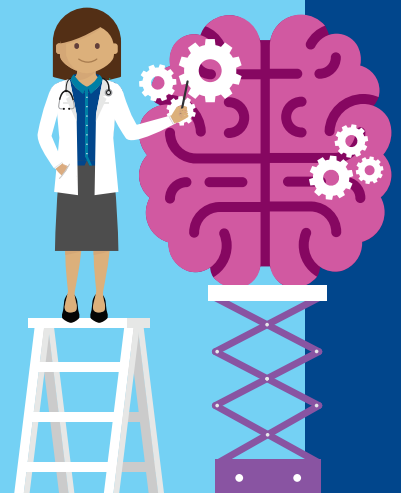


BUILDING BRIDGES OF **UNDERSTANDING**

Behavioral Health Education
for Pediatric Primary Care

Clinical Manual for Pediatric Practitioners



Boston Children's Hospital
Where the world comes for answers



HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL

This Manual is dedicated to pediatric primary care practitioners everywhere, who work tirelessly every day to enhance the health and well-being of children and adolescents.

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»» MANUAL AUTHOR

Heather J Walter, MD, MPH (Child & Adolescent Psychiatry)
Boston Children's Hospital
Harvard Medical School
Pediatric Physicians' Organization at Children's
Massachusetts Child Psychiatry Access Program

»» GRAPHIC DESIGNER

Zoë Judd, MS
Boston Children's Hospital

»» REVIEWERS

David R DeMaso, MD (Child & Adolescent Psychiatry)
Boston Children's Hospital
Harvard Medical School

Louis Vernacchio, MD, MSc (Pediatrics)
Pediatric Physicians' Organization at Children's
Boston Children's Hospital
Harvard Medical School

Betsy Brooks, MD, MPH (Pediatrics)
Pediatric Physicians' Organization at Children's
Boston Children's Hospital

Bhavana Arora, MD, MBA (Pediatrics)
Children's Hospital Los Angeles Health Network
Children's Hospital Los Angeles

David Krol, MD, MPH (Pediatrics)
Connecticut Children's Care Network
Connecticut Children's Hospital

Jonas Bromberg, PsyD (Clinical Psychology)
Pediatric Physicians' Organization at Children's
Boston Children's Hospital
Harvard Medical School

»» COLLABORATORS

Pediatric Physicians' Organization at Children's
Children's Hospital Los Angeles
Connecticut Children's Hospital

CREDENTIALS

Dr. Walter is the Medical Director for Behavioral Health, Pediatric Physicians' Organization at Children's, the Medical Co-Director, Massachusetts Child Psychiatry Access Program, Senior Attending Psychiatrist, Boston Children's Hospital, and Senior Lecturer on Psychiatry, Harvard Medical School. Dr. Walter completed her general psychiatry training at New York University Medical Center/Bellevue Hospital and her child and adolescent psychiatry training at Columbia University Medical Center/The New York State Psychiatric Institute. She also completed training in preventive medicine at UCLA Medical Center and earned her MPH degree in epidemiology at the UCLA School of Public Health. Dr. Walter has achieved board certification in General Psychiatry, Child and Adolescent Psychiatry, General Preventive Medicine, and Public Health and has practiced child and adolescent psychiatry in New York, Chicago, and Boston for over 30 years. In addition to clinical work, Dr. Walter's career has encompassed research, education, clinical administration, and advocacy. Dr. Walter has over 150 published works reporting the findings from her research and educational innovations, including more than 25 national clinical practice guidelines for child and adolescent psychiatry and multiple chapters on pediatric behavioral health in leading child and adolescent psychiatry and pediatric textbooks, including Dulcan's Textbook of Child and Adolescent Psychiatry, the Nelson Textbook of Pediatrics, and Mental Health Care of Children and Adolescents – A Guide for Primary Care Clinicians. Dr. Walter has held major administrative positions at multiple academic medical centers, including Director of School Psychiatry at Columbia University Medical Center, Director of Outpatient Child and Adolescent Psychiatry at Northwestern University/Children's Memorial Hospital, and Chief of Child and Adolescent Psychiatry at Boston Medical Center. She has held multiple leadership positions at the American Academy of Child and Adolescent Psychiatry (AACAP) and has been honored with multiple AACAP awards, including the Simon Wile Award for Leadership in Pediatric Consultation Psychiatry, the Catchers in the Rye Award for Outstanding Work on Behalf of Children and Adolescents, and Distinguished Life Fellow. Prior to coming to Harvard Medical School, Dr. Walter achieved the rank of Professor of Psychiatry and Behavioral Sciences at Northwestern University Feinberg School of Medicine and Professor of Psychiatry and Pediatrics and Vice-Chair of Psychiatry at Boston University School of Medicine.

Ms. Judd is the Graphic Designer for the Behavioral Health Education in Pediatric Primary Care program in the Department of Psychiatry at Boston Children's Hospital. Ms. Judd has a background in early childhood education with degrees from the University of Massachusetts Amherst in Communication Disorders and Psychology, with a concentration in Education. She studied graphic design at the University of Massachusetts Lowell, and received her MS in Experience Design from Northeastern University. Ms. Judd has a special interest in designing health and wellness educational materials for pediatric patients and their families.

Dr. DeMaso is the Psychiatrist-in-Chief and Leon Eisenberg Chair in Psychiatry, Boston Children's Hospital and George P. Gardner – Olga E. Monks Professor of Child Psychiatry and Professor of Pediatrics at Harvard Medical School. Dr. DeMaso completed his pediatric internship at Massachusetts General Hospital, his general psychiatry training at Duke University Medical Center and his child and adolescent psychiatry training at Boston Children's Hospital/Judge Baker Guidance Center. He also completed training in pediatric consultation liaison psychiatry at Boston Children's Hospital. Dr. DeMaso has board certification in General Psychiatry and Child and Adolescent Psychiatry and has practiced child and adolescent psychiatry in Boston for nearly 40 years. In addition to clinical work, Dr. DeMaso's career has encompassed research, administration, and advocacy. Dr. DeMaso has over 200 published works reporting the findings from his clinical and research innovations, including multiple chapters on pediatric behavioral health in the Nelson Textbook of Pediatrics and Mental Health Care of Children and Adolescents – A Guide for Primary Care Clinicians. He also co-edited the genre-leading Textbook on Pediatric Psychosomatic Medicine and co-authored the genre-leading Clinical Manual of Pediatric Psychosomatic Medicine (now re-titled the Clinical Manual of Pediatric Consultation-Liaison Psychiatry). Dr. DeMaso has held top leadership positions at the American Academy of Child and Adolescent Psychiatry, and has earned multiple awards from AACAP, including the Simon Wile Award for Leadership in Pediatric Consultation Psychiatry, the Klingenstein Third Generation Foundation Award for Research in Depression or Suicide, the Catchers in the Rye Advocacy Award, the Outstanding Mentor Award, and Distinguished Life Fellow.

Dr. Vernacchio is a partner and primary care pediatrician at Longwood Pediatrics, LLP, the Chief Medical Officer of the Pediatric Physicians' Organization at Children's, and Associate Professor, Part-time of Pediatrics at Harvard Medical School. Dr. Vernacchio received his MD from the Johns Hopkins University School of Medicine and completed his pediatric residency at Boston Children's Hospital. He also completed an NIH-funded research fellowship in Epidemiology at the Boston University School of Public Health. Dr. Vernacchio has practiced primary care pediatrics at Longwood Pediatrics, LLP, a large private group pediatric practice in Boston, MA, for over 20 years. In addition to his clinical work, Dr. Vernacchio has performed clinical research and quality improvement work related to primary care pediatrics in various capacities, culminating in his current position as Chief Medical Officer of the Pediatric Physicians' Organization at Children's, a network of independent pediatric practices affiliated with Boston Children's Hospital. Dr. Vernacchio is the author of over 50 published works related to primary care pediatrics.

Dr. Brooks is Associate Medical Director, Pediatric Physicians' Organization at Children's (PPOC). She has practiced for more than 30 years as a primary care pediatrician at a large independent private practice serving a diverse population in Holyoke, Massachusetts. After receiving her BA from Harvard College and her MD from Harvard Medical School, she completed an internship at Johns Hopkins and a residency at the University of Massachusetts Medical School. She also completed her MPH at the Columbia University Mailman School of Public Health. Dr. Brooks is a Fellow of the American Academy of Pediatrics, and has been an Assistant Clinical Professor of Pediatrics at Tufts Medical School. She has served in various advocacy positions in her community and through the Massachusetts Academy of Pediatrics. Dr. Brooks is interested in primary care approaches to improving health care quality for common pediatric conditions including obesity, asthma, and behavioral health problems. She chaired her practice's Quality Improvement committee and has implemented projects to improve primary care delivery of behavioral health services, including projects to screen, evaluate and treat adolescent depression and to improve the diagnosis and treatment of attention-deficit/hyperactivity disorder (ADHD). She served as a consultant on the implementation of systematic behavioral health screening for the Massachusetts Children's Behavioral Health Initiative, as clinical faculty for the revision of the National Institute for Children's Health Quality (NIHQ)/American Academy of Pediatrics (AAP) ADHD toolkit, and as a collaborator in a pilot to implement the Guidelines for Adolescent Depression in Primary Care (GLAD-PC).

Dr. Arora is the Chief Medical Officer of the Children's Hospital Los Angeles Health Network, a clinically integrated network of independent pediatric practices. Dr. Arora is committed to supporting affiliated pediatricians in providing high quality patient- and family-centered care in the communities they serve. Dr. Arora has championed a special focus in training and education for the network in mental health, expanding capacity for pediatricians to treat conditions in their practice and develop a set of resources and community partners to create an ecosystem around mental and behavioral health care. This is in addition to spearheading numerous other quality programs including but not limited to obesity, asthma and sports medicine. Prior to her current role at Children's Hospital Los Angeles, Dr. Arora served as Assistant Utilization Management Director and Chair of the Department of Pediatrics for the Providence Health System. She also served on the board of Providence Health Network and as the Quality Director for Providence Health Network. Dr. Arora is Board-certified in General Pediatrics and completed her residency training at Mattel Children's Hospital, University of California Los Angeles. She also has a Master's in Business Administration from University of Massachusetts, Amherst.

Dr. Krol is a pediatrician and Medical Director of the Connecticut Children's Care Network. He brings to his work over 20 years of experience and leadership in clinical practice, policy, research, education, administration, and advocacy. Dr. Krol received his MD from the Yale University School of Medicine, completed his residency in pediatrics at Rainbow Babies and Children's Hospital, Cleveland, and received an MPH from the Mailman School of Public Health, Columbia University. He is an alumnus of the Robert Wood Johnson Clinical Scholars program and a former Bush Fellow in Child Development and Social Policy at Yale University. Dr. Krol is a diplomate of the American Board of Pediatrics and a Fellow of the American Academy of Pediatrics.

Dr. Bromberg is Program Director of the Behavioral Health Integration Program (BHIP), Pediatric Physicians' Organization at Children's, Attending Psychologist, Boston Children's Hospital, and Instructor in Psychology, Harvard Medical School. Dr. Bromberg also practices clinical psychology at a private, non-profit health agency in Wellesley, Massachusetts. Dr. Bromberg earned his PsyD in Clinical Psychology from the Massachusetts School of Professional Psychology (now William James College). Dr. Bromberg completed his internship in Clinical Psychology in a combined program at Boston Children's Hospital, Dana Farber Cancer Institute, and Judge Baker Children's Center. He completed post-doctoral fellowships in health psychology at Boston Children's Hospital, and the Linda Pollin Institute at Harvard Medical School. Dr. Bromberg is a licensed clinical psychologist in the Commonwealth of Massachusetts. He has extensive training and experience in the development, dissemination, implementation, and testing of programs that integrate behavioral health and medicine to improve patient care and clinical outcomes. He currently is a Co-Investigator on a grant from the Substance Abuse and Mental Health Services Administration to integrate clinicians trained in substance use and addiction into the pediatric medical home. As Program Manager of BHIP, Dr. Bromberg has overseen the integration of over 70 behavioral health therapy providers into more than 40 pediatric practices in Massachusetts. Dr. Bromberg has been an author and co-author on multiple publications about behavioral health integration in primary and specialty care and has been an invited presenter on these topics at numerous national, regional, and local conferences.

Pediatric Physician's Organization at Children's is one of the largest pediatric primary care physician organizations in the country, with more than 500 pediatric primary care practitioners working in more than 80 community-based practices in 105 locations throughout Massachusetts, serving over 350,000 children and adolescents. The PPOC's goals are to enhance member pediatricians' ability to deliver the highest quality care to the children they serve, and to improve the professional satisfaction and operational effectiveness of its members. The PPOC has a strong collaborative relationship with one of the premier children's medical facilities in the world, Boston Children's Hospital. PPOC physicians work on staff at Boston Children's Hospital, serve internationally in healthcare-starved areas, teach at Harvard Medical School, and collaborate in ground-breaking research with their colleagues at Boston Children's. According to Massachusetts Health Quality Partners data, the PPOC consistently scores among the top performing networks in Massachusetts. The PPOC has consistently been named to Harvard Pilgrim Health Care's Physician Group Honor Roll for exceeding the national 90th percentile performance on key quality measures. The PPOC is governed through a four-member leadership team reporting to a Board of Directors drawn from the PPOC practices, Boston Children's Hospital, and the Physicians' Organization at Boston Children's Hospital.

The **Children's Hospital Los Angeles Health Network** is a clinically integrated network with a vision of building healthier futures through a premier network of pediatric providers delivering innovative, seamless care across our local communities. As the first and only cross-continuum pediatric network in the Los Angeles area, the CHLA Health Network aims to reduce fragmentation of care for children while assuring a strong and sustainable primary care delivery system that is integrated with Children's Hospital Los Angeles and its subspecialty physicians. Currently the Network is comprised of 200 physician affiliates in a five-county region and is self-governed through a Board of Managers and four physician-led committees.

The **Connecticut Children's Care Network** is a primary care pediatrician-led clinically integrated network dedicated to providing the highest quality of care to children for the best possible outcomes. The Care Network includes over 200 primary care pediatric providers, over 400 pediatrics specialists, and a nationally ranked children's health system. As the only provider network in Connecticut dedicated exclusively to child health and well-being, everything we discuss, everything we design, and everything we do has children and the providers who care for them in mind.

Manual Overview



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Background

An estimated 1 in 5 youth in the United States has a functionally impairing psychiatric disorder. Half of all psychiatric disorders begin by age 14, and three-quarters by age 24. Less than half of individuals with psychiatric disorders receive treatment. Absent or inadequate treatment of psychiatric disorders leads to significant morbidity and mortality across the lifespan.

Because of the protracted shortage and maldistribution of child-trained behavioral health (BH) specialists, for several decades both the American Academy of Pediatrics (AAP) and the American Academy of Child and Adolescent Psychiatry (AACAP) have endorsed the management of mild to moderate presentations of common psychiatric disorders (anxiety, depression, attention-deficit/hyperactivity disorder [ADHD] and related problems [stress reactions, disruptive behavior]) in pediatric primary care. Yet despite abundant supports provided by the AAP and AACAP, pediatric primary care practitioners have made modest progress in routinely identifying and treating these disorders, consistently citing training, time, confidence, and reimbursement challenges.

Providing high-quality services for mild to moderate psychiatric disorders in the primary care setting can convey substantial advantages for children and families, including greater trust, convenience, and continuity of care and lower costs and stigma, and can help to conserve scarce specialty BH resources for more severe and complex presentations. Yet in a recent national survey of general pediatricians, only one-half and two-thirds, respectively, reported screening for anxiety or depression in their patients and only one-quarter reported treating these disorders. Patients who do receive treatment are reported to have markedly different care experiences due to substantial variability in pediatric practitioners' BH expertise.

In this context, the program described herein (Behavioral Health Integration Program or BHIP) was developed to diminish the challenges faced by pediatric primary care practitioners when identifying, assessing, and managing mild to moderate presentations of common psychiatric disorders in the primary care setting. Although BHIP is multifactorial, its core feature is education; that is, providing pediatric primary care practitioners with the knowledge needed to safely and effectively identify, assess, and treat mild to moderate presentations of the target disorders. The BHIP educational component emphasizes universal BH screening to identify BH problems; guided self-management tools for preventing the escalation of sub-clinical BH concerns to clinical BH problems; focused assessment of BH problems (including focused symptom rating scales to assess symptom severity and focused clinical interview to assess symptom history, complexity, and safety); and, when indicated, safe and effective prescribing of psychotropic medications and practice-based or external referral for psychotherapy.

In this Manual, the essential information from the BHIP educational component is summarized. With this information in hand, pediatric primary care practitioners are better prepared to safely and effectively identify, assess, and manage the most common BH problems encountered in their practices. By partnering with their BH colleagues to extend BH care into the pediatric setting, pediatric primary care practitioners can help to alleviate the substantial gap between the millions of youth needing quality BH services and those receiving them.

Manual Purpose and Intended Use



Purpose

The purpose of this manual is to support the management of **mild to moderate presentations of anxiety, depression, attention-deficit/hyperactivity (ADHD), and related disorders (disruptive behavior)** in pediatric primary care by providing evidence-based tools for identification, assessment, self-management, and treatment. The information in this manual is primarily applicable to **school-age and teenage youth**.



Limitations

This manual is not intended to guide the care of severe, complex, or treatment-unresponsive presentations of anxiety, depression, ADHD, or disruptive behavior, or presentations with high medical or social complexity. This manual also does not address psychiatric disorders nearly always characterized by severity and complexity (e.g., schizophrenia, bipolar, eating, substance-related, obsessive-compulsive, trauma-related, and conduct disorders). For these types of severe and complex presentations, management in the specialty behavioral health setting generally is warranted.

This manual assumes familiarity with the development and maturation of children and adolescents, and with medical evaluation and treatment.



Stipulations

The assessment and treatment suggestions in this manual are based in part upon information derived from the sources listed under ***Evidence-Based Care*** (Appendix I). **Because the evidence base is continually evolving, the information in this manual should be considered current only prior to the expiration date on the manual cover page.**

This manual should not be considered to be a statement of the standard of care nor exclusive of all proper treatments or methods of care. This manual does not account for individual variation among patients. As such, it is not possible to draw conclusions about the effects of not implementing a particular assessment or treatment suggestion, either in general or for a specific patient. The ultimate decision regarding a particular assessment, clinical procedure, or treatment plan must be made by the appropriate clinician in light of the evaluation findings, other clinical data, the patient's and family's personal preferences and values, and the diagnostic and treatment options available.

Use of this manual is voluntary. Boston Children's Hospital provides this manual for teaching and educational purposes, "AS IS" and makes no warranty, expressed or implied, regarding any information provided hereunder. Boston Children's Hospital and its clinical staff assume no responsibility for any injury or damage to persons or property arising out of or related to any use of this manual, any information provided or for any errors or omissions.

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Manual Research



Research

This manual was originally created as an educational resource for pediatric primary care practitioners (PCPs) participating in the Learning Community of the **Behavioral Health Integration Program** (BHIP) at the Pediatric Physicians' Organization at Children's (PPOC), and subsequently for PCPs participating in the Learning Collaborative of the **Making Behavioral Health Visits Matter** program at the Children's Hospital Los Angeles (CHLA) Health Network and the **Behavioral Health Learning Community** at the Connecticut Children's Hospital (CCH) Health Network. These programs have provided quality improvement support for the information in the manual, as described below.



Massachusetts

The BHIP program was conceptualized in 2013 by a multidisciplinary team led by its founder Glenn Focht, MD. BHIP comprises three components (in-depth BH education; on-demand BH consultation; and clinical and operational support for integrated practice transformation) that supports on-site BH services provided by an integrated BH team (PCPs, BH clinicians [BHCs], and care coordinators [CCs]).

The BHIP program was implemented in a statewide, community-based, independently-owned pediatric practice association (the PPOC) affiliated with Boston Children's Hospital. The PPOC comprises more than 80 pediatric practices in Massachusetts with more than 500 pediatric PCPs serving over 350,000 children and adolescents. Five years after launching in the first 13 PPOC practices, BHIP was shown to be associated with increased practice-level BH integration; increased BH visits to PCPs; increased psychotherapy visits with BHCs; and increased PCP guideline-congruent medication prescribing for anxiety, depression, and ADHD. This increased access to BH services incurred minimal cost increases, primarily because of BH task-shifting from specialty to primary care as intended. Both PCPs and BHCs reported high BH self-efficacy and professional satisfaction from BHIP participation, and nearly all participating practitioners reported confidence that mild to moderate presentations of anxiety, depression, and ADHD can be safely and effectively managed in the primary care setting.

In a subsequent expansion of BHIP over 4 years to 46 additional PPOC practices, the favorable initial access findings were replicated. Moreover, BHIP was shown to perform well across 7 standard implementation outcome domains (acceptability, appropriateness, feasibility, fidelity, adoption, penetration, and sustainability).



Massachusetts Publications

Walter HJ, Kackloudis G, Trudell EK, Vernacchio L, Bromberg J, DeMaso DR, Focht G. Enhancing pediatricians' behavioral health competencies through child psychiatry consultation and education. *Clinical Pediatrics*. 2018;57(8):958-969.

Walter HJ, Vernacchio L, Trudell EK, Bromberg J, Goodman E, Barton J, Young GJ, DeMaso DR, Focht G. Five-year outcomes of behavioral health integration in pediatric primary care. *Pediatrics*. 2019;144(1):e20183243.

Walter HJ, Vernacchio L, Trudell EK, Bromberg J, Goodman E, Barton J, Young GJ, DeMaso DR, Focht G. Five-phase replication of behavioral health integration in pediatric primary care. *Pediatrics*. 2021;148(2):e2020001073.



California

The CHLA program was launched in 2018 by a multidisciplinary team led by its founder Bhavana Arora, MD. The CHLA program comprises three components (in-depth BH education, scheduled psychiatric consultation, off-site psychotherapy services) that enable on-site BH identification, assessment, and psychopharmacologic treatment provided by PCPs.

The CHLA program was implemented in a regional, community-based pediatric practice association (the CHLA Care Network) affiliated with CHLA. The CHLA Care Network comprises 65 pediatric practices in southern California with more than 200 pediatric PCPs serving over 300,000 children and adolescents. After implementing the program in the first 2 cohorts of 18 practices, the program was found to be feasible to implement; useful to PCPs; and effective in increasing PCPs' confidence in their ability to manage anxiety, depression, and psychotropic medications and in increasing their provision of these services in the primary care setting. The program will continue to be expanded throughout the network.



California Publications

Forthcoming



Connecticut

The CCH Learning Community was launched in 2021 by a multidisciplinary team led by its founder David Krol, MD. The CCH program comprised delivery of a BH Learning Community that enables on-site BH identification, assessment, and psychopharmacologic treatment by PCPs.

The CCH learning community was implemented in a statewide, community-based pediatric practice association (the CCH Health Network) affiliated with CCH. The CCH Health Network comprises 30 pediatric practices with more than 200 pediatric PCPs serving over 175,000 children and adolescents.



Connecticut Publications

Forthcoming

Manual Testimonials

"The pediatricians in Children's Hospital Los Angeles Care Network have overwhelming positive feedback. The educational sessions in the program along with the care pathways have made them more confident with screening and prescribing medication for anxiety and depression. The patients and parents similarly have appreciated having mental health addressed with their pediatrician. Screening has led to identification of patients with mental health concerns that would have been missed and opened conversations with parents and patients that would not have occurred prior to this program."

Bhavana Arora, MD, MBA

Chief Medical Officer
Children's Hospital Los Angeles Health Network

"The opportunity for the primary care pediatric providers of our clinically integrated network to participate in this program could not have come at more important time. As more children and adolescents sought their help for behavioral health concerns during the COVID pandemic, our Network providers were better able to serve them. This program was a highlight of our year."

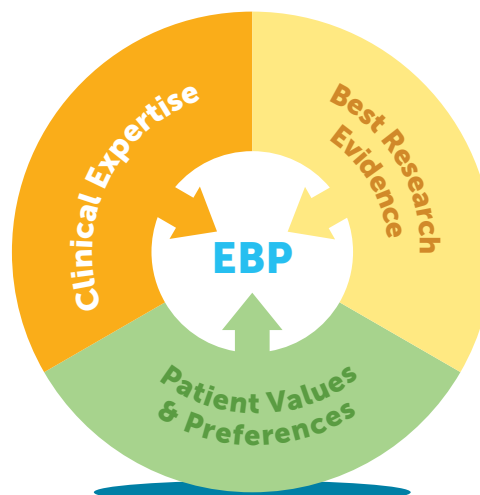
David Krol, MD, MPH

Medical Director
Connecticut Children's Care Network

Evidence Based Care

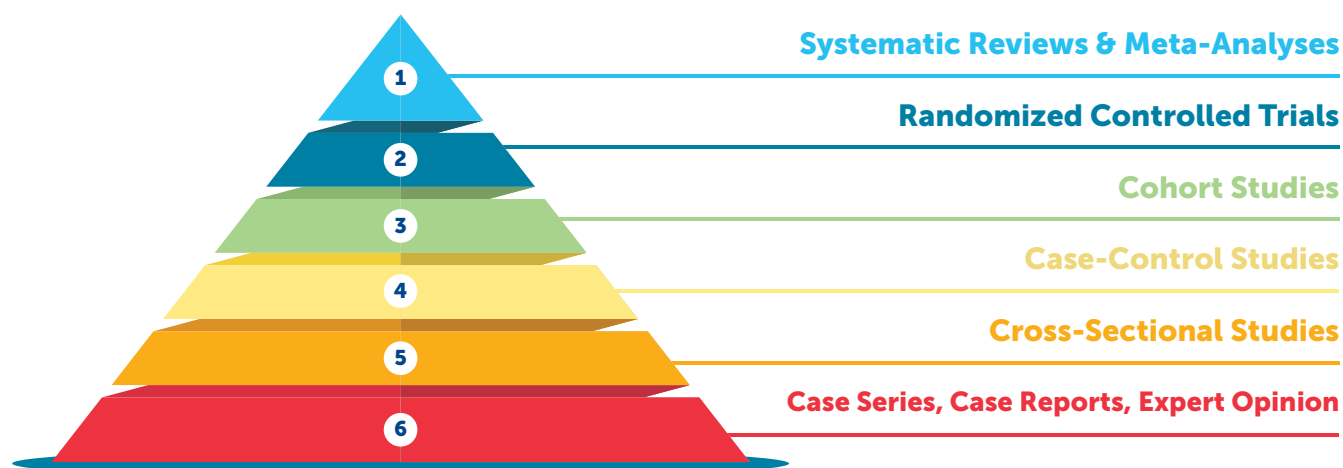
The guidance in this manual is consistent with the principles of **evidence-based practice**.

Evidence-based practice entails the integration of clinical expertise, patient values, and the best available research evidence into clinical decision-making. The full integration of these components into clinical decisions enhances the quality of care and optimizes clinical outcomes.



Hierarchy of Evidence

In this manual, recommendations for clinical care are based upon the most rigorous evidence available, which according to standard evidence hierarchies (see below) derives from **systematic reviews and meta-analyses**. In the absence of rigorous evidence, recommendations are based upon evidence lower in the hierarchy, including expert opinion/consensus as presented in leading textbooks of pediatrics and child and adolescent psychiatry.



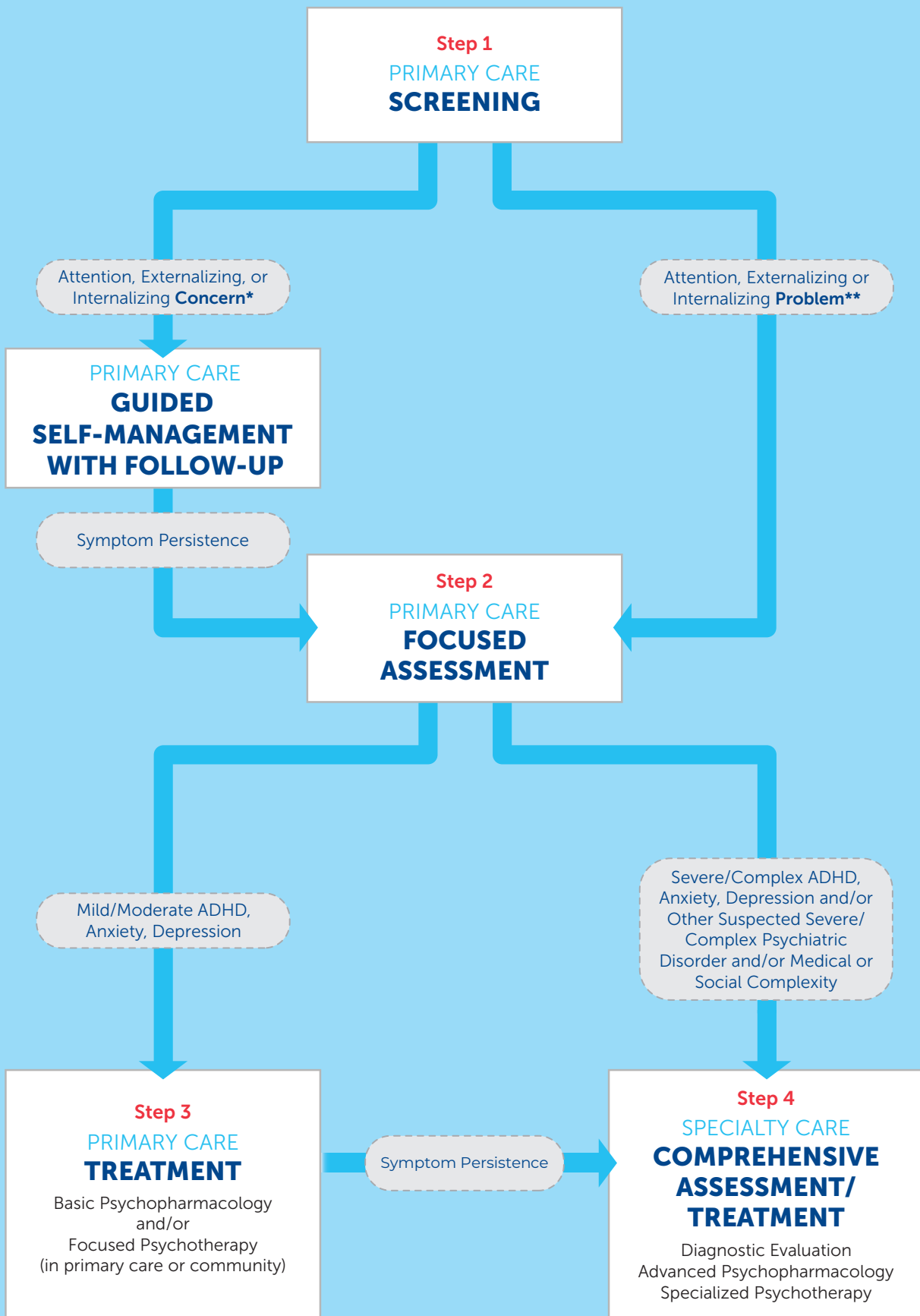
Stepped Model for Behavioral Health Integration in Pediatric Primary Care

The model of care underlying the information in this manual is the [stepped model for behavioral health care](#). In this model, each step of treatment has a clearly defined patient population, goal, and provider and ascends in treatment intensity in accordance with the severity of the clinical presentation (see below for schematic representation). In this model, specialty behavioral health care, a scarce resource, is reserved for the most severe and complex cases, while primary care manages cases with lower severity and complexity.

In stepped care, the key roles of the primary care practitioner are:

- 1 Behavioral health screening
- 2 Guided self-management
- 3 Focused behavioral health assessment
- 4 Basic psychopharmacology
- 5 Referral to specialty setting





*PSC-17 sub-scale and/or total scores are below or at cut-point but parent or patient expresses concern about the symptom

**PCS-17 sub-scale and/or total scores are above cut-point

Behavioral Health Screening

Universal screening (e.g., at all well visits) for emotional, behavioral and attention problems is recommended by the American Academy of Pediatrics (AAP) and the American Academy of Child and Adolescent Psychiatry (AACAP) and is mandated by Medicaid's Early and Periodic Screening, Diagnosis, and Testing (EPSDT) and some commercial payers. Universal screening for depression in adolescents is recommended by the U.S. Preventive Services Task Force. Despite these recommendations, only one-half of all pediatric primary care practitioners (PCPs) report using a standardized measure for behavioral health (BH) screening.

PEDIATRIC SYMPTOM CHECKLIST (PSC)

One of the most commonly used universal social-emotional screening instruments for school-age and adolescent youths in the pediatric primary care setting is the Pediatric Symptom Checklist (PSC). The PSC is highlighted in this manual because of its 1) strong psychometric properties; 2) free availability; 3) relative brevity; 4) ease of scoring; and 5) wide use among PCPs.

The PSC is useful for identifying problems in three domains: internalizing (anxiety, depression), attention, and externalizing (disruptive behavior). The PSC for school-age children and adolescents has two versions: a parent version for youths ages 6 to 18 and a self-report version for youths age 11 and older. Many PCPs prefer the 17-item versions of the PSC (PSC-17) over the 35-item versions due to brevity and ease of scoring. Although the PSC does not yield psychiatric diagnoses, it is useful for identifying significant problems that should be followed up with additional assessment.

As an alternative to the PSC-17 youth version, PCPs may prefer to administer the self-report Patient Health Questionnaire-4 (PHQ-4) in combination with the PSC-17 parent version. The PHQ-4 (Appendix II) is a validated, brief screen for both anxiety and depression, disorders that are among the most common in the adolescent age group. A score ≥ 3 for the first two questions suggests an anxiety problem, and a score > 3 for the last two questions suggests a depression problem. Positive scores on the PHQ-4 would be followed-up with the corresponding focused symptom rating scales (see Anxiety and Depression Care Guides later in the Manual).

In addition to the PHQ-4, PCPs may wish to administer the self-report Screening to Brief Intervention (S2BI) questionnaire to adolescents. The S2BI (Appendix III) is a validated, brief screen for substance use, and includes intervention suggestions for each level of use.

ADMINISTRATION

The PSC-17 can be administered at any point in pediatric care, but most PCPs opt to screen yearly during well visits. The PSC-17 can be administered in multiple ways, including:

- prior to the visit (e.g., paper or electronic mailing or through patient portals);
- at check-in (e.g. distributed by front desk staff along with other paperwork);
- during the pediatric visit (e.g., distributed during rooming by the nurse or medical assistant); or
- outside the visit (e.g., yearly in a bulk paper or electronic mailing).

SCORING

Responses to both the parent and self-report versions of the PSC-17 are scored as follows:

- Each item is endorsed by the respondent as occurring:
 - » Never (scored as 0)

- » Sometimes (scored as 1)
- » Often (scored as 2)
- The numerical scores are entered in the checkerboard in the appropriate sub-scale columns
 - » I (internalizing)
 - » A (attention)
 - » E (externalizing)
- Numbers in each sub-scale column are summed separately to yield sub-scale scores
- The three sub-scale scores are summed to yield a total score

SCORE INTERPRETATION

- Any item endorsed as “often” (2) should be briefly queried as follows:
 - » When: under what circumstances does this symptom usually occur?
 - » Where: in which settings does this symptom usually occur?
 - » Why: what factors might be precipitating this symptom?
- Clinical cut-point scores:
 - » I (internalizing): ≥ 5 (suggestive of clinically significant problems with anxiety and/or depression)
 - » A (attention): ≥ 7 (suggestive of clinically significant problems with attention)
 - » E (externalizing): ≥ 7 (suggestive of clinically significant problems with disruptive behavior)
 - » Total score: ≥ 15 (suggestive of clinically significant BH problems)
- **Any score (sub-scale or total) exceeding the clinical cut-point warrants focused BH assessment** (see Assessment chapter in this manual)

APPROXIMATE LIKELIHOOD OF POSITIVE SCORES

- One-fifth of screened patients:
 - » At least one score (sub-scale or total) exceeds cut-point
- One-tenth of screened patients:
 - » Internalizing OR attention OR externalizing sub-scale score exceeds cut-point
- One-tenth of screened patients:
 - » Total score exceeds cut-point

STEPS AFTER SCREENING

- At a scheduled **follow-up visit** (within one to a few weeks, depending upon the nature of the identified problem(s)):
 - » Conduct focused behavioral health assessment (see Assessment chapter)

FACTORS ENHANCING SCREENING ACCURACY

- Explain the purpose of screening when distributed to respondents
- Assist with screen completion if requested
- Provide privacy and assure confidentiality of responses for teen respondents
- Score the screen during the visit
- Discuss the results of the screen during the visit
- Arrange follow-up for all positive screens

BILLING FOR SCREENING

- Screening can be billed under CPT code 96127
- Reimbursement is dependent upon individual payer contracts and generally requires documentation of screening scores

Pediatric Symptom Checklist- 17 (PSC-17)

Parent Version

Caregiver Completing this Form: _____ Date: _____

Name of Child: _____

		Please mark under the heading that best fits your child			Office Use Only		
		NEVER (0)	SOMETIMES (1)	OFTEN (2)	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)							

Office Use Only

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
PSC17 Total Score is sum of I, A, and E columns

Suggested Screen Cutoff:

PSC17 – I \geq 5
PSC17 – A \geq 7
PSC17 – E \geq 7
Total Score \geq 15

Pediatric Symptom Checklist- 17 (PSC-17)

Youth Version

Teen Completing this Form: _____ Date: _____

		Please mark under the heading that best fits you			Office Use Only		
		NEVER (0)	SOMETIMES (1)	OFTEN (2)	I	A	E
1.	Fidgety, unable to sit still						
2.	Feel sad, unhappy						
3.	Daydream too much						
4.	Refuse to share						
5.	Do not understand other people's feelings						
6.	Feel hopeless						
7.	Have trouble concentrating						
8.	Fight with other kids						
9.	Down on yourself						
10.	Blame others for your troubles						
11.	Seem to be having less fun						
12.	Do not listen to rules						
13.	Act as if driven by a motor						
14.	Tease others						
15.	Worry a lot						
16.	Take things that do not belong to you						
17.	Distract easily						
(scoring totals)							

Office Use Only

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
PSC17 Total Score is sum of I, A, and E columns

Suggested Screen Cutoff:

PSC17 – I \geq 5
PSC17 – A \geq 7
PSC17 – E \geq 7
Total Score \geq 15

Focused Behavioral Health Assessment

The purposes of behavioral health assessment differ between specialty behavioral health (BH) and primary care settings. In **specialty BH** settings, the purpose of assessment is to determine whether psychopathology or developmental risk is present; if so, to establish an explanatory formulation and a differential diagnosis according to **Diagnostic and Statistical Manual of Mental Disorders** (DSM-5) criteria; to determine whether treatment is indicated; and if so, to engage the patient and parent in a collaboratively developed, evidence-based treatment plan.

In **primary care** settings, the purpose of assessment is:

- to **determine whether emotional, behavioral, attention, or substance-related problems are present**;
- if so, to **assess the history, severity, complexity, and safety of those problems**;
- to **triage the patient to the appropriate level of care**; and
- to **engage the patient and parent in a collaboratively-developed, evidence-based treatment plan at the appropriate level of care**

This abbreviated type of assessment in this manual is called a *focused BH assessment*.

The **focused behavioral health assessment** for pediatric primary care comprises two elements:

- **Focused symptom rating scale(s)**
- **Focused clinical interview**

Focused Symptom Rating Scales

The purposes of a focused symptom rating scale are to 1) assess **baseline symptom frequency** (as an indicator of severity) to guide triage to the appropriate step of care, and 2) to **track response to treatment** ("measurement-based care").

Focused rating scales assess multiple symptoms within a symptom cluster. Focused rating scales for the symptom clusters addressed in this manual (anxiety, depression, ADHD/disruptive behavior) are listed below; these symptom clusters correspond to the **internalizing**, **attention**, and **externalizing** sub-scales of the PSC-17. The listed rating scales are highlighted in this manual because of their 1) strong psychometric properties; 2) free availability; 3) relative brevity; 4) ease of scoring; and 5) wide use among BH (and in some cases, pediatric) practitioners. Details of administration, scoring, and interpretation of these instruments are presented under the ADHD, Anxiety, and Depression modules in this manual.

WORRIES/FEARS (Internalizing Symptoms)

Screen for Child Anxiety Related Emotional Disorders (SCARED)
Generalized Anxiety Disorder-7 (GAD-7)

SAD/IRRITABLE MOOD (Internalizing Symptoms)

Mood and Feelings Questionnaire (MFQ)
Patient Health Questionnaire-9 (PHQ-9)

INATTENTION/HYPERACTIVITY/IMPULSIVITY/DISRUPTIVE BEHAVIOR (Attention and Externalizing Symptoms)

Vanderbilt ADHD Diagnostic Rating Scales
Swanson Nolan and Pelham-IV-26 (SNAP-IV-26)

Items on the PHQ-9 correspond to the DSM-5 diagnostic criteria for major depressive disorder and as such can be useful diagnostically as well as dimensionally (severity). Item domains on the Vanderbilt and SNAP rating scales correspond to the DSM-5 diagnostic criteria for ADHD and oppositional defiant disorder (ODD), and as such also can be useful diagnostically as well as dimensionally. Although none of the remaining rating scales listed above translate directly to diagnoses, all are useful dimensionally (severity).

Once baseline symptom severity is established through the administration of a focused symptom rating scale, the scale can be administered periodically during the early phase of treatment to assess response and remission. A usual **administration interval for anxiety and depression rating scales** would be **monthly until remission and then 2 to 4 times yearly**; for **ADHD scales**, the usual interval would approximate **2-3 weeks until remission and then 2 to 4 times yearly**.

ADMINISTRATION OF SYMPTOM RATING SCALES

As with the PSC-17, focused symptom rating scales can be administered in multiple ways, including:

- prior to the visit (e.g., paper or electronic mailing or through patient portals);
- at check-in (e.g. distributed by front desk staff along with other paperwork); or
- during the visit (e.g., distributed during rooming by the nurse or medical assistant)

BILLING FOR SYMPTOM RATING SCALE ADMINISTRATION

- Symptom rating scale administration can be billed under **CPT code 96127**
- Reimbursement is dependent upon individual payer contracts and generally requires documentation of rating scale scores

Focused Clinical Interview

The purposes of a focused clinical interview are to gather sufficient information about each presenting symptom cluster to determine the **history, severity, complexity, and safety** of each presentation as a guide to triage to the appropriate level of care.

HISTORY

The clinical interview assesses the history of the symptoms, focusing on:

- the duration and continuity of the symptoms
- the response to previous treatments
- exclusion of masqueraders (medical, medications, substances, developmental)
- family history of similar symptoms

SEVERITY

The focused symptom rating scale assesses symptom severity. The clinical interview assesses additional components of severity, including:

- the degree of distress/ability to cope associated with the symptoms
- the degree of functional impairment at home, at school, and in the community associated with the symptoms

COMPLEXITY

The clinical interview assesses factors introducing complexity into the presentation, including:

- the co-occurring presence of other psychiatric disorders
 - » Behavior, learning, attention, anxiety, substance, sleep, trauma, elation, depression
 - Acronym: **BLAASSTED**

- the co-occurring presence of medical or social difficulties, including:
 - » Chronic, complex medical conditions
 - » Environmental stressors
 - Adverse childhood experiences
 - Abuse (emotional, physical, sexual)
 - Neglect (emotional, physical)
 - Household challenges (domestic violence, mental illness/substance abuse/incarceration, separation/divorce)
 - Social and physical determinants of health
 - Economic, education, social/community context, health and health care, the neighborhood and the built environment

SAFETY

The clinical interview assesses risk of imminent and substantial danger, including:

- Suicidality
- Homicidality
- Out-of-control behavior (aggression toward others, property destruction)
- Acute mental status change (delirium, psychosis, rage, agitation, panic, hopelessness)
- Overwhelming distress
- Absence of function
- Incapacitated or abuse-perpetrating parent/guardian

A safety assessment for suicidality culminates in two basic questions: Is the patient at imminent risk of suicide (e.g., active intent and/or plan)? Are the patient and family able to adhere to recommendations regarding supervision, safeguarding, and follow-up care? The answers to these questions can lead to the appropriate level and intensity of care. Psychiatric hospitalization is indicated when the youth actively voices intent and/or plan to kill him/her self, especially in the context of altered mental status, multiple previous self-harm attempts, previous unsuccessful psychiatric treatment, and/or caregiver incapacity, including the inability to safeguard the home from availability of firearms and medications, and inability to adhere to the recommended treatment plan.

A stepped safety plan comprising specific prevention strategies can be collaboratively developed with youth who have suicidal thoughts but not imminent suicide risk and their parents/guardians. Preventive actions by the youth when suicidal thoughts occur without intent or plan can be undertaken in ascending sequence as follows:

- Recognize warning signs (written down by the youth using his/her own words)
- Use internal coping strategies (enjoyable activities the youth can do on his/her own to distract him/herself from suicidal thoughts)
- Socialize with family members or friends (who can offer support and distraction)
- Contact family members/friends for specific help with suicidal thoughts (identify potential obstacles and problem-solve specific ways to overcome them)
- Contact medical/behavioral health professionals/agencies for specific help with suicidal thoughts (identify potential obstacles and problem-solve specific ways to overcome them)
- Reduce the potential for use of lethal means (collaboratively plan ways for a responsible person to secure or limit access to lethal means, especially to firearms and medications)

The youth should be asked the following questions regarding the completed safety plan; the answers will facilitate decisions about appropriate level of care.

- Where will you keep your safety plan?
- How likely is it that you will use the safety plan when you notice the warning signs?
- What might get in the way or serve as a barrier to your using the safety plan?
- What can we do to overcome these barriers?
- Will you follow-up with me at the frequency I request so that I know how you are doing?

Triage Outcomes of Focused Behavioral Health Assessment

The outcome of the assessment depends upon the **history, severity, complexity, and safety** of the presentation.

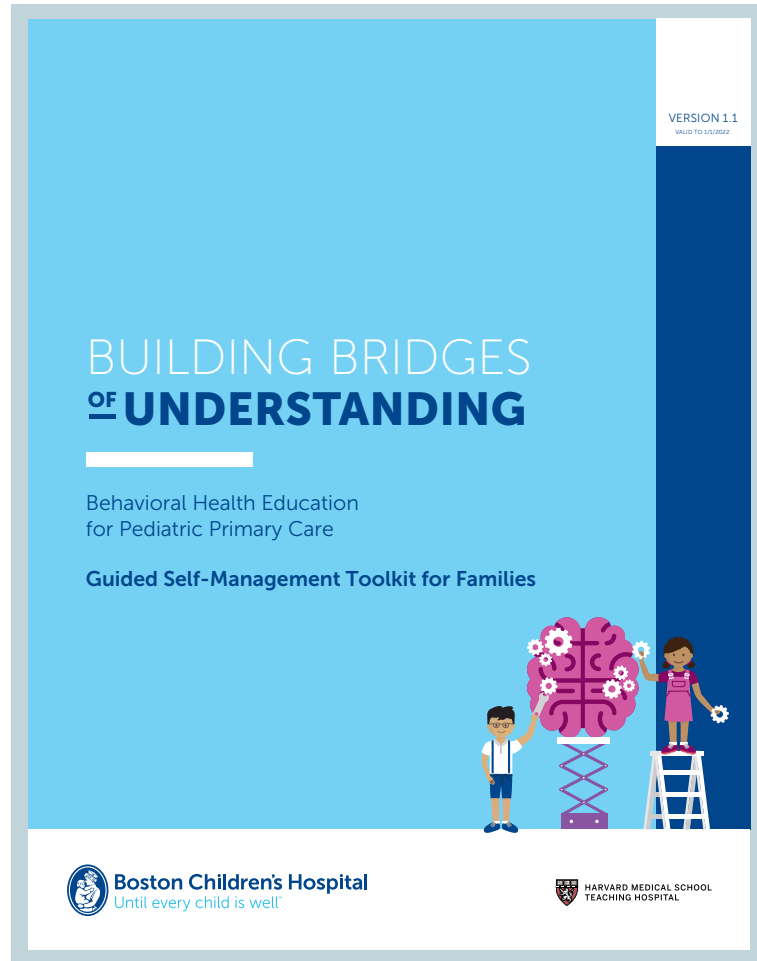
	Sub-clinical to mild presentation triaged to preventive intervention, including anticipatory guidance and guided self-management with follow-up	Moderate presentation triaged to primary care medication management and/or focused psychotherapy in primary care or community	Severe presentation triaged to specialty behavioral health care
Presentation Characteristics Examples			
History	Recent onset, discontinuous duration No previous treatment	Relatively recent onset, continuous duration or discontinuous with frequent exacerbations Minimal previous treatment (e.g., school counseling)	Early onset, continuous duration Multiple failed previous treatments
Severity	Focused rating scale scores below or just above cut-points Minimal distress and/or functional impairment - most areas of function intact	Focused rating scale scores somewhat exceed cut-points Moderate distress and/or functional impairment - some areas of function impaired, others intact	Focused rating scale scores greatly exceed cut-points Severe distress and/or functional impairment - many areas of function impaired
Complexity	No psychiatric comorbidity No to minimal psychosocial or medical complexity	No to one psychiatric co-morbidity Moderate medical and/or psychosocial complexity	Multiple psychiatric co-morbidities Severe medical and/or psychosocial complexities
Safety	No safety concerns	May be some safety concerns but none are imminent or substantial	Serious safety concerns

Guided Self-Management

Guided self-management is an evidence-based approach to the management of sub-clinical to mild symptoms of ADHD, anxiety, and depression that teaches youth and their families cognitive behavioral skills to effectively manage their symptoms on their own.

Research has shown that mastery of these skills can help prevent the escalation of early, mild symptoms to more serious psychiatric disorders. The skills also can help other family members support the symptomatic youth by engaging the entire family in accessible learning experiences that are helpful for anyone struggling from time-to-time with difficult feelings and behaviors.

The self-explanatory Toolkit is designed to be used by interested patients and their families after a brief introduction by the PCP. If guided self-management is initiated for sub-clinical to mild ADHD, anxiety, or depression, the PCP should always schedule a follow-up appointment with the youth within a month or two to assess whether the symptoms have responded to guided self-management, or whether treatment is indicated.



The Guided Self-Management Toolkit with instructions for use is available as a companion to this Manual.

Behavioral Health Treatment

Behavioral health (BH) treatment is designed to target identified areas of brain dysfunction caused by the psychiatric disorder. **Psychotherapy** (specifically cognitive behavioral therapy) facilitates pre-frontal cognitive processing of dysfunctional thoughts, feelings, and behaviors associated with ADHD, anxiety, and depression. **Psychotropic medications** increase neurotransmitter activity (e.g., dopamine, norepinephrine, serotonin) throughout the brain which in turn modulates symptoms of ADHD, anxiety, and depression; modulation of symptoms then facilitates cognitive processing of those symptoms. Because psychotherapy and medication work synergistically, **combination treatment** (psychotherapy plus medication) may be the optimal treatment approach for many psychiatric disorders. Moreover, combination treatment should be supported by home and school interventions. Home interventions can include **parenting** (e.g., parent behavioral management training) and **lifestyle supports** (e.g., optimal nutrition, physical activity, sleep, recreation, stress management; avoidance of substance use). **School supports** can include **individual study and learning accommodations and modifications, and classroom behavior management**. The best outcomes occur when all of these interventions are provided as indicated.

The effectiveness of BH treatments (at post-treatment, from multiple meta-analyses) varies across disorders, as follows. First-line treatments for ADHD, Disruptive Behavior, Anxiety, and Depression are described under the corresponding chapters in this manual.

Disorder	Treatment	Approximate Effect Size
ADHD	Psychotherapy Medication (stimulants) Medication (alpha agonists) Medication (atomoxetine)	0.30 (small) 1.00 (large) 0.70 (medium) 0.70 (medium)
Disruptive Behavior	Psychotherapy (parent-directed) Medication (stimulants)	0.50 (medium) 0.70 (medium)
Depression	Psychotherapy Medication (antidepressants)	0.30 (small) 0.30 (small)
Anxiety	Psychotherapy Medication (antidepressants)	0.60 (medium) 0.70 (medium)
Multiple Comorbid Disorders	Psychotherapy	0.10 (non-significant)

PRINCIPLES FOR ENGAGING PATIENTS/FAMILIES IN TREATMENT

- Create a therapeutic alliance
 - » Listen with empathy
 - » Use the patient's/family's words to reflect understanding
 - » Instill hope
 - » Collaboratively develop treatment plan
 - » Partner with the patient/family to overcome barriers to treatment
 - » Reaffirm ongoing support
- Offer "psychoeducation" (information about the BH problem); emphasize that "many children and adolescents have this problem and most do well with treatment"
- Encourage healthy lifestyle habits
- Offer brief problem-solving support
- Direct to appropriate resources
- Communicate with specialists as indicated
- Monitor progress

PRINCIPLES FOR EFFECTIVE USE OF PSYCHOTROPIC MEDICATIONS

- Conduct focused BH assessment
 - » Focused symptom rating scales
 - » Focused clinical interview
 - » Rule out alternative explanations ("masqueraders") for target symptoms (may require specialty referral), e.g.,
 - Medical
 - Medication
 - Substances
 - Developmental
- Establish target symptoms and appropriate step of care
 - » Rating scale scores
 - » Symptom history/severity/complexity/safety
 - If insufficient information is available to render a precise diagnosis for a symptom cluster, consider applying the Unspecified psychiatric diagnosis
- Establish justification of medication use for target symptoms
 - » Sufficient frequency
 - » Sufficient duration
 - » Sufficient distress/impairment
 - » Sufficient therapy
- Rule out relative or absolute contraindications to medication use, e.g.,
 - » Medical conditions
 - » Drug-drug interactions
 - » Inability to monitor (e.g., unreliable parent/guardian, patient residing out-of-town)
 - » Concern about drug diversion in the context of substance abuse or antisocial behavior
- Counsel about factors potentially contributing to symptom presentation or affecting response to medication
 - » Inadequate nutrition, physical activity, sleep, recreation, stress management; substance use
- Consider response to previous medication trials
 - » Favorable effects
 - » Adverse effects
- Develop comprehensive treatment plan as indicated
 - » Psychotherapy

- » Medication
- » Home interventions
- » School interventions
- Obtain informed consent from parent/guardian and assent from patient
 - » Nature of the condition needing treatment
 - » Nature and purpose of proposed treatment and the probability that it will succeed
 - » Risks and benefits of the proposed treatment
 - » Alternatives to the proposed treatment, and their attendant risks and benefits
 - » Prognosis with and without the proposed treatment
- Select evidence-based medication and prescribe an adequate dose for an adequate duration; whenever possible, FDA- approved medications for the given indication should be prioritized
 - » Titrate to effective tolerated dose within established dosage range
 - » Consider the period of time needed for each medication to achieve maximum effect
 - » “Start low, go slow”
- Explain details of medication management
 - » Name of medication
 - » When to administer
 - » Who should administer (e.g., parent, older teen)
 - » How to administer (e.g., with food, swallowed whole)
 - » Time to onset
 - » Duration of action
 - » How to store medication
 - » Review of side effects and what to do if each should occur
 - » How response to medication will be monitored (e.g., focused symptom rating scales, height/weight, pulse/blood pressure, side effect checks)
 - » Special safety instructions (e.g., suicidal thoughts, severe agitation)
 - » What the next step will be if medication is ineffective or not tolerated
 - » How long medication likely will need to be taken if effective
 - » Consider providing parent with standardized Medication Guide, such as those found at: <https://dailymed.nlm.nih.gov/dailymed/index.cfm>
- Monitor medication compliance and physical/laboratory parameters as indicated
- Monitor response to treatment
 - » Periodic re-administration of focused symptom rating scale(s); adjust dose as indicated
- Taper and discontinue ineffective medication before substituting alternative medication, or have clear rationale for using medication combinations
- Plan for medication discontinuation after symptom-free and high-functioning interval

TOP 10 REASONS FOR FAILED MEDICATION TRIAL

- Non-adherence
- Dose below or above therapeutic dosage range
- Wrong diagnosis
- Untreated psychiatric co-morbidity
- Patient/family discomfort with use of medication
- Concern about side effects
- High social complexity/adverse context
- Ineffective, sporadic, or absent therapy
- Co-morbid physical illness
- Co-morbid substance use

ADHD



ADHD Overview

What is ADHD?

ADHD is a neurodevelopmental disorder characterized by a persistent pattern of frequent inattention, hyperactivity, and/or impulsivity that interferes with development and/or functioning. *Inattention* manifests as wandering off task and not following through, avoiding sustained mental effort, making careless mistakes, and being disorganized, distracted, and forgetful. *Hyperactivity* manifests as excessive motor activity, from fidgeting to running about. *Impulsivity* manifests as difficulty restraining behaviors and delaying gratification as well as social intrusiveness. **ADHD** must be differentiated from other medical, medication, substance use, or psychiatric conditions that are associated with inattention, hyperactivity, and/or impulsivity.

Are There Different Types of ADHD?

There are several types of ADHD, as follows:

ADHD, PREDOMINANTLY INATTENTIVE PRESENTATION

In this presentation, symptoms of inattention predominate. This presentation is more characteristic of the adolescent years.

ADHD, PREDOMINANTLY HYPERACTIVE/IMPULSIVE PRESENTATION

In this presentation, symptoms of hyperactivity/impulsivity predominate. This presentation is more characteristic of the pre-school/early elementary school-age years.

ADHD, COMBINED PRESENTATION

In this presentation, both inattention and hyperactivity/impulsivity features are represented. This presentation is more characteristic of the elementary school-age years.

UNSPECIFIED ADHD

This diagnosis can be used if functionally impairing symptoms of ADHD are present but full DSM-5 criteria for ADHD are not met, or if insufficient information (e.g., missing teacher focused symptom rating scale) is available to make a definitive diagnosis.

How Common is ADHD?

Worldwide, ADHD is estimated to occur in around 5% of children, although the prevalence in the United States has been estimated to be as high as 15% or more. Whether this disparity is due to differing study methodologies (including sample selection and case ascertainment); greater population awareness; overdiagnosis, underdiagnosis or misdiagnosis; developmentally or contextually inappropriate expectations; “medicalization” of temperamental variation; or other factors is unknown. In school-age children, the male/female ratio approximates 2-3/1.

What Causes ADHD?

ADHD is highly heritable (75-80%), but also can be caused by neurotoxic prenatal (e.g., cigarette smoking, alcohol use) and postnatal (e.g., malnutrition, lead exposure, brain trauma or infection) exposures and can be associated with prematurity and very low birth weight. A common neurobiological feature of ADHD is relative immaturity of prefrontal cortex executive functions (planning, organization, time management, impulse control). Multiple neurotransmitters are involved (dopamine, norepinephrine, serotonin) and reduced volume in multiple brain areas has been found.

When Does ADHD Begin?

Emergence of ADHD can be foreshadowed in the toddler and preschool years by certain characteristics of a difficult temperament (e.g., overactivity, distractibility, impulsiveness). ADHD can be accurately diagnosed during the pre-school years, if close attention is paid to developmental (inconsistent with developmental level), functional (interference with functioning, e.g., at pre-school), and multiple setting (home, pre-school, community) criteria.

How Long Does ADHD Last?

For the majority of children with ADHD, the disorder is persistent into adulthood despite treatment. However, this may be due to less rigorous treatment in primary care and community mental health settings compared to research settings (e.g., infrequent follow-up and failure to monitor response to treatment with focused symptom rating scales and modify treatment as indicated). In around one-third of children with ADHD, symptoms attenuate into adulthood such that function is relatively unimpaired without treatment. This improvement may in part be due to selection of a career that does not require sustained, highly detailed mental tasks. Another one-third of children with ADHD no longer fulfill diagnostic criteria for ADHD as adults, although this estimate may decrease as criteria for adult ADHD evolve. Nonetheless, children with ADHD, whether persistent or desistant, on average have less favorable outcomes in multiple domains as they mature into adulthood.

Which Other Conditions Can Masquerade as ADHD?

A number of medical conditions (e.g., post-concussion syndrome, epilepsy, hypoglycemia, thyroid abnormalities, allergies, asthma, insomnia), medications (e.g., asthma medications, antihistamines, thyroid replacement medications), and substances (e.g., marijuana, cocaine, hallucinogens, withdrawal from nicotine/alcohol/cafeine) can masquerade as an Attention Disorder and should be ruled out prior to diagnosis. In addition, a number of other psychiatric disorders can present with inattention. Questions about differential diagnosis can be addressed with the appropriate specialist.

Which Other Psychiatric Disorders Co-Occur With ADHD?

Behavior and learning disorders can occur in up to four-fifths and one-third of children with ADHD, respectively. Other common co-morbidities are substance-related and anxiety disorders.

What Are the Outcomes of Persistent ADHD?

The adverse sequelae of untreated ADHD include poor academic performance, poor family and social relationships, lower occupational status, unemployment, accidents (including motor vehicle), suicide attempts, psychiatric hospitalizations, early pregnancy, divorce, substance abuse, and court involvement and incarceration.

How Is ADHD Diagnosed?

Optimal diagnosis follows the DSM-5 criteria as derived from clinical interview and observation. Children and adolescents do not commonly report their own ADHD symptoms and as such, observations by parents and teachers can be more diagnostically relevant. Symptoms typically are more apparent in situations that are unstructured, boring, and minimally supervised (e.g., PCP's waiting room) or that require sustained attention or mental effort (e.g., classroom). Focused symptom rating scales from multiple informants (especially parents and teachers) can support the diagnosis and establish baseline symptom severity. It is expected that informants will differ somewhat in their reports, reflecting differences in the child's attention and behavior in different settings.

If insufficient information (e.g., missing teacher rating scale) is available to support a precise diagnosis, or if full DSM-5 criteria are not met (e.g., sub-threshold scores on some informants' rating scales), *Unspecified Attention-Deficit/Hyperactivity Disorder* (ICD-10 F90.9) may be the most appropriate diagnosis.

Although a number of other assessment tools (EEG, brain imaging, laboratory tests, activity monitoring, computerized tests of vigilance) have been proposed to enhance the accuracy of ADHD diagnosis, to date none has sufficient research support for routine use. In some cases when more extensive information about brain function is needed, neuropsychological testing may support an ADHD diagnosis and/or uncover other brain impairments, and may suggest specific targets (e.g., executive function deficits) for remediation. IQ and achievement testing also is not part of the routine evaluation for ADHD unless evidence is presented of academic underachievement, in which case referral to the school for psychoeducational testing is indicated. Psychoeducational testing for learning and language disabilities may yield the most valid results after the symptoms of inattention have been well controlled. Sleep studies or neurologic evaluations can be considered when supported by clinical findings.

ADHD Symptom Rating Scales

Vanderbilt Rating Scales

The Vanderbilt rating scales are useful for **quantifying symptom severity at treatment baseline and follow-up in six domains: inattention, hyperactivity/impulsivity, oppositional behavior, conduct problems, anxiety/depression, and performance (function at home and school)**. The Vanderbilt scales, validated for children age 6-12, have four versions: a parent version for initial assessment, a parent version for follow-up assessment, a teacher version for initial assessment, and a teacher version for follow-up assessment. The follow-up versions are limited to ADHD symptoms and performance items and include ratings of medication side effects.

The inattention/hyperactivity/impulsivity items correspond to the DSM-5 diagnostic criteria for ADHD, the oppositional behavior items on the parent version correspond to the DSM-5 diagnostic criteria for oppositional defiant disorder (ODD), and the conduct problem items on the parent version correspond to the DSM-5 psychiatric diagnostic criteria for conduct disorder (CD). The behavior items on the teacher version support the identification of a mixed (oppositional/conduct) disruptive behavior problem. The anxiety/depression and performance items do not correspond to the criteria for specific psychiatric disorders, and as such should be considered screening items (anxiety/depression) or supportive of an ADHD or behavior diagnosis (performance items).

The Vanderbilt rating scales may be preferable to the SNAP-IV-26 rating scales (see next section) when a broader BH screen is desired (e.g., for conduct problems, anxiety, depression, functional impairment), or when the patient is a younger child (age 12 or under).

ADMINISTRATION

The Vanderbilt rating scales can be administered:

- after verbal report of problems with attention or behavior
- after a score exceeding the cut-point on the Attention or Externalizing sub-scales of the PSC-17

After a positive PSC-17 screen, both the parent and teacher versions of the Vanderbilt can be sent home with the parent, with instructions to bring both completed scales to a follow-up visit. Scales may also be able to be transmitted through a patient portal.

It is advisable not to begin medication until both parent and teacher versions are received and scored, as the teacher has the best opportunity to observe the child's symptoms in the context of academic demands.

SCORING

Responses to both the parent and teacher versions of the Vanderbilt are scored as follows:

- Each item is endorsed by the respondent as occurring:
 - » Never (scored as 0)
 - » Occasionally (scored as 1)
 - » Often (scored as 2)
 - » Very often (scored as 3)
- For inattention, hyperactive/impulsive, oppositional behavior, and conduct domains, the items are scored *categorically*, to assess whether the corresponding diagnostic thresholds for symptom frequency are met (see Score Interpretation below)
 - » Only the "often" (2) and "very often" (3) responses are counted

- For the combined inattention and hyperactive/impulsive domains, the items can also be scored *dimensionally*, to assess total symptom severity at baseline and in response to treatment
 - » Scores for each item are summed for a total symptom score

For the performance domain, the items can be scored *categorically* (to assess whether the threshold for functional impairment is met) or *dimensionally* (to assess overall performance impairment at baseline and in response to treatment)

- Categorical scoring
 - » Only the “somewhat of a problem” (4) and “problematic” (5) responses are counted
- Dimensional scoring
 - » An average score is computed across all performance items

SCORE INTERPRETATION

- Scores are interpreted as a combination of symptom frequency and functional impairment (performance)
- Scoring is different for parent and teacher versions because behavior items are truncated on the teacher version
- Categorical scoring
 - » Parent Vanderbilt
 - Positive score for ADHD - Inattentive:
 - 2 or 3 scores on **6+ items** in inattention domain (items 1-9) + 4 or 5 scores on **1+ items** in performance domain (items 48-55)
 - Positive score for ADHD – Hyperactive/Impulsive
 - 2 or 3 scores on **6+ items** in hyperactive/impulsive domain (items 10-18) + 4 or 5 scores on **1+ items** in performance domain (items 48-55)
 - Positive score for ADHD – Combined
 - 2 or 3 scores on **12+ items** in attention and hyperactive/impulsive domain (items 1-18) + 4 or 5 scores on **1+ items** in performance domain (items 48-55)
 - Positive score for ODD:
 - 2 or 3 scores on **4+ items** in oppositional behavior domain (items 19-26) + 4 or 5 scores on **1+ items** in performance domain (items 48-55)
 - Positive score for CD:
 - 2 or 3 scores on **3+ items** in conduct behavior domain (items 27-40) + 4 or 5 scores on **1+ items** in performance domain (items 48-55)
 - Positive score for anxiety/depression screen
 - 2 or 3 scores on **3+ items** in anxiety/depression domain (items 41-47) + 4 or 5 scores on **1+ items** in performance domain (items 48-55)
 - » Teacher Vanderbilt
 - Positive score for ADHD - Inattentive:
 - 2 or 3 scores on **6+ items** in inattention domain (items 1-9) + 4 or 5 scores on **1+ items** in performance domain (items 36-43)
 - Positive score for ADHD – Hyperactive/Impulsive
 - 2 or 3 scores on **6+ items** in hyperactive/impulsive domain (items 10-18) + 4 or 5 scores on **1+ items** in performance domain (items 36-43)
 - Positive score for ADHD – Combined
 - 2 or 3 scores on **12+ items** in attention and hyperactive/impulsive domains (items 1-18) + 4 or 5 scores on **1+ items** in performance domain (items 36-43)
 - Positive score for disruptive behavior (non-diagnostic):
 - 2 or 3 scores on **3+ items** in disruptive behavior domain (items 19-28) + 4 or 5 scores on **1+ items** in performance domain (items 36-43)

- Positive score for anxiety/depression screen
 - 2 or 3 scores on **3+ items** in anxiety/depression domain (items 29-35) + 4 or 5 scores on **1+ items** in performance domain (items 36-43)
- Appropriate diagnoses for scores exceeding categorical cut-points for each symptom domain (if all other DSM-5 criteria are met) are:
 - » **ADHD predominantly inattentive presentation** (F90.0)
 - » **ADHD predominantly hyperactive/impulsive presentation** (F90.1)
 - » **ADHD combined presentation** (F90.2)
 - » **Oppositional Defiant Disorder** (F91.3)
 - » **Conduct Disorder** (F91.9)
- Dimensional scoring for ADHD (items 1-18 parent and teacher versions)
 - » Scores for each item are summed for a total symptom score
- Dimensional scoring for overall impairment (items 48-55 parent version and items 36-43 teacher version)
 - » Scores for each item are averaged for an average performance score

SWANSON NOLAN AND PELHAM-IV-26 (SNAP-IV-26) Rating Scales

The SNAP-IV-26 rating scales are useful for **quantifying symptom severity at treatment baseline and follow-up in three domains: inattention, hyperactivity/impulsivity, and oppositionality**. The SNAP-IV-26, validated for ages 6-18, has one version for both parents and teachers. The inattention/hyperactivity/impulsivity items correspond to the DSM-5 diagnostic criteria for ADHD, and the oppositionality items correspond to the DSM-IV (and DSM-5) diagnostic criteria for ODD.

The SNAP-IV-26 may be preferable to the Vanderbilt rating scales (see previous section) when a focused BH screen is sufficient (e.g., for ADHD and oppositionality), or when the patient is an older youth (over age 12).

ADMINISTRATION

The SNAP-IV-26 rating scales can be administered:

- after verbal report of problems with attention or behavior
- after a score exceeding the cut-point on the Attention or Externalizing sub-scales of the PSC-17

After a positive PSC-17 screen, both the parent and teacher versions of the SNAP-IV-26 can be sent home with the parent, with instructions to bring both completed scales to a follow-up visit. Scales may also be able to be transmitted through a patient portal.

It is advisable not to begin medication until both parent and teacher versions are received and scored, as the teacher has the best opportunity to observe the child's symptoms in the context of academic demands.

SCORING

Responses to the SNAP-IV-26 are scored as follows:

- Each item is endorsed by the respondent as occurring:
 - » Not at all (scored as 0)
 - » Just a little (scored as 1)
 - » Quite a bit (scored as 2)
 - » Very much (scored as 3)
- All items are scored dimensionally
 - » Scores for each item are summed for a total domain score

SCORE INTERPRETATION

- A **clinically significant score** (warranting behavioral health intervention) on the SNAP-IV-26 domains are as follows:
 - » Inattention: ≥ 13
 - » Hyperactivity/Impulsivity: ≥ 13
 - » Oppositionality: ≥ 8
- Appropriate diagnoses for scores exceeding corresponding cut-points (if all other DSM-5 criteria are met) are:
 - » **ADHD predominantly inattentive presentation** (F90.0)
 - » **ADHD predominantly hyperactive/impulsive presentation** (F90.1)
 - » **ADHD combined presentation** (F90.2)
 - » **Oppositional Defiant Disorder** (91.3)

NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of your child.
When completing this form, please think about your child's behaviors in the past 6 months.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected	0	1	2	3
12. Runs about or climbs too much when remaining seated is expected	0	1	2	3
13. Has difficulty playing or beginning quiet play activities	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes in on others' conversations and/or activities	0	1	2	3
19. Argues with adults	0	1	2	3
20. Loses temper	0	1	2	3
21. Actively defies or refuses to go along with adults' requests or rules	0	1	2	3
22. Deliberately annoys people	0	1	2	3
23. Blames others for his or her mistakes or misbehaviors	0	1	2	3
24. Is touchy or easily annoyed by others	0	1	2	3
25. Is angry or resentful	0	1	2	3
26. Is spiteful and wants to get even	0	1	2	3
27. Bullies, threatens, or intimidates others	0	1	2	3
28. Starts physical fights	0	1	2	3
29. Lies to get out of trouble or to avoid obligations (ie, "cons" others)	0	1	2	3
30. Is truant from school (skips school) without permission	0	1	2	3
31. Is physically cruel to people	0	1	2	3
32. Has stolen things that have value	0	1	2	3

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

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NICHQ Vanderbilt Assessment Scale—PARENT Informant

Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Symptoms (continued)	Never	Occasionally	Often	Very Often
33. Deliberately destroys others' property	0	1	2	3
34. Has used a weapon that can cause serious harm (bat, knife, brick, gun)	0	1	2	3
35. Is physically cruel to animals	0	1	2	3
36. Has deliberately set fires to cause damage	0	1	2	3
37. Has broken into someone else's home, business, or car	0	1	2	3
38. Has stayed out at night without permission	0	1	2	3
39. Has run away from home overnight	0	1	2	3
40. Has forced someone into sexual activity	0	1	2	3
41. Is fearful, anxious, or worried	0	1	2	3
42. Is afraid to try new things for fear of making mistakes	0	1	2	3
43. Feels worthless or inferior	0	1	2	3
44. Blames self for problems, feels guilty	0	1	2	3
45. Feels lonely, unwanted, or unloved; complains that "no one loves him or her"	0	1	2	3
46. Is sad, unhappy, or depressed	0	1	2	3
47. Is self-conscious or easily embarrassed	0	1	2	3

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
48. Overall school performance	1	2	3	4	5
49. Reading	1	2	3	4	5
50. Writing	1	2	3	4	5
51. Mathematics	1	2	3	4	5
52. Relationship with parents	1	2	3	4	5
53. Relationship with siblings	1	2	3	4	5
54. Relationship with peers	1	2	3	4	5
55. Participation in organized activities (eg, teams)	1	2	3	4	5

Comments:

For Office Use Only

Total number of questions scored 2 or 3 in questions 1–9: _____

Total number of questions scored 2 or 3 in questions 10–18: _____

Total Symptom Score for questions 1–18: _____

Total number of questions scored 2 or 3 in questions 19–26: _____

Total number of questions scored 2 or 3 in questions 27–40: _____

Total number of questions scored 2 or 3 in questions 41–47: _____

Total number of questions scored 4 or 5 in questions 48–55: _____

Average Performance Score: _____

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Teacher's Name: _____ Class Time: _____ Class Name/Period: _____

Today's Date: _____ Child's Name: _____ Grade Level: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of the child you are rating and should reflect that child's behavior since the beginning of the school year. Please indicate the number of weeks or months you have been able to evaluate the behaviors: _____.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Fails to give attention to details or makes careless mistakes in schoolwork	0	1	2	3
2. Has difficulty sustaining attention to tasks or activities	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through on instructions and fails to finish schoolwork (not due to oppositional behavior or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (school assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by extraneous stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat in classroom or in other situations in which remaining seated is expected	0	1	2	3
12. Runs about or climbs excessively in situations in which remaining seated is expected	0	1	2	3
13. Has difficulty playing or engaging in leisure activities quietly	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks excessively	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting in line	0	1	2	3
18. Interrupts or intrudes on others (eg, butts into conversations/games)	0	1	2	3
19. Loses temper	0	1	2	3
20. Actively defies or refuses to comply with adult's requests or rules	0	1	2	3
21. Is angry or resentful	0	1	2	3
22. Is spiteful and vindictive	0	1	2	3
23. Bullies, threatens, or intimidates others	0	1	2	3
24. Initiates physical fights	0	1	2	3
25. Lies to obtain goods for favors or to avoid obligations (eg, "cons" others)	0	1	2	3
26. Is physically cruel to people	0	1	2	3
27. Has stolen items of nontrivial value	0	1	2	3
28. Deliberately destroys others' property	0	1	2	3
29. Is fearful, anxious, or worried	0	1	2	3
30. Is self-conscious or easily embarrassed	0	1	2	3
31. Is afraid to try new things for fear of making mistakes	0	1	2	3

The recommendations in this publication do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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D4**NICHQ Vanderbilt Assessment Scale—TEACHER Informant, continued**

Teacher's Name: _____ Class Time: _____ Class Name/Period: _____

Today's Date: _____ Child's Name: _____ Grade Level: _____

Symptoms (continued)	Never	Occasionally	Often	Very Often
32. Feels worthless or inferior	0	1	2	3
33. Blames self for problems; feels guilty	0	1	2	3
34. Feels lonely, unwanted, or unloved; complains that "no one loves him or her"	0	1	2	3
35. Is sad, unhappy, or depressed	0	1	2	3

Performance				Somewhat	
Academic Performance	Excellent	Above Average	Average	of a Problem	Problematic
36. Reading	1	2	3	4	5
37. Mathematics	1	2	3	4	5
38. Written expression	1	2	3	4	5

				Somewhat	
Classroom Behavioral Performance	Excellent	Above Average	Average	of a Problem	Problematic
39. Relationship with peers	1	2	3	4	5
40. Following directions	1	2	3	4	5
41. Disrupting class	1	2	3	4	5
42. Assignment completion	1	2	3	4	5
43. Organizational skills	1	2	3	4	5

Comments:

Please return this form to: _____

Mailing address: _____

Fax number: _____

For Office Use Only

Total number of questions scored 2 or 3 in questions 1–9: _____

Total number of questions scored 2 or 3 in questions 10–18: _____

Total Symptom Score for questions 1–18: _____

Total number of questions scored 2 or 3 in questions 19–28: _____

Total number of questions scored 2 or 3 in questions 29–35: _____

Total number of questions scored 4 or 5 in questions 36–43: _____

Average Performance Score: _____

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Today's Date: _____ Child's Name: _____ Date of Birth: _____

Parent's Name: _____ Parent's Phone Number: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of your child. Please think about your child's behaviors since the last assessment scale was filled out when rating his/her behaviors.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected	0	1	2	3
12. Runs about or climbs too much when remaining seated is expected	0	1	2	3
13. Has difficulty playing or beginning quiet play activities	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes in on others' conversations and/or activities	0	1	2	3

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
19. Overall school performance	1	2	3	4	5
20. Reading	1	2	3	4	5
21. Writing	1	2	3	4	5
22. Mathematics	1	2	3	4	5
23. Relationship with parents	1	2	3	4	5
24. Relationship with siblings	1	2	3	4	5
25. Relationship with peers	1	2	3	4	5
26. Participation in organized activities (eg, teams)	1	2	3	4	5

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HE0352

Today's Date: _____ Child's Name: _____ Date of Birth: _____
 Parent's Name: _____ Parent's Phone Number: _____

Side Effects: Has your child experienced any of the following side effects or problems in the past week?	Are these side effects currently a problem?			
	None	Mild	Moderate	Severe
Headache				
Stomachache				
Change of appetite—explain below				
Trouble sleeping				
Irritability in the late morning, late afternoon, or evening—explain below				
Socially withdrawn—decreased interaction with others				
Extreme sadness or unusual crying				
Dull, tired, listless behavior				
Tremors/feeling shaky				
Repetitive movements, tics, jerking, twitching, eye blinking—explain below				
Picking at skin or fingers, nail biting, lip or cheek chewing—explain below				
Sees or hears things that aren't there				

Explain/Comments:

For Office Use Only

Total Symptom Score for questions 1–18: _____

Average Performance Score for questions 19–26: _____

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Teacher's Name: _____ Class Time: _____ Class Name/Period: _____

Today's Date: _____ Child's Name: _____ Grade Level: _____

Directions: Each rating should be considered in the context of what is appropriate for the age of the child you are rating and should reflect that child's behavior since the last assessment scale was filled out. Please indicate the number of weeks or months you have been able to evaluate the behaviors: _____.

Is this evaluation based on a time when the child ☐ was on medication ☐ was not on medication ☐ not sure?

Symptoms	Never	Occasionally	Often	Very Often
1. Does not pay attention to details or makes careless mistakes with, for example, homework	0	1	2	3
2. Has difficulty keeping attention to what needs to be done	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through when given directions and fails to finish activities (not due to refusal or failure to understand)	0	1	2	3
5. Has difficulty organizing tasks and activities	0	1	2	3
6. Avoids, dislikes, or does not want to start tasks that require ongoing mental effort	0	1	2	3
7. Loses things necessary for tasks or activities (toys, assignments, pencils, or books)	0	1	2	3
8. Is easily distracted by noises or other stimuli	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat when remaining seated is expected	0	1	2	3
12. Runs about or climbs too much when remaining seated is expected	0	1	2	3
13. Has difficulty playing or beginning quiet play activities	0	1	2	3
14. Is "on the go" or often acts as if "driven by a motor"	0	1	2	3
15. Talks too much	0	1	2	3
16. Blurts out answers before questions have been completed	0	1	2	3
17. Has difficulty waiting his or her turn	0	1	2	3
18. Interrupts or intrudes in on others' conversations and/or activities	0	1	2	3

Performance	Excellent	Above Average	Average	Somewhat of a Problem	Problematic
19. Reading	1	2	3	4	5
20. Mathematics	1	2	3	4	5
21. Written expression	1	2	3	4	5
22. Relationship with peers	1	2	3	4	5
23. Following direction	1	2	3	4	5
24. Disrupting class	1	2	3	4	5
25. Assignment completion	1	2	3	4	5
26. Organizational skills	1	2	3	4	5

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Teacher's Name: _____ Class Time: _____ Class Name/Period: _____

Today's Date: _____ Child's Name: _____ Grade Level: _____

Side Effects: Has the child experienced any of the following side effects or problems in the past week?	Are these side effects currently a problem?			
	None	Mild	Moderate	Severe
Headache				
Stomachache				
Change of appetite—explain below				
Trouble sleeping				
Irritability in the late morning, late afternoon, or evening—explain below				
Socially withdrawn—decreased interaction with others				
Extreme sadness or unusual crying				
Dull, tired, listless behavior				
Tremors/feeling shaky				
Repetitive movements, tics, jerking, twitching, eye blinking—explain below				
Picking at skin or fingers, nail biting, lip or cheek chewing—explain below				
Sees or hears things that aren't there				

Explain/Comments:**For Office Use Only**

Total Symptom Score for questions 1–18: _____

Average Performance Score: _____

Please return this form to: _____

Mailing address: _____

Fax number: _____

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Scoring Instructions for the NICHQ Vanderbilt Assessment Scales

These scales should NOT be used alone to make any diagnosis. You must take into consideration information from multiple sources. Scores of 2 or 3 on a single Symptom question reflect often-occurring behaviors. Scores of 4 or 5 on Performance questions reflect problems in performance.

The initial assessment scales, parent and teacher, have 2 components: symptom assessment and impairment in performance. On both the parent and teacher initial scales, the symptom assessment screens for symptoms that meet criteria for both inattentive (items 1–9) and hyperactive/ADHD (items 10–18).

To meet DSM-IV criteria for the diagnosis, one must have at least 6 positive responses to either the inattentive 9 or hyperactive 9 core symptoms, or both. A positive response is a 2 or 3 (often, very often) (you could draw a line straight down the page and count the positive answers in each subsegment). There is a place to

record the number of positives in each subsegment, and a place for total score for the first 18 symptoms (just add them up).

The initial scales also have symptom screens for 3 other co-morbidities—oppositional-defiant, conduct, and anxiety/depression. These are screened by the number of positive responses in each of the segments separated by the “squares.” The specific item sets and numbers of positives required for each co-morbid symptom screen set are detailed below.

The second section of the scale has a set of performance measures, scored 1 to 5, with 4 and 5 being somewhat of a problem/problematic. To meet criteria for ADHD there must be at least one item of the Performance set in which the child scores a 4 or 5; i.e., there must be impairment, not just symptoms to meet diagnostic criteria. The sheet has a place to record the number of positives (4s, 5s) and an Average Performance Score—add them up and divide by number of Performance criteria answered.

Parent Assessment Scale	Teacher Assessment Scale
<p>Predominantly Inattentive subtype</p> <ul style="list-style-type: none"> Must score a 2 or 3 on 6 out of 9 items on questions 1–9 AND Score a 4 or 5 on any of the Performance questions 48–55 <p>Predominantly Hyperactive/Impulsive subtype</p> <ul style="list-style-type: none"> Must score a 2 or 3 on 6 out of 9 items on questions 10–18 AND Score a 4 or 5 on any of the Performance questions 48–55 <p>ADHD Combined Inattention/Hyperactivity</p> <ul style="list-style-type: none"> Requires the above criteria on both inattention and hyperactivity/impulsivity <p>Oppositional-Defiant Disorder Screen</p> <ul style="list-style-type: none"> Must score a 2 or 3 on 4 out of 8 behaviors on questions 19–26 AND Score a 4 or 5 on any of the Performance questions 48–55 <p>Conduct Disorder Screen</p> <ul style="list-style-type: none"> Must score a 2 or 3 on 3 out of 14 behaviors on questions 27–40 AND Score a 4 or 5 on any of the Performance questions 48–55 <p>Anxiety/Depression Screen</p> <ul style="list-style-type: none"> Must score a 2 or 3 on 3 out of 7 behaviors on questions 41–47 AND Score a 4 or 5 on any of the Performance questions 48–55 	<p>Predominantly Inattentive subtype</p> <ul style="list-style-type: none"> Must score a 2 or 3 on 6 out of 9 items on questions 1–9 AND Score a 4 or 5 on any of the Performance questions 36–43 <p>Predominantly Hyperactive/Impulsive subtype</p> <ul style="list-style-type: none"> Must score a 2 or 3 on 6 out of 9 items on questions 10–18 AND Score a 4 or 5 on any of the Performance questions 36–43 <p>ADHD Combined Inattention/Hyperactivity</p> <ul style="list-style-type: none"> Requires the above criteria on both inattention and hyperactivity/impulsivity <p>Oppositional-Defiant/Conduct Disorder Screen</p> <ul style="list-style-type: none"> Must score a 2 or 3 on 3 out of 10 items on questions 19–28 AND Score a 4 or 5 on any of the Performance questions 36–43 <p>Anxiety/Depression Screen</p> <ul style="list-style-type: none"> Must score a 2 or 3 on 3 out of 7 items on questions 29–35 AND Score a 4 or 5 on any of the Performance questions 36–43

The parent and teacher follow-up scales have the first 18 core ADHD symptoms, not the co-morbid symptoms. The section segment has the same Performance items and impairment assessment as the initial scales, and then has a side-effect reporting scale that can be used to both assess and monitor the presence of adverse reactions to medications prescribed, if any.

Scoring the follow-up scales involves only calculating a total symptom score for items 1–18 that can be tracked over time, and

the average of the Performance items answered as measures of improvement over time with treatment.

Parent Assessment Follow-up

- Calculate **Total** Symptom Score for questions 1–18.
- Calculate **Average** Performance Score for questions 19–26.

Teacher Assessment Follow-up

- Calculate **Total** Symptom Score for questions 1–18.
- Calculate **Average** Performance Score for questions 19–26.

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SNAP-IV 26-Item Teacher and Parent Rating Scale
James M. Swanson, Ph.D., University of California, Irvine, CA 92715

Patient/Client Name: _____

Date of birth: _____

Gender: _____

Grade: _____ Type of class: _____

Class size: _____

Completed by: _____

Date: _____

Physician Name: _____

For each item, check the column which best describes this child/adolescent:

	Not at all	Just a little	Quite a bit	Very much
1. Often fails to give close attention to details or makes careless mistakes in schoolwork or tasks				
2. Often has difficulty sustaining attention in tasks or play activities				
3. Often does not seem to listen when spoken to directly				
4. Often does not follow through on instructions and fails to finish schoolwork, chores, or duties				
5. Often has difficulty organizing tasks and activities				
6. Often avoids, dislikes, or reluctantly engages in tasks requiring sustained mental effort				
7. Often loses things necessary for activities (e.g., toys, school assignments, pencils or books)				
8. Often is distracted by extraneous stimuli				
9. Often is forgetful in daily activities				
10. Often fidgets with hands or feet or squirms in seat				
11. Often leaves seat in classroom or in other situations in which remaining seated is expected				
12. Often runs about or climbs excessively in situations in which it is inappropriate				
13. Often has difficulty playing or engaging in leisure activities quietly				
14. Often is "on the go" or often acts as if "driven by a motor"				
15. Often talks excessively				
16. Often blurts out answers before questions have been completed				
17. Often has difficulty awaiting turn				
18. Often interrupts or intrudes on others (e.g., butts into conversations/games)				
19. Often loses temper				
20. Often argues with adults				
21. Often actively defies or refuses adult requests or rules				
22. Often deliberately does things that annoy other people				
23. Often blames others for his or her mistakes or misbehaviour				
24. Often is touchy or easily annoyed by others				
25. Often is angry and resentful				
26. Often is spiteful or vindictive				

Scoring guide for SNAP-IV 26-Item Teacher and Parent Rating Scale

The SNAP-IV 26-item scale is an abbreviated version of the Swanson, Nolan, and Pelham (SNAP) Questionnaire (Swanson, 1992; Swanson et al., 1983). Items from the *DSM-IV* criteria for attention-deficit/hyperactivity disorder (ADHD) are included for the two subsets of symptoms: Inattention (items 1–9) and Hyperactivity/Impulsivity (items 10–18). Also, items from the *DSM-IV* criteria for oppositional defiant disorder (ODD) are included (items 19–26) because ODD is often present in children with ADHD.

Symptom severity is rated on a 4-point scale. Responses are scored as follows:

- Not at all = 0
- Just a little = 1
- Quite a bit = 2
- Very much = 3

The scores in each of the three subsets (inattention, hyperactivity/impulsivity, and opposition/defiance) are totalled. A suggested scoring guideline is below:

Questions 1 – 9: Inattention Subset

- < 13/27 = Symptoms not clinically significant
- 13 – 17 = Mild symptoms
- 18 – 22 = Moderate symptoms
- 23 – 27 = Severe symptoms

Questions 10 – 18: Hyperactivity/Impulsivity Subset

- <13/27 = Symptoms not clinically significant
- 13 – 17 = Mild symptoms
- 18 – 22 = Moderate symptoms
- 23 – 27 = Severe symptoms

Questions 19 – 26: Opposition/Defiance Subset

- < 8/24 = Symptoms not clinically significant
- 8 – 13 = Mild symptoms
- 14 – 18 = Moderate symptoms
- 19 – 24 = Severe symptoms

Suggested Targets:

- <13/27 for inattention
- <13/27 for hyperactivity/impulsivity
- <8/24 for oppositional defiant disorder

If desired, the average rating for each subset can be calculated by totalling the scores for the items in the subset and dividing by the number of items. The average can be compared with cut-off scores suggestive of ADHD reported in the literature.

Evidence-Based ADHD Treatments

Because ADHD affects multiple structures and functions of the brain, optimal treatment may be multifactorial, including medication and psychotherapy supported by home and school interventions. **For preschool children, parent behavioral training is recommended prior to treatment with medication.**

Medication

STIMULANTS

Stimulants are effective for the treatment of ADHD by enhancing transmission of dopamine and/or norepinephrine in the brain. Altered dopamine neurotransmission is implicated in problems with attentional and inhibitory control as well as motivation and responsiveness to rewards. Altered norepinephrine neurotransmission is implicated in problems with cognitive alertness and executive function, including working memory.

When a behavior disorder co-occurs with ADHD, stimulant medication can reduce defiance, negativism, and impulsive verbal and physical aggression. Stimulants also can be effective in children who have ADHD with intellectual disability and autism spectrum co-morbidities, although the degree of improvement may be less and side effects may be greater. All FDA-approved stimulants are considered to be first-line medications for the treatment of ADHD in children and adolescents.

ALPHA2 ADRENERGIC AGONISTS

Alpha adrenergics are effective for the treatment of ADHD by stimulating inhibitory noradrenergic receptors in the brain. Alpha adrenergics have been shown to improve hyperactivity, impulsivity, frustration tolerance, and executive function, and can reduce co-occurring behavior problems. Alpha adrenergics can be prescribed as mono-therapy or adjunctively to stimulants, as they can fill gaps in stimulant effectiveness and prevent end-of-the-day symptom rebound after stimulants wear off. The extended release formulations of alpha adrenergics have more research to support their use than the immediate release formulations, and use of extended release formulations can avoid the inconvenience of multiple doses throughout the day. All FDA-approved alpha agonists are considered to be first-line medications for the treatment of ADHD in children and adolescents.

NOREPINEPHRINE REUPTAKE INHIBITOR

Atomoxetine is effective for the treatment of ADHD by selectively enhancing norepinephrine transmission in the brain. Atomoxetine has been shown to be significantly less effective for ADHD than extended release stimulants, but is effective in some youths who have not responded to stimulant treatment. Atomoxetine also may improve co-occurring behavior and anxiety disorders. Atomoxetine is considered to be a first-line medication for the treatment of ADHD in children and adolescents. Atomoxetine might be the first medication choice for ADHD in the context of pre-existing insomnia, co-morbid anxiety, or substance abuse.

Psychotherapy

BEHAVIORAL PARENT TRAINING

Behavioral parent training shows benefit for ADHD symptoms for younger children, and is considered to be the first-line treatment for preschool aged children. Parents are taught to manage the child's environment by enhancing the parent-child relationship; providing consistent rules, routines and structure; implementing appropriate rewards for good behavior and consequences for misbehavior; and averting predictable opportunities for misbehavior.

COGNITIVE BEHAVIORAL THERAPY/EXECUTIVE SKILLS TRAINING

Cognitive behavioral therapy (CBT) for ADHD in older youths focuses on changing irrational thoughts and dysfunctional behavior patterns that prevent individuals from staying on task and completing assignments. Because deficits in executive function robustly delineate youths with ADHD from typically developing youths, part of CBT for ADHD emphasizes **executive skills training**. Executive skills include time management; maintaining focus; planning, organizing, and prioritizing tasks; detail orientation; and monitoring and regulating behavior in response to the environment.

School-Based Interventions

ACCOMMODATIONS/BEHAVIORAL INTERVENTIONS

Accommodations for youths with ADHD can be provided at school under an IEP or 504 plan.

An IEP requires formal or informal intelligence and achievement testing as well as other assessments to support one or more disability designations. The federal disability designation for ADHD is "Other Health Impaired". An IEP generally is more appropriate for youths with co-morbid attention and learning or language disabilities, as an IEP not only can provide accommodations for ADHD but also extensive supports for learning and language (e.g., learning accommodations and modifications, "related services" [e.g., psychology, social work, speech/occupational therapy] as indicated). School-based testing generally is preferred over self-pay private neuropsychological testing, unless there is concern for brain dysfunction from traumatic injury or pathophysiologic processes affecting the brain.

A 504 plan for ADHD accommodations does not require testing, only a determination that the youth has a "physical or mental impairment which substantially limits a major life activity" (e.g., ADHD). A pediatric clinician can make this determination. A 504 plan generally is more appropriate for youths with non-comorbid ADHD.

Typical accommodations include providing consistent classroom structure and routines, seating the child near the teacher and away from disruptive peers and other distractions, dividing assignments into small segments, providing cues for staying on task, providing backpack checks for assigned homework, reducing the quantity of repetitive classwork or homework, and communicating consistently with parents. If there is a co-occurring behavior disorder, a **Behavior Intervention Plan** based upon a **Functional Behavioral Analysis** can also be written into an IEP or 504 plan.

An effective intervention for enhancing communication with parents is the **daily report card**. Parents and teachers work together to choose goals for a child based on the behaviors that present the biggest challenge for him/her. The teacher rates the child's performance each day on each goal. If the child reaches a specified goal during the day, a reward is given at home by the parent.

A **token economy** is an effective intervention for entire school classrooms. Points are awarded in the classroom for students exhibiting target positive behaviors, which can be exchanged for classroom rewards when classroom goals are met.

How Are Evidence-Based Treatments for ADHD Selected and Sequenced?

In general, the choice of treatment in school-age children and older will depend upon the severity of the ADHD. For moderate to severe presentations, medication will likely be needed to bring the symptoms under control. A common sequence of medications would be to begin with an extended release medication from the methylphenidate class, followed by an extended release medication from the amphetamine class. If maximum doses of each of these two classes of medication in sequence are partially effective, ineffective, or not tolerated, the next choice would likely be an extended release alpha agonist, used either as monotherapy or adjunctively to the highest tolerated stimulant dose. Because of a slightly less favorable risk-benefit profile, the third choice likely would be atomoxetine, unless certain circumstances (insomnia, co-morbid anxiety or substance use) warrant beginning with this medication. Simultaneously with the first medication trial, home and school interventions should commence. Any psychiatric co-morbidities should be assessed and treated.

For mild presentations of ADHD in older children and teens, parents may prefer to begin with CBT/executive skills training along with classroom accommodations before considering a medication trial. For sub-clinical presentations of ADHD, parents and youth may wish to employ Guided Self-Management tools.

In preschool children, treatment generally should begin with behavioral parent training. Early initiation of medication might be considered if the child's placement in preschool or other important settings is threatened, if family function is highly disrupted, or if the child's ADHD symptoms present a danger to him/herself or others.

When severe ADHD co-occurs with a severe behavior disorder, more intensive treatment, such as that provided in a partial hospitalization program or intensive outpatient program, may be helpful to confirm diagnoses and institute a multi-pronged treatment plan. Otherwise a referral to outpatient psychiatric, developmental behavioral pediatric, or neurology care would be indicated.

ADHD Medication Guide

Prescribing Considerations for Specific Medications

STIMULANTS

No major differences between stimulants in efficacy or tolerability have been demonstrated, nor has a consistent patient profile identified those who will respond preferentially to one stimulant over another. The initial response rate may be as high as 85–90% if both stimulant classes (methylphenidate and amphetamine) are tried in sequence. Extended release formulations generally are preferred over immediate release formulations because of smoother pharmacokinetic/pharmacodynamic profiles and greater patient/family convenience.

Before initiating a stimulant, a personal and family cardiovascular history should be obtained. The FDA warns that stimulants should be avoided in the presence of structural cardiac abnormalities and patient symptoms or family history suggestive of cardiovascular disease. In these circumstances, cardiology consultation may be indicated prior to prescribing. The FDA has issued a boxed warning for abuse and dependence associated with stimulant medications. As such, personal or family history of substance-related disorders also should be assessed at baseline and considered in choice of stimulant. Visual and hearing impairments should be assessed and corrected. Noting a history of tics, insomnia, or anxiety at baseline can avert falsely attributing these problems to the stimulant medication.

Stimulants are generally well tolerated in children age 6 years and older and are generally safe for children younger than age 6 years, although young children may be more susceptible to certain side effects (irritability, clinging, repetitive behaviors). The most common (generally dose-dependent) side effects of stimulants in older children include headache, stomachache, appetite suppression, weight loss, diminished height attainment, blood pressure and pulse increases, and delayed sleep onset. Less common side effects include irritability, social withdrawal, habits (skin picking, nail biting), tics, aggression, and hallucinations (usually tactile).

Stimulant dosing is a stepped titration, rather than weight-based. Dosing should begin at the lowest end of the therapeutic dosage range, and should be increased to the next dose step approximately every 2 to 3 weeks as needed and tolerated up to but not exceeding the high end of the dosage range. Follow-up focused symptom rating scales (parent and teacher) ideally are repeated before every dosage increase to facilitate measurement-based treatment, which has been linked to better treatment outcomes.

Most extended release stimulant medications are varying combinations of immediate release and extended release components. To some extent, this allows for choosing a formulation that best addresses a patient's most symptomatic time of the day. For example, a patient who struggles most in the morning may do better with a higher ratio of immediate to extended release components (e.g., dexamethylphenidate XR, methylphenidate LA), whereas a patient who struggles most in the afternoon may do better with a lower ratio of immediate to extended release components (e.g., Oros methylphenidate, methylphenidate CD). It is also accepted practice to supplement an extended release medication with an immediate release formulation of the same medication in the later afternoon, to prevent rebound symptoms and facilitate attention during homework hours.

Medical monitoring of stimulants includes, at minimum, side effects at each dose; pulse rate and blood pressure at baseline and with dosage changes; weight at baseline, with dosage changes, and then two to four times per year; height at baseline and then two to four times per year. Signs of substance abuse/dependence also should be monitored.

ALPHA ADRENERGIC AGONISTS

Dosing for alpha agonists is weight-based, and for extended release formulations dosing is lower when prescribed adjunctively with stimulants. Dosing should begin at the lowest end of the therapeutic dosage range for weight and increased in increments of no more than 0.1mg (clonidine preparations) or 1mg (guanfacine preparations) approximately every 2 to 3 weeks as needed and tolerated up to but not exceeding the high end of the dosage range for weight. Follow-up focused symptom rating scales (parent and teacher) ideally are repeated before every dosage increase to facilitate measurement-based treatment. Extended release guanfacine tablets should be swallowed whole, and can be given either in the morning or evening at approximately the same time each day. The full effects of alpha adrenergic treatment may not be reached for 2 to 8 weeks.

Sedation, somnolence, fatigue, headache, abdominal pain, nausea, hypotension, bradycardia, syncope, cardiac conduction abnormalities, and rebound hypertension are potential side effects. Immediate-release clonidine has been associated with acute drops in blood pressure, syncope, and even death following unintentional or intentional ingestions of more than therapeutic quantities.

Before initiating an alpha agonist, a cardiovascular history should be obtained, as these drugs are contraindicated in patients with a history of syncope, bradycardia, or heart block. In this circumstance, cardiology consult may be indicated prior to prescribing. Medical monitoring includes, at minimum, side effects at each dose; and measurement of pulse rate and blood pressure at baseline with dosage changes. When discontinuing treatment, the daily dose should be tapered in decrements no more than the starting dose every 3 to 7 days to minimize the risk of rebound hypertension.

ATOMOXETINE

Atomoxetine capsules should be swallowed whole. Dosing for atomoxetine is weight-based, and should begin at the lowest end of the therapeutic dosage range for weight. The dose should be increased approximately every 3 to 7 days as needed and tolerated up to but not exceeding the high end of the dosage range for weight. Follow-up focused symptom rating scales (parent and teacher) ideally should be repeated before every dosage increase to facilitate measurement-based treatment.

A single morning dose of atomoxetine has been shown to be effective into the evening, and there does not appear to be symptom rebound. The full effects of atomoxetine treatment may not be reached for up to 8 weeks.

Common side effects of atomoxetine include headache, abdominal pain, decreased appetite, vomiting, somnolence, nausea, dizziness, and blood pressure and pulse increases. Atomoxetine also has been linked to emergence of new psychotic, manic, or aggression symptoms. Because growth suppression has been observed in association with atomoxetine, height and weight should be monitored. The FDA has published a boxed warning for suicidal ideation associated with atomoxetine. The FDA also warns that atomoxetine generally should be avoided in youths with known serious cardiac abnormalities. In this circumstance, cardiology consult may be indicated prior to prescribing. Rarely, atomoxetine has been linked to serious liver injury and should be discontinued in patients with jaundice or laboratory evidence of liver injury, and should not be re-started. Medical monitoring includes, at minimum, side effects at each dose; measurement of pulse rate and blood pressure at baseline and with dosage changes; and height and weight two to four times per year.

Duration of Medication Treatment

The duration of medication treatment is individually determined according to the presence of drug-responsive, functionally-impairing target symptoms as measured by parent and teacher focused symptom rating scales. To minimize unnecessary exposure to medication, each school year (but not at the beginning), the youth should have a drug-free trial of at least two weeks bracketed by the completion of rating scales to assess the effect of the discontinuation. Some youths may do well off medication on weekends and during vacations, which also serves to minimize unnecessary medication exposure.

ADHD Medication Dosing Guide

Name	Medication Class	FDA Approval (Pediatric age range in years)	Starting Dose	Daily Therapeutic Dosage Range	Usual Up-Titration Dose & Frequency	Approximate Duration of Action (hours)	Available Doses (mg)
Stimulants (selected for most commonly used) <i>Extended Release (XR, CD, LA, ER)</i>							
Oros methylphenidate (Concerta) 22% IR, 78% ER	Methylphenidate	ADHD (6+)	18mg	Age 6-12: 18-54mg Age >12+: 18-72mg	18mg 2-3 weeks	12	18, 27, 36, 54
Dexmethylphenidate XR (Generic and Focalin XR) 50%IR, 50% ER <i>Note: capsule contents may be sprinkled on soft food</i>	Methylphenidate	ADHD (6+)	5mg	5-30mg	5mg 2-3 weeks	12	Focalin XR: 5, 10, 15, 20, 25, 30, 35, 40 Generic: 5, 10, 15, 30, 40
Methylphenidate transdermal (Daytrana)	Methylphenidate	ADHD (6+)	10mg	10-30mg	10mg 2-3 weeks	12 (worn 9 hours)	10, 15, 20, 30
Methylphenidate ER liquid (Quillivant XR) 20% IR, 80% ER	Methylphenidate	ADHD (6+)	10mg	10-60mg	10mg/2mL 2-3 weeks	12	25mg/5mL
Methylphenidate CD (Generic and Metadate CD) 30% IR, 70% ER <i>Note: capsule contents may be sprinkled on soft food</i>	Methylphenidate	ADHD (6+)	10mg	10-60mg	10mg 2-3 weeks	8	10, 20, 30, 40, 50, 60
Methylphenidate LA (Generic and Ritalin LA) 50% IR, 50% ER <i>Note: capsule contents may be sprinkled on soft food</i>	Methylphenidate	ADHD (6+)	10mg	10-60mg	10mg 2-3 weeks	8	10, 20, 30, 40
Methylphenidate ER (Generic and Metadate ER)	Methylphenidate	ADHD (6+)	10mg	10-60mg	10mg 2-3 weeks	8	10, 20
Methylphenidate ER chewable (Generic and Quillichew ER) 30% IR, 50% ER	Methylphenidate	ADHD (6+)	20mg	20-60mg	10mg 2-3 weeks	8	20, 30, 40
Mixed amphetamine salts XR (Generic and Adderall XR) 50% IR, 50% ER <i>Note: capsule contents may be sprinkled on soft food</i>	Dextroamphetamine	ADHD (6+)	5mg	5-30mg	5mg 2-3 weeks	12	5, 10, 15, 20, 25, 30
Lisdexamfetamine capsule and chewable (Vyvanse) <i>Note: capsule contents may be sprinkled on soft food</i>	Dextroamphetamine	ADHD (6+)	10mg	10-70mg	10mg 2-3 weeks	12	Capsules: 10, 20, 30, 40, 50, 60, 70 Chewable: 10, 20, 30, 40, 50, 60
Dextroamphetamine ER (Generic and Dexedrine Spansule)	Dextroamphetamine	ADHD (6+)	5mg	5-40mg	5mg 2-3 weeks	8	5, 10, 15

Name	Medication Class	FDA Approval (Pediatric age range in years)	Starting Dose	Daily Therapeutic Dosage Range	Usual Up-Titration Dose & Frequency	Approx. Duration of Action (hours)	Available Doses (mg)
Stimulants <i>Immediate Release (IR)</i>							
Methylphenidate IR chewable (Generic and Ritalin)	Methylphenidate	ADHD (6+)	5mg bid (2.5mg bid if 3-5 years old)	5-60mg	5mg bid (2.5mg bid if 3-5 years old) 2-3 weeks	4	Tablet: 5, 10, 20 Liquid: 5mg/5mL, 10mg/5mL Chewable Tablet: 2.5, 5, 10
Dexmethylphenidate IR (Generic and Focalin)	Methylphenidate	ADHD (6+)	2.5mg bid	2.5-20mg	2.5mg bid 2-3 weeks	4	2.5, 5, 10
Dextroamphetamine IR (Dexedrine, DextroStat)	Dextroamphetamine	ADHD (3+)	2.5mg bid (1.25mg bid if 3-5 years old)	1.25-40mg	2.5mg bid (1.25mg bid if 3-5 years old) 2-3 weeks	4	2.5, 5, 7.5, 10, 20, 30
Mixed amphetamine salts IR (Generic and Adderall)	Dextroamphetamine	ADHD (3+)	2.5mg bid (1.25mg bid if 3-5 years old)	1.25-40mg	2.5mg bid (1.25mg bid if 3-5 years old) 2-3 weeks	4	5, 7.5, 10, 12.5, 15, 20, 30
Non-Stimulants							
Atomoxetine (Strattera)	Selective Norepinephrine Reuptake Inhibitor (SNRI)	ADHD (6+)	<70kg: 0.5 mg/kg/day >70kg: 40mg	<70kg: 0.5-1.2mg/kg/day >70kg: 40-100mg	Per weight 1-3 weeks	24	10, 18, 25, 40, 60, 80, 100
Clonidine IR (Catapres)	Alpha Agonist	None	0.05mg	25-40kg: 0.05-0.2mg 41-45kg: 0.05-0.3mg >45kg: 0.05-0.4kg Note: dosing is divided qid	0.05mg 1-3 weeks	4	0.1, 0.2, 0.3, 0.4
Guanfacine IR (Tenex)	Alpha Agonist	None	0.5mg	25-40kg: 0.5-2mg 41-45kg: 0.5-3mg ≥ 45kg: 0.5-4kg Note: dosing is divided tid	0.5mg 1-3 weeks	6	1, 2, 3, 4
Clonidine ER (Kapvay)	Alpha Agonist	ADHD (6-17)	0.1mg	25-40kg: 0.1-0.2mg 41-45kg: 0.1-0.3mg ≥ 45kg: 0.1-0.4kg Note: dosing is divided bid	0.1mg 1-3 weeks	12	0.1, 0.2, 0.3, 0.4
Guanfacine ER (Intuniv)	Alpha Agonist	ADHD (6-17)	1mg	25-40kg: 1-2mg 41-45kg: 1-3mg ≥ 45kg: 1-4kg	1mg 1-3 weeks	24	1, 2, 3, 4

ADHD Care Pathways

for Pediatric Primary Care

Screen

Screen for behavioral health problems:

Pediatric Symptom Checklist-17-Parent (ages 6-18); **Youth** (ages 11-18): (cut-points: 7 attention, 7 externalizing [behavior], individual attention & externalizing items)

Positive Screen

Conduct Focused Assessment

Conduct focused assessment (symptom rating scales & clinical interview)

- If concern for imminent danger, refer to hospital or crisis team for emergency psychiatric assessment
- Consult with child & adolescent psychiatrist (CAP) as needed

Symptom rating scale cut-points:

	ADHD cut-points (inattentive)	ADHD cut-points (hyperactive/impulsive)	Behavior cut-points
Vanderbilt Parent - Initial (age 6-12)	6+ "often" or "very often" on items 1-9	6+ "often" or "very often" on items 10-18	4+ "often" or "very often" on items 19-26
Vanderbilt Teacher - Initial (age 6-12)	6+ "often" or "very often" on items 1-9	6+ "often" or "very often" on items 10-18	3+ "often" or "very often" on items 19-28
SNAP-IV 26 Parent & Teacher (age 6-18)	13+ on items 1-9	13+ on items 10-18	8+ for items 19-26

Scores ≤ cut-points;
mild to no impairment

Sub-clinical to mild ADHD or behavior problem

Guided self-management with follow-up

Scores > cut-points;
moderate impairment

Moderate ADHD (or moderate ADHD with moderate behavior problem)

Consider medication; recommend home, school & study supports; for moderate ADHD with moderate behavior problem: recommend therapy

Scores >> cut-points;
severe impairment; psychiatric/psychosocial/
medical complexity; safety concerns

Severe ADHD with high-risk behavior problem or other co-morbidity

Refer to specialty care for therapy & medication management until stable

Consider Medication

Conduct baseline medical assessment: personal/family cardiovascular history; height, weight, pulse, blood pressure, substance abuse history

FDA-approved medications for ADHD (age 6+): *consider consulting with or referral to CAP for children age <6

Class	Drug	Starting Dose	Therapeutic Dosage Range
Methylphenidate	Oros methylphenidate extended release	18mg	18-72mg
	Dexmethylphenidate extended release	5mg	5-30mg
Amphetamine	Amphetamine/dextroamphetamine mixed salts extended release	5mg	5-30mg
	Lisdexamfetamine	20	20-70mg
Alpha Agonist	Guanfacine extended release	1mg	1-4mg per weight

Follow Up

Re-assess symptom severity with Vanderbilt Parent & Teacher Follow-Up or SNAP-IV Parent & Teacher every 2-3 weeks after administering starting dose, until symptoms have remitted and dose is stable

Scores < cut-points
with mild to no impairment

Remain at Current Dose

Remain at current dose for at least the remainder of school year; consider off medication on weekends, holidays, vacation days; consider discontinuation each school year, monitor with Vanderbilt Parent & Teacher Initial or SNAP-IV Parent & Teacher for several months for symptom recurrence

Scores > cut-points
& impairment persists

Increase Dose

Up-titrate dose stepwise every 2-3 weeks to maximum therapeutic dose as tolerated, obtaining Vanderbilt Parent & Teacher Follow-Up or SNAP-IV Parent & Teacher to confirm need for each dose increase

Scores > cut-points
at max therapeutic dose

Consider Alternate Drug

Consider switching to alternative stimulant class, or consider augmenting stimulant with alpha agonist, or consider switching to alpha agonist, or consult with or refer to CAP

Anxiety

Anxiety Overview

What is Anxiety?

Fear and anxiety are responses of the brain to real, imagined, or unconscious threats. While fear is associated with autonomic arousal in response to an imminent threat (“fight or flight”), anxiety is linked to muscle tension and vigilance in anticipation of a future threat. Fear and anxiety are basic human emotions with critical survival value.

Anxiety disorders differ from developmentally or circumstantially normal fear and anxiety by being excessive and persistent and by significantly impairing function. Anxiety disorders must be differentiated from other medical, medication, substance use, or psychiatric conditions that are associated with anxiety.

Are There Different Types of Anxiety?

There are several types of anxiety disorders, each of which has a unique presentation. The most common anxiety disorders in children and adolescents are described below. (Although Obsessive-Compulsive Disorder formerly was classified as an Anxiety Disorder, a greater understanding of the phenomenology, course, and response to treatment has led to its re-classification as an Obsessive-Compulsive and Related Disorder, along with other habit disorders).

SEPARATION ANXIETY DISORDER

Separation Anxiety Disorder is characterized by developmentally inappropriate, excessive worry or distress concerning separation from persons to whom the child is most emotionally attached. Symptoms can include nightmares with separation themes and inability to sleep alone, attend school, visit friends, go on errands, or stay at camp. To avoid leaving home, children may develop physical problems (headaches, stomachaches, nausea) which they may be actually experiencing. Precipitants of separation anxiety can include actual separations, family stressors, and medical illnesses or procedures.

SELECTIVE MUTISM

Selective Mutism is characterized by absence of speech in certain social situations where there is an expectation for speaking (e.g., at school) despite speaking freely in familiar situations (e.g., at home). The failure to speak is not attributable to discomfort with or lack of fluency in the host language. Many of these children are shy, withdrawn, socially inhibited, and fearful of new experiences. Selective mutism is seen more frequently in bilingual children of immigrant families. It can be challenging to distinguish selective mutism from a typical “silent period” of newly immigrated children, but selective mutism should be suspected if the mutism is prolonged despite adequate exposure to the host language.

SPECIFIC PHOBIA

Specific Phobia is characterized by excessive fear or worry about a specific object or situation (e.g., flying, heights, animals, receiving an injection, seeing blood). The phobic object or situation is out of proportion to the actual danger, and is actively avoided or endured with intense fear or anxiety. The phobia may be precipitated by an actual frightening event, such as a dog bite, fall from height, or painful injection.

SOCIAL ANXIETY DISORDER

Social Anxiety Disorder is characterized by excessive fear or worry about social situations in which the individual is exposed to possible negative scrutiny by others. The social situations include social interactions (e.g., meeting new people) and being observed by or performing in front of others. The fear or anxiety is out of proportion to the actual threat, and the threat is actively avoided or endured with intense fear or anxiety. Precipitants of the disorder can include humiliating social or performance experiences.

GENERALIZED ANXIETY DISORDER

Generalized Anxiety Disorder is characterized by excessive, uncontrollable worry regarding numerous everyday situations or activities. The greater the range of life circumstances about which a person worries, the more likely his or her symptoms are to meet full diagnostic criteria for the disorder. Physical symptoms accompanying generalized anxiety disorder can include restlessness, fatigue, inattention, irritability, muscle tension, and sleep disturbance, which are uncommon in everyday worries.

PANIC DISORDER

Panic Disorder is characterized by recurrent unexpected panic attacks accompanied by persistent worry about additional attacks or their consequences, and by significant avoidant behavior related to preventing a recurrence of the attacks. Physical symptoms accompanying a panic attack can include palpitations, shortness of breath, choking, chest pain, sweating, chills, trembling, paresthesias, dizziness, nausea, and fear of “going crazy” or dying. Panic attacks that are cued by expectable frightening situations are to be distinguished from panic disorder, in which attacks are uncued and functioning between attacks is impaired by fear and avoidant behavior related to additional attacks.

UNSPECIFIED ANXIETY DISORDER

This diagnosis can be used if functionally impairing symptoms of anxiety are present but full criteria for a specific anxiety disorder are not met, or if insufficient information is available to make a definitive diagnosis.

How Common is Anxiety?

The anxiety disorders are among the most common psychiatric disorders in children and adolescents. For specific anxiety disorders, lifetime prevalence rates approximate 20% for **specific phobia**, 9% for **social anxiety**, 8% for **separation anxiety**, 2% each for **panic** and **generalized anxiety**, and less than 1% for **selective mutism**.

What Causes Anxiety Disorders?

Genetic factors as manifested in brain structure and function account for approximately 40% of the variability in risk for anxiety disorders, while non-shared environmental factors account for most of the remaining 60%. Vulnerabilities in brain structure and function include an overactive amygdala resulting in brain hyper-responsiveness to real and imagined threats; underactive cortical circuitry resulting in impairments in processing and coping with threat information; hypoactive neurochemical messaging (primarily affecting the serotonergic system); and autonomic overreactivity (heightened “fight or flight” response).

When Do Anxiety Disorders Begin?

Separation anxiety and **selective mutism** typically (but not exclusively) arise in the preschool/early elementary years, **specific phobias** and **social anxiety** typically (but not exclusively) arise in elementary school-age children, and **generalized anxiety** and **panic** typically (but not exclusively) arise in adolescence/young adulthood.

How Long Do Anxiety Disorders Last?

Vulnerability to anxiety disorders may persist throughout the lifespan, conveying increased risk for anxiety and mood disorders during adulthood. The most common (around 50% of cases) course is intermittently relapsing, followed by chronic (around 30%) and remitted (20%). Different anxiety disorders may have different continuities. Specific and social phobias may persist over time in their original presentation; generalized anxiety may persist while acquiring co-morbidity with depression; separation anxiety may desist but in its place, panic disorder may develop; and selective mutism may desist but in its place, social anxiety may develop.

Which Other Conditions Can Masquerade as Anxiety?

A number of medical conditions (e.g., hyperthyroidism, hypoglycemic episodes, cardiac arrhythmias and valvular disease, caffeinism), medications (e.g., bronchodilators, antihistamines, sympathomimetics, stimulants), and substances (e.g., marijuana, cocaine, hallucinogens, withdrawal from nicotine/alcohol/caffeine) can masquerade as an Anxiety Disorder and should be ruled out prior to diagnosis. In addition, a number of other psychiatric disorders can present with anxiety. Questions about differential diagnosis can be addressed with the appropriate specialist.

Which Other Psychiatric Disorders Co-Occur With Anxiety Disorders?

Anxiety disorders are highly comorbid with each other. Depression is the most common non-anxiety co-occurring disorder; other co-occurring disorders include substance-related, attention/hyperactivity and behavior. Selectively mute children have higher rates of multiple developmental conditions, including delayed speech onset, speech disorders, and motor delays.

What Are the Outcomes of Persistent Anxiety Disorders?

The adverse sequelae of untreated anxiety disorders include impairments in educational, occupational, health, family, and social outcomes extending into adulthood. Panic disorder and generalized anxiety disorder with co-morbid depression are associated with a heightened risk of suicide.

How Are Anxiety Disorders Diagnosed?

Optimal diagnosis follows DSM-5 criteria as derived from clinical interview and observation. Focused symptom rating scales from multiple informants (especially the patient and parents) can support the diagnosis and establish baseline symptom severity. Older youth are usually better informants about their own experience of anxiety than are their parents; with younger children, parents' observations of the child's anxious behavior usually are the best source of information. Discrepancies between informants are expected, as they reveal each informant's unique view of the child's anxiety symptoms, which are internal and may not be readily or accurately discerned by others. A simple rule of regarding a symptom as being present by any informant's report can be an acceptable resolution of discrepancies.

If insufficient information is available to support a precise diagnosis or if symptoms do not meet full diagnostic criteria for a specific anxiety disorder, **Unspecified Anxiety Disorder** (ICD-10 F41.9) may be the most appropriate diagnosis.

Anxiety Symptom Rating Scales

SCREEN FOR CHILD ANXIETY RELATED DISORDERS (SCARED) Rating Scales

The SCARED rating scales are useful for **quantifying symptom severity at treatment baseline and follow-up in 5 domains of anxiety**: panic/significant somatic symptoms, generalized anxiety, separation anxiety, social anxiety, and school avoidance. Although the SCARED items for the first 4 of these domains do not precisely match DSM-5 diagnostic criteria for the corresponding psychiatric disorders, the total scores in these domains have been shown to be correlated with the corresponding diagnoses. School avoidance does not have a corresponding psychiatric diagnosis, as this symptom can be present across multiple anxiety disorders. The SCARED scales are appropriate for children and teens age 8 to 18 and have two versions: parent and child/teen.

The SCARED rating scales may be preferable to the GAD-7 rating scale (see next section) when a broader anxiety assessment is desired (e.g., for anxiety disorders beyond generalized anxiety), or when the patient is a younger child (under age 12).

ADMINISTRATION

The SCARED rating scales can be administered:

- after verbal report of problems with anxiety
- after a score of 2 ("often") on the anxiety item (# 15) on the PSC-17

After a positive anxiety screen, both the parent and child/teen versions of the SCARED can be sent home with the parent, with instructions to bring both completed scales to a follow-up visit. Scales may also be able to be transmitted through a patient portal. Parents and their children should complete their versions independently, as differences in their scores can be clinically useful. For children at the younger end of the validated age range, it is important to ensure that the child understands both the items and the Likert scoring scale. Every day examples ("I like ice cream") can be helpful.

SCORING

Responses to both the parent and child/teen versions of the SCARED are scored as follows:

- Each item is endorsed by the respondent as occurring:
 - » Not true or hardly ever true (scored as 0)
 - » Somewhat true or sometimes true (scored as 1)
 - » Very true or often true (scored as 2)
- A total score is summed across all items on the scale
- Sub-scale scores corresponding to the 5 assessed anxiety domains can also be calculated according to the procedure on the bottom of the scales

SCORE INTERPRETATION

- A **clinically significant score** (warranting behavioral health intervention) on the SCARED is ≥ 25
- Scoring is the same for both parent and child/teen versions
- In the primary care setting, the total score is more useful than the sub-scale scores, as the total score does not correspond to a precise diagnosis, rather is an indication of a clinically significant anxiety problem
- An appropriate diagnosis for a clinically significant SCARED score is **Unspecified Anxiety Disorder** (ICD-10: F41.9)

GENERALIZED ANXIETY DISORDER-7 (GAD-7) RATING SCALE

The GAD-7 rating scale is useful for **quantifying the severity of generalized anxiety at treatment baseline and follow-up**. Although the GAD-7 items do not precisely match DSM-5 diagnostic criteria, the total has been shown to be correlated with a diagnosis of Generalized Anxiety Disorder. The GAD-7 does not assess symptoms of other anxiety disorders (separation, panic, social); if a broader assessment is desired, the SCARED may be a more appropriate instrument. The GAD-7 has only one version to be completed by teens age 12 and above.

The GAD-7 rating scale may be preferable to the SCARED rating scales (see previous section) when a focused anxiety screen is sufficient (e.g., generalized anxiety is one of the more common anxiety disorders in older youth), or when the patient is an older youth (age 12 and older). As an additional consideration, PCPs may wish to administer the GAD-7 (in combination with the PHQ-9 as indicated) as a follow-up to a positive PHQ-4 in adolescents, if the PHQ-4 is used in lieu of the PSC-17 youth version.

ADMINISTRATION

The GAD-7 rating scale can be administered:

- after verbal report of problems with anxiety
- after a score of 2 ("often") on the anxiety item (# 15) on the PSC-17

After a positive anxiety screen, the GAD-7 can be sent home with the youth, with instructions to bring the completed scale to a follow-up visit. Scales may also be able to be transmitted through a patient portal.

SCORING

Responses to the GAD-7 are scored as follows:

- Each item is endorsed by the respondent as occurring:
 - » Not at all (scored as 0)
 - » Several days (scored as 1)
 - » More than half the days (scored as 2)
 - » Nearly every day (scored as 3)
- A total score is summed across all items on the scale
- An unscored item of functional impairment due to anxiety is also included on the scale

SCORE INTERPRETATION

- A clinically significant score (warranting behavioral health intervention) on the GAD-7 is ≥ 10
- An appropriate diagnosis for a clinically significant GAD-7 score is Unspecified Anxiety Disorder (ICD-10: F41.9)

Screen for Child Anxiety Related Disorders (SCARED)

PARENT Version—Page 1 of 2 (to be filled out by the PARENT)

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 your child. Then, for each statement, check ☒ the box that corresponds to the response that seems to describe your child *for the last 3 months*. Please respond to all statements as well as you can, even if some do not seem to concern your child.

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True	
1. When my child feels frightened, it is hard for him/her to breathe.				PA/SO
2. My child gets headaches when he/she is at school.				SCH
3. My child doesn't like to be with people he/she doesn't know well.				SOC
4. My child gets scared if he/she sleeps away from home.				SEP
5. My child worries about other people liking him/her.				GA
6. When my child gets frightened, he/she feels like passing out.				PA/SO
7. My child is nervous.				GA
8. My child follows me wherever I go.				SEP
9. People tell me that my child looks nervous.				PA/SO
10. My child feels nervous with people he/she doesn't know well.				SOC
11. My child gets stomachaches at school.				SCH
12. When my child gets frightened, he/she feels like he/she is going crazy.				PA/SO
13. My child worries about sleeping alone.				SEP
14. My child worries about being as good as other kids.				GA
15. When my child gets frightened, he/she feels like things are not real.				PA/SO
16. My child has nightmares about something bad happening to his/her parents.				SEP
17. My child worries about going to school.				SCH
18. When my child gets frightened, his/her heart beats fast.				PA/SO
19. He/she gets shaky.				PA/SO
20. My child has nightmares about something bad happening to him/her.				SEP

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

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True	
21. My child worries about things working out for him/her.				GA
22. When my child gets frightened, he/she sweats a lot.				PA/SO
23. My child is a worrier.				GA
24. My child gets really frightened for no reason at all.				PA/SO
25. My child is afraid to be alone in the house.				SEP
26. It is hard for my child to talk with people he/she doesn't know well.				SOC
27. When my child gets frightened, he/she feels like he/she is choking.				PA/SO
28. People tell me that my child worries too much.				GA
29. My child doesn't like to be away from his/her family.				SEP
30. My child is afraid of having anxiety (or panic) attacks.				PA/SO
31. My child worries that something bad might happen to his/her parents.				SEP
32. My child feels shy with people he/she doesn't know well.				SOC
33. My child worries about what is going to happen in the future.				GA
34. When my child gets frightened, he/she feels like throwing up.				PA/SO
35. My child worries about how well he/she does things.				GA
36. My child is scared to go to school.				SCH
37. My child worries about things that have already happened.				GA
38. When my child gets frightened, he/she feels dizzy.				PA/SO
39. My child feels nervous when he/she is with other children or adults and he/she has to do something while they watch him/her (for example: read aloud, speak, play a game, play a sport).				SOC
40. My child feels nervous when he/she is going to parties, dances, or any place where there will be people that he/she doesn't know well.				SOC
41. My child is shy.				SOC

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**. **PA/SO =**

A score of 9 for items 5, 7, 14, 21, 23, 28, 33, 35, 37 **may** indicate **Generalized Anxiety Disorder**. **GA =**

A score of 5 for items 4, 8, 13, 16, 20, 25, 29, 31 **may** indicate **Separation Anxiety**. **SEP =**

A score of 8 for items 3, 10, 26, 32, 39, 40, 41 **may** indicate **Social Phobic Disorder**. **SOC =**

A score of 3 for items 2, 11, 17, 36 **may** indicate **Significant School Avoidance**. **SCH =**

The SCARED is available at no cost at www.pediatricbipolar.pitt.edu under resources/instruments.

January 19, 2018

Screen for Child Anxiety Related Disorders (SCARED)

CHILD Version—Page 1 of 2 (to be filled out by the CHILD)

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, check ☒ the box 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.				PA/SO
2. I get headaches when I am at school.				SCH
3. I don't like to be with people I don't know well.				SOC
4. I get scared if I sleep away from home.				SEP
5. I worry about other people liking me.				GA
6. When I get frightened, I feel like passing out.				PA/SO
7. I am nervous.				GA
8. I follow my mother or father wherever they go.				SEP
9. People tell me that I look nervous.				PA/SO
10. I feel nervous with people I don't know well.				SOC
11. I get stomachaches at school.				SCH
12. When I get frightened, I feel like I am going crazy.				PA/SO
13. I worry about sleeping alone.				SEP
14. I worry about being as good as other kids.				GA
15. When I get frightened, I feel like things are not real.				PA/SO
16. I have nightmares about something bad happening to my parents.				SEP
17. I worry about going to school.				SCH
18. When I get frightened, my heart beats fast.				PA/SO
19. I get shaky.				PA/SO
20. I have nightmares about something bad happening to me.				SEP

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

	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.				GA
22. When I get frightened, I sweat a lot.				PA/SO
23. I am a worrier.				GA
24. I get really frightened for no reason at all.				PA/SO
25. I am afraid to be alone in the house.				SEP
26. It is hard for me to talk with people I don't know well.				SOC
27. When I get frightened, I feel like I am choking.				PA/SO
28. People tell me that I worry too much.				GA
29. I don't like to be away from my family.				SEP
30. I am afraid of having anxiety (or panic) attacks.				PA/SO
31. I worry that something bad might happen to my parents.				SEP
32. I feel shy with people I don't know well.				SOC
33. I worry about what is going to happen in the future.				GA
34. When I get frightened, I feel like throwing up.				PA/SO
35. I worry about how well I do things.				GA
36. I am scared to go to school.				SCH
37. I worry about things that have already happened.				GA
38. When I get frightened, I feel dizzy.				PA/SO
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).				SOC
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.				SOC
41. I am shy.				SOC

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**. **PA/SO =**

A score of 9 for items 5, 7, 14, 21, 23, 28, 33, 35, 37 may indicate **Generalized Anxiety Disorder**. **GA=**

A score of 5 for items 4, 8, 13, 16, 20, 25, 29, 31 may indicate **Separation Anxiety Disorder**. **SEP=**

A score of 8 for items 3, 10, 26, 32, 39, 40, 41 may indicate **Social Phobic Disorder**. **SOC =**

A score of 3 for items 2, 11, 17, 36 may indicate **Significant School Avoidance Symptoms**. **SCH=**

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 in case they have questions.

The SCARED is available at no cost at www.pediatricbipolar.pitt.edu under resources/instruments.

January 19, 2018

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 _____

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

Evidence-Based Treatments for Anxiety

Because anxiety disorders affect multiple structures and functions of the brain, optimal treatment may be multifactorial, including medication and psychotherapy supported by environmental interventions.

Psychotherapy

Cognitive-behavioral therapy (CBT) is effective for the treatment of anxiety by targeting the three primary manifestations of anxiety: cognitive, behavioral, and physiologic. CBT usually includes standard techniques of self-monitoring, relaxation training, cognitive restructuring, behavioral exposures, systematic desensitization, contracting and contingency management, problem-solving, and social skills training. The number and combination of these elements vary according to the specific anxiety disorder being treated. Family therapy may play an adjunctive role if family patterns contribute to the perpetuation of the child's disorder. Although therapists' skills in CBT may vary depending upon training and experience, most therapists can be expected to have some degree of expertise in this common therapeutic technique. Formal CBT attempts to achieve meaningful symptomatic and functional improvement within 3-4 months of weekly sessions; however subsequent "booster" sessions may enhance maintenance of the therapeutic effect and prevent relapse.

Medication

Selective serotonin reuptake inhibitors (SSRIs) are effective for the treatment of anxiety by enhancing the transmission of serotonin in the brain. Altered serotonergic function compromises the ability of the brain to modulate fear, anxiety, and stress as well as facilitate cognitive processing of those emotions. Because of their generally favorable risk/benefit profile, SSRIs are considered to be first-line medications for anxiety disorders.

Serotonin norepinephrine reuptake inhibitors (SNRIs) are effective for the treatment of anxiety by enhancing the transmission of both serotonin and norepinephrine in the brain. Although norepinephrine activity in the brain at high levels is known to heighten manifestations of agitation, stress, fear, and anxiety, this neurotransmitter alone and in combination with serotonin has a therapeutic effect in the treatment of anxiety disorders. This known "paradox" may be attributable to the favorable effect of norepinephrine on cognitive processing, or to the dampening of excessive noradrenergic activity in response to threat. Because of their less favorable risk/benefit profile, SNRIs are considered to be second-line medications for anxiety disorders, and in general should be prescribed only after two failed SSRI trials and preferably with consultation from a child and adolescent psychiatrist.

Symptom improvement in response to medication may occur as early as 2 weeks; however, the full effect of the medication for anxiety may not be achieved for 3 to 4 months. Around 70% of youths with clinically significant anxiety can be expected to respond to treatment with an SSRI. A smaller percentage achieves full remission. If combination treatment is provided (SSRI plus CBT), the corresponding figure approximates 80%.

Environmental Interventions

In addition to lifestyle interventions, including optimal nutrition, physical activity, sleep, recreation, and stress reduction and avoidance of substance use, CBT may be supplemented with additional interventions tailored to each disorder. For separation anxiety, home interventions may include eliminating secondary gain for staying home (e.g., doing schoolwork rather than screen time), and incorporating graduated exposure with rewards for increasing lengths of time at school and other activities. Accommodations under an IEP or 504 plan may include a gradual school re-entry plan and the ability to “check-in” with the attachment figures at scheduled times during the school day. For selective mutism, home interventions may include eliminating secondary gain for not speaking (e.g., responding to verbal requests rather than gestures); school accommodations may incorporate graduated exposure with rewards for speaking in the classroom. For social anxiety, home interventions may include opportunities to socialize with peers in comfortable situations; school accommodations may include school-based, counselor-led social skills groups, and for panic, accommodations may include visits to the school nurse for acute management of the attack. For all anxiety disorders, school-based counseling can be provided under an IEP or 504 plan.

How Are Evidence-Based Treatments for Anxiety Disorders Selected and Sequenced?

In general, the choice of treatment in children and adolescents will depend upon the severity of the anxiety disorder. For severe presentations, referral to a partial hospitalization program or outpatient program may be indicated to accelerate treatment. Otherwise a referral to outpatient psychiatric care would be indicated. For moderate presentations, because they are approximately equal in effectiveness, either CBT or SSRI medication can be offered, along with environmental modifications. It is likely that combination treatment (CBT and SSRI medication) is more effective than either treatment alone. CBT may be preferred as the initial treatment if the presentation is mild. For sub-clinical presentations of anxiety, parents and youth may wish to employ Guided Self-Management tools.

Anxiety Medication Guide

Prescribing Considerations for Specific Medications

SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIS)

At present, no SSRIs are FDA-approved for the treatment of anxiety disorders in children and adolescents. However, substantial research supports their use for this indication. No major differences in efficacy between SSRIs have been found, nor has a consistent patient profile identified those who will respond preferentially to one SSRI over another. However, different SSRIs have other characteristics that may lead to the choice of one over another.

Fluoxetine has the advantage of a long half-life, so that missed doses are less consequential, and a narrow therapeutic dosage range, so that maximal doses can be reached quickly. However, some individuals may react unfavorably to the activating effects of fluoxetine.

Sertraline has the disadvantage of a shorter half-life, which conveys a higher risk of discontinuation syndrome (see below for syndrome description), and a wide therapeutic dosage range, so that maximal doses take some time to reach.

Escitalopram (Lexapro) may have the least effect on CYP450 isoenzymes compared with other SSRIs and as such may be advantageous when there are concerns about drug-drug interactions. Escitalopram has a shorter half-life, with higher risk of discontinuation syndrome.

Citalopram (Celexa) has been associated with dose-dependent QTc prolongation associated with Torsade de Pointes, ventricular tachycardia, and sudden death, particularly at doses greater than 40mg/day. It is recommended that citalopram not be used in patients with congenital long QT syndrome, and should not be used in patients who are taking other drugs that prolong the QTc interval. Citalopram has a shorter half-life, with higher risk of discontinuation syndrome.

Fluvoxamine has been reported to have a greater number of drug-drug interactions than other SSRIs and has a shorter half-life, with higher risk of discontinuation syndrome.

Paroxetine (Paxil) may be associated with increased suicide risk, has a shorter half-life with higher risk of discontinuation syndrome, and has more anticholinergic and antihistaminic side effects than other SSRIs; as such, use of paroxetine likely should be avoided in children and adolescents.

More common side effects of the SSRIs can include nausea, headache, insomnia, fatigue, nervousness, somnolence, dry mouth, diarrhea, dizziness, tremor, vivid dreams, diaphoresis, changes in appetite, weight loss or gain, bruxism, and sexual dysfunction. Less common but potentially serious side effects include suicidal thinking or behavior, behavioral activation/agitation, precipitation of mania, seizures, abnormal bleeding, serotonin syndrome (see below), and discontinuation syndrome (see below). Pre-pubertal children are particularly sensitive to behavioral activation (restlessness, hyperactivity, impulsivity); accordingly recommended starting doses are lower for this age range.

The pooled absolute rates for suicidal ideation across all antidepressant classes and all anxiety indications are reported to be 1% for youth treated with an antidepressant and 0.2% for youth treated with a placebo. Despite the low risk, close monitoring for suicidality is recommended, especially in the first months of treatment.

Serotonin syndrome, caused by elevated brain serotonin levels, can be triggered when serotonergic medications are combined. The symptoms can arise within 24 hours and are characterized by mental status changes (confusion, agitation, anxiety); neuromuscular hyperactivity (tremors, clonus, hyperreflexia, muscle rigidity); and autonomic hyperactivity (hypertension, tachycardia, arrhythmias, tachypnea, diaphoresis, shivering, vomiting, diarrhea). Advanced symptoms include fever, seizures, arrhythmias, and unconsciousness. Treatment is hospital-based and includes discontinuation of all serotonergic agents and supportive care with continuous cardiac monitoring.

Monoamine oxidase inhibitors (MAOIs), (including phenelzine, isocarboxazid, moclobemide, isoniazid, and linezolid) are a major cause of serotonin syndrome and should be avoided in combination with any other serotonergic drug, including another MAOI. Moreover, caution should be exercised when combining two or more non-MAOI serotonergic drugs, including antidepressants (e.g., SSRIs, SNRIs, tricyclic antidepressants, atypical antidepressants); opioids and other pain medications (e.g., tramadol, meperidine, methadone, fentanyl); stimulants (e.g., amphetamine and possibly methylphenidate medication classes); cough/cold/allergy medications (e.g., dextromethorphan, chlorpheniramine); other over-the-counter products (e.g., St. John's wort, L-tryptophan, diet pills); and illicit drugs (e.g., Ecstasy, methamphetamine, cocaine, LSD). Caution entails starting the second non-MAOI serotonergic medication at a low dose, increasing the dose slowly, and monitoring for symptoms, especially in the first 24-48 hours after dosage changes.

A typical SSRI trial for anxiety would entail increasing the starting dose (if adherence is confirmed) within the therapeutic dosage range in the smallest available increments at approximately 1-2 week intervals when prescribing shorter half-life SSRIs (e.g., sertraline, escitalopram, citalopram) to approximately 3-4 week intervals when prescribing longer half-life SSRIs (e.g., fluoxetine) until the benefit-to-harm ratio is optimized and remission is achieved. Because an initial adverse effect of SSRIs can be anxiety or agitation, it may be advisable to start with a sub-therapeutic dose as a "test" dose. Systematic assessment of treatment response using focused symptom rating scales facilitates measurement-based treatment, which has been linked to better treatment outcomes.

Treatment-emergent adverse effects should be closely monitored. If concerning adverse effects are reported or observed that could reasonably be linked to the medication, in general the dose of medication would be reduced, and if the adverse effect persists or is serious, the medication would be discontinued. For all SSRIs, medical monitoring can include height and weight; no specific laboratory tests are recommended.

If the maximum tolerated dose of the first SSRI is partially effective, ineffective, or not tolerated, the next choice would be to switch to an alternative SSRI and add CBT (if not already provided). There is no definitive empirical guidance for switching from one SSRI to another. Although the most conservative approach to minimize the potential for serotonin syndrome would entail tapering and discontinuing the first SSRI before adding the second (with a washout interval if the first SSRI is fluoxetine), this approach entails the risk of exacerbation of the original symptoms, or withdrawal/discontinuation symptoms if the first SSRI (other than fluoxetine) is discontinued abruptly. Cross-tapering of two SSRIs may avoid these outcomes, but should be closely monitored (see above).

If two consecutive SSRI trials are partially effective, ineffective, or not tolerated, a consultation with a child and adolescent psychiatrist would be appropriate for consideration of alternative medication regimens.

Duration of Medication Treatment

The optimal duration of pharmacologic treatment of anxiety disorders for continued symptom remission is unclear, but a generally accepted approach would be to continue an effective, tolerated dose for approximately 12 months after remission, monitoring for several months after discontinuation for re-emergence of symptoms. Discontinuation generally can occur in 25-50% dose decrements every 2-4 weeks, although there is no definitive evidence supporting the optimal taper. Discontinuation generally should occur during a relatively stress-free period. Some youths with severe and chronic anxiety presentations may benefit from lengthier medication treatment.

A **discontinuation syndrome** characterized variously by dizziness, fatigue, lethargy, general malaise, myalgias, chills, headaches, nausea, vomiting, diarrhea, insomnia, imbalance, vertigo, sensory disturbances, paresthesias, anxiety, irritability, and agitation has been reported following discontinuation of both SSRIs and SNRIs, particularly those with shorter half-lives. Accordingly, these medications warrant a slow discontinuation taper.

Anxiety Medication Dosing Guide

Name	FDA Approval (Pediatric age range in years)	One Week Test Dose	Daily Therapeutic Dosage Range	Usual Up-Titration Dose & Frequency	Available Doses (mg)
Selective Serotonin Reuptake Inhibitors					
Fluoxetine (Generic and Prozac)	None	5mg (10mg capsule qod or liquid)	10-60mg	10 mg 3-4 weeks	Capsules: 10, 20, 40mg Liquid: 20mg/5mL
Sertraline (Generic and Zoloft)	None	12.5mg	25-200mg	25mg 1-2 weeks	Tablets: 25, 50, 100mg Liquid: 20mg/mL
Citalopram (Generic and Celexa)	None	5mg	10-40 mg Note: Dosage not to exceed 40mg	10mg 1-2 weeks	Capsules: 10, 20, 40mg Liquid: 10mg/5mL
Escitalopram (Generic and Lexapro)	None	5mg	10-20mg	10mg 1-2 weeks	Tablets: 5, 10, 20mg Liquid: 5mg/5mL

Anxiety Care Pathways

for Pediatric Primary Care

Screen

Screen for behavioral health problems: Pediatric Symptom Checklist-17-Parent (ages 6-18); **Youth** (ages 11-18):
(cut-point: individual anxiety item)

Positive Screen

Conduct Focused Assessment

Conduct focused assessment (symptom rating scales & clinical interview)

- If concern for imminent danger, refer to hospital or crisis team for emergency psychiatric assessment
- Consult with child and adolescent psychiatrist (CAP) as needed

Symptom rating scale cut points:

SCARED Parent & Child (ages 8-12); cut-point: 25 parent & child **OR**

GAD-7 (for generalized anxiety only) (ages 12+); cut-points: 5 (mild), 10 (moderate), 15 (severe)

Scores \leq cut-points;
mild to no distress/impairment

Sub-clinical to mild anxiety

Guided self-management with follow-up

Scores $>$ cut-points;
moderate distress/impairment

Moderate anxiety

Refer for therapy; consider medication

Scores \gg cut-points;
severe distress/impairment; psychiatric/
psychosocial/medical complexity; safety concerns

Severe anxiety

Refer to specialty care for therapy & medication management until stable

Consider Medication

Selected medications for anxiety: Fluoxetine, Sertraline (both evidence-based)

	Fluoxetine	Sertraline
Start daily test dose for \approx 1 week	5mg	12.5mg
If test dose tolerated, increase to beginning therapeutic daily dose	10mg	25mg
Monitor \approx weekly in the first month for agitation, suicidality, and other side effects: for severe agitation or suicidal intent or plan, refer to hospital or crisis team for emergency evaluation; for severe distress: consider short-term use of hydroxyzine 12.5-25mg (age<12) or 25-50mg (age 12+) q4h PRN not to exceed twice daily		

Follow Up

Re-assess symptom severity with SCARED (parent & child) or GAD-7 (teen) at the following times:

\approx 1 mo

\approx 2 mos

\approx 3 mos

\approx 12 mos

Scores $>$ cut-points
& distress/impairment persists

Increase dose

Can increase fluoxetine by 10mg every 3-4 weeks to 40mg and sertraline by 25mg every 1-2 weeks to 100mg if anxiety is moderately severe; monitor bi-monthly during 2nd month

Scores $<$ cut-points with
mild to no distress/impairment

Remain at current dose

Remain at current dose for \approx 12 months, monitor monthly until discontinuation

Scores $>$ cut-points
& distress/impairment persists

Consider alternate SSRI

Consider second SSRI trial or consult with CAP

Scores $<$ cut-points
with mild to no distress/impairment

Taper medication

Consider tapering medication: decrease daily dose by 25-50% every 2-4 weeks to starting dose, then discontinue; tapering should ideally occur during a time of relatively low stress; monitor for several months after discontinuation for symptom recurrence

Scores $>$ cut-points
& distress/impairment persists

Consult or refer

Consult with CAP or refer to specialty care

Depression



Depression Overview

What is Depression?

The core features of depression are the presence of sad, empty, or irritable mood accompanied by somatic and cognitive changes. *Depressive disorders* differ from normal sad or irritable mood by being pervasive and distressing and by significantly impairing function. Depressive disorders must be differentiated from other medical, medication, substance use, or psychiatric conditions that are associated with sad or irritable mood.

Are There Different Types of Depression?

There are several types of depressive disorders, each of which has a unique presentation. The most common depressive disorders in children and adolescents are as follows:

MAJOR DEPRESSIVE DISORDER

Major Depressive Disorder is characterized by an *episode* (change in usual function) of *pervasive* (most of the day, nearly every day) sad or irritable mood and loss of interest or pleasure in nearly all activities. These symptoms are accompanied by pervasive somatic symptoms (appetite change, weight loss or gain, insomnia or hypersomnia, psychological and motoric agitation or retardation, fatigue) and pervasive cognitive symptoms (feelings of worthlessness or guilt, difficulty concentrating or making decisions, recurrent thoughts of death or suicidal thoughts or behaviors). Some individuals will not spontaneously report feeling depressed, but will respond affirmatively if queried (hence the importance of screening). Often insomnia, fatigue, or boredom is the presenting complaint, and failure to probe for accompanying depressive symptoms may result in under- or misdiagnosis. Some individuals emphasize somatic complaints (bodily aches and pains) rather than reporting feelings of sadness. In children and adolescents, an irritable mood may predominate; this presentation must be distinguished from a disruptive behavior disorder.

PERSISTENT DEPRESSIVE DISORDER

Persistent Depressive Disorder is characterized by a sad or irritable mood that is pervasive (most of the day, more days than not) and lasts at least 1 year. These symptoms are accompanied by somatic symptoms (poor appetite or overeating, insomnia or hypersomnia, fatigue) and cognitive symptoms (low self-esteem, difficulty concentrating or making decisions, feelings of hopelessness). Because these symptoms have become part of the individual's usual experience (particularly with early-onset depression), they may not be reported unless prompted (hence the importance of screening).

DISRUPTIVE MOOD DYSREGULATION DISORDER

Disruptive Mood Dysregulation Disorder is characterized by an irritable mood that is pervasive (most of the day, nearly every day) and punctuated by severe recurrent physical or verbal temper outbursts. By definition, the disorder must onset by age 10, but not before age 6 or after age 18. Prior to DSM-5, many children and adolescents with chronic, severe, and pervasive irritability were inappropriately diagnosed with Bipolar Disorder, which is an episodic disorder primarily characterized by elation and grandiosity. Rates of conversion of chronic and severe irritability to bipolar disorder are very low; rather most youths with chronic and severe irritability are at risk to develop depressive and/or anxiety disorders in adulthood. Accordingly, the new Disruptive Mood Dysregulation Disorder diagnosis was created under the DSM-5

Depressive Disorders category to more appropriately categorize these irritable youths. Because the treatment of this disorder is only just evolving, this disorder will not be covered in this manual.

UNSPECIFIED DEPRESSIVE DISORDER

This diagnosis can be used if functionally impairing symptoms of depression are present but full criteria for a specific depressive disorder are not met, or if insufficient information is available to make a definitive diagnosis.

How Common is Depression?

The prevalence of depressive disorders varies by age of the youth and the type of disorder. **Major Depressive Disorder** has a reported prevalence approximating 8-9% in adolescents and around 1-2% in younger children. The prevalence of **Persistent Depressive Disorder** is less certain, but may approximate 1%. The cumulative prevalence of depression by age 18 is approximately 20%.

What Causes Depressive Disorders?

Genetic factors as manifested in brain structure and function account for approximately 40% of the variability in risk for depressive disorders, while non-shared environmental factors account for the most the remaining 60%. The single most predictive factor associated with the risk of developing **Major Depressive Disorder** is high genetic loading for this disorder.

Vulnerabilities in brain structure and function include hypothalamic-pituitary-adrenal axis hyperactivity; hyperactive pro-inflammatory cytokines; hypoactive neurochemical messaging (affecting primarily the serotonergic system); and hypoactive neural systems supporting processing and regulation of depressogenic thoughts, feelings, and behaviors.

When Do Depressive Disorders Begin?

Major Depressive Disorder typically arises in the adolescent years, although this disorder has been reported in younger children, including preschool-age children. **Persistent Depressive Disorder** has an early and insidious onset. The onset of depressive disorders prior to age 18 has prognostic significance with adverse outcomes extending into adulthood.

How Long Do Depressive Disorders Last?

The course of **Major Depressive Disorder** is variable, with some individuals experiencing only one episode and others experiencing multiple episodes. The risk of a recurrence after a first episode reaches around 70% after 5 years. Chronicity of depressive symptoms (around 20% of cases) substantially increases the likelihood of underlying personality, anxiety, and substance-related disorders and decreases the likelihood of recovery. Other characteristics associated with lower recovery rate are recurrent episodes, psychotic features, high symptom severity, prominent anxiety, other psychiatric co-morbidity, personality disorders, and adverse life circumstances. A proportion of individuals with major depression (around 10-20%) will prove in time to have Bipolar Disorder; conversion is more likely with adolescent-onset depression, psychotic features, and family history of bipolar illness. The course of **Persistent Depressive Disorder** is, by definition, chronic.

Which Other Conditions Can Masquerade as Depression?

A number of medical conditions (e.g., epilepsy, post-concussion syndrome, migraine, asthma, inflammatory bowel disease, anemia, mononucleosis, chronic fatigue, hypothyroidism), medications (e.g., steroids, interferon, stimulants, antibiotics, dermatologic agents, immunological agents), and substances (e.g., marijuana, cocaine, hallucinogens, withdrawal from nicotine/alcohol/caffeine) can masquerade as a Depressive Disorder and should be ruled out prior to diagnosis. In addition, a number of other psychiatric disorders can present with sad/irritable mood. Questions about differential diagnosis can be addressed with the appropriate specialist.

Which Other Psychiatric Disorders Co-Occur With Depressive Disorders?

Approximately 65% of youths with a depressive disorder have other psychiatric disorders, especially anxiety, disruptive behavior, ADHD, and substance-related disorders. **Major Depressive Disorder** and **Persistent Depressive Disorder** also can co-occur.

What Are the Outcomes of Chronic Depressive Disorders?

The adverse sequelae of untreated depressive disorders include impairments in educational, occupational, health, family, and social outcomes and risk of death by suicide extending into adulthood. Approximately 60% of youths with **Major Depressive Disorder** report suicidal ideation and 30% report attempting suicide.

How Are Depressive Disorders Diagnosed?

Optimal diagnosis follows the DSM-5 criteria as derived from clinical interview and observation. Standardized rating scales from multiple informants (especially the patient and parents) can support the diagnosis and establish baseline symptom severity. Older youth are usually better informants about their own experience of depression than are their parents; with younger children, parents' observations of the child's depressive demeanor or behavior (e.g., social withdrawal) is the best source of information. Discrepancies between informants are expected, as they reveal each informant's unique view of the child's depressive symptoms, which are internal and may not be readily or accurately discerned by others. A simple rule of regarding a symptom as being present by any informant's report can be an acceptable resolution of discrepancies.

If insufficient information is available to support a precise diagnosis or if symptoms do not meet full diagnostic criteria for a specific depressive disorder, **Unspecified Depressive Disorder** (ICD-10 F32.9) may be the most appropriate diagnosis.

Depression Symptom Rating Scales

Mood and Feelings Questionnaires (MFQ)

The MFQs are useful for **quantifying depression symptom severity at treatment baseline and follow-up**. Although the MFQ items do not precisely match DSM-5 diagnostic criteria for a specific depressive disorder, the total score in these domains has been shown to be correlated with clinical depression. The MFQs are appropriate for children and teens age 8 to 18 and have two versions: parent and child/teen.

The MFQ rating scales may be preferable to the PHQ-9 rating scale (see next section) for younger children (under age 12), in whom symptoms of depression may be broader in scope.

ADMINISTRATION

The MFQs can be administered:

- after verbal report of problems with depression
- after a score exceeding the cut-point on the Internalizing sub-scale of the PSC-17

After a positive depression screen, both the parent and child/teen versions of the MFQ can be sent home with the parent, with instructions to bring both completed scales to a follow-up visit. Scales may also be able to be transmitted through a patient portal. Parents and their children should complete their versions independently, as differences in their scores can be clinically useful. For children at the younger end of the validated age range, it is important to ensure that the child understands both the items and the Likert scoring scale. Every day examples (“I like ice cream”) can be helpful.

SCORING

Responses to both the parent and child/teen versions of the MFQ are scored as follows:

- Each item is endorsed by the respondent as occurring:
 - » Not true (scored as 0)
 - » Sometimes true (scored as 1)
 - » True (scored as 2)
- A total score is summed across all items on the scale
- Scoring is different for parent and child/teen versions

SCORE INTERPRETATION

- A **clinically significant score** (warranting behavioral health intervention) on the MFQ is:
 - » **≥ 27** (parent version)
 - » **≥ 29** (child/teen version)
- An appropriate diagnosis for a clinically significant MFQ score is **Unspecified Depressive Disorder** (ICD-10: F32.9)
- **All positive answers (“sometimes true”, “true”) on items 16-19 on either the parent or child/teen version MUST be followed up by a clinical interview to assess imminent and substantial suicide risk**

Patient Health Questionnaire-9 (PHQ-9) Rating Scale, Modified for Teens

The PHQ-9 rating scale (modified for teens) is useful for **quantifying the severity of depression symptoms at treatment baseline and follow-up**. The PHQ-9 items match DSM-5 diagnostic criteria for **Major Depressive Disorder**, and as such can also be helpful diagnostically as well as dimensionally. In addition, the PHQ-9 assesses suicidal thoughts and behaviors, chronic depression, and functional impairment. The PHQ-9 is completed by teens age 12 and above (no parent version is available).

The PHQ-9 rating scale is preferred for youth age 12 and older rather than the MFQ (see previous section), as the PHQ-9 is one of the rating scales recommended by the US Preventive Services Task Force for screening or assessment of adolescent depression. As an additional consideration, PCPs may wish to administer the PHQ-9 (in combination with the GAD-7 as indicated) as a follow-up to a positive PHQ-4 in adolescents, if the PHQ-4 is used in lieu of the PSC-17 youth version.

ADMINISTRATION

The PHQ-9 rating scale can be administered:

- after verbal report of problems with depression
- after a score exceeding the cut-point on the Internalizing sub-scale of the PSC-17

After a positive depression screen, the PHQ-9 can be sent home with the youth, with instructions to bring the completed scale to a follow-up visit. Scales may also be able to be transmitted through a patient portal.

SCORING

Responses to the PHQ-9 are scored as follows:

- Each item is endorsed by the respondent as occurring:
 - » Not at all (scored as 0)
 - » Several days (scored as 1)
 - » More than half the days (scored as 2)
 - » Nearly every day (scored as 3)
- A total score is summed across all items on the scale

SCORE INTERPRETATION

- A **clinically significant score** (warranting behavioral health intervention) on the PHQ-9 is **≥ 10**
- An appropriate diagnosis for a clinically significant PHQ-9 score is **Unspecified Depressive Disorder** (ICD-10: F32.9)
- Although all diagnostic criteria in DSM-5 must be met before a precise diagnosis is applied, a PHQ-9 score **≥ 15** is correlated with a diagnosis of **Major Depressive Disorder**
- Endorsement of “Yes” on the unnumbered/unscored item “In the past year have you felt depressed or sad most days, even if you felt okay sometimes” is suggestive of a diagnosis of **Persistent Depressive Disorder** (although all diagnostic criteria in DSM-5 must be met before a precise diagnosis is applied)
- **All positive answers (“several days”, “more than half the days”, or “nearly every day”) on item 9 as well as the two additional suicide items MUST be followed up by a clinical interview to assess imminent and substantial suicide risk**

Ask Suicide-Screening Questions (ASQ) Suicide Risk Screening Tool

Although the US Preventive Services Task Force does not currently recommend universal screening for suicide in children or adolescents, if a youth is at higher risk for suicide (e.g., has a Depressive Disorder), the ASQ tool is useful to guide a clinical interview. The tool should not be handed to the youth for self-completion, rather the questions should be embedded in a sensitive, private conversation with the youth. Instructions for scoring and next steps and suicide prevention resources are provided on the tool. An example of a safety planning tool is also provided, to collaboratively develop with a patient experiencing suicidal thoughts.

MOOD AND FEELINGS QUESTIONNAIRE: Long Version

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

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

If a sentence was not true about your child, check NOT TRUE.

If a sentence was only sometimes true, check SOMETIMES.

If a sentence was true about your child most of the time, check TRUE.

Score the MFQ as follows:

NOT TRUE = 0

SOMETIMES = 1

TRUE = 2

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

15. S/he thought there was nothing good for him/her in the future.			
16. S/he thought that life wasn't worth living.			
17. S/he thought about death or dying.			
18. S/he thought his/her family would be better off without him/her.			
19. S/he thought about killing him/herself.			
20. S/he didn't want to see his/her friends.			
21. S/he found it hard to think properly or concentrate.			
22. S/he thought bad things would happen to him/her.			
23. S/he hated him/herself.			
24. S/he felt s/he was a bad person.			
25. S/he thought s/he looked ugly.			
26. S/he worried about aches and pains.			
27. S/he felt lonely.			
28. S/he thought nobody really loved him/her.			
29. S/he didn't have any fun at school.			
30. S/he thought s/he could never be as good as other kids.			
31. S/he felt s/he did everything wrong.			
32. S/he didn't sleep as well as s/he usually sleeps.			
33. S/he slept a lot more than usual.			
34. S/he wasn't as happy as usual, even when s/he was praised or rewarded.			

MOOD AND FEELINGS QUESTIONNAIRE: Long Version

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

For each question, please check (✓) how you have been feeling or acting ***in the past two weeks***.

If a sentence was not true about you, check NOT TRUE.

If a sentence was only sometimes true, check SOMETIMES.

If a sentence was true about you most of the time, check TRUE.

Score the MFQ as follows:

NOT TRUE = 0

SOMETIMES = 1

TRUE = 2

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

Child Self-Report

15. I thought there was nothing good for me in the future.			
16. I thought that life wasn't worth living.			
17. I thought about death or dying.			
18. I thought my family would be better off without me.			
19. I thought about killing myself.			
20. I didn't want to see my friends.			
21. I found it hard to think properly or concentrate.			
22. I thought bad things would happen to me.			
23. I hated myself.			
24. I felt I was a bad person.			
25. I thought I looked ugly.			
26. I worried about aches and pains.			
27. I felt lonely.			
28. I thought nobody really loved me.			
29. I didn't have any fun in school.			
30. I thought I could never be as good as other kids.			
31. I did everything wrong.			
32. I didn't sleep as well as I usually sleep.			
33. I slept a lot more than usual.			

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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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Little interest or pleasure in doing things?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Trouble falling asleep, staying asleep, or sleeping too much?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Poor appetite, weight loss, or overeating?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Feeling tired, or having little energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Feeling bad about yourself – or feeling that you are a failure, or that you have let yourself or your family down?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Trouble concentrating on things like school work, reading, or watching TV?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Thoughts that you would be better off dead, or of hurting yourself in some way?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 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)



Suicide Risk Screening Tool

Ask Suicide-Screening Questions

Ask the patient:

1. In the past few weeks, have you wished you were dead? ☐ Yes ☐ No
2. In the past few weeks, have you felt that you or your family would be better off if you were dead? ☐ Yes ☐ No
3. In the past week, have you been having thoughts about killing yourself? ☐ Yes ☐ No
4. Have you ever tried to kill yourself? ☐ Yes ☐ No

If yes, how? _____

When? _____

If the patient answers **Yes** to any of the above, ask the following acuity question:

5. Are you having thoughts of killing yourself right now? ☐ Yes ☐ No

If yes, please describe: _____

Next steps:

- If patient answers “No” to all questions 1 through 4, screening is complete (not necessary to ask question #5). No intervention is necessary (*Note: Clinical judgment can always override a negative screen).
- If patient answers “Yes” to any of questions 1 through 4, or refuses to answer, they are considered a **positive screen**. Ask question #5 to assess acuity:
 - ☐ “Yes” to question #5 = **acute positive screen** (imminent risk identified)
 - Patient requires a **STAT** safety/full mental health evaluation.
 - Patient cannot leave until evaluated for safety.
 - Keep patient in sight. Remove all dangerous objects from room. Alert physician or clinician responsible for patient’s care.
 - ☐ “No” to question #5 = **non-acute positive screen** (potential risk identified)
 - Patient requires a **brief** suicide safety assessment to determine if a **full** mental health evaluation is needed. Patient cannot leave until evaluated for safety.
 - Alert physician or clinician responsible for patient’s care.

Provide resources to all patients

- 24/7 National Suicide Prevention Lifeline 1-800-273-TALK (8255) En Español: 1-888-628-9454
- 24/7 Crisis Text Line: Text “HOME” to 741-741

Patient Safety Plan Example

Warning Signs:

Being aware of thoughts, feelings, behaviors, or situations that may trigger suicidal thoughts

1

2

3

Internal Coping Strategies:

Thinking about or doing pleasant things to take my mind away from suicidal thoughts

1

2

3

Social Support:

Seeking out people and places I enjoy to take my mind away from suicidal thoughts

1 Name

Phone

2 Name

Phone

3 Place

4 Place

Non-Professional Help:

Asking family, other trusted adults, or trusted friends for help with my suicidal thoughts

1 Name

Phone

2 Name

Phone

3 Name

Phone

Professional Help:

Asking my primary care doctor, therapist, counselor, religious leader, psychiatrist or a crisis hot line for help with my suicidal thoughts

1 Name

Phone

Clinician Pager or Emergency Contact #

2 Name

Phone

Clinician Pager or Emergency Contact #

3 Local Urgent Care Services

Urgent Care Services Address

Phone

4 Suicide Prevention Lifeline Phone: 1-800-273-TALK (8255)

Safeguarding My Surroundings:

Asking my family to make sure there are no methods for committing suicide available to me

1

2

Here are some things that are very meaningful to me about my life that I will think about if I have suicidal thoughts:

Evidence-Based Depression Treatments

Because depressive disorders affect multiple structures and functions of the brain, optimal treatment may be multifactorial, including psychotherapy and medication supported by environmental interventions.

Psychotherapy

Cognitive-behavioral therapy (CBT) is effective for the treatment of depression by targeting the three primary manifestations of depression: cognitive, behavioral, and physiologic. CBT usually includes standard techniques of self-monitoring, relaxation training, cognitive restructuring, behavioral activation, and problem-solving training. The number and combination of these elements vary according to the specific depressive disorder being treated. Family therapy may play an adjunctive role if family patterns contribute to the perpetuation of the child's depression. Although therapists' skills in CBT may vary depending upon training and experience, most therapists can be expected to have some degree of expertise in this common therapeutic technique. Formal CBT attempts to achieve meaningful symptomatic and functional improvement within 3-4 months of weekly sessions; however subsequent "booster" sessions may enhance maintenance of the therapeutic effect and prevent relapse.

Medication

Certain selective serotonin reuptake inhibitors (SSRIs) are effective for the treatment of depression by enhancing the transmission of serotonin in the brain. Altered serotonergic function compromises the ability of the brain to modulate mood as well as facilitate cognitive processing of negative emotions. Because of their generally favorable risk/benefit profile, certain SSRIs are considered to be first-line medications for depressive disorders.

The onset of SSRIs generally occurs after approximately 2 weeks at the therapeutic dose, with the full effect occurring after approximately 4-6 weeks. Raising the SSRI dose above the therapeutic dose for age has not been shown definitively to improve clinical outcome.

Around 60% of youths with clinically significant depression can be expected to respond to treatment with an SSRI. A smaller percentage achieves full remission. If combination treatment is provided (SSRI plus CBT), the corresponding figure approximates 70%.

Other antidepressants (non-SSRIs) act in accordance with their unique chemical structures. Bupropion (Wellbutrin) enhances the transmission of dopamine and norepinephrine in the brain while venlafaxine (Effexor) enhances the transmission of serotonin and norepinephrine. Dopamine can have a favorable effect on motivation, and norepinephrine can increase arousal and alertness; as such, each of these can be important targets in certain types of depression (e.g., melancholic depression). Because of the sparse evidence base in children and adolescents and less favorable risk/benefit profiles, these medications are considered to be third-line for the depressive disorders, and generally should be prescribed only after two failed SSRI trials and preferably with consultation from a child and adolescent psychiatrist.

Environmental Interventions

In addition to lifestyle interventions, including optimal nutrition, physical activity, sleep, recreation, and stress reduction, and avoidance of substance use, CBT may be supplemented with home and school interventions. Home interventions can include parent and family support, scheduling of regular pleasurable activities, and avoidance of inadvertent secondary gain from school refusal. Light therapy also may be helpful for seasonal depression. At school, workload and schedule may need adjustment until recovery has been achieved. School-based counseling may also be provided under an IEP or 504 plan.

How Are Evidence-Based Treatments for Depressive Disorders Selected and Sequenced?

In general, the choice of treatment in children and adolescents will depend upon the severity of the depressive disorder. For severe presentations, referral to a partial hospitalization program or outpatient program may be indicated to accelerate treatment, with inpatient hospitalization recommended for imminent and substantial danger. Otherwise a referral to outpatient psychiatric care would be indicated. For mild to moderate presentations, CBT should be offered, along with environmental modifications. For moderately severe presentations, preferred SSRIs can also be offered. It is likely that combination treatment (CBT and SSRI medication) is more effective than either treatment alone. For sub-clinical presentations of depression, parents and youth may wish to employ Guided Self-Management tools.

Depression Medication Guide

Prescribing Considerations for Specific Medications

SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs)

At present, two SSRIs are FDA-approved for the treatment of depression: fluoxetine for ages 8+ and escitalopram for ages 12+. There is insufficient evidence for the efficacy of other SSRIs for the treatment of depression in children and adolescents. As such, fluoxetine and escitalopram are considered to be first-line medications for this disorder.

Fluoxetine has the strongest efficacy support in children and adolescents, and as such should generally be the first choice medication for the treatment of depression. Fluoxetine also has the advantage of a long half-life, so that missed doses are less consequential.

Escitalopram (Lexapro) use for depression is limited to adolescents. Escitalopram may have the least effect on CYP450 isoenzymes compared with other SSRIs and as such may be advantageous when there are concerns about drug-drug interactions. Escitalopram has a shorter half-life, which conveys higher risk of discontinuation syndrome (see below).

More common side effects of the SSRIs can include nausea, headache, insomnia, fatigue, nervousness, somnolence, dry mouth, diarrhea, dizziness, tremor, vivid dreams, diaphoresis, changes in appetite, weight loss or gain, bruxism, and sexual dysfunction. Less common but potentially serious side effects include suicidal thinking or behavior, behavioral activation/agitation, precipitation of mania, seizures, abnormal bleeding, serotonin syndrome (see description in the Anxiety section of the Manual), and discontinuation syndrome (see below).

Rare (<2%) reports of mania/hypomania associated with SSRI use can be difficult to distinguish from behavioral activation/agitation. In general, behavioral activation/agitation may be more likely to occur early in treatment (first month) or with dose increases whereas mania/hypomania may appear later.

The pooled absolute rates for suicidal ideation across all antidepressant classes and all depression indications are reported to be 3-4% for youth treated with an antidepressant and 2% for youth treated with a placebo. Despite the low risk, close monitoring for suicidality is recommended, especially in the first months of treatment.

A typical SSRI trial for depression would entail prescribing the therapeutic dose for age for approximately 4 to 6 weeks. Because an initial adverse effect of SSRIs can be anxiety or agitation, it may be advisable to start with a sub-therapeutic dose as a "test" dose. Baseline and follow-up assessment of treatment response using a focused symptom rating scale facilitates measurement-based treatment, which has been linked to better treatment outcomes.

Treatment-emergent adverse effects should be closely monitored. If concerning adverse effects are reported or observed that could reasonably be linked to the medication, in general the dose of medication would be reduced, and if the adverse effect persists or is serious, the medication would be discontinued. For all SSRIs, medical monitoring can include height and weight; no specific laboratory tests are recommended.

If the therapeutic dose of the first SSRI is partially effective, ineffective, or not tolerated, the next choice would be to switch to an alternative SSRI and add CBT (if not already provided). There is no definitive empirical guidance

for switching from one SSRI to another. Although the most conservative approach would entail tapering and discontinuing the first SSRI before adding the second (with a washout interval if the first SSRI is fluoxetine), this approach entails the risk of exacerbation of the original symptoms, or withdrawal/discontinuation symptoms if the first SSRI (other than fluoxetine) is discontinued abruptly. Cross-tapering may avoid these outcomes, but should be closely monitored due to risk of drug-drug interactions.

If two consecutive SSRI trials are partially effective, ineffective, or not tolerated, a consultation with a child and adolescent psychiatrist would be appropriate for consideration of alternative medication regimens.

Duration of Medication Treatment

The optimal duration of pharmacologic treatment of depressive disorders is unclear, but a generally accepted approach would be to continue an effective, tolerated dose for at least 6 to 12 months after remission, monitoring for several months after discontinuation for re-emergence of symptoms. Discontinuation generally can occur in 25-50% dose decrements every 2-4 weeks, although there is no definitive evidence supporting the optimal taper. Discontinuation generally should occur during a relatively stress-free period. Some youths with severe and chronic depression may benefit from lengthier treatment.

A discontinuation syndrome characterized variously by dizziness, fatigue, lethargy, general malaise, myalgias, chills, headaches, nausea, vomiting, diarrhea, insomnia, imbalance, vertigo, sensory disturbances, paresthesias, anxiety, irritability, and agitation has been reported following discontinuation of antidepressant medications, particularly those with shorter half-lives. Accordingly, these medications warrant a slow discontinuation taper.

Depression Medication Dosing Guide

Name	FDA Approval (Pediatric age range in years)	One Week Test Dose	Daily Dose	Available Doses (mg)
Selective Serotonin Reuptake Inhibitors <i>First Line</i>				
Fluoxetine (Generic and Prozac)	Depression (8+)	Age 6-11: 5mg (10mg capsule qod or liquid) Age 12+: 10mg	Age 6-12: 10mg Age 12+: 20mg	Capsules: 10, 20, 40mg Liquid: 20mg/5mL
Escitalopram (Generic and Lexapro)	Depression (12+)	5mg	10mg	Tablets: 5, 10, 20mg Liquid: 5mg/5mL
Selective Serotonin Reuptake Inhibitors <i>Second Line - Consider after failed first line trial; based upon FDA approval in adults but weaker evidence of effectiveness in youths</i>				
Sertraline (Generic and Zoloft)	None	Age 6-11: 12.5mg Age 12+: 25mg	Age 6-11: 25mg Age 12+: 50mg Note: for more severe presentations in adolescents, dose can be increased by 25mg every 2 weeks to 100mg	Tablets: 25, 50, 100mg Liquid: 20mg/mL
Citalopram (Generic and Celexa)	None	Age 6-11: 5mg Age 12+: 10mg	Age 6-11: 10mg Age 12+: 20mg Note: Dosage not to exceed 40mg daily	Tablets: 10, 20, 40mg Liquid: 10mg/5mL

Depression Care Pathways

for Pediatric Primary Care

Screen

Screen for behavioral health problems:

Pediatric Symptom Checklist-17-Parent (ages 6-18); **Youth** (ages 11-18): (cut-points: 5 internalizing, individual depression items); **OR** **Patient Health Questionnaire** (ages 12-13+) (cut-points: 3 [PHQ-2], 10 [PHQ-9])

Positive Screen

Conduct Focused Assessment

Conduct focused assessment (symptom rating scales & clinical interview)

- If concern for imminent danger, refer to hospital or crisis team for emergency psychiatric assessment
- Consult with child & adolescent psychiatrist (CAP) as needed

Symptom rating scale cut-points:

Mood and Feelings Questionnaire (MFQ) - Long, Parent & Child (ages 8 to 12-13); cut-point: 27 parent, 29 child **OR**

PHQ-9 (ages 12-13+); cut-points: 5 (mild), 10 (moderate), 15 (moderately severe), 20 (severe)

Scores \leq cut-points;
mild to no distress/impairment

Scores $>$ cut-points;
moderate distress/impairment

Scores \gg cut-points;
severe distress/impairment; psychiatric/
psychosocial/medical complexity; safety concerns

Sub-clinical to mild depression

Guided self-management with follow-up

Moderate depression

Refer for therapy, consider medication

Severe depression

Refer to specialty care for therapy & medication management until stable

Consider Medication

Selected medications for depression: **Fluoxetine:** age 8+, **Escitalopram:** age 12+ (both FDA-approved)

	Fluoxetine	Escitalopram
Start daily test dose for \approx 1 week	Age 6-11: 5mg; Age 12+: 10mg	5mg
If test dose tolerated, increase to therapeutic daily dose	Age 6-11: 10mg; Age 12+: 20mg	10mg
Monitor \approx weekly in the first month for agitation, suicidality, and other side effects: for severe agitation or suicidal intent or plan, refer to hospital or crisis team for emergency evaluation		

Follow Up

Re-assess symptom severity with MFQ - Long (parent & child) or PHQ-9 (teen) at the following times:

\approx 4-6 wks

\approx 6-12 mos

Scores $<$ cut-points
with mild to no distress/impairment

Scores $>$ cut-points
& distress/impairment persists

Scores $<$ cut-points
with mild to no distress/impairment

Scores $>$ cut-points
& distress/impairment persists

Remain at current dose

Remain at current dose for \approx 6-12 months; monitor bi-monthly during 2nd month & monthly thereafter until discontinuation

Consider alternate SSRI

Consider second SSRI trial or consult with CAP

Taper medication

Consider tapering medication: decrease daily dose by 25-50% every 2-4 weeks to starting dose, then discontinue; tapering should ideally occur during a time of relatively low stress; monitor for several months after discontinuation for symptom recurrence

Consult or refer

Consult with CAP or refer to specialty care

Overview of The Psychiatric Continuum of Care

Available in parent handout format at: https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/The-Continuum-Of-Care-For-Children-And-Adolescents-042.aspx

Communities provide different types of treatment programs and services for children and adolescents with mental illnesses. The complete range of programs and services is referred to as the continuum of care. Not every community has every type of service or program on the continuum. Some psychiatric hospitals and other organized systems of care now provide many of the services on the continuum. When several of the services are provided, the organization may be called a health care system.

The beginning point for parents concerned about their child's behavior or emotions should be an evaluation by a qualified mental health professional such as a child and adolescent psychiatrist. At the conclusion of the evaluation, the professional will recommend a certain type of service(s) or program(s) from the continuum available locally. The professional then usually is required to obtain approval from the insurance company or organization managing mental health benefits (e.g. managed care organization). In the case of programs funded publicly, a specific state agency must authorize the recommended program(s) or service(s). If the program or service is not authorized, it will not be paid. Many of the programs on the continuum offer a variety of different treatments, such as individual psychotherapy, family therapy, group therapy, and medications.

A brief description of the different services or programs in a continuum of care follows:

Office or outpatient clinic

Visits are usually 30-60 minutes. The number of visits per month depends on the child's/adolescent's needs.

Intensive case management

Specially trained individuals coordinate or provide psychiatric, financial, legal, and medical services to help the child/adolescent live successfully at home and in the community.

Home-based treatment services

A team of specially trained staff go into a home to develop a treatment program for the child/adolescent and family.

Family support services

Services to help families care for their child/adolescent such as parent training, parent support group, etc.

Day treatment program

This intensive treatment program provides psychiatric treatment with special education. The child/adolescent usually attends five days per week.

Partial hospitalization (day hospital)

This provides all the treatment services of a psychiatric hospital, but the children/adolescents go home each evening.

Emergency/crisis services

24-hour-per-day services for emergencies (for example, hospital emergency room, mobile crisis team).

Respite care services

A child/adolescent stays briefly away from home with specially trained individuals.

Therapeutic group home or community residence

This therapeutic program usually includes 6 to 10 children or adolescents per home, and may be linked with a day treatment program or specialized educational program.

Crisis residence

This setting provides short-term (usually fewer than 15 days) crisis intervention and treatment. Children/adolescents receive 24-hour-per-day supervision.

Residential treatment facility

Seriously disturbed children/adolescents receive intensive and comprehensive psychiatric treatment in a campus-like setting on a longer-term basis.

Hospital treatment

Children/adolescents at risk of harm to self or others receive comprehensive psychiatric treatment in a hospital. Treatment programs should be specifically designed for either children or adolescents. Length of treatment depends on different variables.

Parents should always ask questions when a professional recommends psychiatric treatment for their child or adolescent. For instance, which types of treatment are provided, and by whom? Over what length of time? What is the cost? How much of the cost is covered by insurance or public funding? What are the advantages and disadvantages of the recommended service or program? Parents should always feel free to obtain a second opinion about the best type of program for their child or adolescent.

Source: American Academy of Child and Adolescent Psychiatry (AACAP) (www.aacap.org)

Appendices



Appendix I: Evidence Base for Manual Information

Appendix II: Patient Health Questionnaire-4 (PHQ-4)

Appendix III: Screening to Brief Intervention (S2BI)

Appendix I: Systematic Reviews/ Meta-Analyses/Guidelines

ADHD

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Other

American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Arlington, VA, American Psychiatric Association, 2013.

Appendix II: Patient Health Questionnaire-4 (PHQ-4)

PHQ-4: THE FOUR-ITEM PATIENT HEALTH QUESTIONNAIRE FOR ANXIETY AND DEPRESSION

Over the last two weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
Feeling nervous, anxious or on edge	0	1	2	3
Not being able to stop or control worrying	0	1	2	3
Feeling down, depressed or hopeless	0	1	2	3
Little interest or pleasure in doing things	0	1	2	3
TOTALS				

Total score is determined by adding together the scores of each of the 4 items.

Scores are rated as normal (0-2), mild (3-5), moderate (6-8), and severe (9-12).

Total score ≥ 3 for first 2 questions suggests anxiety.

Total score ≥ 3 for last 2 questions suggests depression.

Reprinted with permission from Kroenke K, Spitzer RL, Williams JB, Löwe B. An ultra-brief screening scale for anxiety and depression: the PHQ-4. Psychosomatics. 2009;50(6):613-21. From Principles of Neuropathic Pain Assessment and Management, November 2011.

Appendix III: Screening to Brief Intervention (S2BI)

Screening to Brief Intervention (S2BI)

Developed at Boston Children's Hospital with support from the National Institute on Drug Abuse.

The following questions will ask about your use, if any, of alcohol, tobacco, and other drugs. Please answer every question by checking the box next to your choice.

IN THE PAST YEAR, HOW MANY TIMES HAVE YOU USED:

Tobacco?

- ☐ Never
- ☐ Once or twice
- ☐ Monthly
- ☐ Weekly or more

Alcohol?

- ☐ Never
- ☐ Once or twice
- ☐ Monthly
- ☐ Weekly or more

Marijuana?

- ☐ Never
- ☐ Once or twice
- ☐ Monthly
- ☐ Weekly or more

STOP if answers to all previous questions are "never." Otherwise, continue with questions on the right.

Prescription drugs that were not prescribed for you (such as pain medication or Adderall)?

- ☐ Never
- ☐ Once or twice
- ☐ Monthly
- ☐ Weekly or more

Illegal drugs (such as cocaine or Ecstasy)?

- ☐ Never
- ☐ Once or twice
- ☐ Monthly
- ☐ Weekly or more

Inhalants (such as nitrous oxide)?

- ☐ Never
- ☐ Once or twice
- ☐ Monthly
- ☐ Weekly or more

Herbs or synthetic drugs (such as salvia, "K2", or bath salts)?

- ☐ Never
- ☐ Once or twice
- ☐ Monthly
- ☐ Weekly or more

S2BI algorithm

In the past year, how many times have you used:
Tobacco? Alcohol? Marijuana?

