



## Adolescent Depression and Anxiety

Diane Tanaka, MD

Medical Director, Teenage and Young Adult Health Center,  
Children's Hospital of Los Angeles



## Disclosure Statement

- I have no relevant financial relationships with the manufacturer(s) of any commercial product(s) and/or provider of commercial products or services discussed in this CME activity
- I do not intend to discuss unapproved/ investigative use of commercial product(s)/ device(s) in my presentation



## Learning Objectives

- List at least 2 diagnostic features of adolescent depression
- Identify when to refer a patient to therapy
- Describe the best treatment approaches to adolescent depression



Depression is the leading cause of disability globally



WHO



## Prevalence of Depression and Anxiety

- Early adolescence: 5% depression
- Late adolescence: 20% depression
- Age of onset is decreasing
- Many adolescents and children experience symptoms for **years** before seeing a doctor
- 25%-50% of depressed teens also have anxiety disorders
- 10%-15% of anxious youth have depression



Korczak D & Monga S Depression and anxiety disorders Adolescent and young adult health care A practical guide 2016 (69), pgs 578-587



## Who Is More Likely To Suffer From Depression?

Cisgender Boys

Cisgender Girls



## Gender Differences in Depression

- Females: males: 2:1
- Adolescent depression is tied to female hormones
- Female hormones appear to sensitize the brain to the harmful effects of stress
- Estrogen increases the stress response in the prefrontal cortex



## Adolescent Depression

- 60%-70% of teens that have a depressive episode, will have a recurrence within 5 years
- Associated with greater episode severity, chronicity of symptoms, incomplete recovery, comorbid anxiety
- If parents have a history of youth depression → 4-5 times higher risk of their children having depression
- More likely associated with a psychosocial stressor





## Biologic Risk Factors for Depression

- Female
- Older age
- Parent/family history
- Past history of depression
- Comorbid chronic illness
  - Diabetes
  - ADD
  - Rheumatologic diseases
- Learning disorders
- Medications (prednisone, Accutane)
- Genetics
  - Specific serotonin gene-transporter gene variants



## Psychological Risk Factors

- Family and/or peer conflict
- Childhood neglect and/or abuse
- Poverty
- Recent loss (death, romantic break up)
- Academic difficulties/failure
- Discrimination/social exclusion
- Conflict in home and/or school relationships
- Reside in high conflict, low community support neighborhoods





## Social Risk Factors for Depression

- Bullying
- Poverty
- Increased daily life stresses
- Early life stress: abuse/neglect
- Perceived discrimination within the household



## Personal Psychological Factors & Depression



Tendency to respond to stress with unpleasant emotions

Interpret emotionally neutral events as negative



## Obtaining a History of Depression

- Ask the teen about any depressive symptoms
- Ask the teen about feelings of sadness and/or hopelessness
- Confirm the teen's history with the parent/guardian



## Signs and Symptoms of Depression

- Persistence of depressed mood
- Pessimism
- Reduced pleasure
- Decreased energy
- Decreased motivation

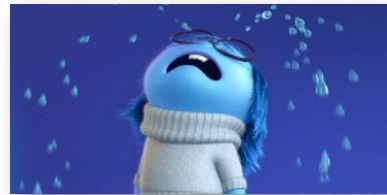


## Signs and Symptoms of Depression



- Social withdrawal
- Substance use
- Decreased concentration
- Fatigue
- Somatic complaints: headaches, abdominal pain
- Boredom
- Assess how these signs/symptoms interfere with school, home, and social function

## What Teens Think Depression Looks Like





## What Teen Depression May Look

- Boredom
- Irritability
- Easily provoked to anger



## Depression Screening: Self Report Forms



- Easy to administer
- Patients like them
- Able to translate symptoms into quantifiable scores
- Used to screen and monitor
- **NOT diagnostic tools**

## Depression Screening: PHQ2

### PHQ-2 Questions

Over the last 2 weeks how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3

- A cut-off score  $\geq 3$  is **positive**

## Depression Screening: PHQ9

### PATIENT HEALTH QUESTIONNAIRE-9 (PHQ-9)

Over the last 2 weeks, how often have you been bothered by any of the following problems? (Use "0" to indicate your answer)	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

PHQ-9 score: 0-27  
Total Score: \_\_\_\_\_

## PHQ9 Scoring

Total Score	Depression Severity
0-4	None
5-9	Mild
10-14	Moderate
15-19	Moderately Severe
20-27	Severe

## Depression Screening

- Beck Depression Inventory-II
  - 13 years and above
  - 21 items; takes 10-15 min
  - Each question scored 0-3
- Children's Depression Inventory
  - CDI-2: 7-17 years
  - Takes 15-20 minutes
  - Scored 0-3
- Children's Depression Rating Scale
  - 17 items
  - Scored 0-7





## DSM-5 Diagnostic Criteria for Depression

- Symptoms persist for most of the day, nearly every day, for at least 2 consecutive weeks
- At least 5 of 9 symptoms are present during the same two week period
- At least one of the symptoms must be either
  - Depressed mood
  - Loss of interest or pleasure



## DSM-5 Diagnostic Criteria for Depression

- Depressed mood, most of the day, nearly every day
- Markedly decreased interest or pleasure, in all, or nearly all activities
- Significant unintended weight loss, weight gain, or change in appetite
- Insomnia or hypersomnia nearly every day
- Psychomotor agitation or retardation nearly every day, observed by others, not merely subjective feelings of restlessness or being slowed down



## DSM -5 Diagnostic Criteria for Depression

- Fatigue or loss of energy nearly every day
- Feelings of worthlessness or excessive or inappropriate guilt nearly every day
- Diminished ability to think or concentrate, or indecisiveness, nearly every day
- Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, suicide attempt, or a specific plan for committing suicide



## DSM -5 Diagnostic Criteria for Depression

- The above symptoms must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning
- The episode cannot be attributed to the effects of a substance or to another medical condition



## Treatment of Depression



- Assess for suicide
- Ensure safety
- Identify stressors
- Address comorbid conditions, especially substance abuse
- Break confidentiality, if suicidal

## Treatment of Depression

### Mild Depression

- Address stressors
- Provide active supportive strategies
  - Encourage participation in pleasurable activities
  - Encourage good sleep hygiene
  - Promote regular physical activity
  - Prevent/intervene bullying
- Schedule regular f/u
- Monitor symptoms
- 20% of depressive symptoms will improve with supportive strategies only

### Moderate to Severe Depression

- Assess for suicidality → admit, if positive
- Refer to a mental health specialist
- Psychotherapy advised
- May need medication
- Less likely to improve without therapy and/or medication

## Treatment of Depression

- Depressed patients often have distorted perceptions
- Spontaneous negative thoughts
  - Self
  - Environment
  - Future
- Cognitive behavioral therapy is effective as first-line treatment



## Treatment of Depression



- CBT focuses on correcting cognitive distortions, uses mood diaries, and encourages activity and socialization
- CBT + medication is more effective, than either alone
- Treatment of Adolescents with Depression Study:
  - Patients on fluoxetine + CBT did better than those on CBT alone, or placebo alone
  - If more severe depression, equal benefit from fluoxetine alone, or fluoxetine + CBT



## Treatment of Depression: Interpersonal Therapy

- Those prone to depression are more likely to seek excessive reassurance from relationships
- Those who excessively seek reassurance, but have poor social skills, have more interpersonal difficulties, including rejection
- Connections made between depression and life events that precipitated it, or symptoms that result from the depression
- Structured, short term



## SSRI Medications



- Inhibit serotonin transporters
- Block reuptake of serotonin
- Increase the concentration of serotonin in the synapse
- Lab work not routinely required (consider evaluating for medical causes of depression, check LFTs)



## SSRI Medications

Medication	Mean Half Life	Dosing Schedule
Fluoxetine (Prozac)	96 hours	Daily
Sertraline (Zoloft)	26 hours	Daily
Fluvoxamine (Luvox)	15 hours	Daily
Citalopram (Celexa)	35 hours	Daily
Escitalopram (Cipralex)	30 hours	Daily
Paroxetine (Paxil)	21 hours	Daily



## FDA Approved Medications for Adolescents

Fluoxetine  
Escitalopram

## SSRIs and Depression

- Effective: response rate ranges between 40%-70%
- Fluoxetine shows the greatest response
- Citalopram and sertraline have also shown to be effective
- Paroxetine: negative effects




## Depression and Psychotropic Medication




Children's Hospital LOS ANGELES

## What Else is Effective To Decrease Depression?



Children's Hospital LOS ANGELES

## What Else is Effective for Depression?



- Mindfulness/meditation
- Headspace
- Calm
- Moodnotes: CBT, costs \$4.99 for the app
- Talkspace: text therapy with a licensed therapist, costs \$49 per week (billed monthly)

## Suicide

- Completed suicides are higher in males
  - 4:1 in 15-19 y.o.
- Females have higher rates of suicide attempts
- 3<sup>rd</sup> leading cause of death in adolescence
- Hopelessness about the future, impulsive aggression, inability to find alternative solutions to problems are all risk factors for suicide



## Special Populations at Increased Risk for Suicide

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Homeless               <ul style="list-style-type: none"> <li>– Abuse, trauma, violence</li> <li>– Comorbid psychiatric disorders</li> <li>– Family conflict</li> </ul> </li> <li>• LGBTQ               <ul style="list-style-type: none"> <li>– Parental rejection</li> <li>– Peer victimization</li> </ul> </li> <li>• Incarceration               <ul style="list-style-type: none"> <li>– High levels of stress</li> <li>– Abuse, trauma, violence</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Military               <ul style="list-style-type: none"> <li>– PTSD</li> <li>– TBI</li> <li>– Intrafamilial stress</li> </ul> </li> <li>• Indigenous peoples               <ul style="list-style-type: none"> <li>– Discrimination</li> <li>– Economic deprivation</li> <li>– High rates of substance abuse</li> <li>– Disconnect from traditional culture</li> </ul> </li> </ul> |
|--|---|

## Suicide Hotline



## Community Emergency Resources

- PET team
  - Psychiatric emergency team
  - Licensed DMH clinician
  - Can place the youth on a 5150 hold
- 911
  - Law enforcement
  - Quickest response
- Psychiatric Mobile Response Teams
  - Licensed DMH clinician
  - Law enforcement officer

## Anxiety Disorders in Adolescents



## Anxiety Disorders in Adolescents

- The most common psychiatric disorder in youth
- Not easily recognized
- Often missed, especially in younger teens
- Affects 10-20% of all youth
- Female:male: 2:1
- May develop in early childhood (median age 6 years)
- More likely to have a parent with an anxiety disorder
- ADHD, depression, and substance abuse may be co-occurring disorders



## Possible Triggers for Anxiety Disorders



- Life stress
- Parental divorce
- Immigration issues
- Move to a new school/ neighborhood
- Loss of a loved one, including a pet
- Illness of a relative
- Childhood abuse and adversity



## Anxiety Assessment

- Interview the teen
- Obtain collaborative information from parents/ guardians
- Assess for medical conditions
  - Thyroid disorders
  - Rheumatologic disease
  - Diabetes
- Identify external stressors
  - Family conflict
  - Bullying
  - Learning disorders
- Identify specific worries and thoughts



## Anxiety Assessment



- “How does your anxiety cause problems for you?”
- “Does your anxiety prevent you from doing things you want to do?”
- “Do you avoid doing things with peers or in front of peers, because of your anxiety?”
- “How problematic is your anxiety for you?”

## Anxiety Screening

**Generalized Anxiety Disorder 7 Item Scale**

Home Tests About Us [Help](#)

Over the last 2 weeks, how often have you been bothered by the following problems?

	Not at all sure	Several days	Over half the days	Nearly everyday
1. Feeling nervous, anxious, or on edge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Not being able to stop or control worrying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Worrying too much about different things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Trouble relaxing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Being so restless that it's hard to sit still	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Becoming easily annoyed or irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Feeling afraid as if something awful might happen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Sensitivity & Specificity

GAD-7 Moderately Good at Screening for:  
Panic Disorder, Social Anxiety Disorder & PTSD

- Panic Disorder (sensitivity 74%, specificity 81%)
- Social Anxiety Disorder (sensitivity 72%, specificity 80%)
- PTSD (sensitivity 66%, specificity 81%)

Total Score	Interpretation
≥10	Probable diagnosis of GAD; confirm by further evaluation
5	Mild anxiety
10	Moderate anxiety
15	Severe anxiety

## SCARED: Screen for Child Anxiety Related Disorders

## SCARED Scoring

- ✱ **SCORING:** A total score of > 25 may indicate the presence of an **Anxiety Disorder**. Scores higher than 30 are more specific.
- A score of 7 for items 1, 6, 9, 12, 15, 18, 19, 22, 24, 27, 30, 34, 38 may indicate **Panic Disorder** or **Significant Somatic Symptoms**.
- ✱ A score of 9 for items 5, 7, 14, 21, 23, 28, 33, 35, 37 may indicate **Generalized Anxiety Disorder**. A score of 5 for items 6, 9, 12, 20, 25, 33, 37 may indicate **Separation Anxiety Disorder**. A score of 8 for items 3, 9, 12, 36, 38, 40 may indicate **Social Anxiety Disorder**. A score of 3 for items 2, 11, 17, 36 may indicate **Significant School Avoidance**.
- ✱ "For children ages 8 to 11, it is recommended that the clinician explain all questions, or have the child answer the questionnaire sitting with an adult in case they have any questions."

- 41 item screening form
- Teen
- Parent

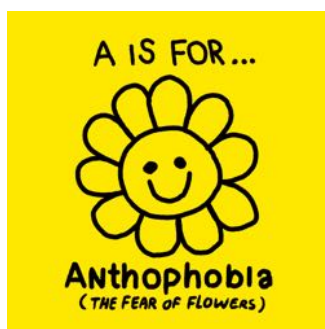


## DSM 5 Diagnostic Criteria

- **GAD:** excessive worry about a number of things for  $\geq 6$  mos. “Worry warts”. Perfectionists, feel anxious “all the time”
- **Panic disorder:** recurrent, unexpected attacks of anxiety - often suddenly
- **SAD/social phobia:** worry about being laughed at or embarrassed or doing something humiliating in front of others. Emerges between ages 8-15. Shy child
- **Selective mutism:** excessive anxiety or inhibition about speaking. Variant of social anxiety



## DSM-5 Diagnostic Criteria



- **Specific phobias:** consuming fear of a specific object
- **Separation anxiety:** worry that something “bad” will happen to them, or their parent of caregiver, when not together

