Screening for Depression in School Based Health Centers

May 19, 2016

Joyce Nolan Harrison , M.D.

Johns Hopkins School of Medicine

Division of Child and Adolescent Psychiatry

UNIVERSITY of MARYLAND SCHOOL OF MEDICINE

JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH

Salisbury UNIVERSITY

Objectives

- To understand depression as a medical illness that can occur during childhood and adolescence
- To describe screening tools and questions to help recognize and respond to emergencies related to depression in a primary care setting
- To be aware of resources for referral and how to access them

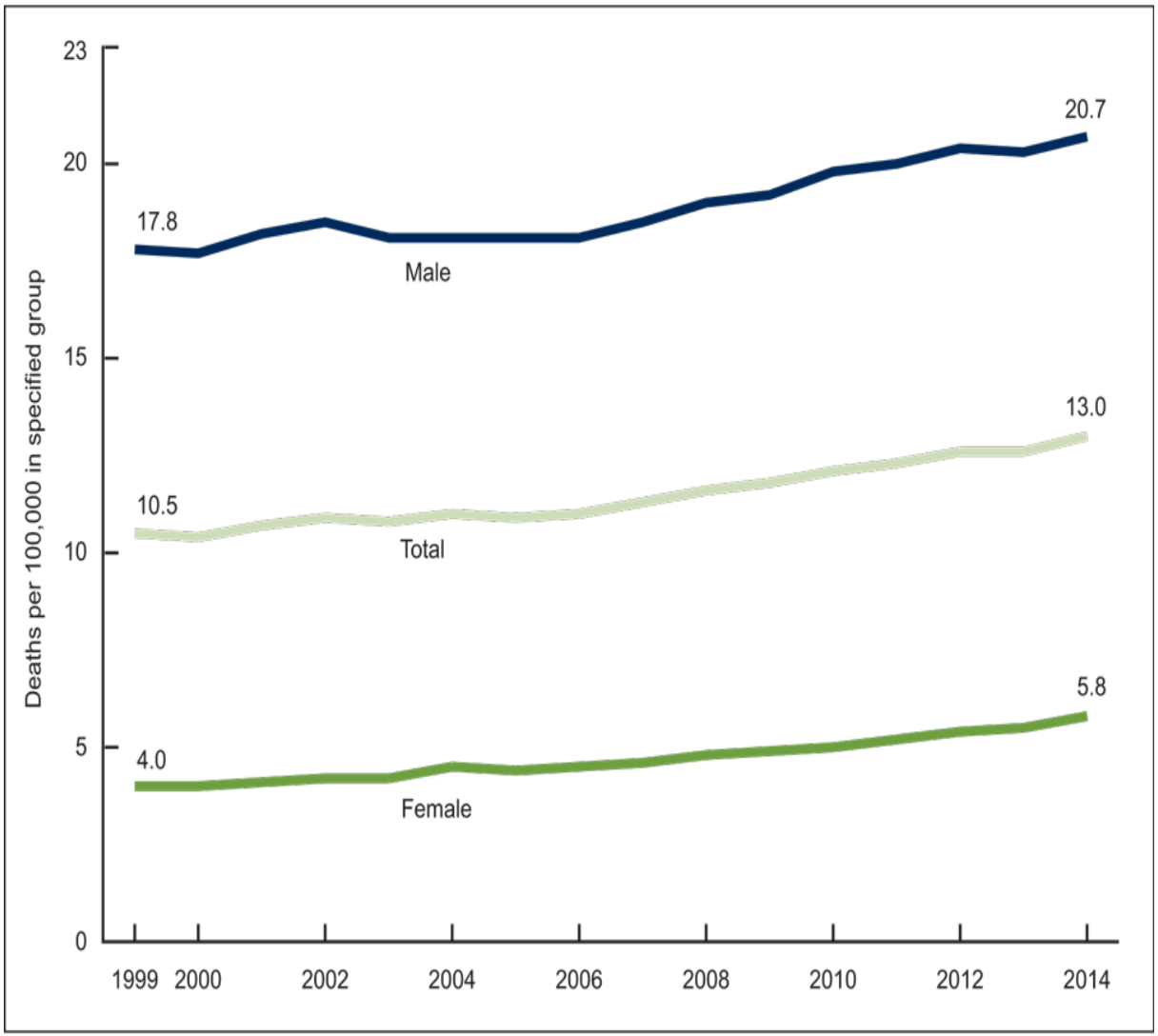
Overview

- Overview of depression in children and adolescents
- AAP recommendations for screening in primary care and discussion of screening tools
- Brief discussion of the Maryland Behavioral Health Integration in Pediatric Primary Care (B-HIPP) program

Increase in Suicide in the United States, 1999–2014 (CDC 4/2016)

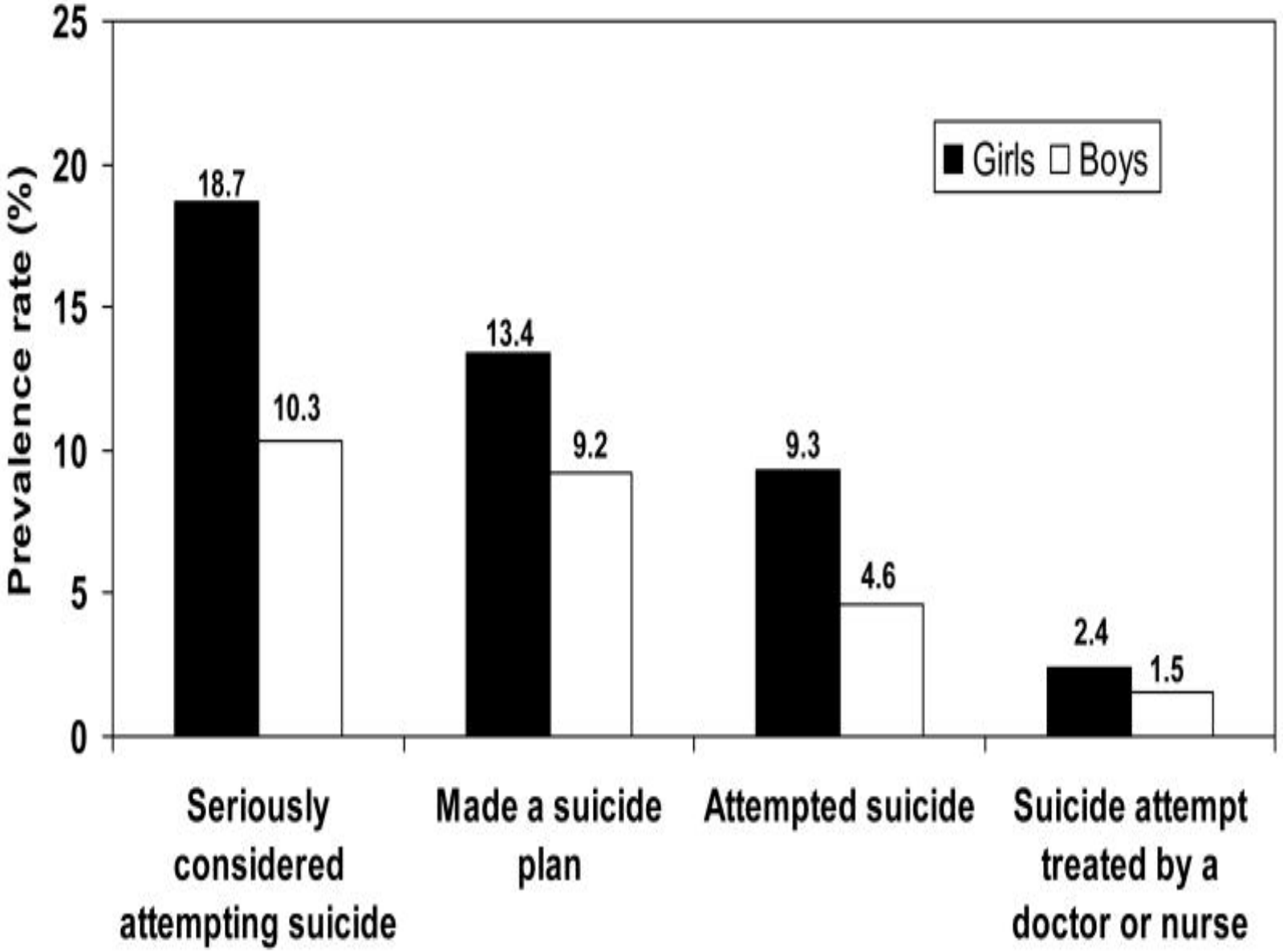
- the age-adjusted suicide rate in the United States increased 24%, from 10.5 to 13.0 per 100,000 with the rate of increase greater after 2006.
- Suicide rates increased from 1999 through 2014 for both males and females and for all ages 10–74.
- The percent increase in suicide rates for females was greatest for those aged 10–14, and for males, those aged 45–64.
- The most frequent suicide method in 2014 for males involved the use of firearms (55.4%), while poisoning was the most frequent method for females (34.1%).

Figure 1. Age-adjusted suicide rates, by sex: United States, 1999–2014



NOTES: Suicide deaths are identified with codes U03, X60–X84, and Y87.0 from the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision*. Access data for Figure 1 at: http://www.cdc.gov/nchs/data/databriefs/db241_table.pdf#1.
SOURCE: NCHS, National Vital Statistics System, Mortality.

Prevalence


25
20
15
10
5
0
Prevalence rate (%)
Girls
Boys
18.7
10.3
13.4
9.2
9.3
4.6
2.4
1.5
Seriously considered attempting suicide
Made a suicide plan
Attempted suicide
Suicide attempt treated by a doctor or nurse

Introduction

- 2.5 to 11% of children in the U.S. suffer from depression
- The 12 month prevalence of MDD in U.S. is 7%
- Varies across age groups with 18-24 having 3X higher rates than those over 60
- More common in boys under the age of 10
- By age 16, girls have a 1.5 to 3X greater incidence of depression
- Leading cause of disability among Americans aged 15-44

Course

- Can occur at any age but onset increases with puberty and peaks in 20s
- Course is extremely variable
- 2/5 recover in 3 months, 4/5 in 1 year
- More likely to have recurrence if onset is younger

General Guidelines

- Diagnosis requires a careful history
- Best to intervene early
- Need to assess the **level of functioning**
- Are symptoms:
  - Persistent (lasting more than 2 weeks)?
  - Tied to certain situations or events?
  - Present in all settings?
- **Always** assess for suicidality

Types of Depression

- Major Depression
- Persistent Depressive Disorder(dysthymia)
- Premenstrual Dysphoric Disorder
- Substance/Medication-induced Depressive Disorder
- Depressive Disorder due to Medical Condition
- Disruptive Mood Dysregulation Disorder(for age 7-18 only)

Diagnostic Criteria

At least 5 of the following

- Depressed mood*
- Loss of interest/pleasure*
- Disturbed appetite or weight loss
- Sleep changes
- Psychomotor changes
- Fatigue, low energy
- Guilt, low self-worth
- Difficulty concentrating or deciding
- Recurrent thoughts of death, suicide

Features

- Presence of sad, empty or irritable mood, most of the day, nearly every day
- Somatic and cognitive changes that significantly affect ability to function
- Discrete episode lasting at least 2 weeks of clear cut changes in affect, cognition, and neurovegetative functions

“d”epression vs. “D”epression

- Feeling down for one week
- Good sleep and appetite
- Doing well in all classes except Chemistry
- Active with friends and playing soccer
- Has different interests than girlfriend
- Hopeful about the future

- Sad and irritable for over two months
- Poor sleep
- Poor performance in most classes
- Quit soccer and not seeing friends
- Breakup after weeks of isolating himself
- Very self critical

Depression in Preschoolers

- 98% "often appear sad"(withdrawal)
- 55% whine or cry excessively(tantrums)
- 80% sleep changes
- 71% activity changes
- 74% play themes involving death or killing themselves

Depression in School-aged Children

- Tearfulness
- Irritability
- Difficulty concentrating
- Decline in school performance
- Withdrawal from peers or pleasurable activities (e.g., sports, clubs, play)
- Somatic symptoms (headache, stomach aches)
- Sleep, appetite, and energy level changes

Depression in Adolescents

- Extreme irritability is often the hallmark
- Substance abuse (as a means of self-medicating)
- Difficulty with relationships
- Risk-taking behaviors
- Self-injurious behaviors
- Violence

Medications that can cause depression

- Stimulants
- Steroids(high dose > 80mg/d)
- Antihypertensives (tenex, clonidine)
- Benzodiazepines
- Antivirals(efavirenz)
- Oral contraceptives (high estrogen/prog)
- Dermatologic agents(Retin-A)
- Immunologic agents(interferon)

Disruptive Mood Dysregulation Disorder

- Chronic, severe persistent irritability in the form of temper outbursts or severe angry or irritable mood
- Present most of the day, nearly every day and noticeable by others
- Over at least one year in at least two settings

Nonsuicidal Self-Injury

- Engage in intentional self-inflicted damage to the surface of his or her body to induce bleeding, bruising or pain, with the expectation that it will lead to mild or moderate injury
- Common areas: frontal thigh, dorsal forearm
- No suicidal intent
- Usually starts in early teens, peaks in 20's

Nonsuicidal Self-Injury

- To obtain relief from a negative feeling or state
- To resolve an interpersonal difficulty
- To induce a positive feeling state
- Often a period of preoccupation with the behavior that is difficult to control
- Causes distress in academic, interpersonal or other functioning

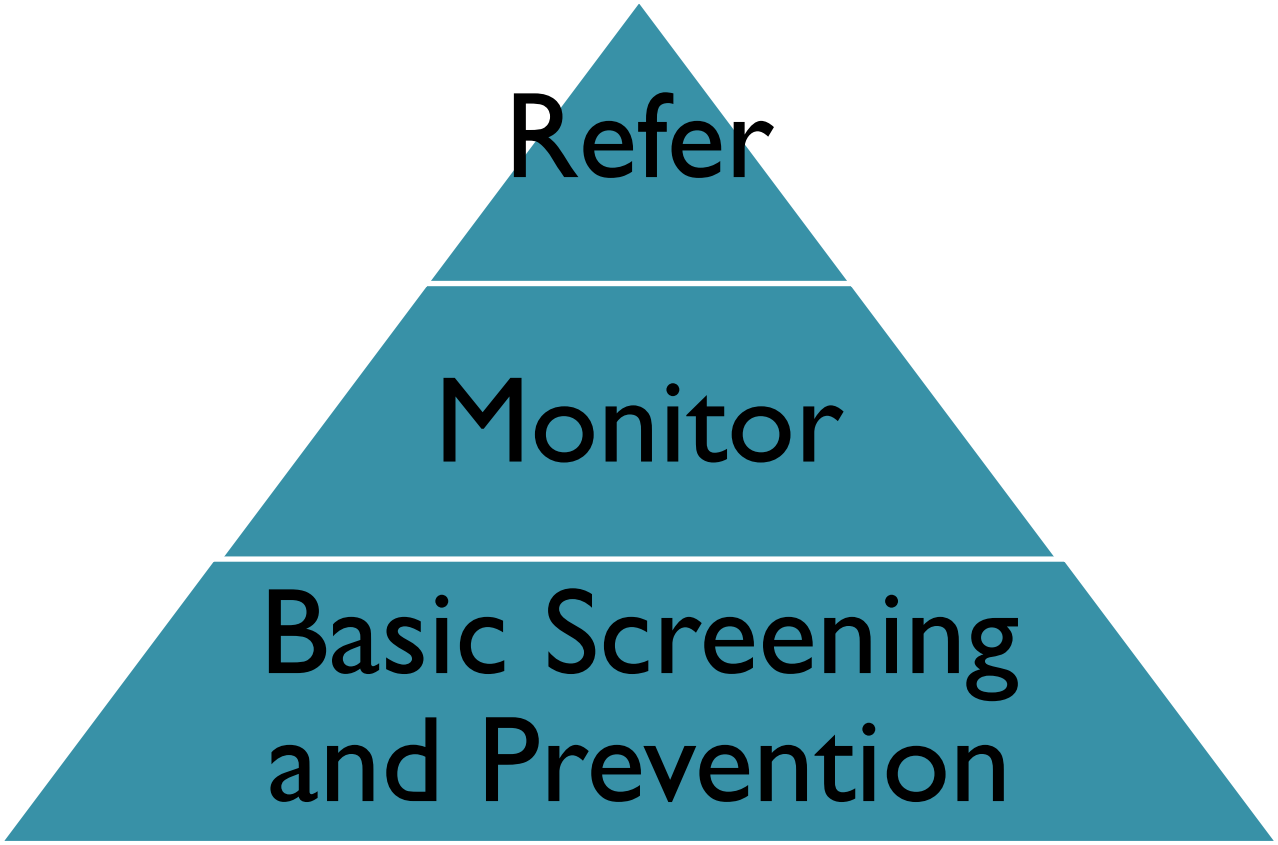
Suicidal Behavior Disorder

- Individual has made a suicide attempt within the last 24 months before evaluation with expectation of death
- Not self-injury, political or religious
- No delirium or confusion

Also Associated with Depression

- ADHD
- Substance-related disorders
- Anxiety: Panic Disorder, Obsessive Compulsive Disorder
- Anorexia Nervosa, Bulemia

Managing Depression



Efficient Screening

- Broad Screening
- Psychosocial Risk
- Specific Measures

The CAPPC/Project TEACH

- **Google:**

  www.cappcny.org

- **Click on "Tools for Primary Care Clinicians"**
- **Scroll down to symptom category**
- **Click on desired screening tool**

Tools in the public domain

- General: PSC17, SDQ
- Specific to the "4 Horses"
  - **ADHD – Vanderbilt**
  - **Aggression – Parent Retrospective Modified Overt Aggression Scale (MOAS)**
  - **Anxiety – SCARED**
  - **Depression – PHQ9**

"Broad Band" screens

- Pediatric Symptom Checklist (PSC)
  - Several versions: 35, 17 item, pictorial versions, youth self-report version, FREE ONLINE
  - Developed as a **parent-report** screening measure of externalizing, internalizing and attention problems for children ages **4-17** years (Gardner et al 1999).
  - PSC-17 limited for anxiety (1 item)

Pediatric Symptom Checklist

Emotional and physical health go together in children. Because parents are often the first to notice a problem with their child's behavior, emotions or learning, you may help your child get the best care possible by answering these questions. Please mark under the heading that best fits your child.

			Never (0)	Sometimes (1)	Often (2)
1.	Complains of aches/pains	1	_____	_____	_____
2.	Spends more time alone	2	_____	_____	_____
3.	Tires easily, has little energy	3	_____	_____	_____
4.	Fidgety, unable to sit still	4	_____	_____	_____
5.	Has trouble with a teacher	5	_____	_____	_____
6.	Less interested in school	6	_____	_____	_____
7.	Acts as if driven by a motor	7	_____	_____	_____

Pictorial Pediatric Symptom Checklist (PPSC)

[La Lista de verificación Pediátrica pictórica de Symptom-17]

_____ _____ _____

Nombre de niño | Fecha del Nacimiento | Fecha de hoy

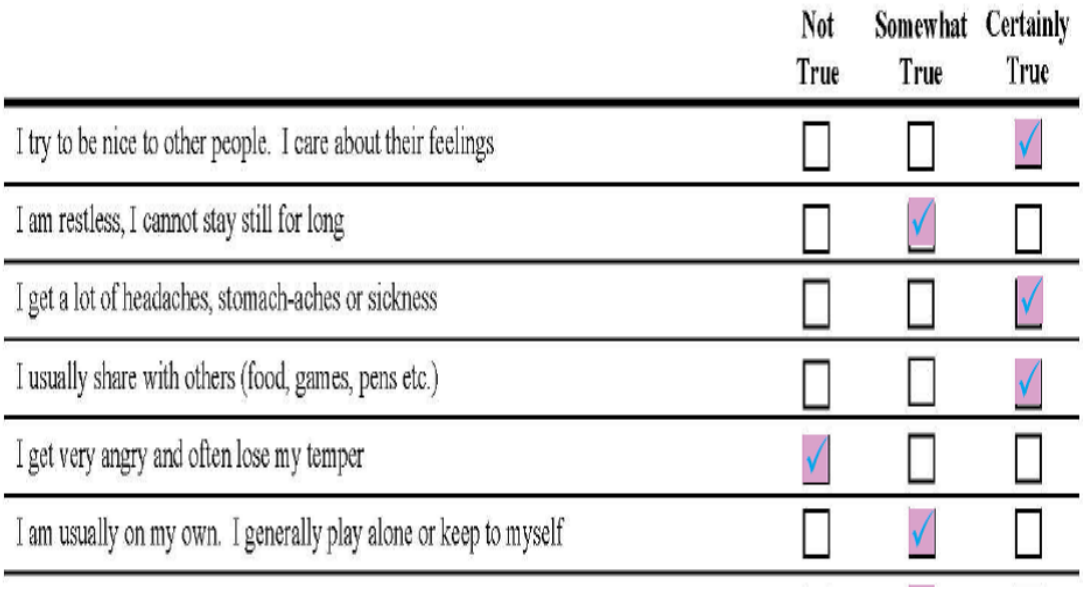
Indique con una ✓ la frecuencia con la que su niño(a) hace lo que se muestra en la pregunta:

1 Nervioso(a), incapaz de estarse quieto(a)

2 Es incansable

Strengths and Difficulties Questionnaire (SDQ)

- Also freely available, online
- Separate teacher, parent and youth version, forms for different age groups
- Total difficulties
- Emotional Problems
- Conduct problems
- Hyperactive score
- Peer problems
- Prosocial behavior



	Not True	Somewhat True	Certainly True
I try to be nice to other people. I care about their feelings	☐	☐	✓
I am restless, I cannot stay still for long	☐	✓	☐
I get a lot of headaches, stomach-aches or sickness	☐	☐	✓
I usually share with others (food, games, pens etc.)	☐	☐	✓
I get very angry and often lose my temper	✓	☐	☐
I am usually on my own. I generally play alone or keep to myself	☐	✓	☐

Questions to open discussion

- What concerns led to this visit?
- How is sleep, appetite, energy?
- How are relationships?
- Can you still do your (school)work?
- What else is going on in your life?(loss or difficult event)?

Look for risk factors

- Treatment history
- Increased conflict
- Acute stressors
- Change from baseline
- Social pressures
- Family history

SIG: E CAPS

- **S**ad mood
- Loss of **I**nterest
- **G**uilt
- low **E**nergy
- Poor **C**oncentration
- **A**ppetite changes
- **P**sychomotor changes
- **S**uicide/SAFETY

"Narrow Band" Screens

- PHQ-9 (9 questions) Cutoff score of 10 or more
- CES-DC (20 questions), "may not discriminate in adolescents"

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.

	(0) Not At All	(1) Several Days	(2) More Than Half the Days	(3) Nearly Every Day
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?				

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

Modified with permission by the GLAD-PC team from the PHQ-9 (Spitzer, Williams, & Kroenke, 1999), Revised PHQ-A (Johnson, 2002), and the CDS (DISC Development Group, 2000)

Center for Epidemiological Studies Depression Scale for Children (CES-DC)

- 20 questions
- "0" = Not at all to "3" = A lot
- positive @ 15 - Higher may indicate severity
- Can be used for ages 6-17

Response DURING THE PAST WEEK
SCORE (0-3)

1. I was bothered by things that usually don't bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from my family and friends.
4. I felt that I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that every thing I did was an effort.
8. I felt hopeful about my future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless
12. I was happy.
13. I talked less than usual.
14. I felt lonely.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt the people disliked me.
20. I could not get "going."

Assessing Suicidality

- Do you ever feel so sad that you wish you were never born?
- Do you ever feel like you wish you were dead?
- Do you think a lot about dying?
- Do you think about how you could die?
- Do you want to kill yourself?
- How would you do that?

If you suspect suicidality

- Have you actually tried to hurt yourself?
- Are you thinking of hurting yourself now?
- Do you have a plan to hurt yourself(thought about what you would do, gather what you need, give away possessions, compose a letter)?

Asking about suicide

- YOU WILL NOT PUT THE THOUGHT INTO THEIR HEAD!
- A "yes" usually requires activation of an emergency plan
- A "no" may still require further assessment

SAD PERSONS scale

- Sex(males have higher risk)
- Age(rates go up with increased age)
- Depression
- Previous attempt
- Ethanol or other substance use
- Rational thinking loss
- Social supports lacking
- Organized plan
- No spouse
- Availability of lethal means
- Sickness(medical illness)

Safety first

- Evidence of psychosis
- Suicidality
- Severe impairment in function that might be life threatening

- Safety plan and follow up if hospitalization not warranted

Psychoeducation

- Depression vs. feeling depressed i.e. depression as an illness like diabetes
- Runs in families
- Very common, not a character defect or laziness
- Hopelessness is a symptom
- Treatment works

First steps

- General behavioral interventions
  - Encourage proper sleep (8 to 11 hours) and nutrition
  - Activity and exercise
  - Coping tools like positive self-talk, relaxation
  - Encourage social support and activity
  - Discourage harsh punishment

- Therapy—CBT, IPT if available

Consider medication if:

- Function severely impaired
- Concern about delusional thinking
- Suicidal ideation
- Previous episode of low mood lasting more than a few days
- Other forms of intervention not feasible or not adequate

Medication for children and adolescents

- Very little evidence that any are effective for young children; better evidence for anxiety
- Only evidence for SSRI's (selective serotonin reuptake inhibitors)for older adolescents

SSRIs

- Only Fluoxetine (>8 yrs.) and Escitalopram (>12 yrs.) have FDA approval for MDD
- Tier 1 meds:
  - Fluoxetine (Prozac)
  - Sertraline (Zoloft)
  - Escitalopram(Lexapro)

Adverse effects

- Common
  - Headache
  - GI: appetite changes, weight loss or gain
  - Increased energy and activity, "activation"
  - Sleep changes, fatigue
  - Loss of libido

Antidepressants and Suicide Risk

- FDA advisory committee meta-analysis
- 99,393 participants in 375 RCTs
- Slight increase in 18-24 age group(odds ratio of 1.55)
- Absolute risk 0.01% for all ages
- FDA issued expanded black box warning in 2007

Monitoring

- Return visit in 1-2 weeks after starting medication
- Weekly or biweekly for a month, then monthly
- Assess suicidality, sleep and appetite, new stresses, function, side effects
- Continue treatment for at least 6 months

When to refer

- "If you're thinking about it …….
  - Do it.
  - Or call B-HIPP if you're unsure and want to talk about it, or need help with where to send someone

Maryland Behavioral Health Integration in Pediatric Primary Care (B-HIPP)

- Offering support to pediatric primary care providers through free:
  - Phone consultation (**855-MD-BHIPP**)
  - Training
  - Resource & referrals
  - Social work co-location (Salisbury University)

- Supported by funding from DHMH and MSDE

www.mdbhipp.org

University of Maryland School of Medicine

Johns Hopkins Bloomberg School of Public Health

Salisbury University

Using the B-HIPP Consultation Service

- Complete an enrollment form
- Call BHIPP at 855-MD-BHIPP
  - Consultation line is open Monday – Friday, 9am-5pm
  - Free of charge and available regardless of patient's insurance
  - Or fax us using the Consultation Request Form
- **Receive a written summary of the call**

Emergency planning

- Supervision
- Contacting added resources
  - Existing psychiatrist/therapist
  - Existing pediatrician
  - Crisis hotlines
    - Baltimore Crisis Response, (410) 752-2272
    - National hotlines
      - 1-800-SUICIDE / 1-800-784-2433
      - 1-800-273-TALK / 1-800-273-8255
- Evaluation
  - Sheppard Pratt Crisis Walk-In Clinic (CWIC) clinic 410-938-5302
  - Your local emergency room
- Police assistance / "emergency petition"
  - Can mandate and aid in obtaining an emergency evaluation

Case discussion

Summary

- Depression can be a serious illness that may present with both somatic and psychologic symptoms, so always consider underlying medical causes
- 90% of suicides occur in the context of psychiatric illness, especially depression and substance abuse
- Primary care providers are key front line providers positioned to screen, identify and treat depression

Resources

- http://aacap.org/cs/root/facts_for_families/the_depressed_child
- http://www.nimh.nih.gov/health/publications/depression-in-children-and-adolescents/depression-in-children-and-adolescents.pdf
- WWW.GLAD-PC.ORG
- Diagnostic and Statistical Manual of Mental Disorders, 5th edition, American Psychiatric Publishing, 2013

References

- AAP 2004 Task Force on Mental Health: https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Mental-Health/Pages/About-Us.aspx#sthash.26mlyCsw.dpuf
- Gardner W, Kelleher KJ, Pajer KA, Campo JV. Primary care clinicians' use of standardized tools to assess child psychosocial problems. Ambul Pediatr. 2003;3(4):191–195
- Screening, triage, and referral of patients who report suicidal thought during a primary care visit.. Gardner W, Klima J, Chisolm D, Feehan H, Bridge J, Campo J, Cunningham N, **Kelleher K**. Pediatrics. 2010 May;125(5):945-52
-
- Hacker KA, Penfold RB, Arsenault LN, Zhang F, Murphy M, Wissow LS. Behavioral health services following implementation of screening in **Massachusetts** Medicaid children. Pediatrics. 2014 Oct;134(4):737-46
- Lewandoski et al. Screening for and Diagnosis of Depression Among Adolescents in a Large Health Maintenance Organization**.** Psychiatr Serv. 2016 Feb 14:appips201400465. [Epub ahead of print]
- Weitzman C et al. Promoting Optimal Development: Screening for Behavioral and Emotional Problems. Pediatrics. 2015 Feb;135(2):384-95
- **Screening** to identify mental health problems in pediatric primary care: considerations for practice. **Brown** JD, **Wissow** LS. Int J Psychiatry Med. 2010;40(1):1-19.
- Wissow LS et al. Universal Mental Health Screening in Pediatric Primary Care: A Systematic Review. J Am Acad Child Adolesc Psychiatry 2013; 52(11):1134-47
- **Screening** for **Depression** in Children and Adolescents: US Preventive Services Task Force Recommendation Statement.
- Siu AL; US Preventive Services Task Force.
- **Pediatrics**. 2016 Mar;137(3):1-8. doi: 10.1542/peds.2015-4467. Epub 2016 Feb 8.

Acknowledgements

- Dr. Larry Wissow, Wissow and Hess Depression Guide, 2013
- Drs. Holly Wilcox and Karen Schwartz
- Dr. Terry Hargraves
- Dr. Rheanna Platt and B-HIPP team

University of Maryland School of Medicine

Johns Hopkins Bloomberg School of Public Health

Salisbury University