

# Treating Behavioral Health in the Pediatric Population

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*Editor's note: The following article offers insights and practice guidelines from the Pediatric Behavioral Health Conference, hosted by Penn Medicine Lancaster General Health in November 2023. Full recordings of conference sessions are available online; access the recordings at [LGHealth.org/CME](https://www.lghealth.org/CME) via the "CME On Demand" link.*

## INTRODUCTION

The mental health crisis in the pediatric population remains a growing concern. Unfortunately, there are not enough psychiatric providers to meet the increasing demand. Therefore, all pediatric primary care providers (PCPs) should have the ability to diagnose and manage psychiatric conditions either independently or until the patient establishes care with Psychiatry.

The goal of the 2023 LG Health Pediatric Behavioral Health conference was to teach PCPs to recognize, screen, and treat common psychiatric conditions to improve the mental health of the community. The conference reviewed some of the most common mental health disorders, including depression, anxiety, suicide, attention-deficit/hyperactivity disorder (ADHD), and their appropriate treatments.

### Suicidal Ideation and Action in the Primary Care Office Presentation by Sarah Arshad, MD

In 2020, after unintentional injury, suicide was the second leading cause of death in children ages 10-14. Ten percent of high school students report making a suicide attempt. Suicidal ideations range from passive thoughts of death to active thoughts with intent that can lead to suicidal acts.

Risk factors for suicide include previous suicide attempts, mental health conditions, substance use, poor interpersonal relationships, barriers to health care, stigma, and socioeconomic factors. Protective factors

include good coping skills, supportive relationships with adults, access to health care, and limited access to lethal means.

The first step to evaluation is screening. Per American Academy of Pediatrics recommendations, screen children ages 8 to 11 years when clinically indicated and universally at age 12, and screen patients under age 8 if they show warning signs or if there is parental concern. The screening process should be structured using a standardized screening tool such as the Columbia Suicide Severity Rating Scale (C-SSR), but relying solely on these has the potential to miss high-risk patients. Information obtained through screening should be used in conjunction with collateral history from patients, guardians, and your clinical assessment.

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patients is to say, "I value your confidentiality, but as a medical provider it's my obligation to disclose any safety concerns that come up during our discussions.

Do you have any questions about that?" Next, establish rapport by using open-ended and non-threatening questions. Identify the patient's position on the spectrum, then clarify means/access and plan, especially if they have active thoughts.

Questions about thoughts of suicide, suicidal plans, and prior suicide attempts should follow. It can be helpful to normalize behaviors, for example, "Sometimes when teens are depressed, they have thoughts wishing they were dead or about killing themselves. Have you ever had those thoughts?" Patients with adequate means and detailed plans are at greatest risk of suicide.

Additionally, ask about suicidal behaviors in preparation for the attempt that should raise your level of concern. Examples of such behaviors include gathering harmful supplies or doing a "walk through" of a

bridge or building. Patients with a negative screen should be equipped with tools on how to seek help when needed. Patients with a positive screen need further risk stratification to determine if they require urgent referral to emergency services (see Fig. 1).

Safety planning is the next step, once risk level is determined. Suicide risk fluctuates over time; safety planning equips children and teens with ways to respond to emotional crisis that could occur in the future. It should include cognitive behavioral approaches and tools regarding how to reach out to appropriate adults during the crisis. The goal is to prevent a suicide attempt. A good safety plan should include:

1. Identify warning signs of a crisis – these are child-dependent and may include irritability or hiding in their room.
2. Share coping skills and accessible tools to use during a crisis – for example, distraction, relaxation, talking to someone, or playing with pets.
3. Generate a list of trusted adults (older than 18 years old) in different environments that they can share depressive and suicidal thoughts with. Adults should be reachable by different modalities (text, phone).
4. Ensure safety of the environment by keeping harmful things away from the patient. This includes locking up medications and securing sharp objects. Firearms should be locked separately from ammunition.

Tailor a safety plan to each child’s needs. It is acceptable to exclude components if they are not beneficial to the child. If possible, involve a trusted adult or guardian when creating the safety plan.



An example of a good safety plan is the Stanley-Brown plan, available online. To review, scan the QR code at left or visit [sprc.org/online-library/stanley-brown-safety-plan/](http://sprc.org/online-library/stanley-brown-safety-plan/)

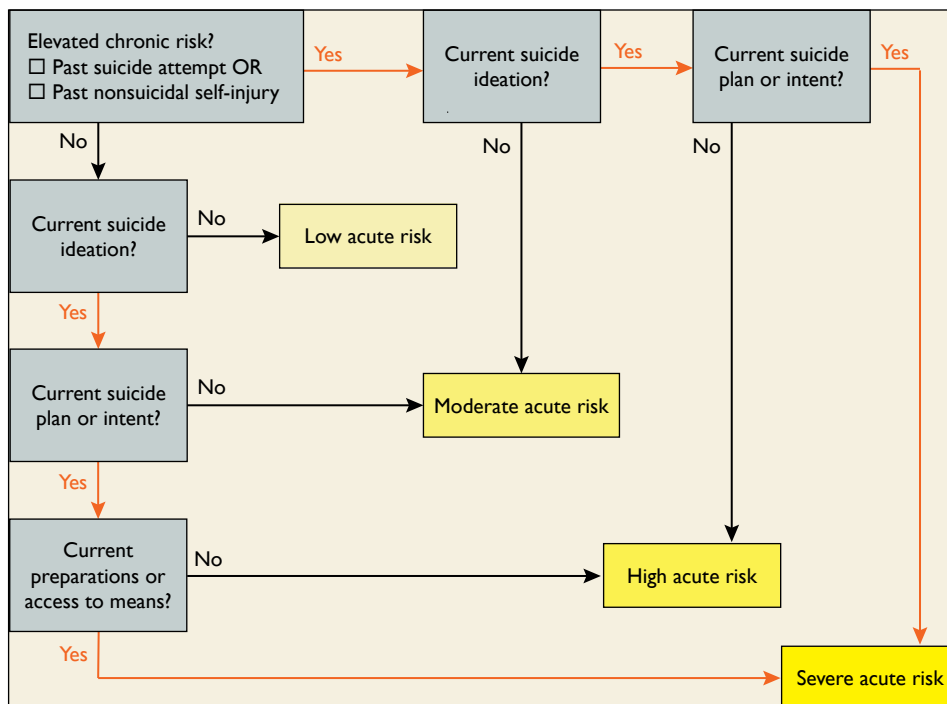


Fig. 1. Suicide risk algorithm, offered to help providers assess a pediatric patient’s risk of suicide.<sup>1</sup>

**Q&A on Advanced/Complex ADHD**

Panel discussion by Sarah Arshad, MD; Consuelo Cagande, MD; and Ty Bristol, MD, MPH

*How do you differentiate ADHD from comorbid conditions?* Diagnosing pediatric ADHD is a complex process, especially in children ages 6 years or younger, because ADHD can occur comorbidly with other psychiatric disorders. It is imperative to give the correct diagnosis prior to initiating treatment. Some tips on how to approach this include:

- Rule out language barriers and developmental milestone delays.
- Use more than one screening tool to help tease out the predominant symptoms and differentiate from anxiety and autism. For example, anxiety tends to present with mood symptoms. ADHD typically presents early in life compared to anxiety, which tends to occur in school-aged kids.
- Inquire about the child’s social environment and family structures.
- Try behavioral therapies and parent management training prior to pharmacotherapy.
- Focus first on treating symptoms that cause the most impairment.

*What are the recommendations on medical marijuana for ADHD treatment?* This is not recommended, as there are no studies or evidence of efficacy in pediatric patients.

More is known about the negative side effects, including increased impulsivity, increased risk of substance use disorders later in life, and poor neuro-circuitry formation. Also, some evidence links psychosis and depression to chronic marijuana use in children. Patients and their parents need appropriate education about the potential risks of using marijuana. Children and teens with untreated ADHD are at higher risk of substance use disorder, dropping out of school, and “getting associated with the wrong crowd.”

*What about ADHD in patients with known substance use disorder?* First treat the substance use disorder by getting patients into recovery. Once they are drug free, PCPs can address ADHD and mood disorders. For ADHD, use long-acting stimulant medications or a non-stimulant, like atomoxetine, with low abuse potential.

*Are generics as efficacious as name brand?* Sometimes. If limited by insurance, it is acceptable to trial generics first; assess efficacy, and then titrate or modify as needed. Consider a switch to brand-name medication to achieve maximum therapeutic effect. Lexicomp and UpToDate offer good tables to reference when converting between stimulant medications.

*Is it worthwhile to use non-stimulant medications as first line?* Yes, in certain patients. Although non-stimulants such as alpha-agonists and atomoxetine are not as effective, it is acceptable to trial them first, especially in children younger than 4 years or per parent preference.

*What about insomnia in patients with ADHD?* Screen all patients for sleep disorders when evaluating for ADHD. Good sleep is important in ADHD. The first step for treatment of insomnia is behavioral modifications for the child and often for the parents as well. Unfortunately, there is no pharmacologic treatment for sleep in children approved by the Food and Drug Administration (FDA). Up to 10 mg of melatonin can be used as a sleep aid in patients that do not respond to behavioral changes.

*Is it possible for a medication to stop working?* Yes. Patients may need to switch back and forth between medications or need dose adjustments after years of stability on a particular dose. The pathophysiology behind this is unknown at this time.

*Is there a role for genetic testing in determining treatment?* Only to a very limited extent. Tests such as Gene Sight® can be used to describe how a specific person metabolizes medications, but it does not elucidate which medications to use.

*Is there a link between lead poisoning and ADHD?* Yes, heavy metal poisoning can increase the risk of ADHD and other neuropsychiatric disorders.

*What do you do if a patient develops tics after initiating stimulant therapy?* Stimulants do not cause tics but can unmask an underlying tic disorder. Tics are frequently caused by anxiety. Start treatment with behavioral therapy, then consider an alpha-agonist or atypical antipsychotic for severe cases. Consider referral to a pediatric neurologist or child psychiatrist if tics persist.

*Are electrocardiograms (EKGs) necessary to start stimulants?* No. The American Heart Association does not recommend routine baseline EKGs before starting stimulants. If there is a family or personal history of cardiac issues or if a child is on medications that can prolong corrected QT interval (QTc), then an EKG or cardiologist referral is appropriate.

**Advanced Anxiety**

*Presentation by Consuelo Cagande, MD*

The pediatric anxiety disorder triad includes separation anxiety, generalized anxiety, and social anxiety disorder. These disorders are common, present similarly, and can be difficult to distinguish from each other. Suspect an underlying anxiety disorder in children with sleep or eating problems, excessive need for reassurance, explosive outbursts, poor performance at school, and avoidance of interpersonal activities.

**Table 1. Reuptake Inhibitors**

Medication	FDA-Approved Indication; Age	Typical Dose Range	Typical Starting Dose	Typical Titration Increments	Max Daily Dose	Common Adverse Effects
<b>First-Line Selective Serotonin Reuptake Inhibitors (SSRIs)</b>						
Sertraline (Zoloft™)	OCD; ≥6 years	Children 25-100 mg Adolescents 50-150 mg	12.5-25 mg daily	12.5-25 mg for doses <50 mg 25 mg for doses >50 mg	200 mg	GI upset, headache, insomnia
Fluoxetine (Prozac™)	MDD, OCD; ≥8 years	Children 5-10 mg Adolescents 10-40 mg	5-10 mg daily	5 mg for doses <20 mg 10 mg for doses >20 mg	60 mg	Nausea, headache, weight reduction, abdominal pain
<b>Second-Line Serotonin-Norepinephrine Reuptake Inhibitor (SNRI) — if failed trial of both SSRIs</b>						
Duloxetine (Cymbalta™)	GAD; ≥7 years	Children, adolescents 30-60 mg	20-30 mg daily	20-30 mg	120 mg	Nausea, headache, weight reduction, abdominal pain

Children can also present with “midline physical symptoms,” which include headaches, dizziness, swallowing issues, shortness of breath or hyperventilation, chest or abdominal pain, bowel or bladder urgency, and tingling in fingertips. Consider anxiety if three or more physical symptoms persist after ruling out all possible metabolic causes.

Age of onset is typically around 6-12 years, so screening should be done as soon as symptoms appear. Begin evaluation by inquiring about recent life events, adverse childhood experiences, social determinants of health, family history, and gender and sexual identity. Also tease out comorbidities, including depression/suicidal ideation, trauma, and disruptive behaviors. Commonly used screening tools are the Screen for Child Anxiety Related Disorders (SCARED) form, which has child and parent versions, and the Generalized Anxiety Disorder-7 (GAD-7) scale, which is more useful for children ages 13 and older.

First-line treatment is cognitive behavioral therapy, mindfulness-based psychotherapy (especially in social anxiety disorders), and selective serotonin reuptake inhibitors (SSRIs) (see Table 1 on page 85). Maximum benefit is achieved with a combination of psychotherapy and SSRIs. Avoid benzodiazepines or antihistamines for anxiety. Consider atomoxetine in children who have comorbid ADHD.

“SSRIs: Things I Learned Transitioning from PCP to Psychiatrist”

Presentation by Tyrone Bristol, MD, MPH

Medications should be used in conjunction with behavioral therapies. SSRIs are the first-line pharmacologic treatment for pediatric anxiety and depression. They result in fewer side effects than tricyclic antidepressants and monoamine oxidase inhibitors, and they are safer in overdose. All SSRIs are equally effective and have been FDA approved for multiple indications in addition to depression and anxiety, including obsessive-compulsive disorder (OCD) and OCD-spectrum disorders, bulimia and anorexia nervosa, and premenstrual dysphoric disorder (see Table 2).

The SSRI choice is based on the patient’s response and patient-specific side effect profile. Be cautious of drug-drug interactions prior to initiating SSRI therapy. Since they are metabolized by the liver cytochrome P450 enzymes, they can lead to increased or decreased effectiveness of certain medications, e.g., oral contraceptive pills. Also, avoid concurrent use with other serotonin-containing medications. You should expect symptom improvement after one

month of therapy, so we recommend switching to an alternate SSRI if there is zero improvement. About 50% of patients who fail one SSRI will respond positively to a different one.

Start with low doses, titrate up slowly but not too slow (see Table 3). In severe cases, increase doses weekly to achieve typical dose. Children and adolescents may need higher doses to achieve therapeutic effect. If a second SSRI is not helpful, then switch to a serotonin-norepinephrine reuptake inhibitor (SNRI).

Monitor for side effects. Sexual dysfunction is the most common side effect but is seen more in adult patients. Other side effects are headaches (seen mostly with fluoxetine), gastrointestinal (GI) side effects and weight loss (paroxetine has been shown to cause more pronounced weight gain compared with other SSRIs), QTc prolongation (especially with citalopram), insomnia, anxiety, restless legs, and emotional blunting.

There is a risk of serotonin syndrome if taken simultaneously with other serotonin-containing medications or supplements (e.g., St. John’s Wort). Withdrawal symptoms can occur with abrupt discontinuation. Counsel patients about possible side effects prior to initiating treatment.

Medication <i>Recommended initial dose and maximum dose vary by age</i>	Approved for Patients Ages ...
Clomipramine	10 years and older who have obsessive compulsive disorder
Duloxetine	7 years and older who have generalized anxiety disorder
Escitalopram	12 years and older who have major depressive disorder
Fluoxetine	8 years and older who have major depressive disorder
Fluoxetine	7 years and older who have obsessive compulsive disorder
Fluvoxamine	8 years and older who have obsessive compulsive disorder
Lurasidone	10 years and older who have bipolar depression
Olanzapine and fluoxetine, combination drug	10 years and older who have bipolar depression
Sertraline	6 years and older who have obsessive compulsive disorder

Regarding SSRI use in pregnancy, avoid paroxetine use due to increased risk of congenital heart defects and discontinuation syndrome in newborns. Also, paroxetine and sertraline can cause persistent pulmonary hypertension in newborns. A small amount of SSRI passes into breast milk, but there are



no known harmful effects to breastfed infants. Sertraline and escitalopram have lower concentrations in breast milk compared to fluoxetine.

**Self-Care While Taking Care of Mental Health Patients**

*Presentation by Sarah Arshad, MD*

Dealing with mental health issues can be challenging. Providers frequently have high expectations for success, and when they do not meet them, it can lead them to feel bad about themselves. Self-care is important and should be personalized.

- **Challenge:** You as the health care provider feel like you are not doing enough. Example: patient is not responding as expected or patient is refusing treatment.

**Reframe:** Psychiatric disorders are chronic syndromes that may not improve immediately. Small steps in the right direction are a win; create long-term goals. Your role is as a guide to your patients; it is not to fix all the problems. You are not in control of what your patient does outside of the office.

- **Challenge:** Demanding patient. Example: new patient requested to be started on stimulant prior to adequate assessment from you.

**Reframe:** Do your best to be empathic and acknowledge their concerns. Establish boundaries within your reasonable ability.

- **Challenge:** Demanding families. Example: family frustrated by systemic issues but directing frustration at you.

**Reframe:** Address concerns without taking on blame: Connect patients to services that may help.

Advocate for change within your own system. You do not have the ability to fix everything.

*Other Tips*

- Take a break (step out of the room for five minutes, take deep breaths, collect your thoughts).
- Reach out to colleagues for support.
- Engage in self-care and relaxation strategies that work for you. What “fills your cup”?
- Accept that it is okay to give the case to a colleague if the patient or situation continues to be a challenge.
- Give yourself grace.
- Utilize current resources at hand.

**CONCLUSION**

Managing pediatric mental health conditions can be a challenge with opportunities for success. Start by using the appropriate assessment tool to screen for the suspected condition. Remember that neuropsychiatric disorders can occur comorbidly, so focus on treating the symptoms that cause the most impairment first.

Always consider behavioral therapy for the child, and occasionally the parents as well, as the first step of your treatment plan. Start low and go slow when initiating pharmacotherapy, but remember that children and adolescents often need higher doses to achieve therapeutic effects. Use your colleagues as a resource and support system, and take care of yourself so you can continue taking care of your patients.

**REFERENCES**

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**Table 3. SSRI Dosing and Timing**

Medication	Available Forms	Starting Dose	Timing	Med Notes
Sertraline	Scored tablet, liquid	12.5-25 mg daily	Every morning or every night at bedtime	• Take with food to minimize GI side effects.
Fluoxetine	Capsule, scored tablet, liquid	5-10 mg daily	Every morning, due to risk of anxiety and insomnia	• Switch to nighttime if increased sleepiness. • Take with food to minimize GI side effects. • Consider every-other-day dosing to mitigate side effects.
Escitalopram <small>Approved May 2023 for GAD</small>	Scored tablet, liquid	10 mg daily, max 20 mg	Every morning or every night at bedtime	• Sedation properties may help with insomnia. • Avoid use in patients with severe symptoms due to low maximum dose.
Fluvoxamine	Scored or unscored tablet	25 mg daily	Every night at bedtime	• Only SSRI not approved by FDA as an antidepressant. • Slow titration to avoid GI effects. • Consider twice-a-day dosing due to short half-life.

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