Pediatric Depression in Primary Care

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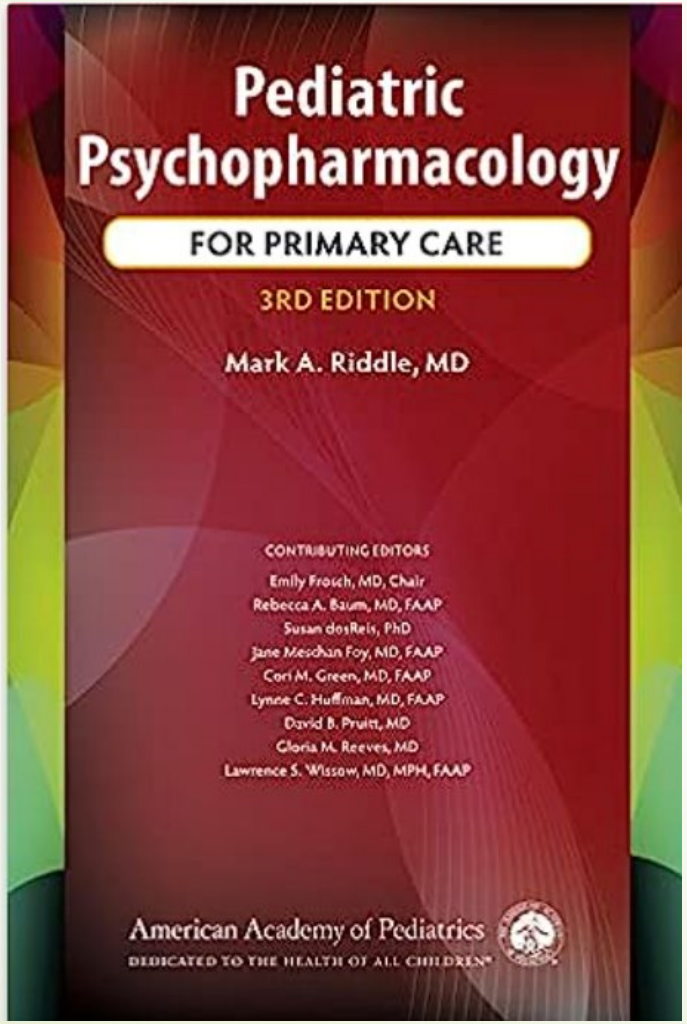
Disclosures

I have no actual or potential conflict of interest in relation to this presentation.

Overview

- Prevalence
- Risk factors
- Diagnosis
  - Screening questionnaires
  - DSM
  - Differential diagnoses
- Management
  - Medications
    - Side effects and concerns
  - Psychological/social
- Prognosis
- Questions

Sources



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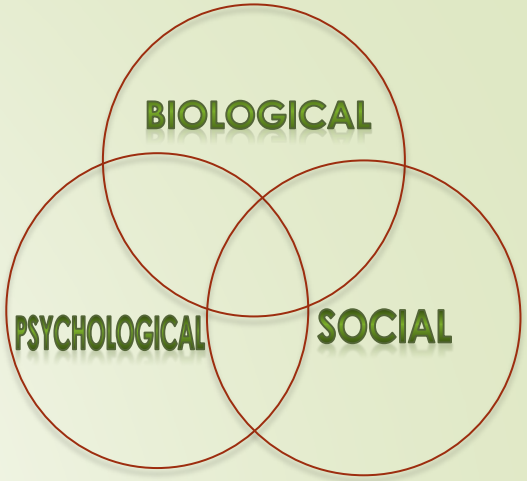
Maine Pediatric & Behavioral Health Partnership

MCPAP
Massachusetts Child Psychiatry Access Program

Major Depressive Disorder: Prevalence

- **3 in 4 mental illnesses starts in childhood, 50% by age 15yrs (MQ)**
- Pediatric depression typically presents in primary care and ~40% is untreated
- MDD is the first cause of disability among adolescents aged 10 to 19 years (WHO 2014). Suicide is the third cause of death in this age group, and adolescent depression is a major risk factor for suicide.
- Age
  - 3 to 5 years – 0.5%
  - 6 to 11 years – 1.4%
  - 12 to 17 years – 3.5-11%
- Sex
  - F:M 2:1 from puberty onwards, higher in boys before 12yrs
  - In the United States, a study of adolescents aged 12 to 17 years (n >45,000) found that the lifetime prevalence rates of major depression in females was 18% and 8% in males (Perou et al. 2013)

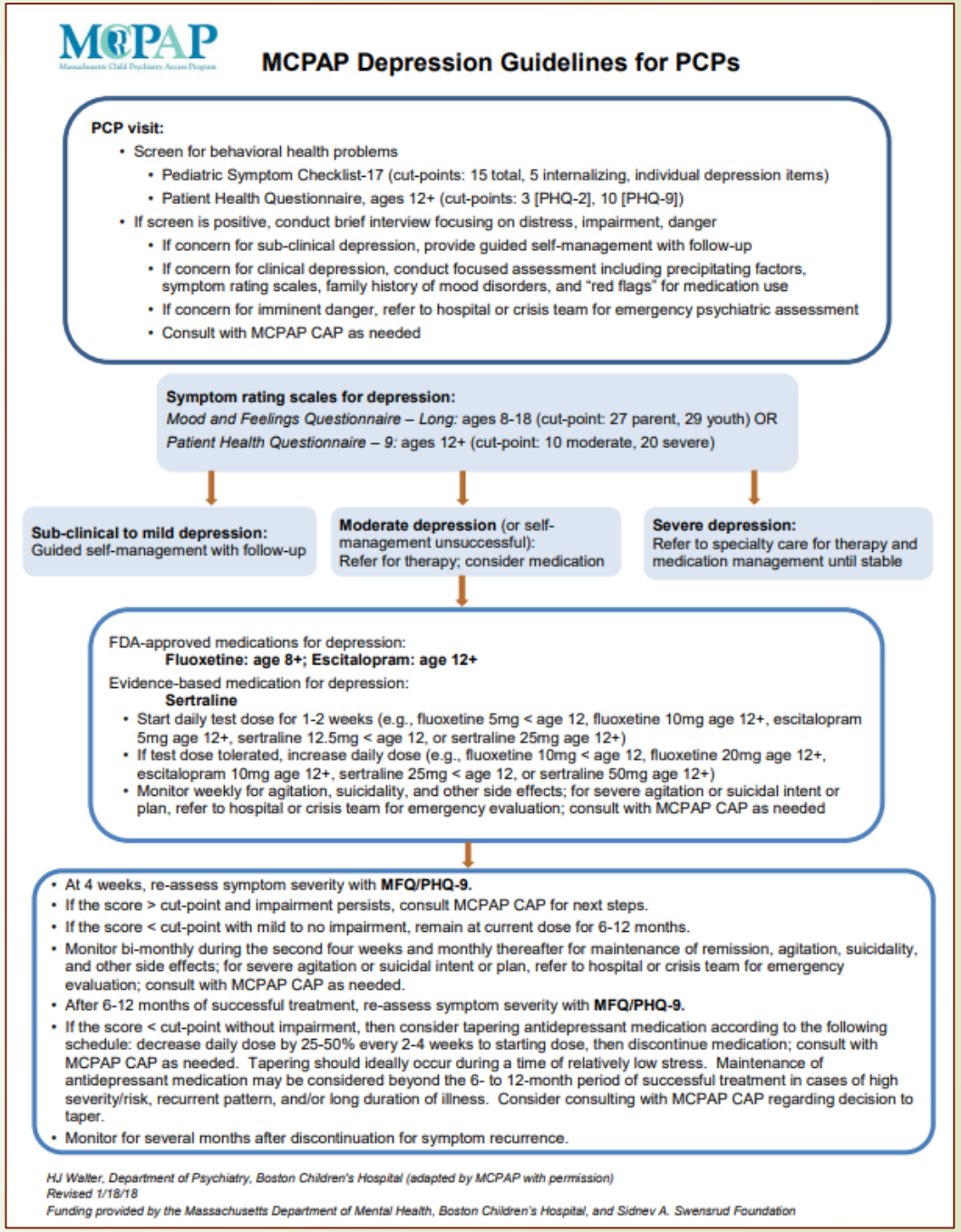
Risk factors



- **Biological**
  - **Low birth weight**
  - **Family history** of depression and anxiety in first-degree relatives (including antenatal or postpartum maternal depression)
  - **Traumatic brain injury**
  - **Chronic illness**, especially if symptom and/or treatment burden yields chronic life disruptions
- **Psychological**
  - **Negative style of interpreting** events and coping with stress
  - **History of** anxiety disorders, substance use disorder, learning disabilities, attention deficit hyperactivity disorder, and oppositional defiant disorder
- **Social**
  - **Family dysfunction** or caregiver-child conflict
  - Exposure to **early adversity** (e.g., abuse, neglect, or early loss)
  - **Psychosocial stressors** (e.g., peer problems and victimization [bullying], and academic difficulties)
  - **Gender dysphoria and homosexuality**, especially if youth is bullied

Guidelines

- Screen- e.g., PHQ2
- Severity if positive-
  - Mild
  - Moderate
  - Severe- ?Acutely suicidal
- Initial management
- Follow up



MCPAP Depression Guidelines for PCPs

PCP visit:
- Screen for behavioral health problems
  - Pediatric Symptom Checklist-17 (cut-points: 15 total, 5 internalizing, individual depression items)
  - Patient Health Questionnaire, ages 12+ (cut-points: 3 [PHQ-2], 10 [PHQ-9])
- If screen is positive, conduct brief interview focusing on distress, impairment, danger
  - If concern for sub-clinical depression, provide guided self-management with follow-up
  - If concern for clinical depression, conduct focused assessment including precipitating factors, symptom rating scales, family history of mood disorders, and "red flags" for medication use
  - If concern for imminent danger, refer to hospital or crisis team for emergency psychiatric assessment
  - Consult with MCPAP CAP as needed

Symptom rating scales for depression:
Mood and Feelings Questionnaire – Long: ages 8-18 (cut-point: 27 parent, 29 youth) OR
Patient Health Questionnaire – 9: ages 12+ (cut-point: 10 moderate, 20 severe)

Sub-clinical to mild depression:
Guided self-management with follow-up

Moderate depression (or self-management unsuccessful):
Refer for therapy; consider medication

Severe depression:
Refer to specialty care for therapy and medication management until stable

FDA-approved medications for depression:
Fluoxetine: age 8+; Escitalopram: age 12+

Evidence-based medication for depression:
Sertraline
- Start daily test dose for 1-2 weeks (e.g., fluoxetine 5mg < age 12, fluoxetine 10mg age 12+, escitalopram 5mg age 12+, sertraline 12.5mg < age 12, or sertraline 25mg age 12+)
- If test dose tolerated, increase daily dose (e.g., fluoxetine 10mg < age 12, fluoxetine 20mg age 12+, escitalopram 10mg age 12+, sertraline 25mg < age 12, or sertraline 50mg age 12+)
- Monitor weekly for agitation, suicidality, and other side effects; for severe agitation or suicidal intent or plan, refer to hospital or crisis team for emergency evaluation; consult with MCPAP CAP as needed

- At 4 weeks, re-assess symptom severity with **MFQ/PHQ-9.**
- If the score > cut-point and impairment persists, consult MCPAP CAP for next steps.
- If the score < cut-point with mild to no impairment, remain at current dose for 6-12 months.
- Monitor bi-monthly during the second four weeks and monthly thereafter for maintenance of remission, agitation, suicidality, and other side effects; for severe agitation or suicidal intent or plan, refer to hospital or crisis team for emergency evaluation; consult with MCPAP CAP as needed.
- After 6-12 months of successful treatment, re-assess symptom severity with **MFQ/PHQ-9.**
- If the score < cut-point without impairment, then consider tapering antidepressant medication according to the following schedule: decrease daily dose by 25-50% every 2-4 weeks to starting dose, then discontinue medication; consult with MCPAP CAP as needed. Tapering should ideally occur during a time of relatively low stress. Maintenance of antidepressant medication may be considered beyond the 6- to 12-month period of successful treatment in cases of high severity/risk, recurrent pattern, and/or long duration of illness. Consider consulting with MCPAP CAP regarding decision to taper.
- Monitor for several months after discontinuation for symptom recurrence.

HJ Walter, Department of Psychiatry, Boston Children's Hospital (adapted by MCPAP with permission)
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Diagnosis

Parent Report on Child

MOOD AND FEELINGS QUESTIONNAIRE: Long Version

This form is about how your child might have been feeling or acting **recently**.

For each question, please check (✓) how s/he has been feeling or acting ***in the past two weeks***.

If a sentence was not true about your child, check NOT TRUE.
If a sentence was only sometimes true, check SOMETIMES.
If a sentence was true about your child most of the time, check TRUE.

Score the MFQ as follows:
NOT TRUE = 0
SOMETIMES = 1
TRUE = 2

To code, please use a checkmark (✓) for each statement.	NOT TRUE	SOME TIMES	TRUE
1. S/he felt miserable or unhappy.			
2. S/he didn't enjoy anything at all.			
3. S/he was less hungry than usual.			
4. S/he ate more than usual.			
5. S/he felt so tired s/he just sat around and did nothing.			
6. S/he was moving and walking more slowly than usual.			
7. S/he was very restless.			
8. S/he felt s/he was no good anymore.			
9. S/he blamed him/herself for things that weren't his/her fault.			
10. It was hard for him/her to make up his/her mind.			
11. S/he felt grumpy and cross with his/her parents.			
12. S/he felt like talking less than usual.			
13. S/he was talking more slowly than usual.			
14. S/he cried a lot.			

Pediatric Symptom Checklist (PSC-17)

Please mark under the heading that best describes your child:

	(0) NEVER	(1) SOMETIMES	(2) OFTEN
1. Feels sad, unhappy	☐	☐	☐
2. Feels hopeless	☐	☐	☐
3. Is down on self	☐	☐	☐
4. Worries a lot	☐	☐	☐
5. Seems to be having less fun	☐	☐	☐
6. Fidgety, unable to sit still	☐	☐	☐
7. Daydreams too much	☐	☐	☐
8. Distracted easily	☐	☐	☐
9. Has trouble concentrating	☐	☐	☐
10. Acts as if driven by a motor	☐	☐	☐
11. Fights with other children	☐	☐	☐
12. Does not listen to rules	☐	☐	☐
13. Does not understand other people's feelings	☐	☐	☐
14. Teases others	☐	☐	☐
15. Blames others for his/her troubles	☐	☐	☐
16. Refuses to share	☐	☐	☐
17. Takes things that do not belong to him/her	☐	☐	☐

Does your child have any emotional or behavioral problems for which she/he needs help? _

PHQ-9: Modified for teens

Name:

Clinician: **Date:**

Instructions: How often have you been bothered by each of the following symptoms during the past two weeks? For each symptom put an **"X"** in the box beneath the answer that best describes how you have been feeling.

	Not at all	Several days	More than half the days	Nearly every day
Score	**(0)**	**(1)**	**(2)**	**(3)**
1. Feeling down, depressed, irritable, or hopeless?				
2. Little interest or pleasure in doing things?				
3. Trouble falling asleep, staying asleep, or sleeping too much?				
4. Poor appetite, weight loss, or overeating?				
5. Feeling tired, or having little energy?				
6. Feeling bad about yourself — or feeling that you are a failure, or that you have let yourself or your family down?				
7. Trouble concentrating on things like school work, reading, or watching TV?				
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you were moving around a lot more than usual?				
9. Thoughts that you would be better off dead, or of hurting yourself in some way?				
Total ___ =	___	+ ___	+ ___	+ ___

15-19 moderately severe
>20 severe

PHQ-9 score ≥10: Likely major depression

Depression score ranges:

- 0 to 4: No or minimal depression
- 5 to 9: Mild
- 10 to 14: Moderate
- 15 to 19: Moderately severe
- ≥20: Severe

In the ***past year*** have you felt depressed or sad most days, even if you felt okay sometimes?

- ☐ Yes
- ☐ No

If you are experiencing any of the problems on this form, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

- ☐ Not difficult at all
- ☐ Somewhat difficult
- ☐ Very difficult
- ☐ Extremely difficult

Has there been a time in the past month when you have had serious thoughts about ending your life?

- ☐ Yes
- ☐ No

Have you ***ever***, in your ***whole life***, tried to kill yourself or made a suicide attempt?

- ☐ Yes
- ☐ No

FOR OFFICE USE ONLY **Score:**

DSM-5 diagnostic criteria for a major depressive episode

A. 5 (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least 1 of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.
NOTE: Do not include symptoms that are clearly attributable to another medical condition.
1) Depressed mood most of the day, nearly every day, as indicated by either subjective report (eg, feels sad, empty, hopeless) or observations made by others (eg, appears tearful). (NOTE: In children and adolescents, can be irritable mood.)
2) Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).
3) Significant weight loss when not dieting or weight gain (eg, a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (NOTE: In children, consider failure to make expected weight gain.)
4) Insomnia or hypersomnia nearly every day.
5) Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
6) Fatigue or loss of energy nearly every day.
7) Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).
8) Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by their subjective account or as observed by others).
9) Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.
B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
C. The episode is not attributable to the direct physiological effects of a substance or to another medical condition.
NOTE: Criteria A through C represent a major depressive episode.
NOTE: Responses to a significant loss (eg, bereavement, financial ruin, losses from a natural disaster, a serious medical illness or disability) may include the feelings of intense sadness, rumination about the loss, insomnia, poor appetite, and weight loss noted in Criterion A, which may resemble a depressive episode. Although such symptoms may be understandable or considered appropriate to the loss, the presence of a major depressive episode in addition to the normal response to a significant loss should also be carefully considered. This decision inevitably requires the exercise of clinical judgement based on the individual's history and the cultural norms for the expression of distress in the context of loss.
D. The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders.
E. There has never been a manic or hypomanic episode.
NOTE: This exclusion does not apply if all of the manic-like or hypomanic-like episodes are substance-induced or are attributable to the physiological effects of another medical condition.

5 symptoms, at least one of low mood or anhedonia

Not solely an adjustment reaction

No mania or hypomania

Differential diagnoses

- Biological
  - Depressive disorder due to another medical condition
    - Anemia, Mononucleosis, Thyroid disorders…
  - Substance/medication adverse effects
    - Steroids, hormonal birth control, opioids, anti seizure such as Keppra- (levetiracetam)
  - **Premenstrual dysphoric disorder (PMDD)**
  - **Seasonal Affective Disorder (SAD)**
- Psychological
  - **Depressive episode of bipolar disorder**
  - **Disruptive Mood Dysregulation Disorder (DMDD)**
  - **Borderline personality disorder** (>12yrs)
  - Persistent depressive disorder (dysthymia)
  - Anxiety disorders
  - PTSD or other trauma-related disorders
  - Eating disorders
  - ADHD
  - Conduct disorder
- Social
  - Normal 'moodiness' of teens
  - **Adjustment disorder with depressed mood**

Across studies in clinical settings, the prevalence of pediatric bipolar disorder is 1% or less

DSM-5-TR diagnostic criteria for manic episode

A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased activity or energy, lasting at least one week and present most of the day, nearly every day (or any duration if hospitalization is necessary).

B. During the period of mood disturbance and increased energy or activity, three (or more) of the following symptoms (four if the mood is only irritable) are present to a significant degree and represent a noticeable change from usual behavior:

1. Inflated self-esteem or grandiosity.
2. Decreased need for sleep (eg, feels rested after only three hours of sleep).
3. More talkative than usual or pressure to keep talking.
4. Flight of ideas or subjective experience that thoughts are racing.
5. Distractibility (ie, attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed.
6. Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation (ie, purposeless non-goal-directed activity).
7. Excessive involvement in activities that have a high potential for painful consequences (eg, engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).

C. The mood disturbance is sufficiently severe to cause marked impairment in social or occupational functioning or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.

D. The episode is not attributable to the physiological effects of a substance (eg, a drug of abuse, a medication, other treatment) or to another medical condition.

NOTE: A full manic episode that emerges during antidepressant treatment (eg, medication, electroconvulsive therapy) but persists at a fully syndromal level beyond the physiological effect of that treatment is sufficient evidence for a manic episode and, therefore, a bipolar I diagnosis.

NOTE: Criteria A through D constitute a manic episode. At least one lifetime manic episode is required for the diagnosis of bipolar I disorder.

1 week- most of the day (unless need hospitalization)

DSM-5-TR diagnostic criteria for hypomanic episode

A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased activity or energy, lasting at least four consecutive days and present most of the day, nearly every day.

B. During the period of mood disturbance and increased energy and activity, three (or more) of the following symptoms (four if the mood is only irritable) have persisted, represent a noticeable change from usual behavior, and have been present to a significant degree:

1. Inflated self-esteem or grandiosity.
2. Decreased need for sleep (eg, feels rested after only three hours of sleep).
3. More talkative than usual or pressure to keep talking.
4. Flight of ideas or subjective experience that thoughts are racing.
5. Distractibility (ie, attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed.
6. Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation.
7. Excessive involvement in activities that have a high potential for painful consequences (eg, engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).

C. The episode is associated with an unequivocal change in functioning that is uncharacteristic of the individual when not symptomatic.

D. The disturbance in mood and the change in functioning are observable by others.

E. The episode is not severe enough to cause marked impairment in social or occupational functioning or to necessitate hospitalization. If there are psychotic features, the episode is, by definition, manic.

F. The episode is not attributable to the physiological effects of a substance (eg, a drug of abuse, a medication, or other treatment).

NOTE: A full hypomanic episode that emerges during antidepressant treatment (eg, medication, electroconvulsive therapy) but persists at a fully syndromal level beyond the physiological effect of that treatment is sufficient evidence for a hypomanic episode diagnosis. However, caution is indicated so that one or two symptoms (particularly increased irritability, edginess, or agitation following antidepressant use) are not taken as sufficient for a diagnosis of a hypomanic episode, nor necessarily indicative of a bipolar diathesis.

NOTE: Criteria A through F constitute a hypomanic episode. Hypomanic episodes are common in bipolar I disorder but are not required for the diagnosis of bipolar I disorder.

4 consecutive days- most of the day

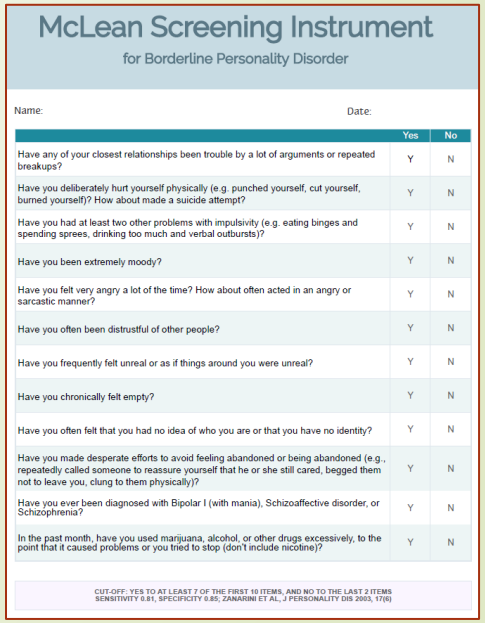
Uncharacteristic functional change

Observable by others

	DSM-5, section II, 301.83 (borderline personality disorder)[6]
Overview	General criteria for personality disorders plus five or more of the below nine criteria
Fear of abandonment	Frantic efforts to avoid real or imagined abandonment
Unstable relationships	A pattern of unstable and intense interpersonal relationships characterised by alternating between the extremes of idealisation and devaluation
Unstable self-image	Markedly and persistently unstable self-image or sense of self (identity disturbance)
Impulsivity	Impulsivity in at least two areas that are potentially self-damaging (eg, spending, sex, substance abuse, reckless driving, or binge eating)
Self-harm	Recurrent suicidal behaviour, gestures or threats, or self-mutilating behaviour
Mood instability	Affective instability due to a marked reactivity of mood (eg, intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely lasting for more than a few days)
Feelings of emptiness	A chronic feeling of emptiness
Inappropriate anger	Inappropriate, intense anger or difficulty controlling anger (eg, frequent displays of temper, constant anger, or recurrent physical fights)
Dissociation/transient paranoid ideation	Transient, stress-related paranoid ideation or severe dissociative symptoms (does not include suicidal or self-mutilating behaviour)

Onset >12yrs, peak late adolescence and early adulthood

DSM 5, ICD 10, ICD 11- all allow for the diagnosis in adolescents



McLean Screening Instrument

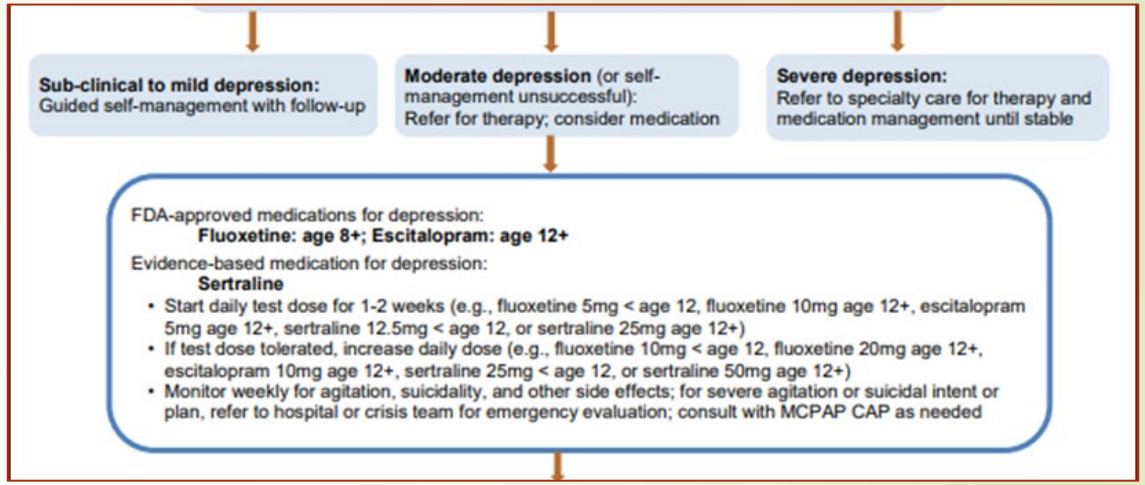
for Borderline Personality Disorder

Name: Date:

	Yes	No
Have any of your closest relationships been trouble by a lot of arguments or repeated breakups?	Y	N
Have you deliberately hurt yourself physically (e.g. punched yourself, cut yourself, burned yourself)? How about made a suicide attempt?	Y	N
Have you had at least two other problems with impulsivity (e.g. eating binges and spending sprees, drinking too much and verbal outbursts)?	Y	N
Have you been extremely moody?	Y	N
Have you felt very angry a lot of the time? How about often acted in an angry or sarcastic manner?	Y	N
Have you often been distrustful of other people?	Y	N
Have you frequently felt unreal or as if things around you were unreal?	Y	N
Have you chronically felt empty?	Y	N
Have you often felt that you had no idea of who you are or that you have no identity?	Y	N
Have you made desperate efforts to avoid feeling abandoned or being abandoned (e.g., repeatedly called someone to reassure yourself that he or she still cared, begged them not to leave you, clung to them physically)?	Y	N
Have you ever been diagnosed with Bipolar I (with mania), Schizoaffective disorder, or Schizophrenia?	Y	N
In the past month, have you used marijuana, alcohol, or other drugs excessively, to the point that it caused problems or you tried to stop (don't include nicotine)?	Y	N

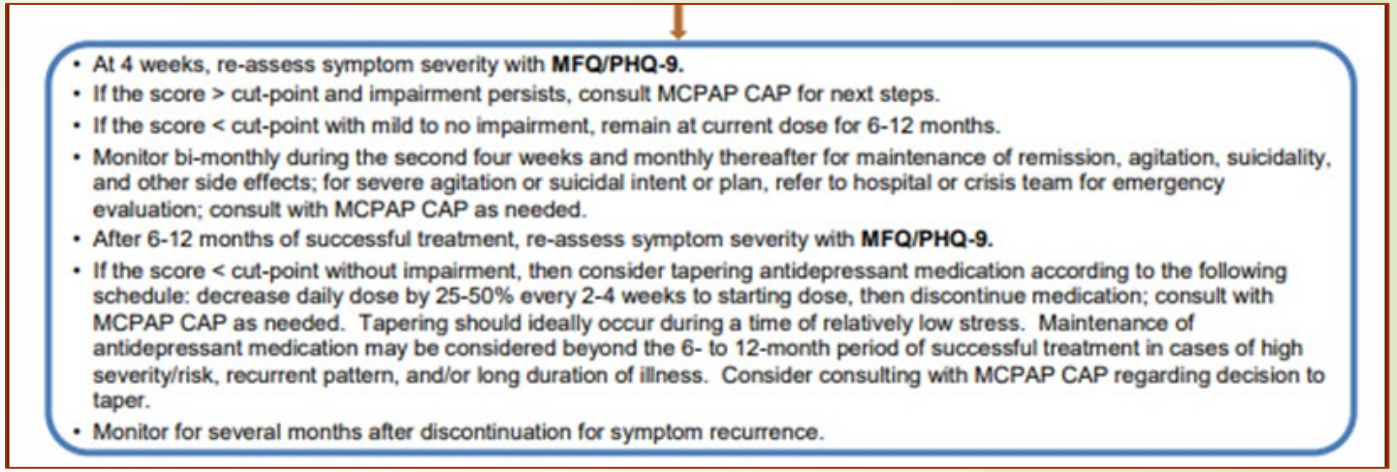
CUT-OFF: YES TO AT LEAST 7 OF THE FIRST 10 ITEMS, AND NO TO THE LAST 2 ITEMS
SENSITIVITY 0.81, SPECIFICITY 0.85; ZANARINI ET AL., J PERSONALITY DIS 2003, 17(6)

Management- medications



- FDA approval
  - Fluoxetine- MDD 8-17
  - Escitalopram- MDD 12-17
- Evidence base
  - Sertraline
- Choice
  - Medication interactions, half life, side effects, family familiarity
- Dosing
  - Start low, go slow, especially younger patients (tablet, capsule, **liquid**)
    - Fluoxetine <12yrs- start 5mg (max 40mg), >12yrs 10mg (max 60mg)
    - Escitalopram >12yrs- 5mg (max 20mg)
    - Sertraline <12yrs- start 12.5mg, >12yr- 25mg (usual effective dose 50mg, max 200mg)
  - Effect seen 3-4 weeks after effective dose reached

Follow up



- Reassess at 4 weeks, consider dose increases
- Switching
  - Switching from one SSRI to another can be staggered and overlapping, as long as the combined total daily dose remains equivalent and comparable.
  - The elimination half-life of sertraline is 26-32hrs, escitalopram is 36hrs, fluoxetine 4-6 days (active metabolite norfluoxetine 4 to 16 days)
- Manage expectations
  - Wait time of 4 to 6 weeks on the optimal dose for symptom improvement
  - Convey factors that can accelerate treatment response (e.g., taking a medication consistently; co-treatment with psychotherapy).
  - Medications can be beneficial; however, most youth have residual symptoms after acute treatment.

Side effects

- Often better after a few days
  - GI disturbance, activation
  - Less common- drowsy, tremor

Side effects of antidepressant medications[1-7]

Drug	Anticholinergic	Drowsiness	Insomnia/agitation	Orthostatic hypotension	QTc prolongation*	Gastrointestinal toxicity	Weight gain	Sexual dysfunction
Selective serotonin reuptake inhibitors¶								
Citalopram	0	0	1+	1+	3+Δ	1+¶	1+	3+
Escitalopram	0	0	1+	1+	2+	1+¶	1+	3+
Fluoxetine	0	0	2+	1+	1+	1+¶	0	3+
Fluvoxamine	0	1+	1+	1+	1+	1+¶	1+	3+
Paroxetine	1+	1+	1+	2+	0 to 1+	1+¶	2+	4+
Sertraline	0	0	2+	1+	1 to 2+	2+¶◇	1+	3+

Concerns with SSRIs

WARNINGS: SUICIDALITY AND ANTIDEPRESSANT DRUGS

Antidepressants increased the risk compared to placebo of suicidal thinking and behavior (suicidality) in children, adolescents, and young adults in short-term studies of major depressive disorder (MDD) and other psychiatric disorders. Anyone considering the use of Lexapro or any other antidepressant in a child, adolescent, or young adult must balance this risk with the clinical need. Short-term studies did not show an increase in the risk of suicidality with antidepressants compared to placebo in adults beyond age 24; there was a reduction in risk with antidepressants compared to placebo in adults aged 65 and older. Depression and certain other psychiatric disorders are themselves associated with increases in the risk of suicide. Patients of all ages who are started on antidepressant therapy should be monitored appropriately and observed closely for clinical worsening, suicidality, or unusual changes in behavior. Families and caregivers should be advised of the need for close observation and communication with the prescriber. Lexapro is not approved for use in pediatric patients less than 12 years of age. [See Warnings and Precautions: Clinical Worsening and Suicide Risk (5.1), Patient Counseling Information: Information for Patients (17.1), and Use in Specific Populations: Pediatric Use (8.4)].

- Increased suicidal ideation
  - 2004 FDA asked manufacturers of all antidepressants to make labeling changes to include a warning about a possible increased risk of suicidal ideation or behavior in children and adolescents, particularly at the initiation of therapy or at the time of dose changes
  - Establishing the causal association is difficult because of the clear associations between severe depression and suicide and between severe depression and the need for antidepressant therapy. Because suicide is uncommon, it also is difficult to demonstrate the negative, which is that antidepressants do not cause suicide.
  - Whole article on Up to Date, several RCTs showed no increased risk- overall the potential benefit outweighs the risk
  - More concerning were indications that the warning decreased prescriptions that then led to increased suicide
- Manic switch
  - 2-70% if have a diagnosis of bipolar but 1-10% risk in unipolar diagnosis

Psychotherapy

- Randomized trials have shown that CBT and interpersonal psychotherapy are better than control treatments for youth with major depression. Zhou et al. (2015)
  - Other forms of psychotherapy, such as dialectical behavior therapy, family therapy, psychodynamic psychotherapy, supportive therapy, and other psychosocial interventions may also be beneficial
- Combination treatment with medications
  - TADS (March et al. 2004)
  - TORDIA (Emslie et al. 2010)
- Exercise as an adjunct
  - In a meta-analysis of 21 studies of more than 2400 youths (mostly randomized trials), a variety of aerobic exercise programs (generally prescribed as monotherapy) were associated with moderately improved depressive symptoms compared with usual care or no treatment (Recchia et al. 2023)

Prognosis

- Response and remission
  - Approximately 60% of children and adolescents with unipolar major depression respond to initial treatment
    - However, response is not the same as remission; the threshold for response is relatively low, compared with remission and youth who achieve a symptomatic response may still suffer functional impairment.
  - TADS follow up study for up to 5yrs- almost all participants (96%) recovered, and among those who recovered, relapse occurred in 47% (Curry et al. 2011)
    - Neither recovery nor recurrence (following recovery) was associated with any specific treatment.
- Continuation of medication
  - Given the high rate of depressive relapses and recurrences in children and adolescents (40-60%), continuation therapy is recommended for all patients for at least 6 months after complete remission of depressive symptoms (i.e., return to baseline mood), and preferably 12 months.
  - Patients who had difficulty achieving remission, have a history of recurrent depression, or present with ongoing risk factors (e.g., comorbidity, suicidality, stressors, or family history of depression) should receive continuation therapy for at least 12 months.
- Sequential addition of psychotherapy
  - Add psychotherapy once remitted- 46 patient trial- Relapse occurred in fewer patients who received pharmacotherapy plus CBT than pharmacotherapy alone (Kennard et al. 2008)

Questions?

Further resources

- https://www.cms.gov/medicare-medicaid-coordination/fraud-prevention/medicaid-integrity-education/pharmacy-education-materials/downloads/ad-pediatric-factsheet11-14.pdf
- National Network of Child Psychiatry Access Programs
  - https://www.nncpap.org/home
  - Maine- **Maine Pediatric & Behavioral Health Partnership** https://www.bhpartnersforme.org/
  - Massachusetts- **Massachusetts Child Psychiatry Access Program** https://www.mcpap.com/
- AAP Guidelines for Adolescent Depression in Primary Care (GLAD-PC): Part II. Treatment and Ongoing Management
  - https://publications.aap.org/pediatrics/article/141/3/e20174082/37654/Guidelines-for-Adolescent-Depression-in-Primary?autologincheck=redirected

Suicide screen

- In 2011, 13% of adolescents in the United States planned a suicide attempt in the previous year and 8% attempted suicide
- Although completed suicide is rare, suicide was the **second leading cause of death in 2014 among adolescents aged 15 to 19 years**
- Risk factors
  - Mental disorders (e.g., major depression, substance use disorders, psychotic disorders)
  - Previous suicide attempt
  - Gay, lesbian, or bisexual orientation, or transgender/gender non-conforming
  - History of physical or sexual abuse
  - Family history of suicidal behavior
- **The concern that talking or asking about suicide will provoke suicidal ideation or actions in a child or adolescent is not supported by evidence**
  - Interview adolescents with their parents as well as separately but do not promise confidentiality

Suicide risk assessment for children and adolescents

Content and nature of suicidal ideation
What are the thoughts?
Are they active (volitional and with intent) or passive/non-volitional?
How often do they occur?
Have they increased in intensity or frequency?
How long do they last (duration)? Are they obsessive?
Can the thoughts be controlled?
How powerful, intense is the urge?
How do the thoughts make you feel?
Anticipated method/Planning
Does the child or adolescent have a method in mind? If so, have the adolescent describe it **explicitly** (since this provides information about the adolescent's level of intent and planning)
Sample questions include:
Do you have a plan?
What time would you do it?
Where would you do it?
Do you think it would work?
Do you think this would kill you?
Is there anyone who could find you and save you?
Access to means
Does the adolescent have **access** to the method they have in mind?
What is the level of dangerousness or lethality of the means they are considering?
Does the child or adolescent have access to firearms and medications?
Sample questions include:
Do you have any of these things (pills, gun, razor, etc) in your possession?
How easy would it be for you to get them?

Adapted from Jacobs, DG, Brewer, M, Klein-Benheim, M. Suicide assessment: An overview and recommended protocol. In: Harvard Medical School Guide to Assessment and Intervention in Suicide, Jacob, D (Ed). Jossey-Bass, San Francisco 1998. p.3.

Management of suicidal ideation

- Medication for underlying psychiatric disorders such as major depression
- More frequent psychological intervention, mobilizing supports, and access to crisis intervention services
- Safety plan
- Referral for psychiatric assessment but remain involved
- Imminent risk of suicide (e.g., an active plan or intent without solid support or psychiatric intervention already in place to maintain safety)
  - Immediate psychiatric evaluation (through the emergency department or psychiatry crisis clinic) and/or hospitalization
  - Crisis line-
    - **988 Suicide & Crisis Lifeline- call or text 24/7, https://988lifeline.org**
    - **Maine Crisis Line- 1-888-568-1112, https://heretohelpmaine.com**

Pediatric suicide safety plan

Type of strategy	Intervention
Know warning signs and precipitants	▪ Avoid situations that might precipitate suicidal ideation and behavior. As an example, establish a truce with parents about issues that lead to substantial discord. ▪ Anticipate the need to cope with stressors and problematic situations (eg, being teased or feeling down).
Secure or remove lethal agents	▪ Complete an inventory of firearms, household poisons, medications, and sharps; assess access to lethal agents. ▪ Talk through and agree to specific plan to restrict access either by removal or securing of lethal means.
Individual coping	▪ Review reasons for living. ▪ Distraction activities (eg, singing with loud music or walking briskly outside with a friend). ▪ Use techniques for distress tolerance (eg, calming self talk or visualizing a safe or beautiful place). ▪ Relaxation (eg, progressive muscle relaxation). ▪ Exercise.
Interpersonal coping	▪ Identify friends who can be contacted to help distract or lift mood (NOTE: Same age peer should be sought for distraction and social interaction only, not to discuss suicidal or self-harm thoughts or urges). ▪ Identify trusted adults to approach when trying to cope with suicidal thoughts (eg, parent or relative).
Professionals who can help	**Call my therapist:** Phone #_____ **Call crisis line:** Phone #_____ **If acutely suicidal, call police or mental health emergency line to go to emergency department:** Phone #_____

Adapted from:

1. *Stanley-Brown safety plan. Stanley-Brown Safety Planning Intervention. https://suicidesafetyplan.com/forms/ (Accessed on March 15, 2023).*
2. *Samra J, Bilsker D. Coping with suicidal thoughts. Consortium for Organizational Mental Health 2007. Available at: https://psychhealthandsafety.org/cwstarfp/ (Accessed on July 20, 2022).*
3. *Stanley B, Brown G, Brent DA, et al. Cognitive-behavioral therapy for suicide prevention (CBT-SP): treatment model, feasibility, and acceptability. J Am Acad Child Adolesc Psychiatry 2009; 48:1005.*

Precautions and CI

- Contra-indications
  - Allergy, MAOIs
- Cautions in pediatrics
  - Medication interactions
    - Fluoxetine – CYP2D6 (potent) and 2C19 (moderate)
    - Escitalopram- Fewer drug interactions, less impact on cytochrome p450 isoenzymes
  - Serotonin syndrome
    - Anxiety, agitation, confusion, delirium, hyperreflexia, muscle rigidity, myoclonus, tachycardia, tachypnea, and tremor. Severe cases may cause hyperthermia, significant autonomic instability, coma, and seizures
      - discontinue the SSRI and initiate supportive treatment.
  - Abnormal bleeding- warfarin, NSAIDs
  - Seizures and QTc prolongation- caution if history
  - Discontinuation syndrome
    - Somatic symptoms- dizziness, chills, light-headedness, vertigo, 'shock-like' sensations, paresthesia, fatigue, headache, nausea, tremor, diarrhea, visual disturbances
    - Psychological symptoms- anxiety, agitation, confusion, insomnia, irritability, mania
    - Fluoxetine- Longer half life (days to weeks)

TADS- Treatment of Adolescents With Depression Study

- Time to remission is quicker and risk of suicidality is lower with combined treatment compared with medication-only treatment.
- 12-week randomized trial fluoxetine (10 to 40 mg per day) plus CBT (15 sessions, each lasting 50 to 60 minutes) with pill placebo
- 219 adolescents 12-17yrs with unipolar major depression
- Response (defined as much or very much improved) occurred in more patients who received combination therapy than placebo (71% versus 35%).
- Clinically significant suicidal thinking, which was present in 29% of the sample at baseline, improved significantly in all 4 treatment groups.
  - Fluoxetine with CBT showed the greatest reduction (P = .02). Seven (1.6%) of 439 patients attempted suicide; there were no completed suicides.

Treatment of Resistant Depression in Adolescents [TORDIA] study

- Better to switch meds and combine with CBT than meds switch alone in treatment resistance
- Adolescents with major depression (n = 334, 12-18yrs) who did not respond to eight weeks of treatment with an SSRI
- Patients were assigned to one of four treatments:
  - an alternative SSRI (citalopram, fluoxetine, or paroxetine),
  - the serotonin-norepinephrine reuptake inhibitor venlafaxine,
  - an alternative SSRI plus CBT,
  - or venlafaxine plus CBT.
- Response (reduction of baseline symptoms ≥50%) occurred in more patients treated with a different medication (either a different SSRI or venlafaxine) plus CBT, compared with patients who received a medication switch alone (55% versus 41%).
  - Although the response rates with both medication switch strategies were similar, participants experienced fewer side effects when treated with an SSRI than when treated with venlafaxine.