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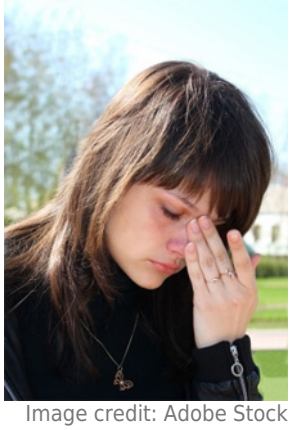
Depression in Adolescents: Information for Primary Care



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Summary: Major depressive disorder is a condition marked by low or irritable moods, along with physical symptoms such as problems with sleep, energy, and appetite. Treatment options include counseling/psychotherapy (e.g. interpersonal/attachment-based psychotherapy to address interpersonal stresses), lifestyle interventions (e.g. sleep hygiene, proper nutrition, regular exercise), as well as medication options (such as SSRIs).

Case, Part 1

T. is a 15-year old female brought who lives with both parents, and is seeing you just a few months after having started high school. Brought by her mother to the appointment, ostensibly due to new onset headaches and stomaches.

You ask about her mood, and she breaks down crying, saying that she has felt sad for the past few months. Symptoms include problems with sleep, appetite, energy and concentration since the school year started

You meet alone with her, and when you ask about safety, she reports that she would never end her life “because it would hurt my family”. You schedule a follow-up for a week to further explore...

Epidemiology

Prevalence varies by age, reaching adult levels by adolescence

- Preschool: 0.3%
- Primary school: 1.8%
- Adolescents: 3-8% (i.e. more common than asthma and most other chronic medical problems in this age group) (Jackson, & Lurie, 2006), with 2:1 female:male ratio

Signs/Symptoms

Classic symptoms

- Depressed or irritable mood
- Neurovegetative symptoms
    - Sleep problems
    - Appetite problems
    - Concentration problems
    - Decreased interest or pleasure in activities, loss of pleasure (anhedonia), or decreased libido
    - Energy low

Other red flags for depression include

- Adolescent who presents with unexplained physical (i.e. somatic) symptoms (such as headaches, fatigue, stomach aches, nausea) which do not have any obvious medical cause

Screening Tools

History / Interviewing Questions

Open-ended

- "How has your mood been?"
- "On a scale between 1 and 10, if 10 is the best mood possible, and 1 is the worst mood, how is your mood between 1 and 10?"
    - Non-depressed patients tend to report report moods between 5-10
    - Patients with major depression may report moods <5, and as low as 1 if severely depressed

Closed-ended screening with SIGECAPSS

- S: Have you had periods of feeling **sad**, depressed or down? Or extremely irritable?
- I: Have you lost any **interest** or enjoyment in things you normally enjoy?
- G: Have you been feeling **guilty** or down on yourself?
- E: Problems with low **energy**?
- C: Any problems **concentrating** or paying attention? Making decisions?
- A: Any changes with your **appetite**? Lost or gained weight?
- P: Have you felt restless or (**psychomotor)** agitated? Have you been feeling slowed down?
- S: Any problems with your **sleep**?
- S: With everything that's been going on, have you had anythoughts that life isn't worth living (i.e. **suicidal** thoughts)? Ever thought about taking your own life? Ever done anything to end your life?

Stressors

- Everyone has stresses, such as school, home and relationships. What are your top stresses?

Resiliency factors, including reasons for living

- After asking about negative content such as suicidal ideation, balance it out with more positive or hopeful content such as resiliency factors or reasons for living
- Clinician: "I know that you may be feeling down, but I am glad that you are here. The fact that you are here proves to me that although a part of you is feeling down, there is a larger part of you that wants to live. What's kept you going? Who has kept you going?"

DSM-5 Criteria for Major Depressive Disorder

A. At least five of the following symptoms for at least two weeks duration; at least one of the symptoms is either 1) depressed mood or 2) loss of interest or pleasure:

1. Depressed mood or loss of interest/pleasure
2. Anhedonia
3. Weight change; in children, consider failure to make expected weight gain
4. Sleep problems such as insomnia or hypersomnia
5. Psychomotor agitation or retardation
6. Fatigue or loss of energy
7. Feelings of worthlessness or excessive guilt
8. Concentration problems
9. Suicidal thoughts, whether passive or active

B. Symptoms cause distress or impairment in function

C. Episode is not due to substance use or a medical condition

D. Not better explained by other conditions such as schizoaffective disorder, schizophrenia, or other psychotic disorders.

E. There has never been a manic episode or hypomanic episode.

- Specify:
  - With anxious distress
  - With mixed features
  - With melancholic features
  - With atypical features
  - With mood-congruent psychotic features
  - With mood-incongruent psychotic features
  - With catatonia
  - With peripartum onset
  - With seasonal pattern

More...

Differential Diagnosis (DDx): Medical

CNS	
• Brain tumors	Any focal signs?
• Multiple sclerosis	Fatigue, vision problems, numbness tingling, muscle spasms, mobility problems, pain, problems thinking
• Narcolepsy	Sleep attacks? Cataplexy? Hypnapompic or hypnagogic hallucinations? Sleep paralysis?
• Restless legs	Uncomfortable feelings in legs that are relieved by movement? Worse at night?
Cardiovascular	
• Postural orthostatic tachycardia syndrome (POTS), dysautonomias:	Incapacitating fatigue? Orthostatic intolerance: Dizziness, weakness upon standing ? Pre-syncope or syncope? Troubles being upright for long periods, e.g. at school? Coming home exhausted? Brain fog?
Respiratory	
• Sleep apnea	When asleep, problems with snoring? Gasping or apneic episodes?

Endocrine	
• Thyroid	Hot or cold intolerance?
• Pheochromocytoma	Episodic bursts of anxiety?
Infectious	
• Meningitis	
• Infectious Mononucleosis	
• Long COVID	Did symptoms develop or worsen after COVID? Is there COVID-associated dysautonomia? [See POTS above]
Hematologic	
• Anemia	Are there risk factors such as vegetarianism, or menstruation?
• Porphyria:	Are there episodic symptoms?
Neoplastic	
• Pancreatic Tumour	Unexplained weight loss?
Metabolic / Toxic	
• Wilson’s Disease	
• Heavy Metal Toxicity (e.g. Lead, Mercury)	History of exposure to lead? Mercury?
Autoimmune	
• Lupus	
Deficiencies	
• Low iron	Vegetarian or vegan? Menstruating?
• Vitamin D	Living in Northern climate? Lack of outdoors?
• B12, folate	Vegetarian or vegan?

Differential Diagnosis (DDx): Psychiatric

Normal moods	Adolescents may describe mood is "depressed", yet this does not necessarily they have clinical depression Adolescents can have labile moods, and their moods may be a result of various stressors For this reason, monitoring the mood at a follow-up visit is important, along with other indices such as neurovegetative symptoms, and suicidal ideation
Other Mood Disorders	
• Adjustment Disorder with Depressed Mood	Patient has depressed mood, but without significant neurovegetative symptoms

• Dysthymic disorder	Depressive symptoms along with some neurovegetative symptoms, but without having enough symptoms to meet criteria for major depressive disorder Note that despite being a “minor” depression, dysthymic disorder can be just as impairing as major depression
• Bipolar Disorder	Any signs of circadian rhythm disturbance such as decreased need for sleep with increased energy?

Comorbid (Psychiatric) Conditions

Common comorbid diagnoses are:

Condition	**Possible Screening Questions**
Anxiety disorders	
• Generalized anxiety disorder	Any problems with anxiety? What are your biggest worries?
• Social anxiety disorder	Are you an excessively shy?
Bipolar disorder	Any problems with extreme swings in your mood? What are those swings like? Any times when you have lots of energy, along with an excited or irritable mood?
Disruptive behaviour disorders	Does your child tend to be defiant and oppositional?
Attention-deficit/hyperactivity disorder (ADHD)	Does your child have troubles paying attention at school/home? Any problems sitting still? Does your child need to fidget/home?
Substance use disorders (in adolescents)	How much alcohol do you drink? How often do you use substances, such as marijuana? If initial is positive, consider using the CRAFFT screening questionnaire to screen for alcohol or substance use problems C: Ever ridden in a C)ar driven by someone who was high or using drugs? R: Ever use alcohol/drugs to R)elax, feel better or fit in? A: Ever use alcohol/drugs while you are A)lone F: Ever F)orget things you did while on drugs F: Do your F)amily/F)riends ever say that you should cut down on your drinking or drug use? T: Ever gotten into T)rouble while using alcohol/drugs?

Physical Exam (Px)

There are no specific physical exam findings to major depressive disorder.

Physical exam is important to rule out medical conditions that may mimic, or contribute to a mental health condition such as

- Thyroid or endocrine problems
- Infections such as meningitis, infectious mononucleosis
- Neurologic conditions such as tumors
- Tumors such as pancreatic cancer

Vitals

Orthostatic vitals to rule out dysautonomias such as postural orthostatic tachycardia syndrome (POTS)

- Measure BP/HR at sitting, then standing at 1-min, 5-min and 10-min.

Investigations

General screening tests

- CBC with differential
- Electrolytes, glucose, Ca
- Renal function (e.g. BUN/Cr)
- Thyroid screen, e.g. TSH
- Urinalysis with drug screen
- Liver enzymes
- Iron screen, e.g. serum transferrin
- B12 / folate
- Vitamin D

If suspected

- HIV antibody screen
- ESR
- Serum lead
- Mg for Mg deficiency
- For Wilson's disease: Serum copper and ceruloplasmin
- For porphyria: 24-hr urine porphyrin levels
- For heavy metal toxicity: Blood or urine levels for lead, mercury, or other suspected heavy metals
- For autoimmune: Autoantibody screen and Igs
- For infectious causes: Cultures for infectious agents
- For alcohol use problems: Blood alcohol level; GGT; triglycerides
- For phaeochromocytoma: Urine catecholamines
- Imaging
    - Head CT / MRI

Other

- Specific genetic testing (e.g. fragile X)
- Sleep studies
- EEG
- EKG

Management of Mild to Moderate Depression

Psychotherapy /counseling

- For mild to moderate depression, psychotherapy/counseling
- Where to Refer for Psychotherapy/Counseling...

Lifestyle modifications

- Stop any medications that might be contributing to depressive symptoms
- Ensure adequate sleep
- Ensure adequate diet and nutrition
- Ensure adequate exercise
- Ensure adequate exposure to nature

Ensure social support

- Ensure that the patient has people (in particular parents) whom he/she can turn to
- For example, ensure parents can provide adequate emotionals support such as through listening to their child, being able to validate how their child is feeling, and being able to provide empathy and acceptance (as opposed to being critical and judgmental of how their child is feeling

Address any contributing comorbid conditions

- Attention deficit hyperactivity disorder (ADHD)
    - Ensure that there are appropriate school modifications/accommodations
    - If symptoms persist despite non-medication interventions, consider treatment with ADHD medications
- Alcohol / Substance use
    - If there is alcohol / substance use, ensure that there is appropriate counseling/therapy to address substance use

Management of Moderate to Severe Depression

For moderate to severe depression, or for depression that has not yet responded, consider:

- Medications PLUS
- Psychotherapy
    - If standard CBT is ineffective, consider other types such as
        - Dialectical behaviour therapy (DBT), tamily therapy, attachment-based therapy, etc., depending on the specific situation.

Medications used in Adolescent Depression

First Line SSRI		
Fluoxetine (Prozac)	Child: Start 5 mg daily; target 10-20 mg daily. Youth: Start 5-10 mg daily; target 10-60 mg daily.	Max 60-80 mg daily
Second-line SSRI		
Escitalopram (Cipralex or generic)	Child: Start 5 mg daily; target 10 mg daily. Youth: Start 5-10 mg daily.	Max 10-20 mg daily
Citalopram (Celexa or generic)	Child: Start 5-10 mg daily; target 10-40 mg daily. Youth: Start 10 mg daily; target 10-40 mg daily for most.	Max 40 mg - avoid >40 mg due to QT prolongation
Sertraline (Zoloft or generic)	Child: Start 25 mg daily; target 50-200 mg daily. Youth: Start 50 mg daily; increase by 25 mg/day every 1-week until improvement seen. Usual therapeutic target is 100 mg daily.	Max 200 mg daily
Fluvoxamine (Luvox or generic)	Child: Start 25 mg daily; target 25-200 mg daily. Youth: Start 25-50 mg daily; target 50-300 mg daily.	Max 200-300 mg daily
Paroxetine (Paxil or generic)	Child: Start 5 mg daily; target 5-40 mg daily. Youth: Start 10 mg daily; target 60 mg daily. Not usually used as short half-life means missed dosages can lead to serotonin discontinuation symptoms.	Max 40-60 mg daily

NOTE

- This medication table is provided for informational purposes; it does NOT replace consultation with a drug reference such as Lexi Drugs, PDR, or CPS.

Rationale for Medication Options

- For depression in children, some evidence exists for fluoxetine
- For depression in adolescents, there is good evidence for fluoxetine (TADS study); some evidence for escitalopram, citalopram and sertraline

Reference

- GLAD-PC, 2018

Switching from one medication to another? Consult this guide for switching medications

- http://wiki.psychiatrienet.nl/index.php/SwitchAntidepressants

Case, Part 2

You ask about stresses and she reports:

- She was dating a boyfriend and “he was the first person who really understood me”, but unfortunately he broke up with her
- Since the breakup, “There will never be anyone else who will understand me again”
- She skips school often because he is in many of her classes, and it is just too difficult to have to continue seeing him every day

You ask about her relationships and supports and she reports:

- Mother/father: She does not feel that she can confide in her mother nor her father – “they never understand, they just want to lecture me”
- Friends: She does not feel she can confide in them since they have a tendency to share everything on social media.

You diagnose depression, and give the patient and mother basic information about depression.

Given that she has mild to moderate symptoms, along with significant psychosocial stressors, you refer her to a local mental health clinic for counseling, and see in 2-4 weeks to monitor her symptoms.

She starts seeing a psychotherapist that she feels connected to. Parents learn how to provide emotional support by providing empathy, validation and unconditional acceptance, without lecturing her. She learns to confide in her parents, and their support helps her deal with her stressors.

Her symptoms improve, and at the last visit, she and her mother express their gratitude, “My daughter is so much better… Thank you for helping us realize that she had depression and getting us connected to help.”

References

Birmaher et al.: Practice Parameter for the Assessment and Treatment of Children and Adolescents with Depressive Disorders, J. Am. Acad. Child Adolesc. Psychiatry, 2007; 46(11): 1503-1526.

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www.glad-pc.org

About this Document

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