRICIAN

Pediatric Mental Health Update
March 7th 2025

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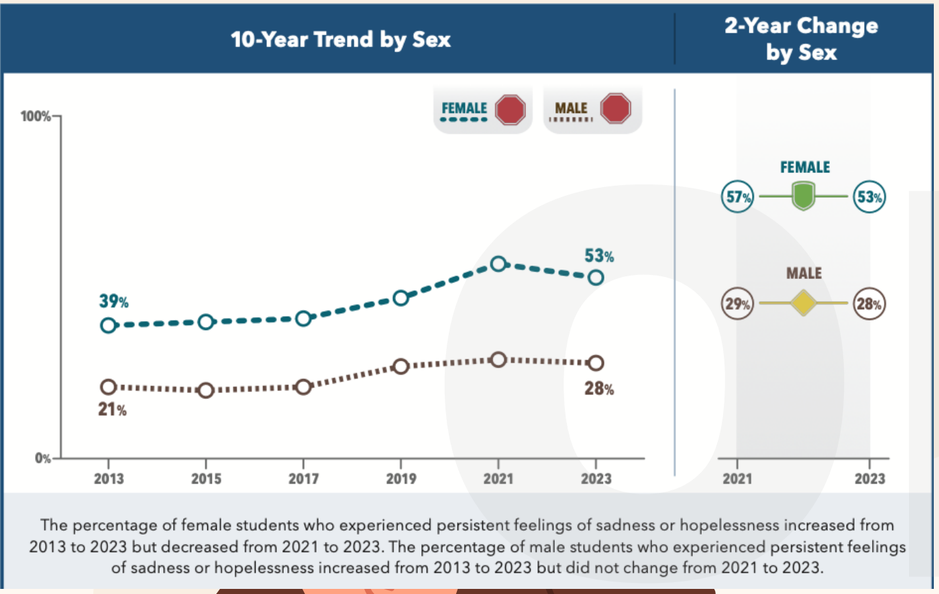
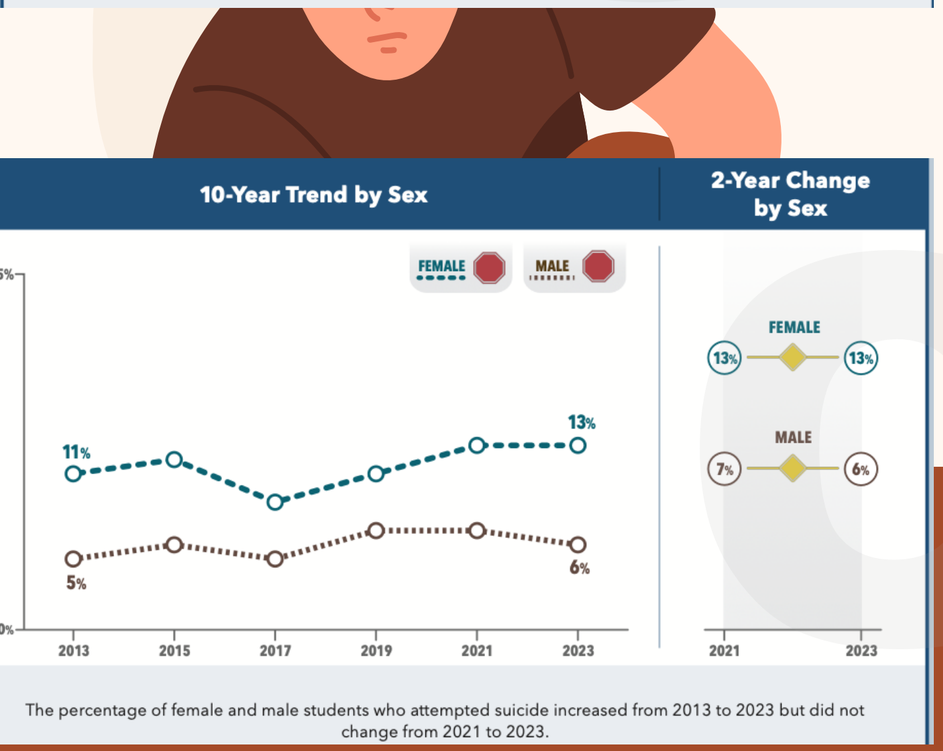
DISCLOSURES

- I have no financial relationships to disclose

CURRENT STATE

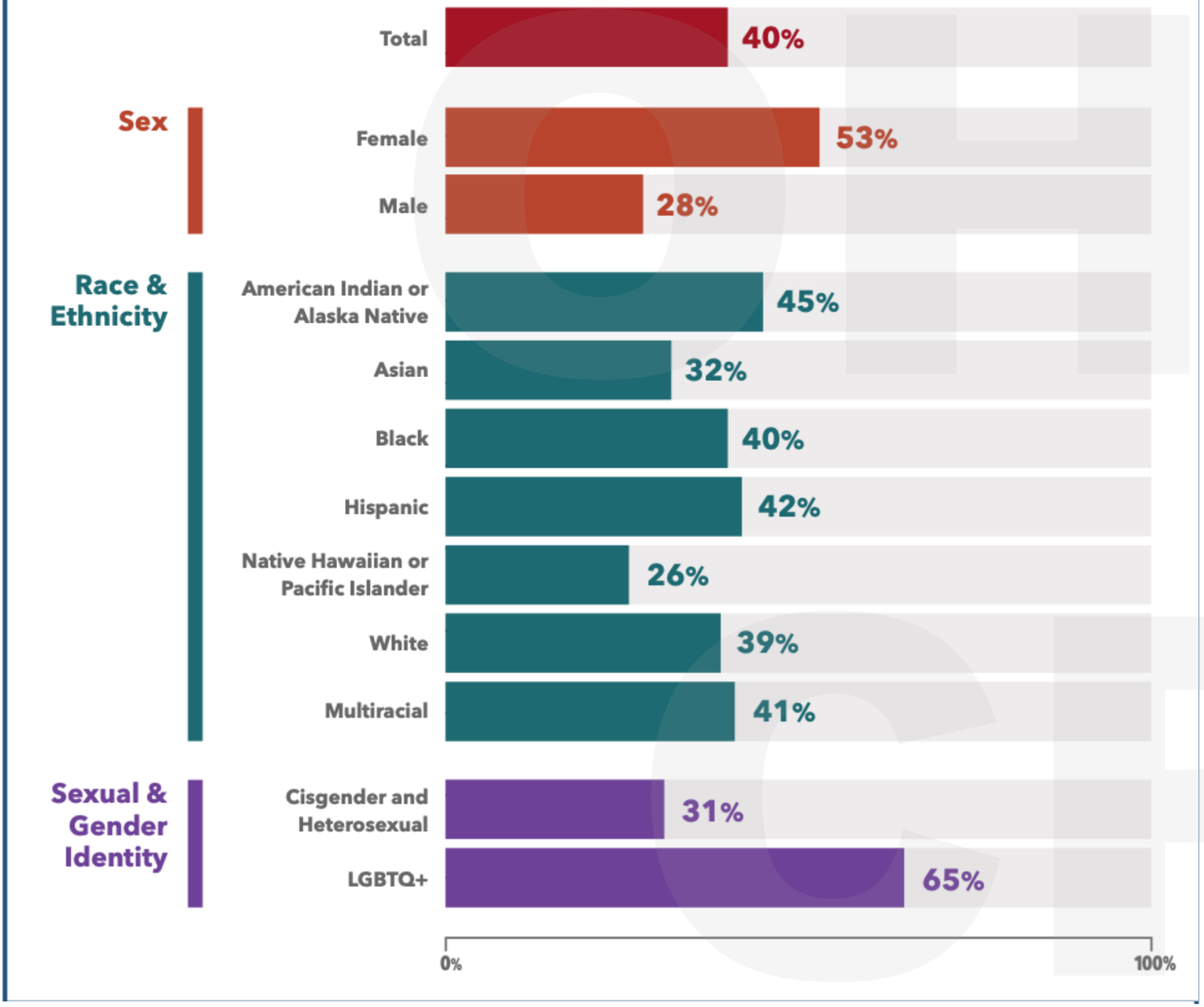




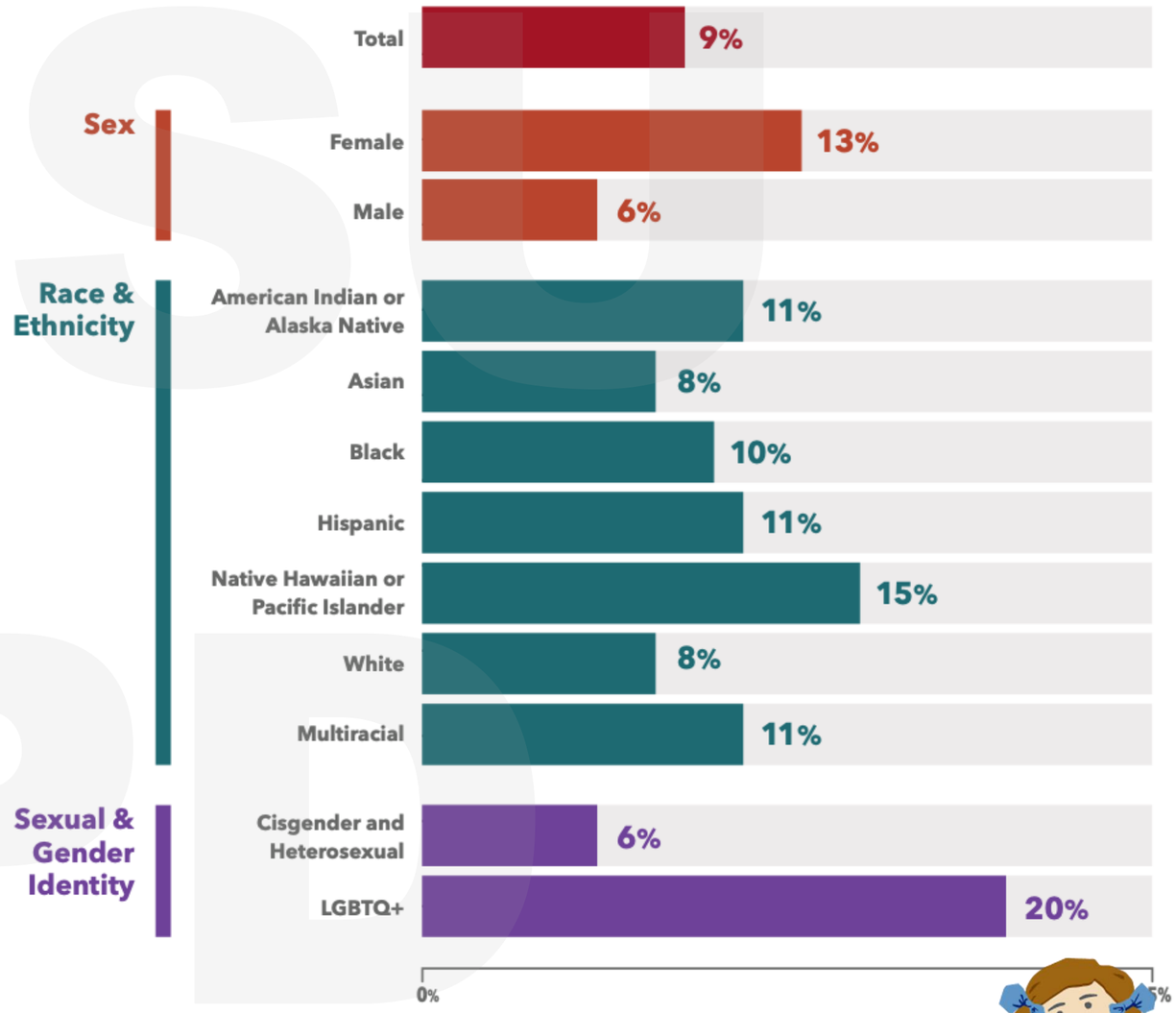
- Prevalence: 20.1%; 14.7% with severe impairment
  - F:M is 29.2:11.5%
- In 2021: ~40% of those with MDD received treatment in the past year
- Rate of death by suicide (12-17yo) increased from 3.7 to 6.3 per 100k (growth of 70%) from '08-'20
- Any minority identities are experiencing these statistics at a higher rate and even more so with intersectionality

1. Centers for Disease Control and Prevention. *Youth Risk Behavior Survey Data Summary & Trends Report: 2013–2023.* U.S. Department of Health and Human Services; 2024.
2. https://www.nimh.nih.gov/health/statistics/major-depression

Percentage of High School Students Who Experienced **Persistent Feelings of Sadness or Hopelessness** During the Past Year, by Demographic Characteristics, United States, YRBS, 2023



Percentage of High School Students Who **Attempted Suicide** During the Past Year, by Demographic Characteristics, United States, YRBS, 2023



1. Centers for Disease Control and Prevention. *Youth Risk Behavior Survey Data Summary & Trends Report: 2013–2023.* U.S. Department of Health and Human Services; 2024.

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BIOPSYCHOSOCIAL CONCEPTUALIZATION

Predisposition

- Heritability: 60-70%
- Risk of depression
  - Increased risk of 2-4x when child is of parents with depression
  - Female : Male
    - Equal pre-pubertal
    - 4-8x more post-puberty

Precipitations

- Life events in the year prior

Perpetuating

- Sleep, cognitive, substances, social factors
- Comorbidities: medical and psychiatric

LEARNING OBJECTIVES

- Review differential diagnoses related to depressive symptoms in pediatric population and describe symptoms associated with pediatric depression
- Develop diagnostic and clarifying approaches for pediatric depressive disorder including how to employ assessment tools
- Learn evidence-based treatment strategies and practical psychopharmacologic tips
- Identify psychotherapeutic approaches, theories, and goals to treat depression

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MAJOR DEPRESSIVE DISORDER

DSM CRITERIA

At least 5 symptoms for 2 weeks and impairing function; (one is depressed mood or anhedonia)

S – sleep
I – interest
G – guilt
E – energy
C – concentration
A – appetite
P – psychomotor
S – suicide

- Feeling sad, hopeless, or irritable a lot of the time.
- Not wanting to do or enjoy doing fun things.
- Changes in eating patterns—eating a lot more or a lot less than usual.
- Changes in sleep patterns—sleeping a lot more or a lot less than normal.
- Changes in energy – being tired and sluggish or tense and restless a lot of the time.
- Noticeable psychomotor retardation (slowing) or agitation (restless)
- Having a hard time paying attention, making decisions
- Feeling worthless, useless, or guilty
- Recurrent thoughts of death, SI, or attempt

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PERSISTENT DEPRESSIVE DISORDER AKA DYSTHYMIA

Depressed OR irritable mood most of day for 1+yr;
with 2+ of following symptoms:

- Appetite changes
- Sleep problems
- Low energy
- Low self-esteem
- Hopelessness
- Concentration problems/indecision

PEDIATRIC SYMPTOMS OF DEPRESSION

Pre-school

- Irritability/anger
- Tantrums
- Sleep difficulties

Pre-puberty

- Irritability/anger
- Tantrums
- Sleep difficulties
- School problems
- Somatic complaints
- Reactive affect

Adolescents

- Apathy/numb
- Avoidance
- Mood swings/irritable
- Low frustration tolerance/sensitivity
- Sleep difficulties
- School problems
- Somatic complaints
- Reactive affect
- Substance use

DIFFERENTIALS OF DEPRESSION

- Adjustment disorder
  - lower severity and impairment
- Persistent depressive disorder
  - Longer timeframe with less symptoms
- Disruptive mood dysregulation disorders
  - Irritable, outbursts, longer timeframe
- Bipolar disorder
  - Clear hypo- or mania
- Premenstrual dysphoric disorder
  - Clear a/w menses with improvement for 2 cycles
- Trauma, ADHD, Substances, Anxiety

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ASSESSMENTS

- Screenings: 12+
  - PHQ-A
- If we are dipping to younger:
  - Preschool feelings checklist
  - Mood and feelings questionnaire (6-19)
  - Revised Child Anxiety and Depression Scale (8-18)

INTERVIEW

- Comprehensive psychiatric assessment
  - Depressive symptoms
  - Stressors
  - Functioning
  - History:
    - Psychiatric: treatment, trauma, trials, triggers
    - Medical
    - Developmental
    - Family: biopsychosocial, relationships, legal
    - Safety: suicide, sex, and substances

OTHER CONSIDERATIONS

- Other PROS
- Strengths and weaknesses
- Medical/environmental
  - Sleep
  - Bullying
  - Anemia
  - Thyroid
  - Medications
  - Seizure

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EVIDENCE

Landmark studies

- Treatment of Adolescent Depression Study (TADS)
- Treatment of Resistant Depression in Adolescents (TORDIA)

Guides

- Guidelines for Adolescent Depression in Primary Care (GLAD-PC)
- AACAP Practice Parameter

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TREATMENT OPTIONS

mild	moderate	severe
• psychoeducation • sleep • exercise • relaxation • mindfulness • school support • therapy	• SSRI • therapy • same as mild • dose titration q2-3 wks • f/u scales	• SSRI + therapy • same as mild and moderate

SELECTIVE SEROTONIN REUPTAKE INHIBITOR

- Varying half-lives
  - Tolerability, titration, withdrawal
- Setting expectations
  - Timeline: effectiveness, side effects
  - Length of treatment
  - Placebo vs nocebo
- Side effects
  - GI, headache, sleep, weight, sex, “anxiety,” serotonin surge, dizziness, SI
- Boxed warning

SSRI HALF-LIVES

- Fluoxetine – Long Half-life (Days)
  - Why do we care?
  - Longer to reach steady state, longer to manifest side effects. Washout takes longer
- Paroxetine – Long Half-life (~1 day)
  - 1-3 days, metabolite is 9 days. Steady state concentrations are higher for younger kids 2x as much when young vs adolescents
- Sertraline & Escitalopram – Medium Half-life (~ 1+ Day)
  - Zoloft: 26-27 hours, shorter for younger; lower peak concentrations compared to adults due to metabolizing. 22% lower than adults
  - Lexapro: 19 hours for adolescents. 27-32 in adults
- Venlafaxine Extended Release – Short Half-life (~12 hrs)
  - IR: 5 hours
- Duloxetine – Short Half-life (~10 hrs)

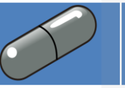
MEDICATION TREATMENT TIMELINE

Why do we say that it may take 6-8 weeks before they feel better?

- Acute phase treatment generally takes 6-12 weeks
  - Initial period: the first 4-6 weeks
    - Titrate dose to target during this time
    - Assess response (partial vs full response); full response is >50% reduction
  - Adjustment period: beyond week 6
    - Titrate dose to **optimize** symptom management
    - Switch medication
    - Assess response
- Continuation phase treatment
  - Continue treatment for 6-12 months
- Maintenance phase treatment
  - Consider tapering off vs continuation

ADOLESCENT TITRATION

example

	Escitalopram 	Sertraline 	Fluoxetine 	Venlafaxine ER 	Duloxetine 
Week 1	5mg	25mg	10mg	37.5mg	30mg
Week 2	5mg*	50mg	20mg	75mg	30mg
Week 3	10mg	50mg	20mg	112.5mg	60mg
Week 4	10mg	100mg	20mg	150mg	60mg
Assess for further optimization at each subsequent time points					
Week 5	20mg*	150mg	40mg*	150mg	90mg
Week 6	20mg*	150mg	40mg*	225mg	90mg
Maximum dose**	20mg	200mg	60mg	225mg	120mg

*may require a lower dose if not tolerating well

**it is not uncommon to see doses higher than this maximum though would recommend discussing it with psychiatry

FDA APPROVAL

Approved	
Escitalopram	12 yo
Fluoxetine	8 yo

Not Approved		
SSRIs	**SNRI**	**Others**
Citalopram	Desvenlafaxine	Bupropion
Fluvoxamine	Duloxetine	Mirtazapine
Paroxetine*	Venlafaxine*	
Sertraline		

*Not recommended to use with pediatric patients

SPECIAL CONSIDERATIONS

Escitalopram
- Well tolerated; few interactions
- QTc prolongation when >20mg

Fluoxetine
- Long half-life
- Drug interactions
- "activating"

Sertraline
- Short half-life
- GI side effects

Duloxetine
- Can be activating
- Blood pressure
- Pain treatment

Bupropion
- ADHD comorbidity
- activating
- Not approved for anxiety
- Contraindicated in eating disorders

Mirtazapine
- Not approved for anxiety
- Increases appetite

WHAT IF...THEY'RE NOT IMPROVING?

- Therapy
- Medication adherence
- Behavioral activation
- Environmental changes
- Problem solving
- Switch medications
- Diagnostic accuracy?
- Consider OPAL-K

HOW TO SWITCH

Option 1: uncomplicated

- Wean down; go slower if longer on medication
- Consider half-life
- Wash out
- Restart

Option 2: cross-titration

- Wean down slightly and get to a steady state-ish
- Start the new medication at the beginning
- Closely monitor
- Step-wise adjustments

Option 3: direct switch

- Close communication and monitoring; higher risk of serotonin syndrome especially if involving fluoxetine

Stimpfl JN, Walkup JT, Robb AS, et al. Deprescribing Antidepressants in Children and Adolescents: A Systematic Review of Discontinuation Approaches, Cross-Titration, and Withdrawal Symptoms. *Journal of Child and Adolescent Psychopharmacology*. 2025;35(1):3-22. doi:10.1089/cap.2024.0099

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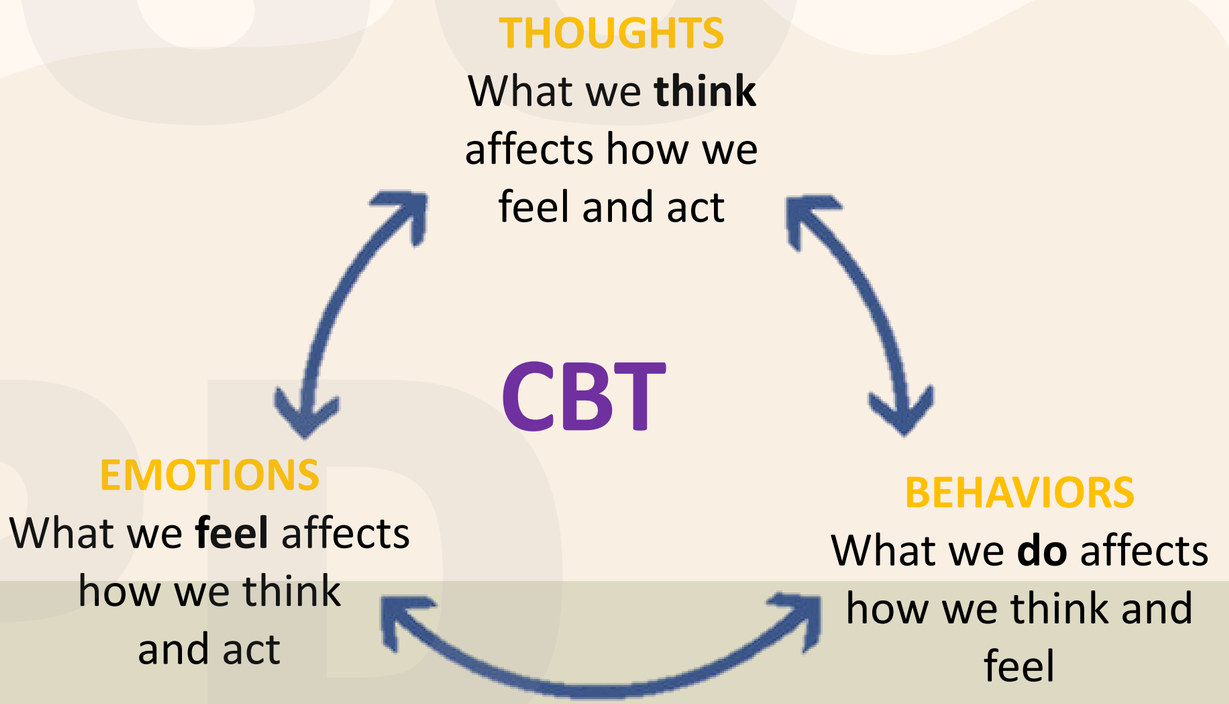
PSYCHOTHERAPY

- Brief and timely psychotherapeutic intervention is superior to referral
- Evidence-based shows CBT and IPT as the most beneficial to treat pediatric depression
- Long-term supportive therapy should NOT be the goal

HOW TO TALK ABOUT THERAPY

- Helpful to know what you're recommending and what they should expect it to help with:
  - Lower guard
  - Recognize emotion
  - Recognize stressors/triggers
  - Cope
  - Change how they think and feel



WHAT CAN YOU DO IN THE OFFICE

- Validate
- Talk about emotions, thoughts, and actions
- Help them figure out strengths and desires (MI like)
- Help problem solve
- Help figure out immediate goals
- Have some go-to's from therapistaid

DISCRETE SKILLS OR KNOWLEDGE

- Motivational interviewing
- Behavioral activation
- Mindfulness
- Emotion regulation
- Coping
- Sleep
- Exercise

THANK YOU

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