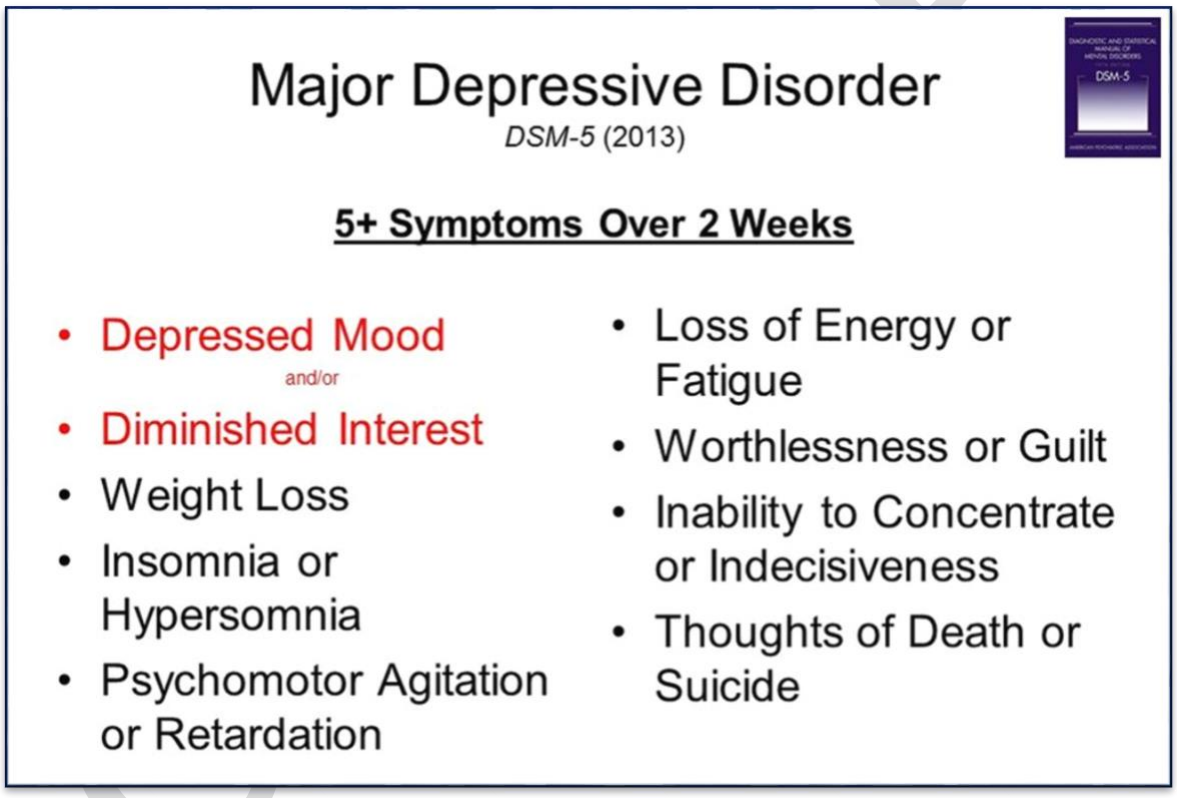
DEPRESSION

• Major Depressive Disorder •

3.2% of children aged 3-17 years (approximately 1.9 million) have diagnosed depression. Diagnoses of depression are more common with increased age.



Screening

CoPPCAP recommends pediatric providers consider rating scales to identify depression symptoms, track response to intervention 1-2 weeks after starting medication, to guide dose changes, and routinely every 6 months even when stable medication dose is achieved to monitor symptoms. Additionally, when tracking response to treatment intervention, consider use of the same screening form used at baseline prior to diagnosis.

AUTHORS:
McNitt, Cassidy, MD, Ryan Asherin, PhD, & Sandra Fritsch, MD

Screener.Dx Category	Screener.Name	Screener.Acronynm	Screener.Description
Depression	Edinburgh Postnatal Depression Scale 18+ years Adult Report	EPDS ⇒ English ⇒ Spanish	The Edinburgh Postnatal Depression Scale (EPDS) is a set of 10 screening questions that can indicate whether a parent has symptoms that are common in women with depression and anxiety during pregnancy and in the year following the birth of a child.
Depression	Patient Health Questionnaire - 9A (modified for teens) 13 – 18 years Self Report	PHQ-9A ⇒ English	The PHQ-9 is the nine item depression scale of the patient health questionnaire.* It is one of the most validated tools in mental health and can be a powerful tool to assist clinicians with diagnosing depression and monitoring treatment response. The nine items of the PHQ-9 are based directly on the nine diagnostic criteria for major depressive disorder in the DSM 5.
Depression	Patient Health Questionnaire - 9A 12+ years Self Report	PHQ-9 ⇒ English ⇒ Spanish	The Patient Health Questionnaire (PHQ) is a self-administered version of the PRIME-MD diagnostic instrument for common mental disorders. The PHQ-9 is the depression module, which scores each of the 9 DSM-IV criteria as "0" (not at all) to "3" (nearly every day).
Depression	Short Mood and Feelings Questionnaire 6 – 18 years Caregiver Report Self-Report	SMFQ ⇒ English ⇒ Spanish	The Short Mood and Feelings Questionnaire (SMFQ-short), child version, is an 13 item subscale from a longer 33-item questionnaire (the original MFQ). This instrument should be used an indicator of depressive symptoms and not as a diagnostic tool and therefore does not indicate whether a child or adolescent has a particular disorder. Diagnoses of mental disorder should only be made by a trained clinician after a thorough evaluation.
Depression	Center for Epidemiological Studies Depression Scale for Children 6 – 17 years Self-Report	CES-DC ⇒ English ⇒ Spanish	The Center for Epidemiological Studies Depression Scale for Children (CES-DC) is a 20 item self-report questionnaire for young people between the ages of 6 and 17. It asks young people to rate how many depressive symptoms they have experienced in the last week.
Depression	Quick Inventory of Depressive Symptomatology – Adolescent – (17 Item) – Clinician Rated 12 – 18 years Clinician Report	QIDS-A17-C ⇒ English ⇒ Spanish	The QIDS-A17-C is a 17-item clinician-reported depression measure, where a score of 6–10 indicates mild depression; 10–15, moderate depression; 16–20, severe depression; and ≥21, very severe depression

Diagnosis of Major Depressive Disorder

According to the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), five or more of the symptoms listed below must be present during the same 2-week time period that represents changes in functioning. At least one symptom is either a depressed mood or loss of interest.

- Depressed mood most of the day, nearly every day, as indicated in the subjective report or in observation made by others
- Markedly diminished interest in pleasure in all, or almost all, activities most of the day and nearly every day
- Significant weight loss when not dieting or weight gain, for example, more than 5 percent of body weight in a month or changes in appetite nearly every day
- Insomnia or hypersomnia nearly every day
- Psychomotor agitation or retardation nearly every day
- Fatigue or loss of energy nearly every day
- Feelings of worthlessness or excessive or inappropriate guilt
- Diminished ability to think or concentrate, or indecisiveness nearly every day
- Recurrent thoughts of death

The ICD-10 classification of Mental and Behavioral Disorders developed in part by the American Psychiatric Association classifies depression by code. In typical, mild, moderate, or severe depressive episodes the patient suffers from lowering of mood, reduction of energy and decrease in activities. Their capacity for enjoyment, interest, and concentration is reduced and is marked by tiredness after even a minimum of effort is common. Sleep patterns are usually disturbed and appetite diminished along with reduced self-confidence and self-esteem. Final code selection should use specifiers based on severity (mild, moderate, severe) and status. Depending on the number and severity of the symptoms, a depressive episode may be specified as mild, moderate, or severe.

For **mild** depressive episodes two or three symptoms from the list above are usually present.

For **moderate** depressive episodes four or more of the symptoms noted above are usually present and the patient is likely to have great difficulty in continuing with ordinary activities.

For a classification of **in remission** the patient has had two or more depressive episodes in the past but has been free from depressive symptoms for several months. This category can still be used if the patient is receiving treatment to reduce the risk of further episodes. It will be based on the provider's clinical determination and documentation.

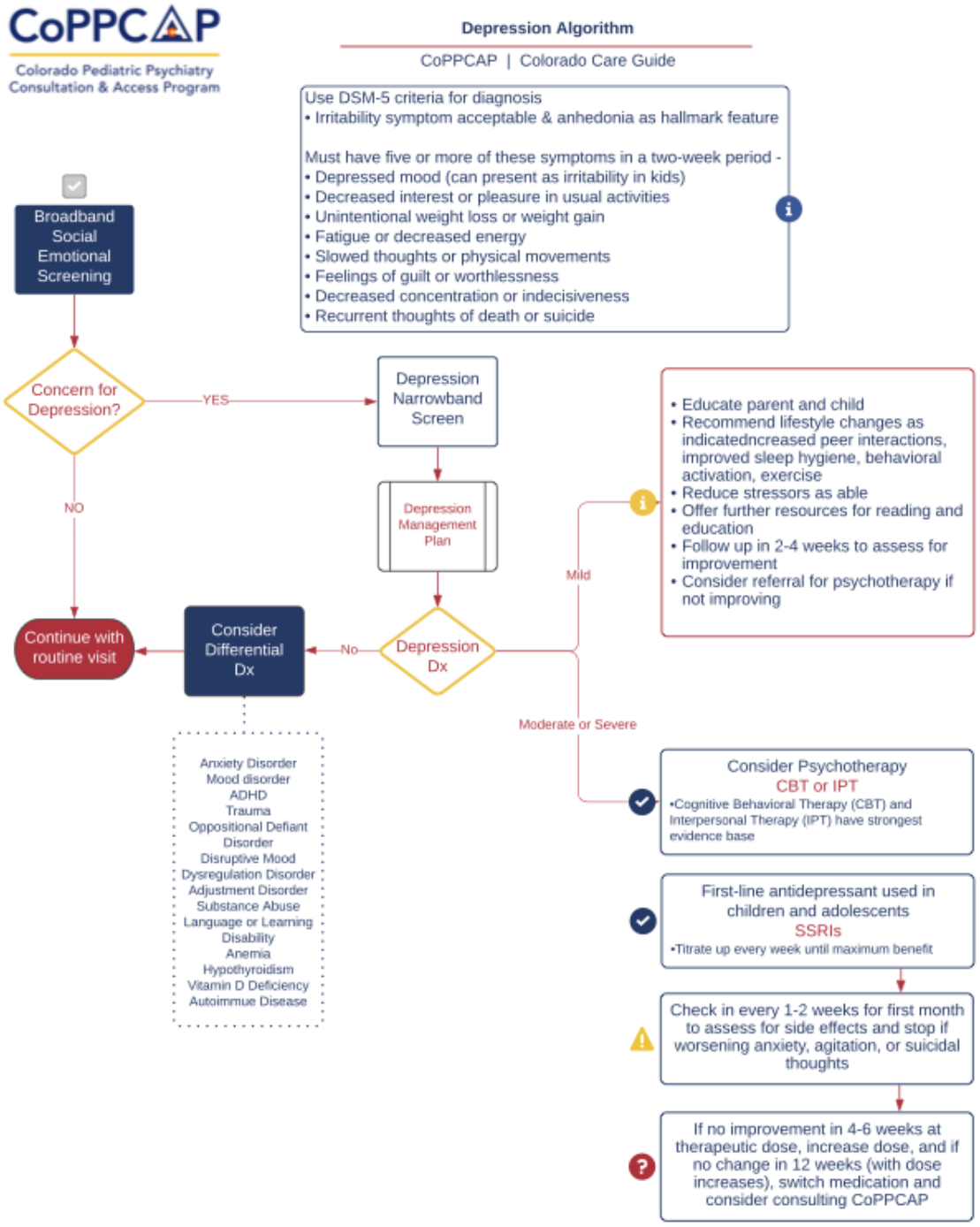
Coding for Major Depressive Disorder, single episode

- F32.0 Major depressive disorder, single episode, mild
- F32.1 Major depressive disorder, single episode, moderate
- F32.2 Major depressive disorder, single episode, severe without psychotic features
- F32.3 Major depressive disorder, single episode, severe with psychotic features
- F32.4 Major depressive disorder, single episode, in partial remission
- F32.5 Major depressive disorder, single episode, in full remission
- F33Major depressive disorder, recurrent

Coding for Major Depressive Disorder, recurrent

A recurrent depressive disorder is characterized by repeated episodes of depression without any history of independent episodes of mood elevation and increased energy or mania. There has been at least one previous episode lasting a minimum of two weeks and separated by the current episode of at least two months. At no time in the past has there been any hypomanic or manic episodes.

- F33.0 Major depressive disorder, recurrent, mild
- F33.1 Major depressive disorder, recurrent, moderate
- F33.2 Major depressive disorder, recurrent, severe without psychotic features
- F33.3 Major depressive disorder, recurrent, severe with psychotic features
- F33.4Major depressive disorder, recurrent, in remission
- F33.40 Major depressive disorder, recurrent, in remission, unspecified
- F33.41 Major depressive disorder, recurrent, in partial remission
- F33.42 Major depressive disorder, recurrent, in full remission



click the algorithm above to enlarge

AUTHORS:
McNitt, Cassidy, MD, Ryan Asherin, PhD, & Sandra Fritsch, MD

Options for Treatment: Psychotherapy

- Psychotherapy alone can be effective for mild to moderate depression. More severe depression is likely to require treatment with medication.
- If depression is not improving after six to twelve weeks of therapy, adding a medication should be considered.
- Consider regulatory functioning with sleep, diet, and exercise
- The two types of therapy shown to be most effective in treating depression in children and adolescents are **cognitive behavioral therapy (CBT)** and **interpersonal therapy (IPT)**
    - CBT is based on the idea that thoughts, feelings, and behaviors impact one another. Negative thoughts are believed to contribute to negative behaviors and depressed mood, which can contribute to more negative thoughts. CBT works by targeting patients' thoughts and behaviors to improve mood. Key components of CBT including increasing positive activities (behavioral activation), identifying and challenging negative thoughts (cognitive restructuring), and improving coping and problem-solving skills.
    - IPT is based on the idea that interpersonal problems can contribute to depressed mood. The goal of treatment is to address interpersonal problems that may be contributing to depressed mood by identifying problem areas in relationships and improving problem-solving and communication skills to build social supports.
- Other non-pharmacologic treatments that may be helpful in treating depression include:
    - DBT (dialectical behavioral therapy) – DBT is a manualized therapy originally developed for adults and more recently adapted for adolescents. DBT focuses on teaching mindfulness skills, emotional regulation, distress tolerance, and interpersonal effectiveness and has been shown to be effective in treating moderate to severe depression and self-harm and suicidal behaviors.
    - Family-based treatments, particularly attachment-based family therapy, which is a manualized treatment that focuses on promoting family connections and building on family strengths while also working to improve a child's success outside the home.
    - Promoting general wellness including encouraging exercise, which has shown to be effective by itself in reducing depression, engagement in prosocial activities, good sleep hygiene, and healthy eating

Options for Treatment: Pharmacotherapy

- Medications are indicated for more severe depression or in depression that has not been responsive to psychotherapy alone
- Approximately 55-65% of children and adolescents will respond to an initial antidepressant trial
- SSRIs are typically the first-line pharmacologic treatment in children and adolescents
- Fluoxetine (Prozac) and Escitalopram (Lexapro) are the only FDA approved medications for use for depression in children and adolescents, though other antidepressant medications have been FDA approved for other indications and in common use for depression
- The most common side effects of SSRIs are gastrointestinal symptoms, headaches, agitation, sleep changes, irritability, motor restlessness (need to constantly move), and behavioral activation. These side effects are most likely to occur in the first 1-2 weeks after starting the medication, or when making dosage increases.
- Concerning side effects of SSRIs include serotonin syndrome and increased suicidal thoughts.
    - When discussing antidepressant medications with families, always provide education about the FDA black box warning for increased suicidal thoughts when used in children and adolescents. This warning is based upon a 2004 review 24 clinical trials of children and adolescents who had been prescribed antidepressants. No suicides occurred in any of these studies, but 4 out of 100 children taking antidepressants reported suicidal thoughts or behaviors while 2 out of 100 children not on medication reported suicidal thoughts or behaviors. As a result, the FDA applied the black box warning for increased suicidal thoughts to all antidepressant medications.
- Frequent check ins are recommended during the first month to monitor for development of side effects or suicidal thoughts. Medication should be stopped if patient develops intolerable side effects or suicidal thoughts during this period.
    - Consider phone calls directly or via support staff to monitor mood and functioning weekly when first starting medication
- SSRIs can be titrated weekly, as tolerated, to a therapeutic dose (see depression medication chart below)
- Patients may have to take SSRIs for 4-6 weeks at an effective dose before experiencing any reduction in depression symptoms

- If no benefit after 4-6 weeks, increase dose. If no benefit after 12 weeks, switch to a different medication.

- Patients should continue medication for 6-12 months following resolution of symptoms
- When discontinuing antidepressant medications, taper slowly to minimize side effects (going down by the lowest titration increment every 1-2 weeks)

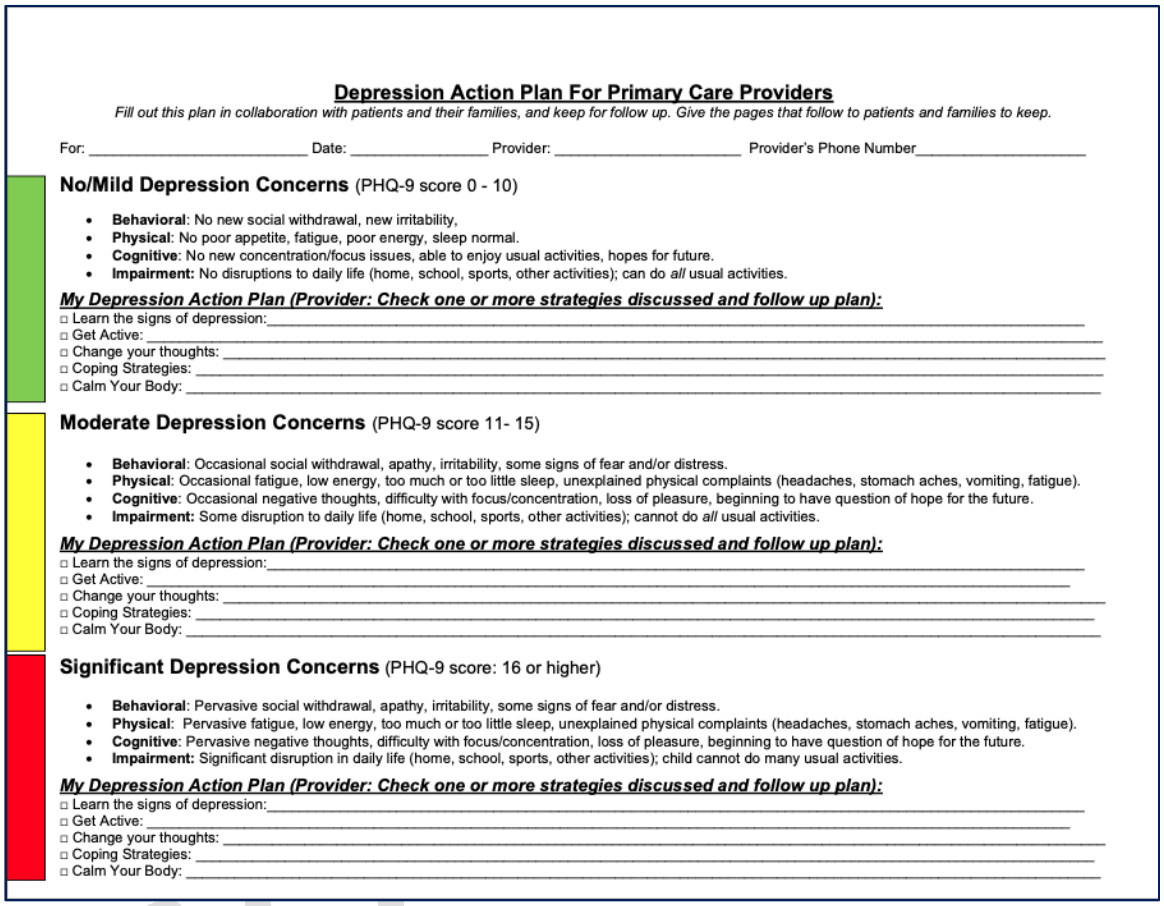
Depression Medications

SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRI'S)						
Drug Name	Dose Form	Usual Starting Dose	Increase Increment	RCT Evidence in Kids	FDA approved in kids?	Things to know
Citalopram (Celexa)	Tablet: 10/20/40mg Suspension: 10mg/5ml	10 mg daily	10 – 20 mg (40 mg max daily dose)	Yes	No	Risk for QT prolongation at doses above 40 mg
Escitalopram (Lexapro)	Tablet: 5/10/20mg Suspension: 1mg/1ml	5 mg daily	5 - 10 mg (20 mg max daily dose)	Yes	Yes (for 12 years and up)	**Second line,** lower risk for GI side effects and med interactions
Fluoxetine (Prozac)	Tablet: 10/20/40/60mg Suspension: 20mg/5ml	10 mg daily	10 – 20 mg (60 mg max daily dose)	Yes	Yes (for 8 years and up)	**First line**, long half-life
Fluxoxamine (Luvox)	Tablet: 25/50/100mg	25mg daily	50 – 200 mg			
Paroxetine (Paxil)	Tablet: 10/20/30/40mg Tablet CR: 12.5/25/37.5mg Suspension: 10mg/5ml		10 – 50 mg			
Sertraline (Zoloft)	25, 50, 100 mg 20 mg/mL	25 mg daily	25 – 50 mg (200 mg max daily dose)	Yes	No (FDA approved for use in kids with anxiety)	**Second line,** prone to GI side effects
NON-SSRI ANTIDEPRESSANTS						
Drug Name	Dose Form	Usual Starting Dose	Increase Increment	RCT Evidence in Kids	FDA approved in kids?	Things to know
Bupropion, Bupropion SR (Wellbutrin)	IR form: 75/100mg	37.5 – 75 mg daily	75 – 100 mg (typically BID or TID dosing, max dose 450	No	No	Can be activating. Avoid in eating disorders due to risk of

	SR form: 100/150/200mg XL form: 150/300/450mg	150 mg daily	mg daily for IR or 400 mg daily for ER) 150 mg (450 mg max daily dose)			lowering seizure threshold. Can have some benefit for ADHD symptoms
Desvenlafaxine (Pristiq)	Tablet ER 24 hour: 25/50/100mg	25 – 50 mg daily	50 – 100 mg daily			
Duloxetine (Cymbalta)	Tablet: 20/30/40/60mg	20mg daily	40 – 60 mg daily			
Mirtazapine (Remeron)	7.5, 15, 30, 45 mg	7.5 mg daily	7.5 – 15 mg (45 mg max daily dose)	No	No	Sedating, stimulates appetite
Trazodone (Desyrel)	Tablet: 50/100/150/300mg	25 – 50 mg daily	100 – 150 mg daily			
Venlafaxine (Effexor)	IR form: 25/37.5/50/75/100mg ER form: 37.5/75/150/225mg	37.5 mg daily	37.5 – 75 mg (225 mg max daily dose)	No	No	Risk for withdrawal syndrome due to short half-life

Depression Management Plan

CoPPCAP developed a Depression Management Plan for use in Primary Care settings to help provide psychoeducation & actionable items providers, caregivers, and patients can take after depression screening.



Depression Action Plan For Primary Care Providers

Fill out this plan in collaboration with patients and their families, and keep for follow up. Give the pages that follow to patients and families to keep.

For: _____ Date: _____ Provider: _____ Provider's Phone Number_____

No/Mild Depression Concerns (PHQ-9 score 0 - 10)

- **Behavioral**: No new social withdrawal, new irritability,
- **Physical**: No poor appetite, fatigue, poor energy, sleep normal.
- **Cognitive**: No new concentration/focus issues, able to enjoy usual activities, hopes for future.
- **Impairment:** No disruptions to daily life (home, school, sports, other activities); can do *all* usual activities.

My Depression Action Plan (Provider: Check one or more strategies discussed and follow up plan):

□ Learn the signs of depression:_____
□ Get Active: _____
□ Change your thoughts: _____
□ Coping Strategies: _____
□ Calm Your Body: _____

Moderate Depression Concerns (PHQ-9 score 11- 15)

- **Behavioral**: Occasional social withdrawal, apathy, irritability, some signs of fear and/or distress.
- **Physical**: Occasional fatigue, low energy, too much or too little sleep, unexplained physical complaints (headaches, stomach aches, vomiting, fatigue).
- **Cognitive**: Occasional negative thoughts, difficulty with focus/concentration, loss of pleasure, beginning to have question of hope for the future.
- **Impairment:** Some disruption to daily life (home, school, sports, other activities); cannot do *all* usual activities.

My Depression Action Plan (Provider: Check one or more strategies discussed and follow up plan):

□ Learn the signs of depression:_____
□ Get Active: _____
□ Change your thoughts: _____
□ Coping Strategies: _____
□ Calm Your Body: _____

Significant Depression Concerns (PHQ-9 score: 16 or higher)

- **Behavioral**: Pervasive social withdrawal, apathy, irritability, some signs of fear and/or distress.
- **Physical**: Pervasive fatigue, low energy, too much or too little sleep, unexplained physical complaints (headaches, stomach aches, vomiting, fatigue).
- **Cognitive**: Pervasive negative thoughts, difficulty with focus/concentration, loss of pleasure, beginning to have question of hope for the future.
- **Impairment:** Significant disruption in daily life (home, school, sports, other activities); child cannot do many usual activities.

My Depression Action Plan (Provider: Check one or more strategies discussed and follow up plan):

□ Learn the signs of depression:_____
□ Get Active: _____
□ Change your thoughts: _____
□ Coping Strategies: _____
□ Calm Your Body: _____

click the image above to access the full Depression Management Plan

Safety Assessment and Planning in Depressed Adolescents

- **Ask.** Providers and families should regularly ask about suicidal thoughts and behaviors.
- **Restrict means.** Providers should ask all families of depressed adolescents about access to potentially harmful items including firearms, other weapons, medications (prescription and over the counter), sharps objects like knives and razors, and items that could be used for strangulation like ropes and belts and recommend removing these items from the home or locking them up.
- **Monitor for risky or suicidal behaviors.** Watch for behaviors such as:
    - Expressing hopelessness
    - Expressing suicidal or self-harm thoughts
    - Behaving in an unusually impulsive or risky manner
    - Researching means of harming one's self
    - For young children, using death as a theme in play
    - Giving away possessions
    - Talking about being a burden to others
- **Watch for substance use.** Using substances including alcohol and drugs can make it more likely that a person with suicidal thoughts acts on those thoughts, so parents so closely monitor for substance use and remove any substances from their home.
- **Develop a crisis plan or safety plan.** Develop a plan with adolescents and their parents for what to do if they are in crisis or develop suicidal thoughts. This plan should include triggers that cause distress for the child, physical signs or behaviors that occur when they are in distress, ways parents or others can help them calm down or cope with the distress, ways they can help themselves cope, and other supports they can contact or utilize in a crisis including positive peers, supportive adults, and therapists. Local and national crisis lines and 911 can also be included.

Resources:

Crisis Hotlines:

- National Suicide Prevention Lifeline - 1-800-273-8255
- National Suicide Hotline – 1-800-784-2433
- Colorado Crisis Services – 1-844-493-8255 (or text "Talk" to 38255)

Books for Parents:

- Adolescent Depression: A Guide for Parents by Francis Mark Mondimore, MD and Patrick Kelly, MD
- The Childhood Depression Sourcebook by Jeffrey A. Miller, PhD

Helpful Apps:

- My3 – free app available in the apple app store and google app store that allows users to identify three contacts to have easy access to in a crisis, as well as update and review warning signs they are in a crisis and coping strategies they can use
- Mood Tools – free CBT-based app that provides information about depression, allows users to practice skills, and has places for documenting preferred coping skills and crisis plans for easy access in a crisis
- CBT Tools for Youth – CBT-based app developed specifically for youth to help them practice CBT skills and develop and record coping skills and safety plans. Has an associated cost.

Primary References

Birmaher B, Brent D. AACAP Work Group on Quality Issues. 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.

March J, Silva S, Petrycki S et al. The Treatment for Adolescents With Depression Study (TADS): long-term effectiveness and safety outcomes. Arch Gen Psychiatry. 2007;64(10):1132–1143.

AACAP, APA: "Depression: Parents' Medication Guide." Accessed 2/20 from www.aacap.org

Zuckerbrot RA, Cheung A, Jensen PS, Stein REK, Laraque D; GLAD-PC Steering Group. Guidelines for Adolescent Depression in Primary Care (GLAD-PC): part I. practice preparation, identification, assessment, and initial management. Pediatrics. 2018;141(3):e20174081

Cheung AH, Zuckerbrot RA, Jensen PS, Laraque D, Stein REK; GLAD-PC STEERING GROUP. Guidelines for Adolescent Depression in Primary Care (GLAD-PC): part II. Treatment and ongoing management. Pediatrics. 2018;141(3):e20174082

Acknowledgements: PMHCA sites across multiple states.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $1,851,222.00 with zero percentage financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.