MOC Part 2 - Identifying and Caring for Children with Developmental, Behavioral, and Mental Health Disorders

Beth Bloom Emrick, MD April 20, 2024

- I have no financial disclosures
 - I served on the expert panel for the WV ADHD and Comorbid Concerns (WV ACC) Guidelines
- I will mention off-label uses of medication

Objectives

- 1. Recognize signs and symptoms of common developmental, behavioral, and mental health disorders.
- 2. Identify appropriate screening tools for developmental and mental health disorders.
- 3. Understand treatment of common developmental, behavioral, and mental health disorders.



CLINICAL PRACTICE GUIDELINE



Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents

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Tanya Froehlich, MD, MS, FAAP,^{o,p} Jennifer Frost, MD, FAAFP,^{q,r} Joseph R. Holbrook, PhD, MPH,^s
Christoph Ulrich Lehmann, MD, FAAP,^t Herschel Robert Lessin, MD, FAAP,^u Kymika Okechukwu, MPA,^v
Karen L. Pierce, MD, DFAACAP,^{w,x} Jonathan D. Winner, MD, FAAP,^y William Zurhellen, MD, FAAP,^z SUBCOMMITTEE ON CHILDREN AND ADOLESCENTS WITH ATTENTION-DEFICIT/HYPERACTIVE DISORDER

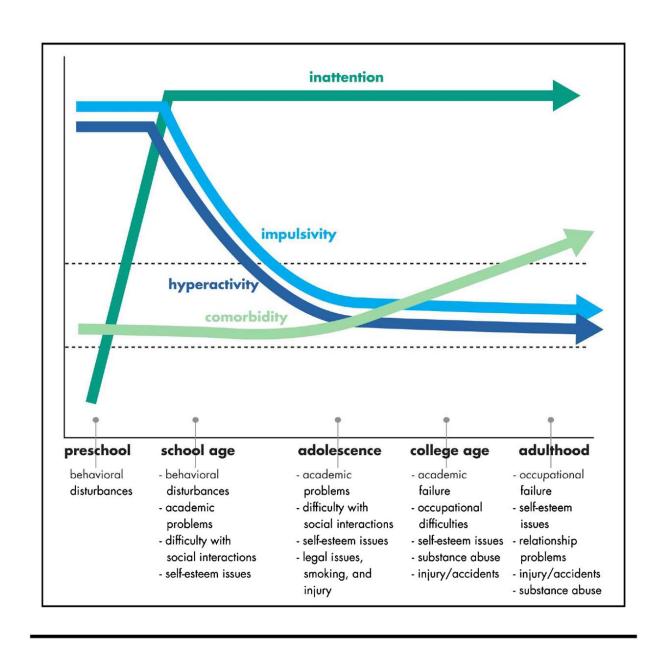
What is it?

- Update to the 2011 Guideline
- Recommendations for
 - Evaluation
 - Diagnosis
 - Treatment
- Children age 4-18 years

ADHD

- Worldwide prevalence of 7.2%
- 2016 US Survey 9.4% of children 2-17 years ever diagnosed
 - 8.4% have a current diagnosis
 - Includes 2.4% of 2-5 year olds
- 3/3 taking medication
- ½ received behavioral treatment in last year
- 1/4 had never received treatment

Impact of Development on ADHD



The Guideline

- Pediatrician or Primary Care Clinician (PCC) initiate an evaluation for ADHD for any child or adolescent 4 years to the 18th birthday who presents with
 - Academic or behavioral problems
 - Inattention
 - Hyperactivity
 - Impulsivity
- NOTE: Insufficient evidence to recommend diagnosis/treatment <4 years

 if substantial impairment, PCC should consider referral for parent training in behavior management

- PCC should determine that the DSM-5 criteria have been met
 - Symptoms in more than one setting
 - Parents
 - Teachers
 - Other school personnel
 - Rule out any alternative cause
- NOTE: Neuropsych testing has not been found to improve diagnostic accuracy, but may benefit in clarifying the learning strengths/weaknesses

Special Circumstance – Preschool-Aged Children

- DSM-5 can identify young children with ADHD
- DSM-5-based rating scales were normed for ages 5-18 years
- BUT any DSM-IV scale can be used minimal changes

• Parent training in behavior management is the preferred first treatment – even if diagnosis is not yet verified

Special Circumstance – Adolescents

- Multiple teachers
- Parents may have less opportunity to observe
- Some problems less likely to be observed
- Adolescents may minimize their symptoms

Get info from multiple sources

Special Circumstance - Adolescents

- Must have symptoms prior to age 12
- Consider whether a mimicking or comorbid condition is present
 - Anxiety
 - Depression
 - Substance use

- In evaluation for ADHD, must screen for comorbid conditions
 - Emotional/Behavioral
 - Anxiety
 - Depression
 - ODD
 - Conduct disorder
 - Developmental disorders
 - Learning/language disorders
 - ASD
 - Physical conditions
 - Tics
 - Sleep apnea

- ADHD is a chronic condition
- Manage as children with special healthcare needs
- Use chronic care and medical home model
 - Might be especially beneficial for parents who have ADHD
 - Might need extra support in following a consistent schedule for medications, appointments, etc.

- Impairments persist into adulthood
 - Increased risk for early death, suicide
 - Increased substance use disorders
 - Lower educational achievement
 - Increased rate of incarceration
- Treatment discontinuation associated with
 - MVA
 - Criminality
 - Violent reoffending
 - Depression
 - Interpersonal issues
 - Other injuries

Key Action Statement 5a (preschool children)

- 1st line:
 - PTBM
 - Behavioral classroom interventions
 - If available
- Methylphenidate may be considered if no significant improvement
- If evidence-based behavior management not available, weigh risk of medication vs. harm of delaying treatment

Key Action Statement 5b (school age – 6-11 years)

Prescribe FDA-approved medication for ADHD

AND

 PTBM and/or behavioral classroom intervention (preferably both)

 Evidence best for stimulant medications, less strong for atomoxetine and alphaagonists

Key Action Statement 5b (adolescents – 12-17 years)

Prescribe FDA-approved medication for ADHD

AND

 PTBM and/or behavioral classroom intervention (preferably both)

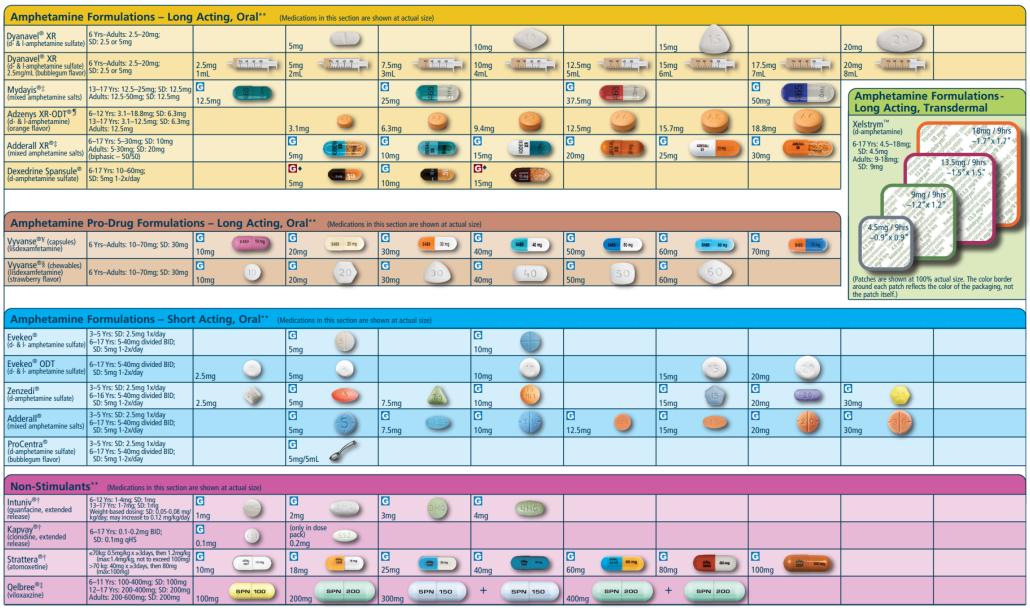
Begin planning for transition to adult care

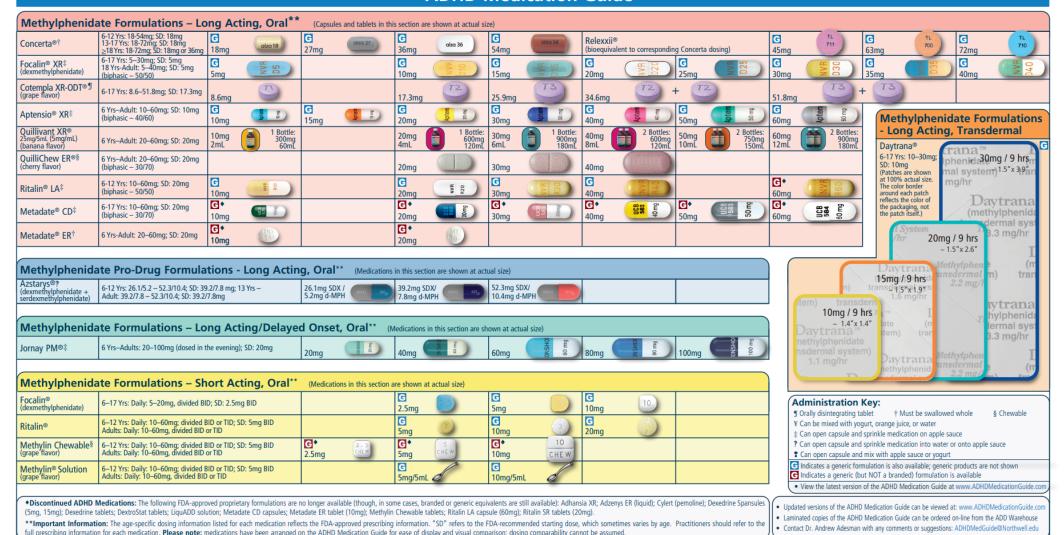
Which medication?

- Preschool-aged may have increased mood lability and dysphoria with stimulants
- School-aged best evidence for stimulants
 - Atomoxetine, ER-guanfacine, ER-Clonidine
- Response to methylphenidate vs. amphetamine is idiosyncratic
- ADHD subtype does not predict response to medication
- Not yet enough evidence to support pharmacogenetic testing

ADHD Medication Guide







*Disclaimer: The ADHD Medication Guide was created by Dr. Andrew Adesman of Northwell Health, Inc. Northwell Health is not affiliated with the owner nor is an owner of any of the medications or brands. The ADHD Medication Guide is a visual aid for professionals caring for individuals with ADHD. The Guide includes only medications previously tried, and may allow clinicians to identify ADHD medication options for the future. Practitioners should refer to the FDA-approved product information to learn more about each medication. Although every effort has been made to depict the true size and color of each medication depicted, we cannot guarantee there are not minor distortions.

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Conversion of Medications



Attention-Deficit/Hyperactivity Disorder (ADHD) Medication Conversion Aid*

Appendix 2.8

Attention-Deficit/Hyperactivity Disorder (ADHD) Medication Conversion Aid*						
Current Medication	Current Total Daily Dose (mg/day)	Conversion Factor	New Medication	Total Daily Dose (mg/day)		
Amphetamine Salts						
Mixed Amphetamine Salts Immediate-Release (IR)/ Extended-Release (ER)	20 mg	1	Mixed Amphetamine Salts IR/ER	20 mg (may divide IR dose in 1 to 3 equally divided doses)		
	20 mg	2	Methylphenidate HCI IR/ER	40 mg* (may divide IR dose in 1 to 3 equally divided doses)		
*Alternatively, consider switching amphetamines to methylphenidate at the same dose and titrating up						
Mixed Amphetamine Salts IR/ER	20 mg	2.5	Vyvanse (lisdexamfetamine dimesylate)	50 mg		
Mixed Amphetamine Salts IR/ER	20 mg	0.625	Adzenys XR-ODT, Adzenys ER (amphetamine) ODT- XR tablet and ER oral suspension	12.5 mg		
Adzenys XR-ODT,	12.5 mg	1.6	Mixed Amphetamine Salts	20 mg (may divide IR dose in 1 to 3		
Adzenys ER (amphetamine)			IR/ER	equally divided doses)		
ODT-XR tablet and ER oral suspension						
Lisdexamfetamine						
Vyvanse (lisdexamfetamine dimesylate)	10 mg	~0.77	Methylphenidate HCI IR/ER	7.7 mg* (may divide IR dose in 1 to 3 equally divided doses)		
Vyvanse (lisdexamfetamine dimesylate)	50 mg	0.4 - 0.6	Mixed Amphetamine Salts IR/ER	25 mg* (may divide IR dose in 1 to 3 equally divided doses)		

Attention-Deficit/Hyperactivity Disorder (ADHD) Medication Conversion Aid*							
Current Medication	Current Total Daily Dose (mg/day)	Conversion Factor	New Medication	Total Daily Dose (mg/day)			
Methylphenidate and Derivatives							
Aptensio XR (methylphenidate HCI) capsule	10 mg	1	Methylphenidate HCI IR/ER	10 mg (may divide IR products in 1 to 3 equally divided doses)			
Dexmethylphenidate HCI IR/ ER	10 mg	2	Methylphenidate HCI IR/ER	20 mg (may divide IR products in 1 to 3 equally divided doses)			
		1	Dexmethylphenidate HCl IR/ER	10 mg (may divide IR products in 1 to 3 equally divided doses)			
Methylphenidate HCI IR	15 mg (may divide IR dose in 1 to 3 equally divided doses)	~0.67	Daytrana (methylphenidate transdermal) patch	10 mg/ 9 hr wear time			
Daytrana (methylphenidate transdermal) patch	10 mg/ 9 hr wear time	1.5	Methylphenidate HCI IR	15 mg (may divide IR dose in 1 to 3 equally divided doses)			
Methylphenidate HCI IR/ER	20 mg	0.5	*The conversion of methylphenidate to dextroamphetamine/amphetamine is done at approximately ½ the dose of methylphenidate. However, it may be reasonable for children who are already receiving ≥ 20 mg/day methylphenidate to convert to dextroamphetamine-amphetamine at a starting dose of 10 mg once per day and titrate based on response.				
		1.3	Vyvanse (lisdexamfetamine dimesylate)	26 mg* (available in 20 mg, 30 mg)			
Concerta (methylphenidate osmotic release) ER tablets	18 mg	~0.56	Daytrana (methylphenidate transdermal) patch	10 mg/ 9 hr wear time			
Daytrana (methylphenidate transdermal) patch	10 mg/ 9 hr wear time	1.8	Concerta (methylphenidate osmotic release) ER tablets	18 mg			

The recommendation for the following medications is to start with the initial dose and titrate when switching due to pharmacokinetics and salt form differences*

Adhansia XR
Adzenys XR-ODT
(if switching to another product other than Adderall XR)
Azstarys

Dyanavel XR Evekeo ODT Jornay PM Mydayis QuilliChew ER Quillivant XR

School Programming and Supports





504 PLAN

INDIVIDUALIZED EDUCATION PROGRAM (OHI) – ONLY IF SEVERITY IMPAIRS THE CHILD'S ABILITY TO LEARN

School Programming and Supports

- Interventions that help student *independently* meet ageappropriate academic/behavioral expectations
 - Daily report cards
 - Point systems
 - Academic remediation
- Provide changes to student's program so ADHD no longer results in failure – accommodations
 - Extended time
 - Reduced homework
 - Ability to keep study materials
 - Provision of teacher's notes to student

- Titrate dose of medication to achieve maximum benefit with tolerable side effects
- MTA 70% responded to methylphenidate after systematic trial of 4 different doses
 - Those in community care had less response, but also lower medication doses
- Titration can be quick 7 day basis
- Make families aware that there will be trials and titration

 PCC should initiate treatment or refer patients for treatment of comorbid conditions

Barriers to High-Quality Care for Children and Adolescents with ADHD

- Limited access to care
 - Inadequate DBP/Mental Health training in clinical training programs
 - Focus on inpatient/ICU
 - Not enough training in setting up medical home
 - Shortage of consultant specialists and referral resources
 - 8300 Child psychiatrists
 - 662 DBP
 - Additional training increases education time and cost, but little return on investment in terms of compensation
 - Geographically skewed distribution of specialists
 - 44% of counties in the US do not have a pediatrician!

Suggested Strategies for Limited Access to Care

- Devote more time in pediatric and FM residency curricula to developmental, behavioral, learning, and mental health issues
- Teach skills to function within a medical home setting
- Affordable CME to help PCC get more comfortable treating ADHD
- Develop collaborative care models
- Incentives for additional training load forgiveness

Barrier – Inadequate Payment for Needed Services and Payer Coverage Limitations for Needed Medications

- Payment is not guaranteed despite diagnostic and procedure codes
- Restrictions to medication therapy
 - Prior approval reviewers not familiar with pediatrics
 - Narrow formularies
 - Favor 1 ADHD medication when another may be more appropriate
 - Frequent formulary changes
 - Generic preference
- Mental health services reimbursed lower than physical health
- Care coordination services not covered

Strategies to Address Payment and Medication Limits

- Policy changes
 - Review payment systems to reflect time and cognitive effort
 - Compensate needed services
 - New payment models
 - Require that reviewers have pediatric expertise
 - Advocate for better monitoring by FDA of ADHD medication generic formulations

Question 1

Which of the following is NOT true when diagnosing ADHD?

- A. Impairments must be seen in more than one setting
- B. Neuropsych testing improves diagnostic accuracy
- C. The Primary Care Clinician can initiate evaluation in children with symptoms of hyperactivity, inattention, or school difficulty
- D. Rating scales based on DSM-5 are available for children ages 5-18 years

Question 2

Which of the following is true when treating ADHD in preschool-aged children?

- A. Amphetamine-dextroamphetamine is the preferred medication treatment when medication is warranted
- B. Parent training in behavior management is the first-line treatment
- C. Parent training in behavior management should not be initiated until the diagnosis is confirmed
- D. Preschool-aged children cannot be diagnosed with ADHD

Which of the following makes diagnosis of ADHD more challenging in adolescents?

- A. Adolescents tend to exaggerate their symptoms
- B. Mimicking and comorbid conditions must be considered
- C. Parents have more opportunity to observe their behavior
- D. Symptoms must have been present before age 7 years

Accommodations in the classroom that could be useful for a student with ADHD include . . .

- A. Reduced homework
- B. Ability to keep study materials
- C. Provision of teacher's notes to student
- D. All of the above

Which of the following is true when choosing a medication to treat a school-aged child with ADHD?

- A. ADHD subtype does not predict response to medication
- B. Methylphenidate is more effective than amphetamine derivatives
- C. Nonstimulant medications are the first-line treatment
- D. Pharmacogenetic testing can predict which medication will have the best response



Society for Developmental and Behavioral Pediatrics Clinical Practice Guideline for the Assessment and Treatment of Children and Adolescents with Complex Attention-Deficit/Hyperactivity Disorder

Barbaresi, William J. MD (Guideline Panel Chair)*; Campbell, Lisa MD[†]; Diekroger, Elizabeth A. MD[‡]; Froehlich, Tanya E. MD[§]; Liu, Yi Hui MD, MPH[†]; O'Malley, Eva[¶]; Pelham, William E. Jr PhD, ABPP^{**}; Power, Thomas J. PhD, ABPP^{††}; Zinner, Samuel H. MD^{‡‡}; Chan, Eugenia MD, MPH^{*}

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Autism Spectrum Disorder

CLINICAL REPORT Guidance for the Clinician in Rendering Pediatric Care



Identification, Evaluation, and Management of Children With Autism Spectrum Disorder

Susan L. Hyman, MD, FAAP, Susan E. Levy, MD, MPH, FAAP, Scott M. Myers, MD, FAAP, COUNCIL ON CHILDREN WITH DISABILITIES, SECTION ON DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS

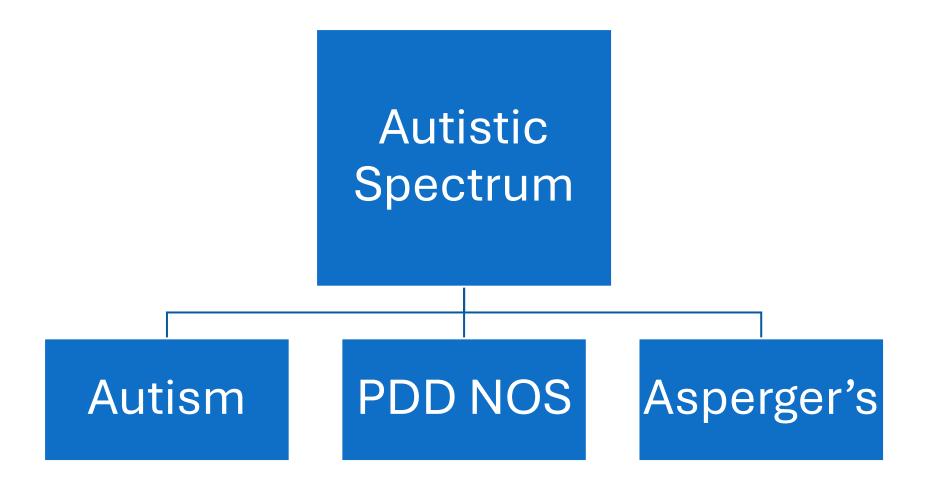
Autism Spectrum Disorder

- Neurodevelopmental disorder characterized by social and communication impairment and restricted or repetitive behaviors
- Direct and indirect costs of caring for individuals with ASD in the US in 2015 were estimated to be \$268 billion
- Lifetime cost of education, health, and other service needs for an individual with ASD ranges from \$1.4 to \$2.4 million dollars

The Clinical Report

- In the 12 year since the previous clinical report . . .
 - Prevalence rates of ASD in children increased
 - Understanding of risk factors expanded
 - More awareness of co-occurring medical conditions
 - Improved understanding of genetic etiology
 - Growth of evidence-based interventions
 - The DSM-5 changed the diagnostic criteria in 2013

DSM-IV Autism



DSM-5 Autism Spectrum Disorder

Autism Spectrum Disorder

Role of Primary Care

- Critical access to child in the medical home
 - Identify symptoms of ASD early in childhood
 - Support the family through the process of diagnosis and intervention
 - Address etiologic evaluations
 - Help the family understand how to interpret the evidence supporting interventions so they can engage in shared decision making
 - Manage co-occurring medical conditions

 In this report, they hoped to help guide primary care clinicians in providing a medical home for patients with ASD

Prevalence of ASD

- Prevalence is reported more than incidence
- Difficult to determine incidence
 - Heterogeneity in the symptoms and severity
 - Diagnosed at different ages
 - What is reported is the age at recognition of the symptoms, not the onset

Identified Prevalence of Autism Spectrum Disorder

ADDM Network 2000-2020 Combining Data from All Sites

O Company of the comp				
Surveillance Year	Birth Year	Number of ADDM Sites Reporting	Combined Prevalence per 1,000 Children (Range Across ADDM Sites)	This is about 1 in X children
2020	2012	11	27.6 (23.1-44.9)	1 in 36
2018	2010	11	23.0 (16.5-38.9)	1 in 44
2016	2008	11	18.5 (18.0-19.1)	1 in 54
2014	2006	11	16.8 (13.1-29.3)	1 in 59
2012	2004	11	14.5 (8.2-24.6)	1 in 69
2010	2002	11	14.7 (5.7-21.9)	1 in 68
2008	2000	14	11.3 (4.8-21.2)	1 in 88
2006	1998	11	9.0 (4.2-12.1)	1 in 110
2004	1996	8	8.0 (4.6-9.8)	1 in 125
2002	1994	14	6.6 (3.3-10.6)	1 in 150
2000	1992	6	6.7 (4.5-9.9)	1 in 150

"Why is Autism Increasing?"

"Why is Autism Increasing?" (aka "If it's not the vaccines, then what is it?")

- Broadening of the criteria over time as the DSM is revised
- The more inclusive definition of pervasive developmental disorder in DSM-IV (1994)
- Increased public awareness of ASD and its symptoms
- Recommendations for universal screening for ASD in primary care (2007)
- Increased availability of early intervention and school-based services
- Diagnostic substitution
- True increase associated with other biological risk factors

Clinical Symptoms

- Research into the neurobiology and genetics is ongoing
- Diagnosis still based on clinical symptoms

A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history; must have all 3 symptoms in this domain

Deficits	Examples
1. Social-emotional reciprocity	 Abnormal social approach and failure of normal back-and-forth conversation reduced sharing of interests, emotions, or affect failure to initiate or respond to social interactions
2. Nonverbal communicative behaviors used for social interaction	 Poorly integrated verbal and nonverbal communication abnormalities in eye contact and body language or deficits in understanding and use of gestures total lack of facial expressions and nonverbal communication
3. Developing, maintaining, and understanding relationships	 Difficulties adjusting behavior to suit various social contexts Difficulties in sharing imaginative play or in making friends Absence of interest in peers

B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least 2 of the following, currently or by history; must have 2 of the 4 symptoms

Deficits	Examples
1. Stereotyped or repetitive motor movements, use of objects, or speech	Simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal behavior	Extreme distress at small changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat food every day
3. Highly restricted, fixated interests that are abnormal in intensity or focus	Strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interest
4. Hyper- or hyporeactivity to sensory input or unusual interests in sensory aspects of the environment	Apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement

Co-occurring Symptoms and Conditions

- Sleep disorders
- Seizures
- ADHD
- Anxiety
- Mood disorders
- Food refusal
- Self injury
- Aggression

Prognosis

- Difficult to predict developmental trajectory
- More difficult to recognize mild symptoms in children under 3 years
- As children continue to develop, communication and social skills may improve
- Repetitive behaviors change over time
- IQ and language ability in childhood predict outcome in adulthood
- QOL in high functioning adults was associated more with family and community supports than their ASD symptoms

JAMA Pediatrics | Original Investigation

Persistence of Autism Spectrum Disorder From Early Childhood Through School Age

Elizabeth Harstad, MD, MPH; Ellen Hanson, PhD; Stephanie J. Brewster, MS, CGC; Rafael DePillis, BS; Anna L. Milliken, BA; Gabriella Aberbach, MSc; Georgios Sideridis, PhD; William J. Barbaresi, MD

- 37.1% did not continue to meet criteria
 - Initial diagnosis mean age 24.6 months
 - Research assessment age 74.3 months
- All of the children with nonpersistent ASD had IQ >70

Red Flag Symptoms

	Symptom
By 12 months	Does not respond to name
By 14 months	 Does not point at objects to show interest
By 18 months	Does not pretend play
General	 Avoids eye contact and may want to be alone Has trouble understanding other people's feelings or talking about their own feelings Has delayed speech and language skills Repeats words or phrases over and over (echolalia) Gives unrelated answers to questions Gets upset by minor changes Has obsessive interests Makes repetitive movements like flapping hands, rocking, or spinning in circles Has unusual reactions to the way things sound, smell, taste, look, or feel

Screening

- AAP recommends screening all children
 - Developmental surveillance at all visits
 - Standardized autism-specific screening tests at 18-24 months
- Identify children at risk for ASD based on symptoms
- "Primary care providers are tasked with identifying all children who would benefit from early intervention, not just children at risk for ASD."

Screening Tools for ASD

- M-CHAT-R/F
 - Most commonly used
 - Caregiver-completed questionnaire
 - Ages 16 to 30 months
 - 20 questions
 - ≥8 high risk, refer immediately
 - 3-7 follow up interview for the items scored positive
 - If they continue to score 3-7 items positive, 47% risk of having ASD diagnosed, 95% chance of being identified from another delay that would benefit from intervention

Barriers to Identifying Risk for ASD

- Milder symptoms and/or average or higher IQ may not be identified early
- Underdiagnosis in girls due to lesser intensity of symptoms and fewer externalizing behaviors
- Coexisting conditions may impede recognition of symptoms

A definitive diagnosis is not necessary to institute services for documented delays that would be served through early intervention or school services.

Making the Diagnosis

- Most children will need to see a specialist, but general pediatricians comfortable with applying the DSM-5 criteria can make an initial diagnosis
 - Facilitates start of services
- To meet criteria, symptoms must impair function
- There are no laboratory tests that can help make the diagnosis!

Structured Observations for Evaluation

- Not required to make a diagnosis "support application of the DSM-5 criteria"
- Autism Diagnostic Observation Schedule (ADOS-2)
 - Structured interview or play session
 - Modules for different ages
- Childhood Autism Rating Scale (CARS)
 - 15-point scale completed by clinician based on history and observation

Evaluation of Co-occurring Developmental Concerns

- Cognitive testing
- Language Testing
- Adaptive Function Testing
- Motor Assessment
- Hearing
- Vision
- Sensory*



Autism Diagnosis in Primary Care

Home / Patient Care / Autism Spectrum Disorder / Autism Diagnosis in Primary Care

Why diagnose ASD in the medical home?

- Reducing wait times
- Improving continuity of care
- Reducing disparities in access to diagnostic services
- Assisting family in better understanding their child's strengths and needs for support

If you need something to listen to on the drive home . . .





Listen to the Science Behind Child Health.

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Pediatrics On Call

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EPISODE 197

NEW EPISODES

Diagnosing Autism in the Medical Home, How Moving Affects Access to Social Services

Katharine Zuckerman, MD, MPH, FAAP, offers advice from a new tip sheet about diagnosing autism in the medical home. Hosts David Hill, MD, FAAP, and Joanna Parga-Belinkie, MD, FAAP, also speak with Kathryn Leifheit, PhD, MSPH, about her research into how moving affects families' access to social services.

LISTEN NOW

What is the next best step when a child fails 5 items on the M-CHAT-R/F?

- A. Administer the follow up interview for the failed items
- B. Make a diagnosis of Autism Spectrum Disorder
- C. Refer for diagnostic evaluation
- D. Refer for early intervention and diagnostic evaluation

What is the next best step when a child fails more than 8 items on the M-CHAT-R/F?

- A. Administer the follow up interview for the failed items
- B. Make a diagnosis of Autism Spectrum Disorder
- C. Refer for diagnostic evaluation
- D. Refer for early intervention and diagnostic evaluation

Why is the prevalence of autism increasing?

- A. Increased availability of early intervention and school-based symptoms
- B. Increased public awareness of symptoms
- C. Recommendations for universal screening in primary care
- D. All of the above

Which of the following is true about the DSM-5 criteria for ASD?

- A. All of the social-communication deficits to meet criteria for ASD
- B. All of the restricted, repetitive behaviors criteria to meet criteria for ASD
- C. Sensory issues are not included in the criteria
- D. ASD cannot be diagnosed in combination with ADHD

Which of the following is true of diagnosing ASD?

- A. Autism Diagnostic Observation Schedule (ADOS-2) testing is required for diagnosis
- B. Structures evaluations can be used to support application of the DSM-5 criteria
- C. Intervention should be delayed until an official diagnosis is made
- D. Only a Developmental-Behavioral Pediatrician or child psychologist can diagnose ASD

Anxiety



Clinical Practice Guideline for the Assessment and Treatment of Children and Adolescents With Anxiety Disorders

Heather J. Walter, MD, MPH, Oscar G. Bukstein, MD, MPH, A. Reese Abright, MD, Helene Keable, MD, Ujjwal Ramtekkar, MD, MPE, MBA, Jane Ripperger-Suhler, MD, Carol Rockhill, MD, PhD, MPH

Anxiety

- 7% of youths worldwide at any given time
- 20-30% lifetime prevalence

Diagnosis	Lifetime Prevalence, Youth 13-18 years
Specific phobia	20%
Social anxiety	9%
Separation anxiety	8%
Generalized anxiety Panic Agoraphobia	2% each

Age of onset

- Median age of anxiety disorders about 11 years
- Each anxiety disorder often onsets during a specific developmental phase
 - Separation anxiety preschool/early school-age
 - Specific phobias school age
 - Social anxiety later school age and early adolescence
 - Generalized anxiety, panic, and agoraphobia later adolescence and adulthood

Sequelae

- Impairments in multiple adult outcomes if untreated
 - Social
 - Educational
 - Occupational
 - Health
 - Mental health
- 9% of adolescents with anxiety have suicidal ideation
 - 6% made attempts

Identification

Evidence Assessment The USPSTF concludes with moderate certainty that screening for anxiety in children and adolescents aged 8 to 18 years has a moderate net benefit. The USPSTF concludes that the evidence is insufficient on screening for anxiety in children 7 years or younger.

The Anxiety Disorders

- Separation anxiety developmentally inappropriate, excessive worry or distress associated with separation from a primary caregiver or major attachment figure
- Selective mutism absence of speech in certain social situations despite the presence of speech in other situations (usually at home).
- Specific phobia excessive fear or worry about a specific object or situation
- Social anxiety excessive fear or worry about being negatively evaluated by others in social situations
- Panic (ie, abrupt surge of intense fear or discomfort) recurrent unexpected panic attacks with physical and cognitive manifestations

The Anxiety Disorders

- Agoraphobia excessive fear or worry about being in situations (eg, crowds, enclosed spaces) in which the individual may be unable to escape or get help should panic-like or other overwhelming or embarrassing symptoms occur.
- Generalized anxiety excessive, uncontrollable worries regarding numerous everyday situations or activities.
- Substance/ medication-induced anxiety and anxiety due to another medical condition anxiety occurring in the context of substance/medication use or a physical illness.

Symptom Rating Scales

- Generalized Anxiety Disorder (GAD-7)
 - Ages 11 to adult
 - 7 questions plus one about impairment
- Screen for Child Anxiety Related Disorders (SCARED)
 - Parent and child versions
 - Ages 8-18 years
 - 41 questions
 - 5 domains: GAD, separation anxiety, social anxiety, panic or somatic symptoms, and school avoidance

Differential Diagnosis

- Medical conditions
- Medications
- Licit and illicit substances
- Mental conditions
 - ADHD distractibility, restlessness
 - Depression distractibility, somatic complaints
 - Bipolar disorder distractibility, restlessness, irritability, insomnia
 - Obsessive-compulsive disorder intrusive thoughts, avoidance, reassurance seeking
 - Psychotic disorders restlessness, agitation, social withdrawal, distractibilty
 - ASD social withdrawal, social skills deficits, distractibility
 - Learning disorders worry about school performance

Treatment Recommendations

- 1. AACAP recommends (1C) that cognitive-behavioral therapy (CBT) be offered to patients 6 to 18 years old with social anxiety, generalized anxiety, separation anxiety, specific phobia, or panic disorder.
- 2. AACAP recommends (1B) that selective serotonergic reuptake inhibitors (SSRIs) be offered to patients 6 to 18 years old with social anxiety, generalized anxiety, separation anxiety, or panic disorder.

SSRIs

- What to expect
 - Statistically significant improvement within 2 weeks
 - Clinically significant improvement by week 6
 - Maximal improvement by week 12 or later
- Generally well tolerated; most adverse effects emerge early in treatment (first few weeks)
 - Dry mouth, diarrhea, heartburn, headache, somnolence, insomnia, dizziness, vivid dreams, changes in appetite, weight loss or gain, fatigue, nervousness, tremor, bruxism, and diaphoresis
 - Potentially serious suicidal thinking and behavior, activation/agitation, hypomania, mania, sexual dysfunction, seizures, serotonin syndrome

SSRIs and Suicidal Ideation

- All SSRIs have a black box warning for suicidal thinking and behavior through age 24 years
- Pooled absolute rates for suicidal ideation:
 - 1% for youth treated with SSRI
 - 0.2% for youths treated with placebo
- Number needed to harm 143
- Number needed to treat to achieve response 3

Serotonin Syndrome

Signs and symptoms include:

- Agitation or restlessness
- Insomnia
- Confusion
- Rapid heart rate and high blood pressure
- Dilated pupils
- Loss of muscle coordination or twitching muscles
- High blood pressure
- Muscle rigidity
- Heavy sweating
- Diarrhea
- Headache
- Shivering
- Goose bumps

Severe serotonin syndrome can be life-threatening. Signs include:

- High fever
- Tremor
- Seizures
- Irregular heartbeat
- Unconsciousness

- 3. AACAP suggests (2C) that combination treatment (CBT and an SSRI) could be offered preferentially over CBT alone or an SSRI alone to patients 6 to 18 years old with social anxiety, generalized anxiety, separation anxiety, or panic disorder.
- 4. AACAP suggests (2C) that serotonin norepinephrine reuptake inhibitors (SNRIs) could be offered to patients 6 to 18 years old with social anxiety, generalized anxiety, separation anxiety, or panic disorder.

At what age do children typically display separation anxiety?

- A. Preschool
- B. School age
- C. Later school age
- D. Adolescence

Which symptom rating scale would be more likely to identify symptoms of social anxiety?

- A. Generalized Anxiety Disorder 7-item
- B. Mood and Feelings Questionnaire
- C. Preschool Feelings Checklist
- D. Screen for Child Anxiety Related Disorders

Which of the following is recommended by AACAP for treatment of generalized anxiety in children?

- A. Cognitive-behavioral therapy
- B. Dialectical behavioral therapy
- C. Interpersonal psychotherapy
- D. Play therapy

Which class of medications is recommended by AACAP for treatment of anxiety?

- A. Antihistamines
- B. Atypical antipsychotics
- C. Benzodiazepines
- D. Selective Serotonergic reuptake inhibitors?

Which of the following is true of SSRIs?

- A. Statistically significant improvement is seen within 48 hours
- B. Maximal improvement is seen by week 2
- C. Adverse effects occur late in treatment
- D. Black box warning is for suicidal thinking and behavior through age 24 years

Which of the following symptoms could indicate severe serotonin syndrome?

- A. High fever
- B. Tremor
- C. Seizures
- D. All of the above

DEPRESSION

Prevalence

- At any given time, nearly 3% of youth worldwide
- Major Depressive Disorder
 - Lifetime prevalence in US 11%
 - Past-year prevalence in US 7.5%
- Dysthymia
 - Lifetime prevalence 1.8%
 - Past-year prevalence 1.3%
- Nearly 30% reported suicidality in the past year; >10% reported an attempt

Depression - DSM-5

- ≥5 symptoms in a 2 week period and represent a change from previous functioning (must have #1 or #2)
 - 1. Depressed mood most of the day, nearly very day, as indicated by subjective report (feels sad, empty, hopeless) or observation made by others (appears tearful)
 - NOTE: in children, can be irritable mood
 - 2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (subjective account or observation)

Depression – DSM-5

- 3. Significant weight loss when not dieting or weight gain (change of ≤5% of body weight in a month) or decrease or increase in appetite nearly every day
 - NOTE: In children, failure to make expected weight gain
- 4. Insomnia or hypersomnia
- 5. Psychomotor agitation or retardation
- 6. Fatigue or loss of energy
- 7. Feelings of worthlessness or excessive or inappropriate guilt
- 8. Diminished ability to think or concentrate, or indecisiveness
- 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

Depression – DSM-5

- Symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning
- The episode is not attributable to the physiological effects of a substance or to another medical condition
- Not better explained by another disorder
- There has never been a manic episode or hypomanic episode

Focused Symptom Rating Scales

- Patient Health Questionnaire (PHQ)-9 Modified for Teens
 - Ages 12-18 years
 - 9 questions
- Mood and Feelings Questionnaire
 - Ages 6-19 years
 - 6 versions
 - Child self-report, parent-report, adult-self report
 - Long (33 questions) and short (9 questions) version of each
- Preschool Feelings Checklist
 - Preschoolers ages 3.0-5.6 years
 - 20 questions, parent report

Treatment

1. AACAP suggests (2I) that cognitive-behavioral therapy and interpersonal therapy could be offered to adolescents and children with major depressive disorder or persistent depressive disorder.

Treatment

- 2. AACAP suggests (2I) that selective serotonin reuptake inhibitor medication (except paroxetine), preferably fluoxetine, could be offered to adolescents and children with major depressive disorder.
- 3. AACAP suggests (2I) that combination treatment (cognitive-behavioral therapy plus fluoxetine) could be offered to adolescents and children with major depressive disorder.

What symptom may be seen in children with depression in place of depressed mood?

- A. Agitation
- B. Anhedonia
- C. Irritable mood
- D. Dysthymia

Which depression symptom rating scale would be appropriate for use in an 8-year-old?

- A. Child Behavior Checklist
- B. Mood and Feelings Questionnaire
- C. Patient Health Questionnaire (PHQ-9) Modified for Teens
- D. Preschool Feelings Checklist

What is the preferred SSRI for treatment of major depressive disorder in adolescents and children?

- A. Citalopram
- B. Fluoxetine
- C. Sertraline
- D. Paroxetine

Which SSRI is not recommended for treatment of depression in adolescents and children with major depression?

- A. Citalopram
- B. Fluoxetine
- C. Sertraline
- D. Paroxetine

SUICIDE

CLINICAL REPORT Guidance for the Clinician in Rendering Pediatric Care



Suicide and Suicide Risk in Adolescents

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Addressing Suicide Risk

- Goal: promote protective factors and minimize risk factors
- Questions to consider:
 - Do you feel connected to your family?
 - Do you feel supported by your family?
 - Do you have a supportive friend group?
 - How would your good friends describe you?
 - Are you religious or spiritual?
 - What do you think you're good at?
 - What are you proud of?
 - Are you part of any school groups?
 - For parents: What are your child's strengths?

When to Screen

- Evolving
 - AAP recommends screening ALL youth ages 12 years and older at least annually
 - 2022 US Preventive Services Task Force insufficient evidence for routine screening for suicide risk in primary care
 - Joint Commission requires screening for anyone 12 years and over admitted for a primarily mental health concern
 - Many hospitals have made this unviersal

How to Screen

- PHQ-9 Modified for Adolescents has 4 extra questions, including
 - "Has there been a time in the past month when you have had serious thoughts about ending your life?"
 - "Have you ever, in your whole life, tried to kill yourself or made a suicide attempt?
- HOWEVER not validated as a suicide risk screening tool
- AAP discourages use of PHQ-9 Modified for Adolescents as a suicide screening tool
- It can be used with the Ask Suicide Screening Questions (ASQ) to screen for both depression and suicide risk

Ask Suicide Screening Questions (ASQ)

- 1. In the past few weeks, have you wished you were dead?
- 2. In the past few weeks, have you felt that you or your family would be better off if you were dead?
- 3. In the past weeks, have you been having thoughts of killing yourself?
- 4. Have you ever tried to kill yourself?
- (If yes to any of the questions 1–4, then ask question 5.)
- 5. Are you having thoughts of killing yourself now?

Managing Positive Suicide Risk Screens: Using a Brief Suicide Safety Assessment

- Used in positive screens to determine disposition is there need for more comprehensive mental health evaluation?
- "Ideally, practices have access to a behavioral health specialist who can administer the BSSA."
- 2 freely-available BSSAs
 - ASQ BSSA
 - Columbia Suicide Severity Rating Scale

Safety Planning

- Can be effective as a brief intervention for reduction of suicide risk
- Patient works with a healthcare provider to create a list of personalized coping strategies, including
 - Warning signs of impending SI or behavior
 - Reliable coping strategies one can engage in oneself
 - People and places that can provide distractions if internal coping strategies are not sufficient
 - Trusted people who can help when necessary
 - Professional support resources
 - Information on limiting access to lethal means of suicide

Safety Planning is NOT the same as no-harm or no-suicide contracts

- Contracts are not recommended
 - Lack of data to support efficacy
 - Patients may feel they are coercive and not disclose SI because they fear they would disappoint their provider
 - Do not include coping mechanisms

STANLEY - BROWN SAFETY PLAN

STEP 1: WARNING SIGNS:	
1	
2	
3	
STEP 2: INTERNAL COPING STRATEGIES – THIN WITHOUT CONTACTING ANOTHER PERSON:	IGS I CAN DO TO TAKE MY MIND OFF MY PROBLEMS
1	
2	
3	
TEP 3: PEOPLE AND SOCIAL SETTINGS THAT P	ROVIDE DISTRACTION:
1. Name:	Contact:
2. Name:	Contact:
3. Place:	4. Place:
STEP 4: PEOPLE WHOM I CAN ASK FOR HELP D	DURING A CRISIS:
1. Name:	Contact:
2. Name:	Contact:
3. Name:	Contact:
STEP 5: PROFESSIONALS OR AGENCIES I CAN	CONTACT DURING A CRISIS:
1. Clinician/Agency Name:	Phone:
Emergency Contact :	
2. Clinician/Agency Name:	Phone:
Emergency Contact :	
• , ,	
4. Suicide Prevention Lifeline Phone: 1-800-27	3-TALK (8255)
TEP 6: MAKING THE ENVIRONMENT SAFER (F	PLAN FOR LETHAL MEANS SAFETY):
1	

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Stanley-Brown Safety Planning Intervention

Assessment for Access to Lethal Means

- Assess for lethal means, especially firearms, during preventive care visits and provide counseling to decrease or eliminate access
 - Firearms
 - Medications
 - Illicit substances
 - Knives, ropes, and other lethal means
- If firearms are present, discuss ways to temporarily store them outside the home

Guidance for Pediatricians and Pediatric Health Care Providers

- Be mindful of individual, relationship, and community/ societal factors, including history of trauma or other adversity, when assessing suicide risk in patients.
- Screen for suicide risk as part of well-child visits starting at 12 years of age and during higherrisk situations, such as any presentation of a behavioral or mental health concern or for youth with additional risk factors.
- Be aware that screening only for depression is not sufficient to identify suicide risk.
- Screen for suicide risk during ED visits and medical hospitalizations.
- Screen for substance use disorders, because substance use is often associated with depression and self-treatment and is a risk factor for suicidal thoughts and behaviors.
- If suicide screen is positive, conduct a BSSA and subsequent safety planning and/or referrals as appropriate.
- For all adolescent health supervision visits, and especially visits with adolescents who have suicidal thoughts, assess for access to lethal means, with counseling on safe firearm and medication storage.
- Removal of firearms and medications from the home entirely should also be assessed, especially if an adolescent is having SI.

Guidance for Pediatricians and Pediatric Health Care Providers

- Include the family in suicide prevention and treatment efforts, when possible, because family-based interventions have been shown to be effective in preventing future suicide attempts in youth.
- During health supervision visits and visits addressing mental health concerns, counsel families around sleep hygiene, community engagement, and connectedness, because these factors can help to promote emotional wellness and may be protective against suicidal thoughts.
- Treat depression with a referral to a psychotherapist and with antidepressant medication, when indicated, because depression increases the risk of suicide.
- When indicated and available, refer to a child and adolescent psychiatrist or other mental health provider.
- Be aware of use of language when speaking with youth and families about suicide. Attempt to replace questionable terminologies with sensitive terminologies as follows:
 - Use "die by suicide" instead of "commit suicide."
 - Use "death by suicide" instead of "successful suicide."
 - Use "suicide attempt" instead of "failed suicide attempt."

When does the AAP recommend screening for suicide risk?

- A. All youth ages 12 and older at least annually
- B. All youth 12 years and over admitted for a primarily mental health concern
- C. All youth 12 years and older when presenting to clinic with a mental health complaint
- D. AAP found insufficient evidence to recommend routine screening for suicide risk in primary care

Which of the following can be used to screen for suicide risk?

- A. Ask Suicide Screening Questions
- B. Behavior Assessment System for Children
- C. Mood and Feelings Questionnaire
- D. PHQ-9 Modified for Adolescents

If a patient has a positive screen on the Ask Suicide Screening Questions, what is the next best step?

- A. Administer a Brief Suicide Safety Assessment
- B. Admit for psychiatric evaluation
- C. Arrange for nonurgent mental health follow up
- D. No follow up is necessary

Which of the following coping strategies may be listed during safety planning for a patient with suicide risk?

- A. Warning signs of impending SI or behavior
- B. Professional support resources
- C. Information on limiting access to lethal means of suicide
- D. All of the above

Which of the following is a sensitive term that is recommended when speaking with youth and families about suicide?

- A. Commit suicide
- B. Die by suicide
- C. Successful suicide
- D. Failed suicide attempt