

Screening for Mental Health Disorders in Children and Adolescents

Army Maj. Luke J. Lindley, M.D., F.A.A.P., M.C.

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Army Maj. Luke Lindley, M.D. F.A.A.P., M.C.
Department of Pediatrics
Joint Base Lewis, McChord (JBLM)

Army Maj. Luke Lindley, M.D. F.A.A.P., M.C.



Army Maj. Luke Johnson Lindley is a board-certified pediatrician and a Fellow of the American Academy of Pediatrics. He completed his pediatric internship and residency training at Tripler Army Medical Center and his subspecialty training in Adolescent Medicine at Brooke Army Medical Center. He is a graduate of the University of Minnesota Medical School and Stanford University. His areas of clinical focus are adolescent mood disorders, eating disorders, and care of gender minority youth.

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- I. Learning Objectives**
- II. Epidemiological Burden**
 - I. Children**
 - II. Adolescents**
- III. Diagnostic Criteria and Screening Tools**
- IV. Treatment Recommendations**
- V. Summary/Conclusions**

At the conclusion of this presentation, participants will be able to:

1. Review the diagnostic criteria for and epidemiology of common mental health disorders in children and adolescents.
2. Identify appropriate screening tools to identify patients at-risk for, or suffering from, these disorders.
3. Select evidence-based treatment recommendations for patients with positive screening results.

- Childhood mood disorders
 - Anxiety disorders are the most common childhood psychiatric disorder
 - Prevalence estimated between 10-30% ¹⁻²
 - F > M (2:1) ₂
 - Median age of diagnosis is 6 YOA
 - Specific diagnoses (in order of frequency)
 - Social anxiety disorder (most common)
 - Specific phobias
 - Generalized anxiety disorder
 - Selective mutism
 - Comorbidity of anxiety is the norm (may be anxious about many specific things, situations, concerns) ₃
 - Pediatric depression is less common, but M > F.
- Anxious children have a moderate to high risk of becoming anxious adults ₂

1. Connolly & Bernstein, 2007
2. Rapee, Schniering & Hudson, 2009
3. Connolly, Suarez & Sylvester, 2007



1. Adolescent Mood Disorders
 1. Estimated prevalence in the United States of 14.3% ⁴
 1. True prevalence is likely higher, with up to 75% of patients with depression not diagnosed or currently receiving treatment ⁵
 1. 75% of cases present by 24 years of age, and age of onset may be decreasing
 2. Female > male (2:1 predominance)
 2. Significant # of associated negative health outcomes
 1. Increased utilization of health care resources ⁷
 2. Non-suicidal self-injury (NSSI), suicidal or homicidal ideation, attempted or completed suicide
 3. Increased substance use/abuse
 4. Long-term morbidity and impairment

4. Merikangas, 2010

5. Maslow, 2015

7. Wright, 2016

- Adolescents who screen positive for depression are more likely to receive emergency care or be hospitalized for any reason over a 12 month period than adolescents who screen negative ⁷
- 60-70% of adolescents who have a depressive episode will have a recurrence within 5 years
- Primary care providers evaluate 70% of adolescents annually and, most strikingly, 45% of suicide victims within one month of a completed suicide ⁸
- Adolescents with depression are also more likely to smoke, abuse alcohol or other substances, and have other comorbid mental health issues, such as anxiety^{9, 10}

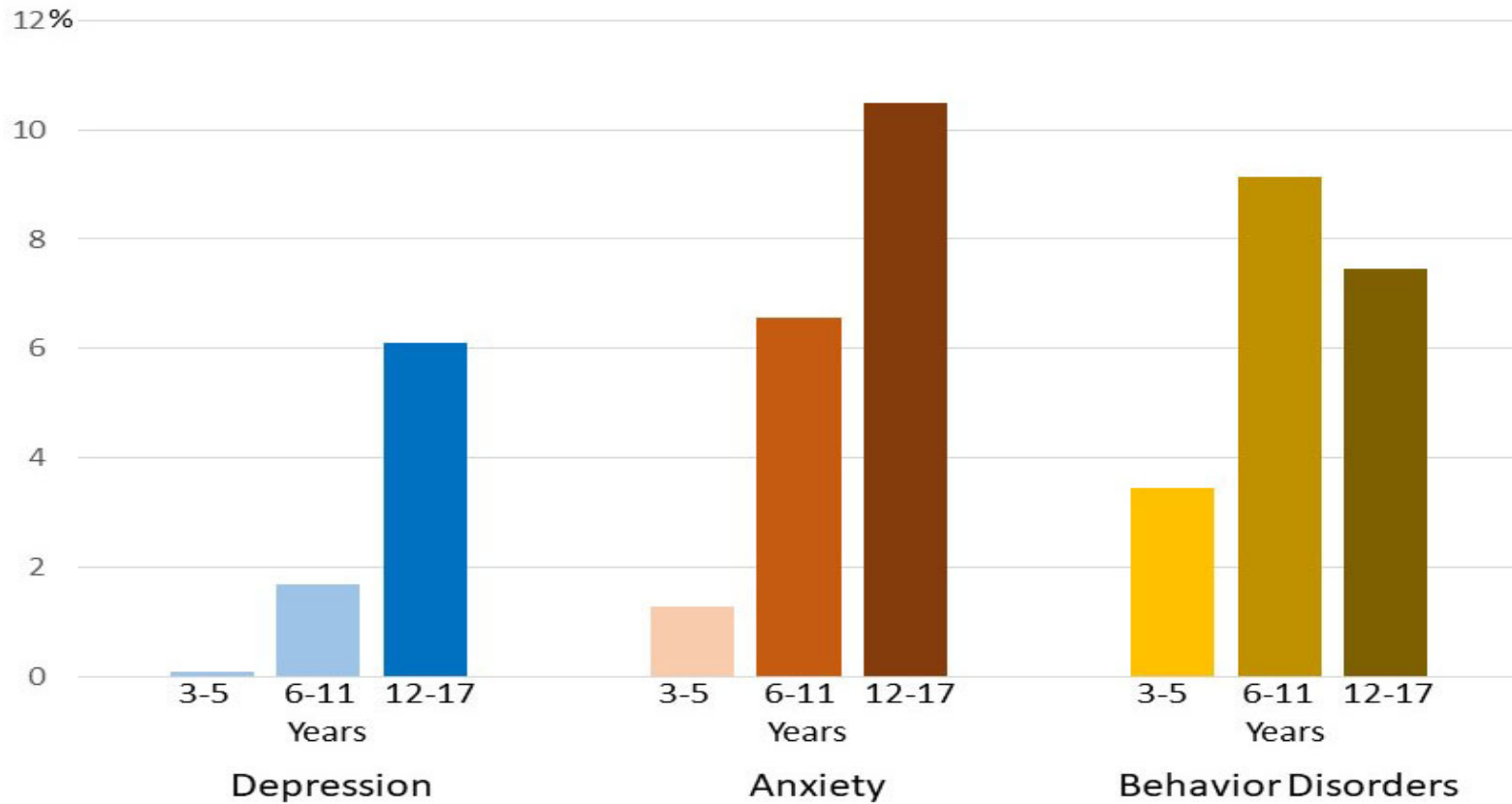
7. Wright, 2016

8. Luoma, Martin & Pearson, 2002

9. Naicker, 2013

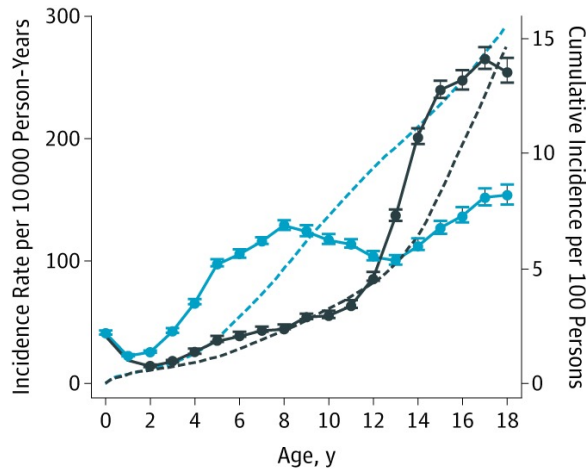
10. Cummings, Caporino, & Kendall, 2014

Depression, Anxiety, Behavior Disorders, by Age

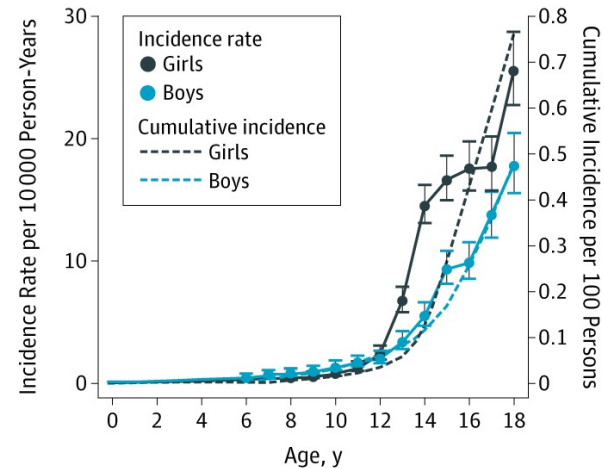


<https://www.cdc.gov/childrensmetalhealth/images/Depression-Anxiety-Behavior-Disorders-chart.jpg>

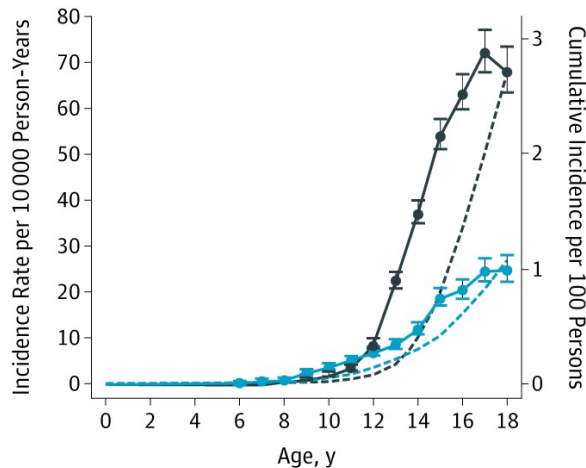
A Any mental disorder



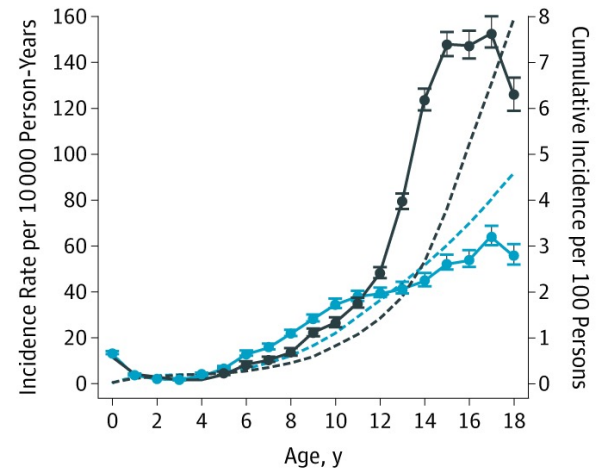
B Schizophrenia spectrum



C Mood disorders



D Anxiety disorder





- Biological
 - 10-25% risk of mood disorders in first-degree relatives of probands with mood disorders (2-3x > controls) ¹¹
 - Earlier onset of parental mood disorders significantly increases risk of depressive symptoms in children (4-5x > controls)
 - Also increased risk in adoptive children
 - Female sex, older age
 - Comorbid chronic illness
 - Comorbid learning disorders
 - History of mood disorders
 - Medications (e.g., steroids, Accutane)

11. Lieb, Isensee, & Hofler, 2002



- Psychological
 - Maladaptive stress response (negative bias)
 - Significant disruption to normative development of psychological characteristics (both risk factor for and sequelae of mood disorders)
- Social
 - Family or peer conflict (e.g., bullying)
 - History of neglect or abuse
 - Can induce persistent changes in biological stress response throughout life
 - Food insecurity, low SES
 - Trauma or significant loss
 - Academic difficulties
 - Discrimination (real OR perceived) / social exclusion



- Major depressive disorder (MDD)
 - Five (or more) of the following symptoms must be present during a two week period (SIGEMCAPS mnemonic)
 - **S**leep changes: insomnia or hypersomnia
 - **I**nterest in activities: absent or diminished
 - **G**uilt: excessive or inappropriate guilt (may not be based in fact)
 - **E**nergy: decreased energy, fatigue
 - **M**ood changes: depressed or irritable mood most of the time
 - **C**oncentration difficulties or indecisiveness
 - **A**ppetite: excessive changes, may be diminished or increased
 - **P**sycomotor changes: agitation or slowing, objective and observable
 - **S**uicidal ideation, morbid ideation, specific plans
 - Symptoms must cause significant impairment and may not be attributable to other causes (or substances)

- Dysthymic disorder
 - Depressed mood that occurs for most of the day, for more days than not, for at least one year (for adolescents; >2 years for adults)
 - At least 2/6 depressive neurovegetative symptoms must be present
 - May meet criteria for major depressive episode at times
 - Often describe years of “sadness”, inability to remember being happy.
 - Significant associations with other psychiatric illnesses, substance use disorders, and personality disorders

- Adjustment disorder (and subtypes)
 - Mood changes (e.g., low depressed mood, anxiety, hopelessness) occurring in response to identifiable stressor(s) within three months of onset of stressor(s)
 - Symptoms are clinically significant or cause impairment in functional status
 - Symptoms do not:
 - Meet criteria for another psychiatric disorder OR
 - Represent an exacerbation of existing psychiatric disorder
 - After stressor and its consequences have ended, syndrome resolves within 6 months
 - However, can persist > 6 months if stressor is ongoing (e.g., ongoing parental conflict)
 - Distinguished from MDD/PDD not by presence/absence of stressor but by number and severity of symptoms

- Generalized Anxiety Disorder
 - Excessive anxiety and worry (apprehensive expectation) about numerous things for > 6 months
 - The greater the # of specific worries, the more likely the diagnosis of GAD
 - Difficulty controlling or “putting aside” the worry
 - Associated with at least 1/6 symptoms (can resemble MDD/PDD)
 - Restlessness or feeling “on edge”
 - Easily fatigued
 - Difficulty concentrating
 - Irritability
 - Muscle tension
 - Sleep disturbances
 - Must cause distress or functional impairment
 - Not attributable to other causes or other disorders

- Social anxiety disorder
 - Marked fear or anxiety about one or more social situations
 - In children, must occur in peer settings and not just with adults
 - Fear of demonstrating anxiety symptoms or of negative evaluation/judgment
 - Avoidance of social situations or endurance of social situations with fear/anxiety
 - Fear/anxiety out of proportion to social situations
 - Persistent (>6 months)
 - Not specific to one situation (e.g., performance anxiety)
 - Not explained by substances, medical conditions, or other mental disorders

- Selective mutism
 - Consistent failure to speak in social situations in which there is an expectation of speaking, despite speaking in other situations
 - Disturbance interferes with educational or occupation achievement or social communication
 - >1 month duration (not limited to first month of school)
 - Failure to speak is not attributable to lack of knowledge or comfort with the spoken language required in the social situation
 - Not explained by a communication disorder, autistic spectrum disorder, or other medical/psychiatric disorder

- Separation anxiety disorder
 - Developmentally inappropriate and excessive fear/anxiety concerning separation
 - Fear, anxiety, or avoidance of separation is persistent (>4 weeks in children/adolescents)
 - Disturbance causes clinically significant distress/impairment
 - Not better explained by other diagnoses (e.g., resistance to change in autism spectrum disorder; fear of going outside in agoraphobia; global worry in generalized anxiety disorder)

- United States Preventative Services Task Force ¹²
 - Recommends screening for MDD in adolescents aged 12-18 years
 - Insufficient evidence to assess risks/harms of screening less than 12 years
- American Academy of Pediatrics' Bright Futures ¹³
 - Recommends annual screening for emotional and behavioral problems
- Medicaid Early and Periodic Screening, Diagnostic, and Treatment Program recommends screening for physical and mental health problems at age-appropriate intervals ¹⁴

12. Siu, 2016

13. Hagan, Shaw, & Duncan, 2008

14. U.S. Dept of Health and Human Services, 2021



- General Psychosocial Screening
 - Pediatric Symptom Checklist (PSC)
 - Strengths and Difficulties Questionnaire (SDQ)
- Anxiety Screening
 - Self-Report for Childhood Anxiety Related Emotional Disorders (SCARED)
 - Generalized Anxiety Disorder – 7 item (GAD-7)
- Depression Screening
 - Patient Health Questionnaire – Adolescent (PHQ-A)
 - Beck Depression Inventory

- Pediatric Symptom Checklist (PSC)
 - PSC-35 (original) and PSC-17 (abbreviated)
 - General psychosocial screenings and functional assessments in domains of attention, internalizing, and externalizing symptoms
 - Internalizing: anxiety or mood disorders
 - Externalizing: oppositional defiant disorder, conduct disorder
 - Validated for ages 4-17
 - <5 min to administer, 1-2 min to score
 - Freely accessible
 - Multiple languages available, pictorial versions exist
 - Sensitivity 80-95%, specificity 68-100%

Pediatric Symptom Checklist-17 (PSC-17)

Caregiver Completing this Form: Date:.....

Name of Child:.....

	Please mark under the heading that best fits your child			For Office Use		
	NEVER	SOMETIMES	OFTEN	I	A	E
1. Fidgety, unable to sit still						
2. Feels sad, unhappy						
3. Daydreams too much						
4. Refuses to share						
5. Does not understand other people's feelings						
6. Feels hopeless						
7. Has trouble concentrating						
8. Fights with other children						
9. Is down on him or herself						
10. Blames others for his or her troubles						
11. Seems to be having less fun						
12. Does not listen to rules						
13. Acts as if driven by a motor						
14. Teases others						
15. Worries a lot						
16. Takes things that do not belong to him or her						
17. Distracted easily						
(scoring totals)						

Scoring:

- Fill in unshaded box on right with: "Never" = 0, "Sometimes" = 1, "Often" = 2
- Sum the columns.
- PSC17 Internalizing score is sum of column I
- PSC17 Attention score is sum of column A
- PSC17 Externalizing score is sum of column E
- PSC-17 Total Score is sum of I, A, and E columns

Suggested Screen Cutoff:

PSC-17 - I ≥ 5
PSC-17 - A ≥ 7
PSC-17 - E ≥ 7
Total Score ≥ 15

Higher Scores can indicate an increased likelihood of a behavioral health disorder being present.

PSC-17 may be freely reproduced.
Created by W Gardner and K Kelleher (1999), and based on PSC by M Jellinek et al. (1988)
Formatted by R Hill, inspired by Columbus Children's Research Institute formatting of PSC-17

- Strengths and Difficulties Questionnaire (SDQ)
 - General psychosocial screening for emotional symptoms, conduct problems, hyperactivity/inattention, relationship problems and pro-social behavior.
 - 25-items, can be parent, teacher, or self-administered
 - Age 3-17 years
 - Freely accessible
 - Sensitivity 63-94%, specificity 88-98%
 - Meta-analyses show high inter-rater reliability, test-retest reliability, and internal consistency ¹⁵

15. Stone, Otten, Engles, Vermulst, & Janssens, 2010

Strengths and Difficulties Questionnaire

P or T 4-10

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of the child's behavior over the last six months or this school year.

Child's name Male/Female

Date of birth

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restless, overactive, cannot stay still for long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often complains of headaches, stomach-aches or sickness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shares readily with other children, for example toys, treats, pencils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often loses temper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rather solitary, prefers to play alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generally well behaved, usually does what adults request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many worries or often seems worried	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helpful if someone is hurt, upset or feeling ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constantly fidgeting or squirming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has at least one good friend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often fights with other children or bullies them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often unhappy, depressed or tearful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generally liked by other children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easily distracted, concentration wanders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nervous or clingy in new situations, easily loses confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kind to younger children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often lies or cheats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Picked on or bullied by other children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often offers to help others (parents, teachers, other children)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinks things out before acting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Steals from home, school or elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gets along better with adults than with other children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many fears, easily scared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good attention span, sees work through to the end	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature

Date

Parent / Teacher / Other (Please specify):

- Self-Report for Childhood Anxiety Related Emotional Disorders (SCARED)
 - 41-item questionnaire
 - Validated aged 8 and above
 - Parent and child versions exist
 - ~5-10 minutes to administer, 1-2 min to score
 - Assesses for:
 - Panic disorder (or significant somatic symptoms)
 - Generalized anxiety disorder symptoms
 - Social anxiety disorder symptoms
 - Separation anxiety symptoms
 - Significant school avoidance

Screen for Child Anxiety Related Disorders (SCARED) CHILD Version—Page 1 of 2 (to be filled out by the CHILDD)

Developed by Boris Birmaher, M.D., Suneeta Khetarpal, M.D., Marlane Cully, M.Ed., David Brent, M.D., and Sandra McKenzie, Ph.D., Western Psychiatric Institute and Clinic, University of Pittsburgh (October, 1995). E-mail: birmaherb@upmc.edu

See: Birmaher, B., Brent, D. A., Chiappetta, L., Bridge, J., Monga, S., & Baugher, M. (1999). Psychometric properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED): a replication study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(10), 1230-6.

Name: _____ Date: _____

Directions:
Below is a list of sentences that describe how people feel. Read each phrase and decide if it is "Not True or Hardly Ever True" or "Somewhat True or Sometimes True" or "Very True or Often True" for you. Then, for each sentence, fill in one circle that corresponds to the response that seems to describe you *for the last 3 months*.

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True	
1. When I feel frightened, it is hard to breathe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
2. I get headaches when I am at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SH
3. I don't like to be with people I don't know well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SC
4. I get scared if I sleep away from home.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SP
5. I worry about other people liking me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	GD
6. When I get frightened, I feel like passing out.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
7. I am nervous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	GD
8. I follow my mother or father wherever they go.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SP
9. People tell me that I look nervous.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
10. I feel nervous with people I don't know well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SC
11. I get stomachaches at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SH
12. When I get frightened, I feel like I am going crazy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
13. I worry about sleeping alone.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SP
14. I worry about being as good as other kids.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	GD
15. When I get frightened, I feel like things are not real.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
16. I have nightmares about something bad happening to my parents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SP
17. I worry about going to school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SH
18. When I get frightened, my heart beats fast.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
19. I get shaky.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
20. I have nightmares about something bad happening to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SP

Screen for Child Anxiety Related Disorders (SCARED) CHILD Version—Page 2 of 2 (to be filled out by the CHILDD)

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True	
21. I worry about things working out for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	GD
22. When I get frightened, I sweat a lot.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
23. I am a worrier.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	GD
24. I get really frightened for no reason at all.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
25. I am afraid to be alone in the house.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SP
26. It is hard for me to talk with people I don't know well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SC
27. When I get frightened, I feel like I am choking.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
28. People tell me that I worry too much.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	GD
29. I don't like to be away from my family.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SP
30. I am afraid of having anxiety (or panic) attacks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
31. I worry that something bad might happen to my parents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SP
32. I feel shy with people I don't know well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SC
33. I worry about what is going to happen in the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	GD
34. When I get frightened, I feel like throwing up.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
35. I worry about how well I do things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	GD
36. I am scared to go to school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SH
37. I worry about things that have already happened.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	GD
38. When I get frightened, I feel dizzy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	PN
39. I feel nervous when I am with other children or adults and I have to do something while they watch me (for example: read aloud, speak, play a game, play a sport).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SC
40. I feel nervous when I am going to parties, dances, or any place where there will be people that I don't know well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SC
41. I am shy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	SC

SCORING:
 A total score of ≥ 25 may indicate the presence of an Anxiety Disorder. Scores higher than 30 are more specific. **TOTAL =**
 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. **PN =**
 A score of 9 for items 5, 7, 14, 21, 23, 28, 33, 35, 37 may indicate Generalized Anxiety Disorder. **GD =**
 A score of 5 for items 4, 8, 13, 16, 20, 25, 29, 31 may indicate Separation Anxiety SOC. **SP =**
 A score of 8 for items 3, 10, 26, 32, 39, 40, 41 may indicate Social Anxiety Disorder. **SC =**
 A score of 3 for items 2, 11, 17, 36 may indicate Significant School Avoidance. **SH =**

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

The Screen for Child Anxiety Related Disorders (SCARED). <https://www.midss.org/content/screen-child-anxiety-related-disorders-scared>

- Generalized Anxiety Disorder 7-Item (GAD-7) scale
 - 7 questions, validated screening tool in adult populations.
 - Sensitive to treatment changes over time
 - Less data in adolescents compared to adults
 - Score of 8 or greater represents positive screen in adults
 - Adolescent total symptom score correlates well with Pediatric Anxiety Rating Scale (PARS) severity
 - >11 moderate anxiety in adolescents, >17 severe anxiety ¹⁶

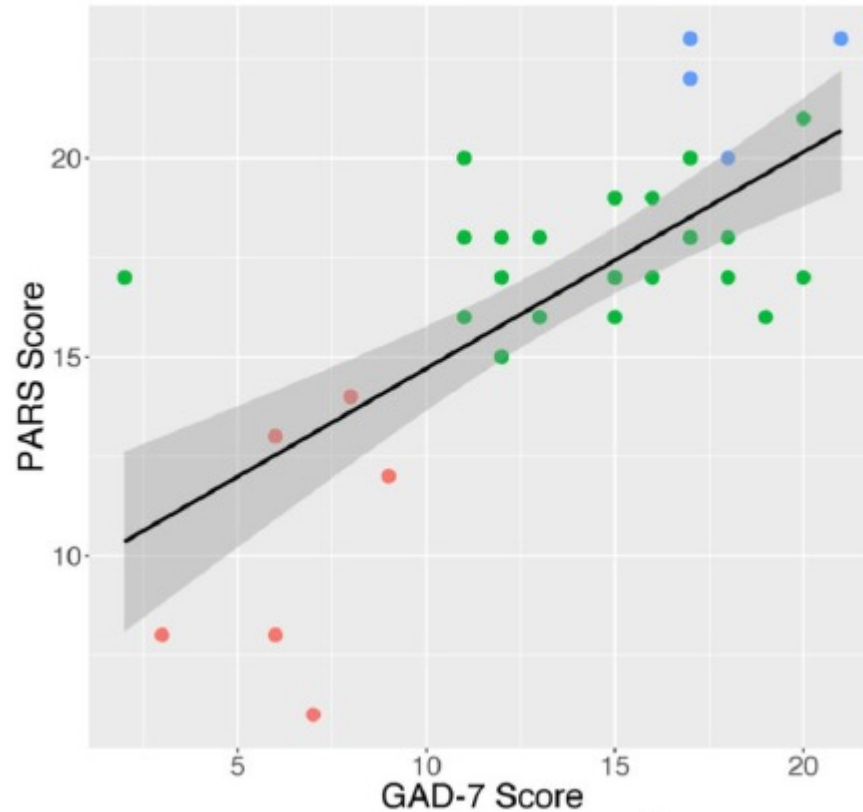
Generalized Anxiety Disorder 7-item (GAD-7) scale

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 every day
1. Feeling nervous, anxious, or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it's hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3
<i>Add the score for each column</i>	+	+	+	
Total Score (<i>add your column scores</i>) =				

If you checked off any problems, how difficult have these 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 _____

Spitzer RL, Kroenke K, Williams JBW, Lowe B. A brief measure for assessing generalized anxiety disorder. *Arch Intern Med* .2006;166:1092-1097.



Mossman Et A. The Generalized Anxiety Disorder 7-item (GAD-7) scale in adolescents with generalized anxiety disorder: signal detection and validation. *Ann Clin Psychiatry*. 2017 November ; 29(4): 227–234A.

- Patient Health Questionnaire – Adolescent
 - 83 item self-administered questionnaire assessing mood, eating habits, and substance use
 - Sensitivity 75%, Specificity 92%
 - High reliability when compared to clinical assessments
 - Considered appropriate screening by USPMTF
- PHQ-A depression screen (PHQ-9 / PHQ-9A)
 - Abbreviated 9 item screen for depression derived from PHQ-A
 - <5 min to complete and score
 - Score of 11 or more: 89.5% sensitivity and 77.5% specific for depressive disorders ¹⁷
 - Further increase in PHQ-9 scores correlated with functional impairment and parental perception of psychosocial problems ¹⁷



PHQ-9 modified for Adolescents (PHQ-A)

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.

Table with 5 columns: Symptom, (0) Not at all, (1) Several days, (2) More than half the days, (3) Nearly every day. Rows include symptoms like 'Feeling down, depressed, irritable, or hopeless?' and 'Thoughts that you would be better off dead, or of hurting yourself in some way?'.

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

**If you have had thoughts that you would be better off dead or of hurting yourself in some way, please discuss this with your Health Care Clinician, go to a hospital emergency room or call 911.

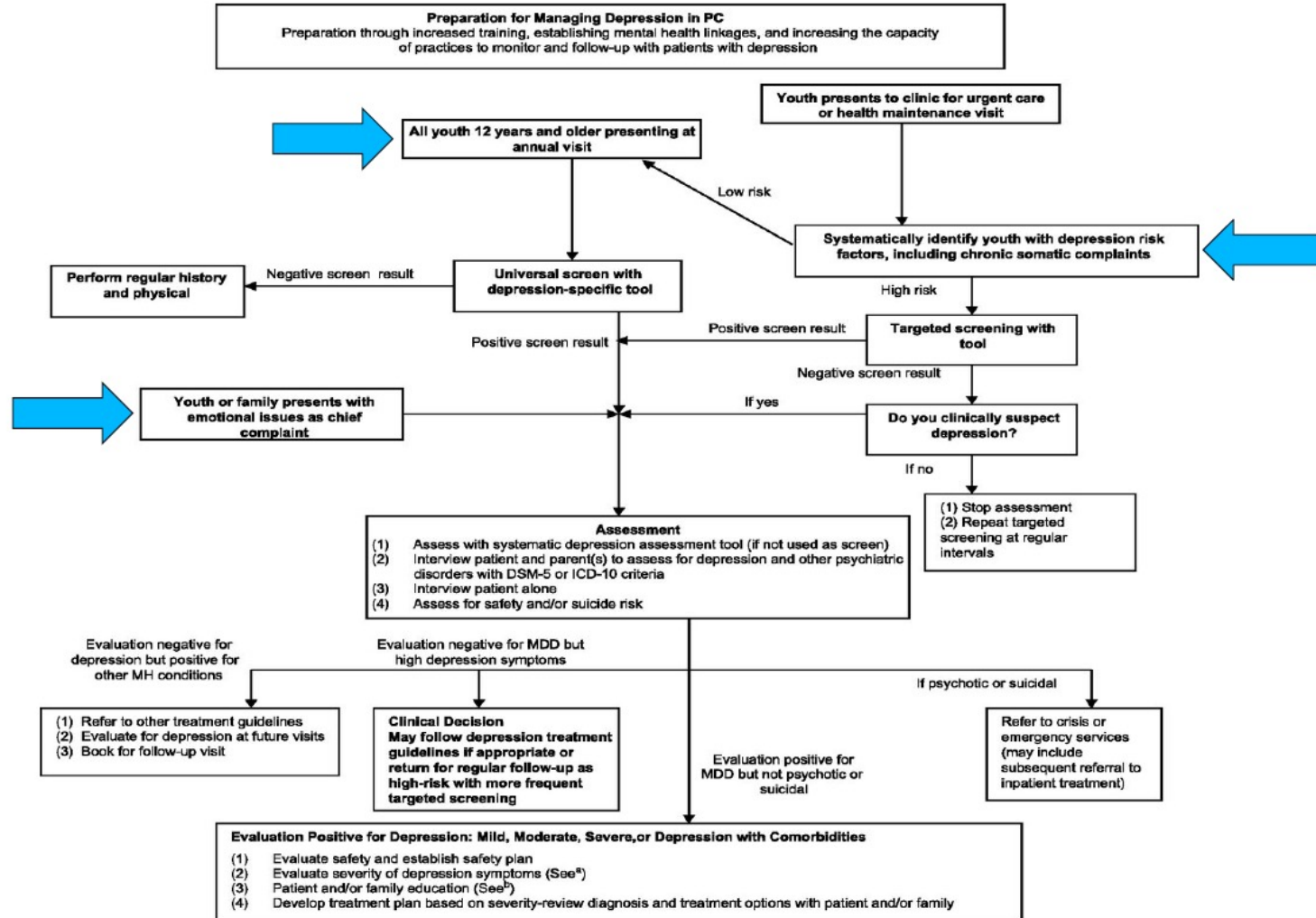
Office use only: Severity score: _____

Modified with permission from the PHQ (Spitzer, Williams & Kroenke, 1999) by J. Johnson (Johnson, 2002)

PHQ-9 Modified for Adolescents (PHQ-A) – Mission Health. https://missionhealth.org/wp-content/uploads/2018/04/Adolescent-Depression-Screening-PHQ-A-Form.pdf

- Beck Depression Inventory (BDI)
 - 21 items, self-administered or verbally administered by trained administrator
 - 14+ years of age
 - **Proprietary** (115\$/kit)
- Beck Depression Inventory Fast Screen (BDI-FS)
 - 7 item screen
 - 13+ years of age
 - Sensitivity 91%, Specificity 91%
 - Considered adequate by USPMTF
 - **Proprietary** (99\$/kit)

Clinical Assessment Flowchart



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

- General considerations
 - Ensure safety
 - Provide psychoeducation
 - Identify and address stressors and comorbidities
- Mild depressive symptoms (e.g, PHQ-9 < 10)
 - Addressing perpetuating factors, providing active support, and ensuring regular follow-up visits may be sufficient to alleviate symptoms in ~20% of patients with mild symptoms
- Moderate to severe depressive symptoms (>11 moderate, >18 severe)
 - Likely will require psychotherapy, pharmacotherapy, or combination of both

- Psychotherapy
 - Cognitive behavioral therapy (CBT): gold standard therapeutic intervention
 - Manualized treatment modality based on cognitive theory of depression
 - Effective stand-alone treatment for mild to moderate depression in adolescents
 - More effective, however, when combined with pharmacotherapy
 - Interpersonal therapy (IPT)
 - Based on interpersonal therapy of depression and originally developed for treatment of depression in adults, but has been adapted for adolescents (IPT-A)
 - Less evidence for efficacy than CBT for adolescents, but not likely harmful

- Pharmacotherapy: general principles
 - SSRIs (e.g., fluoxetine, escitalopram) are considered first-line for children and adolescents
 - Laboratory evaluation prior to initiation of pharmacotherapy may be considered but is NOT required
 - More effective when combined with psychotherapy (response rate 40-70% when combined)
 - Start low and slow
 - Anticipate treatment for minimum of 6-12 months to maximize benefit and minimize risk of symptom recurrence [TADS ref here]

- Fluoxetine:
 - Approved for age 8 and older for MDD
 - Most evidence for safety and efficacy in pediatric and adolescent patients with MDD
 - Typical starting dose 5-10 mg X 1-2 weeks.
 - Dose then adjusted upward to 10-20mg X 4-6 weeks
 - Dose range (adolescent) 20-60 mg
 - Long half-life, can be slightly activating, generally very well-tolerated

- Sertraline
 - Approved 6 and older for OCD
 - Off-label for MDD/PDD/anxiety disorders, but generally well-tolerated and effective
 - May have more benefit for anxiety symptoms as it tends to be LESS activating than fluoxetine
 - Tends to be sleep-neutral or sleep-beneficial as well, recommend dosing at night
 - Typical starting dose 25 mg, dosing range (adolescents) 50-200 mg
- Escitalopram
 - FDA approved for MDD age 12 and above
 - Dose 5-20 mg (>20 mg associated with QT prolongation)
 - Pre-treatment EKG not required but not unreasonable



- SSRI side effects
 - Common
 - GI side effects (nausea, abdominal pain) may be more common with sertraline
 - Sleep changes
 - Sexual dysfunction
 - Uncommon
 - SSRI activation → restlessness, increased energy, decreased sleep, irritability
 - NOT hypomania or mania
 - May be more common with fluoxetine
 - Extremely uncommon: New onset manic episode s/p initiation of SSRI treatment --> r/o bipolar disorder

- “Black Box” warning
 - Association exists between SSRI prescription and increased rate of suicidality
 - Review of > 4400 patients (in 24 pediatric antidepressant trials) demonstrating 4% risk of suicidality in first few months of treatment with SSRIs compared to placebo risk of 2%
- After FDA “black box” warning issued (2004) prescription rates for SSRIs in the US children decreased; rates of suicide attempts subsequently increased
- True “new onset” suicidality attributable to appropriate SSRI prescription is rare.
- Not treating depression will ALSO increase the risk of suicide
- Psychotherapy can be protective against new onset suicidality

Key Takeaways



- Childhood anxiety and depression are increasingly common but treatable conditions
- Numerous, freely-accessible screening tools exist for implementation and use in the primary care setting
- Screening tools should aid and inform, not supplant, clinical assessment and diagnosis
- While psychotherapy and pharmacotherapy are each effective treatments for these diagnoses, their combination is both effective and protective

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