Depression in Children

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One in Five

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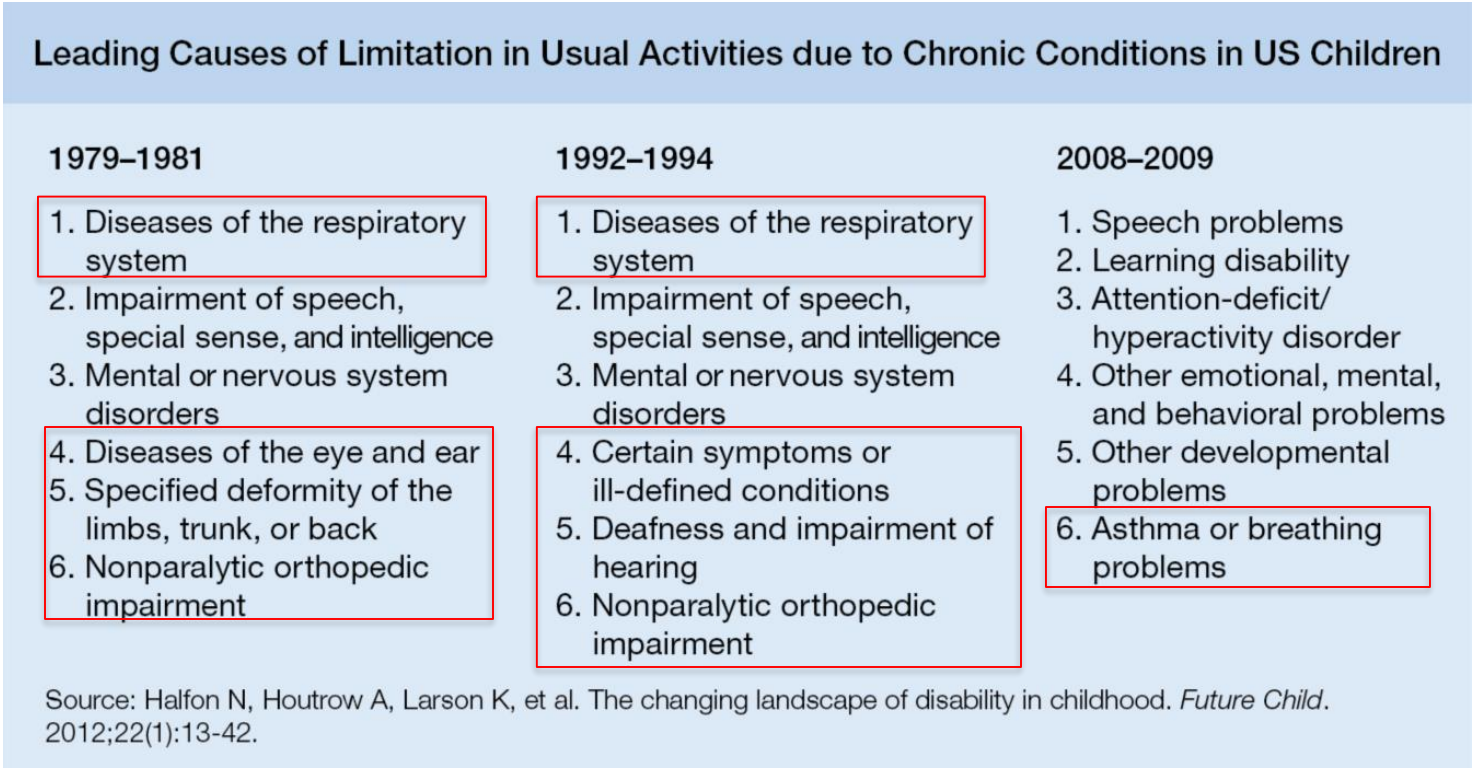
Why does children's mental health matter?

- Mental health is key to the overall health of children
- No other illnesses harm as many children so seriously
- Untreated mental health issues leads to:
  - Increased health care utilization as adults
  - Decreased school achievement
  - Increased risk of under-employment and poverty
  - Increased risk of incarceration
  - Increased risk of alcohol and other drugs

From: **Chronic Mental Health Issues in Children Now Loom Larger Than Physical Problems**

JAMA. 2012;308(3):223-225. doi:10.1001/jama.2012.6951



Leading Causes of Limitation in Usual Activities due to Chronic Conditions in US Children

1979–1981	1992–1994	2008–2009
1. Diseases of the respiratory system	1. Diseases of the respiratory system	1. Speech problems
2. Impairment of speech, special sense, and intelligence	2. Impairment of speech, special sense, and intelligence	2. Learning disability
3. Mental or nervous system disorders	3. Mental or nervous system disorders	3. Attention-deficit/ hyperactivity disorder
4. Diseases of the eye and ear	4. Certain symptoms or ill-defined conditions	4. Other emotional, mental, and behavioral problems
5. Specified deformity of the limbs, trunk, or back	5. Deafness and impairment of hearing	5. Other developmental problems
6. Nonparalytic orthopedic impairment	6. Nonparalytic orthopedic impairment	6. Asthma or breathing problems

Source: Halfon N, Houtrow A, Larson K, et al. The changing landscape of disability in childhood. *Future Child*. 2012;22(1):13-42.

Figure Legend:

For the first time in more than 30 years, mental health conditions have displaced physical illnesses as the top 5 disabilities in US children. Nearly 8% of children have an activity-limiting disability.

LEADING CAUSES OF DEATH IN 10- TO 24-YEAR-OLDS

—UNITED STATES, 2014

CAUSE	% OF DEATHS
Accidents	50%
Suicide	17%
Homicide	14%
Cancer	6%
Heart Disease	3%
Congenital anomalies	2%

Data Source: Centers for Disease Control and Prevention
Youth Risk Behaviors Survey Report, MMWR, June 2016

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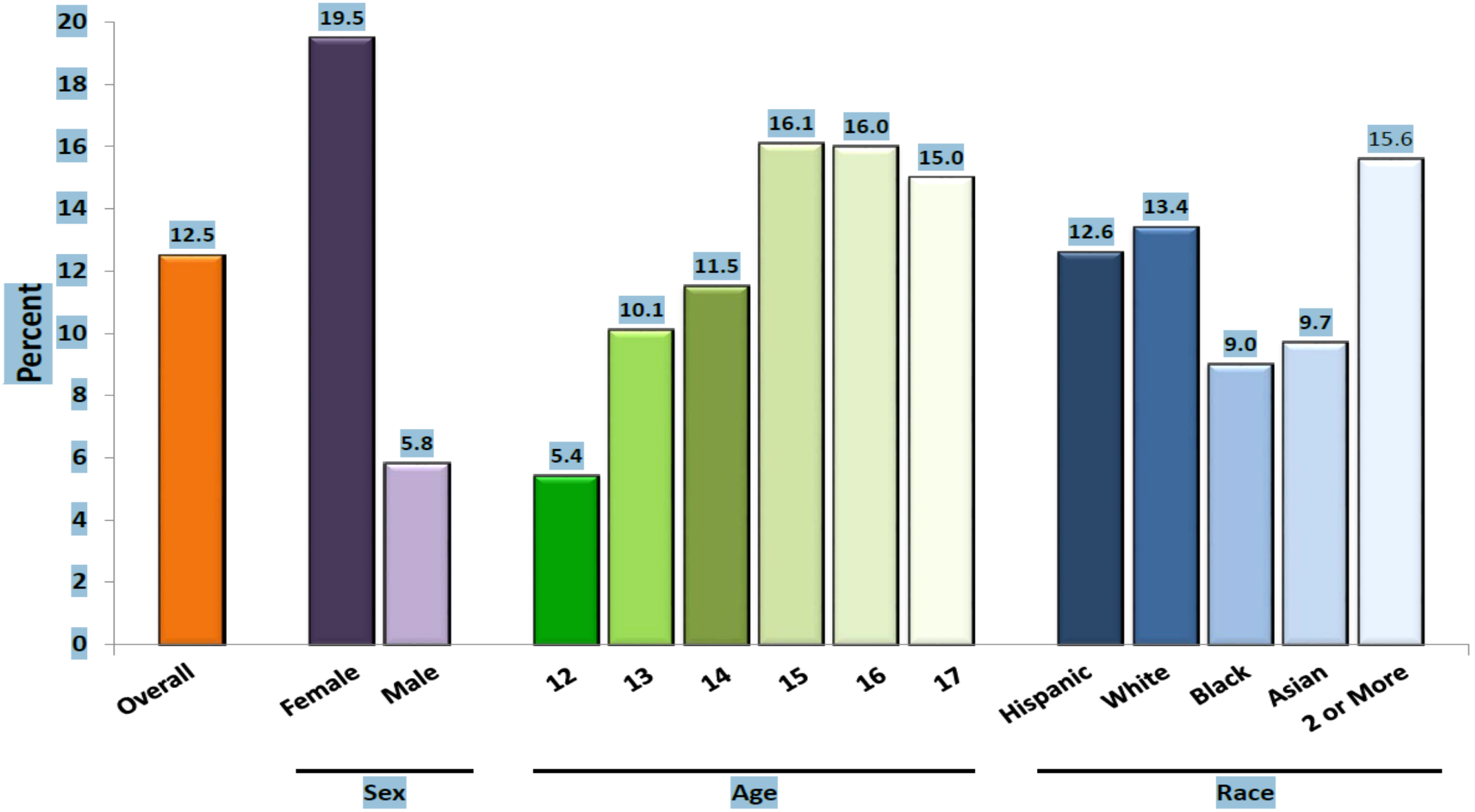
12-month Prevalence of Major Depressive Episode Among U.S. Adolescents (2015)

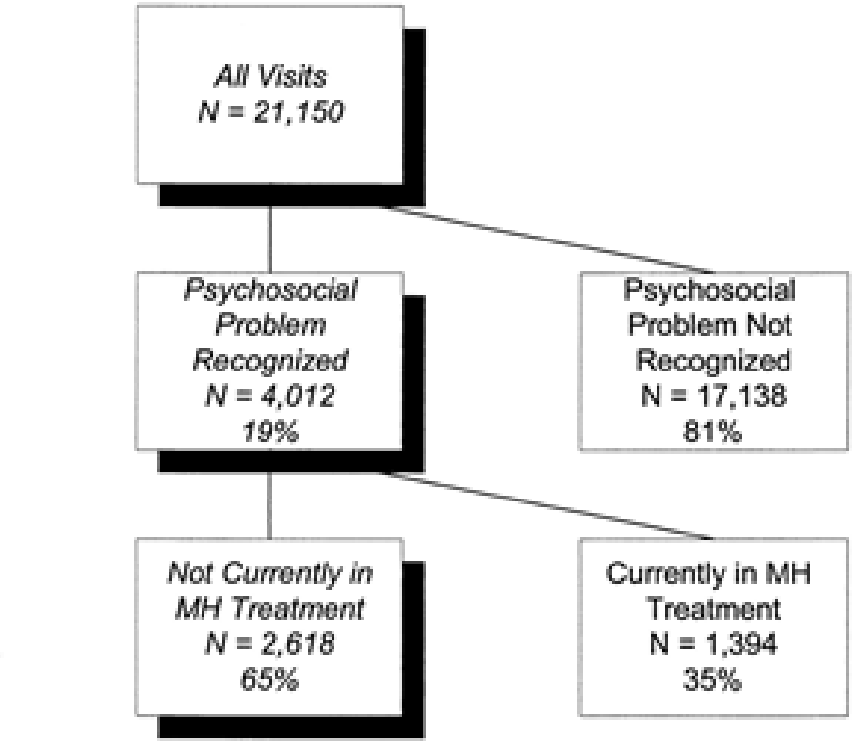


Data courtesy of SAMHSA

NIH National Institute of Mental Health

*NH/OPI = Native Hawaiian/Other Pacific Islander
**AI/AN = American Indian/Alaska Native

Selection of study group.



William Gardner et al. Pediatrics 2000;106:e44

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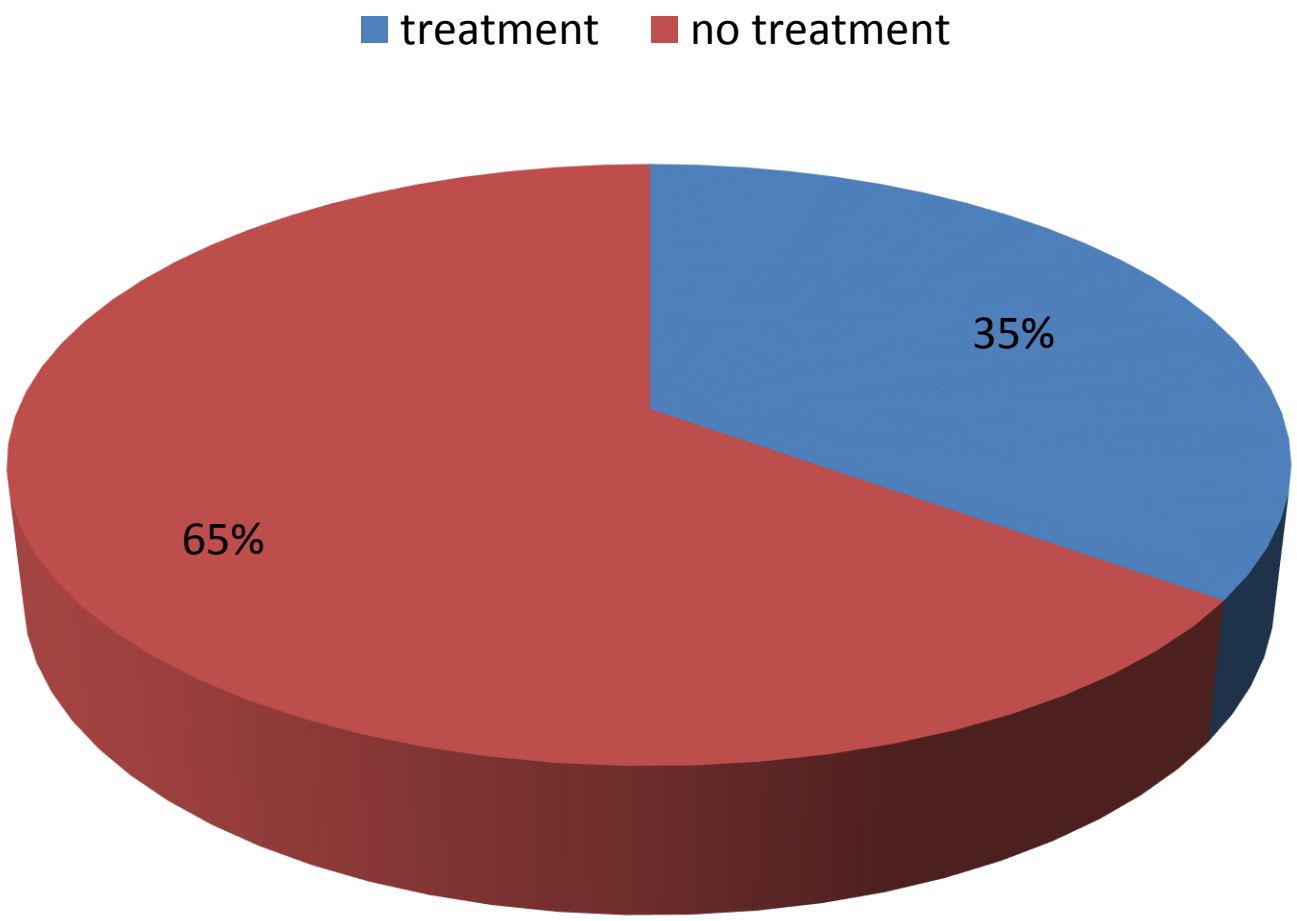
Adolescents with Depression: Received treatment in last year?



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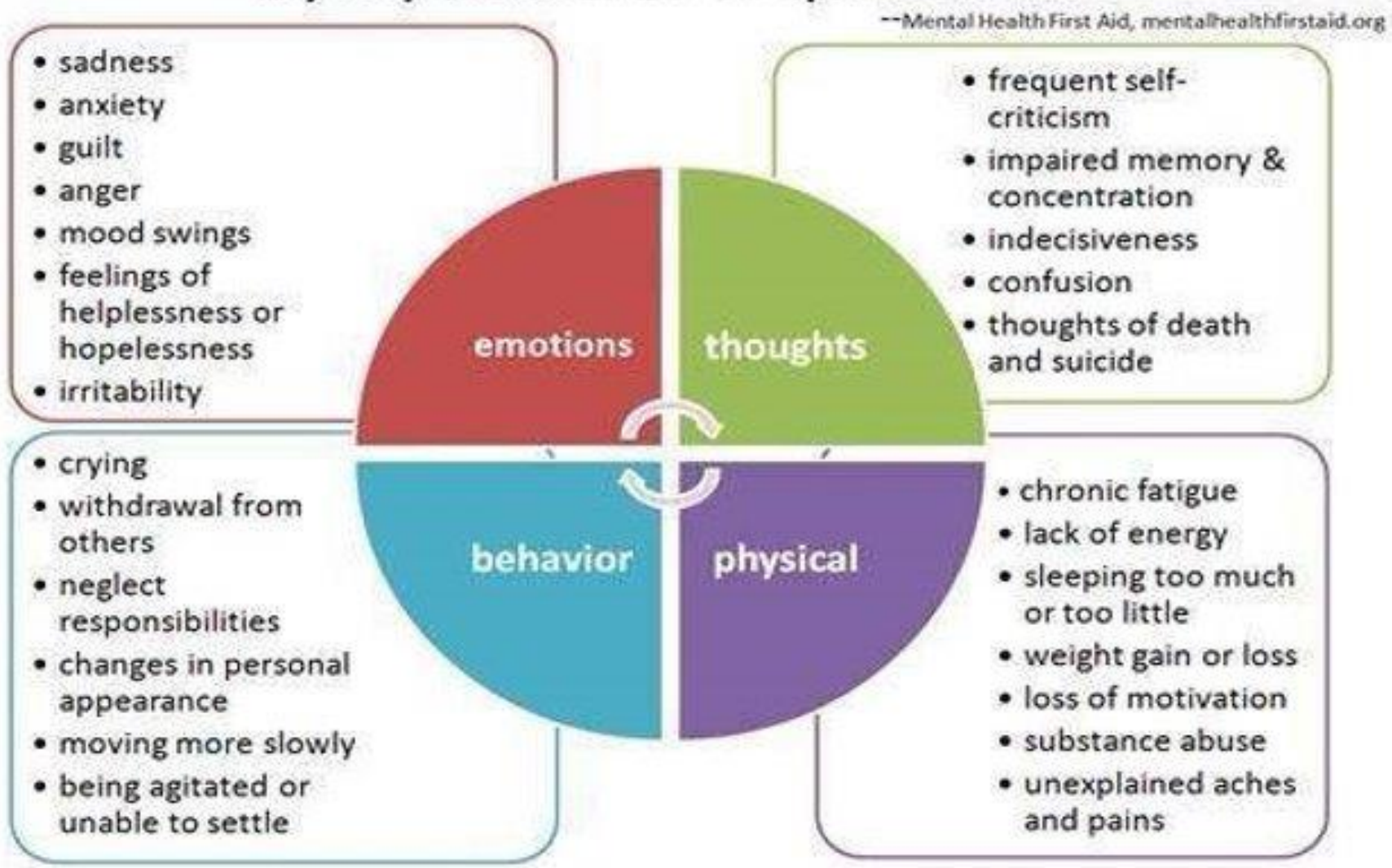
Symptoms of Depression



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Symptoms of Depression in Children/Teens

- Frequent vague, non-specific physical complaints such as headaches, muscle aches, stomachaches or tiredness
- Frequent absences from school or poor performance in school
- Talk of or efforts to run away from home
- Outbursts of shouting, complaining, unexplained irritability, or crying, hostility
- Being bored, lack of interest in playing with friends
- Alcohol or substance abuse
- Social isolation, poor communication
- Fear of death
- Extreme sensitivity to rejection or failure
- Reckless behavior
- Difficulty with relationship

Warning signs of suicide

- Many depressive symptoms (changes in eating, sleeping, activities)
- Social isolation, including isolation from the family
- Talk of suicide, hopelessness, or helplessness
- Increased acting-out of undesirable behaviors (sexual/behavioral)
- Increased risk-taking behaviors
- Frequent accidents
- Substance abuse
- Focus on morbid and negative themes
- Talk about death and dying
- Increased crying or reduced emotional expression
- Giving away possessions

Initial Psychotherapeutic Management

- Limits of confidentiality
- Thorough history
- Psychoeducation about depression
- Suicide risk assessment
- Safety Plan
- Community Resources
- Treatment Plan

Suicide Risk Assessment

- Directly ask about thoughts of killing oneself
- Past attempts
- Plan?
  - Belief in lethality
  - Means to enact plan?
- Intent?
- Thoughts vs. Plan and intent
- What are strengths (things that keep you from killing yourself)?
  - Family
  - Religion
  - Purpose in life
  - Friends

When to use medications

- Depression of moderate to severe severity
- Prior episode of depression
- Previous treatment with medication
- Family history of depression
- Family history of depression with response to medication
- Change in environmental stressor without improvements
- Evidence based psychotherapy without success

Am Fam Physician. 2012 Sep 1;86(5):442-448.

Fluoxetine - Drug of choice

- More efficacious for children < 12
- Long half-life
- Unlikely to have withdrawal symptoms
- Inexpensive
- FDA approved for Major Depression (>7)
- Most RCT studies
- Decreased risk of suicide in TADS study (Fluoxetine and CBT the most) , NNT=4
- 4-6 weeks for benefit
- Initial starting dose 10mg

Other Medications

- Escitalopram (Lexapro)
  - 1 positive RCT
  - Least interaction with other medications
  - FDA approved for MDD (> 11)
- Citalopram (Celexa)
  - 1 positive RCT, 1 negative RCT
  - dose-dependent QT-interval prolongation and risk of arrhythmia with citalopram dosages >40 mg/day
- Sertraline (Zoloft)
  - 1 positive RCT
  - FDA indication for OCD in children (>6)
- Mirtazapine (Remeron), venlafaxine (Effexor), duloxetine (Cymbalta) – no demonstrated efficacy in MDD

Risk of Suicide

- 2004 FDA warning: no completed suicide, 4% increase over placebo in thoughts
- Treatment for Adolescent Depression Study (TADS) – fluoxetine, n=439
  - 29 with SI initially; no completed suicide or increase in suicide rate
- Child/Adolescent Anxiety Multimodal Study (CAMS) – sertraline, n=270,
  - no increase suicide attempts or AE in comparison to placebo
- Health Plan Study – n=65,103 - No significant increase risk of suicide in young adults
- Toxicology – Sweden, 1992-2000
  - N=52, <15 yo, no SSRI detected
  - N=326, 15-19, 13 positive for antidepressants, SSRI lower RR than non-SSRI
- Epidemiologically – inverse relationship with antidepressant and suicides
- Venlafaxine (significant) and paroxetine (close to being significant) increase in suicidal thoughts from reanalysis by FDA

Resources

- https://www.choc.org/mental-health/