Adolescent mental health: A guide for the primary care provider

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Mental health disorders are common among adolescents, with anxiety and depression being the most frequently encountered. To reduce severity of illness and risk of lifelong implications, it is essential for women's health nurse practitioners and other clinicians who provide adolescent primary care to be skilled at routine mental health screening and evaluation, and able to confidently manage findings. This article provides a brief overview of the prevalence of and risks for depression and anxiety among adolescents in the United States, evidence-based resources for patient evaluation, and management options for these common mental health conditions identified in primary care settings.

KEY WORDS: **adolescent, mental health, screening, treatment, depression, anxiety**

At least 1 in 5 youth experience a significant, diagnosable mental health condition in the United States.[1] More than half of mental health problems begin by age 14 years and 75% begin by age 24.[2,3] Unfortunately, the delay in treatment from symptom onset averages more than 10 years.[3] In fact, only half of adolescents with mental health conditions obtain professional counseling or medical management.[4] Generalized anxiety disorder (GAD) and depression are the most common mental illnesses experienced by youth, with a significant number of adolescents having symptoms of both disorders.[5]

The 2019 National Survey on Drug Use and Health showed that 15.7% of adolescents age 12 to 17 years had experienced a major depressive episode (MDE) during the past year and 11.1% experienced an MDE with severe impairment.[6] According to the 2019 Youth Risk Behavior Survey (YRBS) adolescents reported an increase in feelings of depression, thoughts of suicide, and suicide attempts over the past year compared to previous years. It is therefore essential that women's health nurse practitioners and other clinicians who provide primary care

Table 1. 2019 National Survey on Drug Use and Health: Adolescent depression and substance use[6]

Past year major depressive disorder	Past year illicit drug use	Past year marijuana use	Past year opioid misuse	Past month binge alcohol use	Past month cigarette use
No major depressive disorder in past year	14.4%	11.1%	1.8%	4.1%	1.8%
Major depressive disorder in past year	31.9%	24.6%	4.2%	8.9%	4.4%

for adolescents routinely screen and evaluate for mental health conditions and be prepared to confidently address concerns to reduce long-term consequences. This article provides a brief overview of the prevalence of and risk for depression and anxiety among adolescents in the US, evidence-based resources for patient evaluation, and management options for these common mental health conditions identified in primary care settings.

Vulnerable populations

While any adolescent may experience depression or anxiety, there are specific populations recognized as being particularly vulnerable to these conditions and other associated mental health issues. Among them are individuals who have substance use disorders (SUDs), those who identify as lesbian, gay, bisexual, transgender, queer, or questioning (LGBTQ), and those who have had adverse childhood experiences (ACEs).

Adolescents with an MDE are more likely to use substances (eg, illicit drugs, marijuana, opioids, alcohol, cigarettes) compared with their counterparts without an MDE (*Table 1*).[6] Approximately 3.1% of adolescents with an MDE with or without severe impairment have a substance use disorder (SUD).[6] The order of onset of MDE and SUD among adolescents has not been established, that is, whether the onset of an MDE preceded the SUD or vice versa.[6] Substance use is of particular concern among this age group considering its association with other risk behaviors, unintentional injuries, and suicide, the leading causes of mortality in adolescents.[6,7,9,10]

Adolescents who identify as LGBTQ have higher rates of depression, anxiety, substance use, and suicidal ideation compared to heterosexual and cisgender adolescents.[7–9,11] LBGTQ adolescents often experience bullying in social settings and are at risk for negative reactions from adult caregivers and peers because of their sexual orientation or gender identity. They have rates twice that of heterosexual/cisgender adolescents of reported persistent feelings of sadness or hopelessness, more than three times the rates for suicidality, and almost four times the rates of attempted suicide, with transgender and nonbinary adolescents having the highest rates among groups (*Tables 2,3*).[7,9,11]

An additional vulnerability for anxiety and depression is adverse childhood experiences (ACEs) such as psychological or physical trauma, homelessness, or sexual abuse. Females age 16 to 19 years are four times more likely to have experienced rape, attempted rape, or sexual assault than the general population, and 25% of girls experience sexual abuse in childhood, putting females at higher risk for ACEs and the resulting mental health ramifications.[12,13] LGBTQ youth are particularly vulnerable, with 30% experiencing physical threat or harm (40% of transgender and nonbinary youth) and 29% experiencing homelessness, being kicked out, or running away due to their identity.[11] Children and adolescents with multiple ACEs have higher rates of substance use and mental illness.[14]

Screening and assessment in the primary care setting

An adolescent-focused psychosocial history taking approach, using the acronym HEEADSSS (Home, Education/Employment, Eating, Activities [including social media and sleep pattern], Drugs, Sexuality, Suicide [mood], and Safety), offers a standardized process for gathering psychosocial data, a starting place for clinicians caring for adolescent patients.[15,16] The HEEADSSS approach facilitates discussion about environmental stressors, identifies risk-taking behaviors, and provides opportunity for the clinician to illuminate strengths, promote resiliency, and offer education. It is important to establish a safe, trusting environment that is patient centered and ensures confidentiality. Establishing this routine policy of confidential care for adolescents, with the caveat that safety concerns such as suicidal ideation or self-harm behaviors would be shared, is an effective strategy for patient-centered care. Ensuring confidentiality and using a standardized psychosocial assessment tool such as HEEADSSS enhances the likelihood of honest responses to guide evaluation and

Table 2. 2019 Youth Risk Behavior Survey: Rates of sadness/hopelessness, suicidality, attempted suicide across adolescent groups[7,9]

Suicidality risk behavior	Females	Males	Heterosexual youth	LGBTQ youth	Black youth	Hispanic youth	White youth
Persistent feelings of sadness or hopelessness	46.6%	26.8%	32.2%	66.3%	31.5%	40%	36%
Suicidality	24.1%	13.3%	14.5%	46.8%	16.9%	17.2%	19.1%
Attempted suicide	11%	6.6%	6.4%	23.4%	11.8%	8.9%	7.9%

LGBTQ, lesbian, gay, bisexual, transgender, queer, questioning.

interventions, and also promotes a smooth transition of adolescents to adult healthcare.[17] The HEEADSSS assessment provides valuable overall insight into an adolescent's life, creates opportunities for further discussion about areas of concern, and is applicable to all adolescents, making it the preferred psychosocial history tool for this age group. If the HEEADSSS assessment reveals incidence or risk of substance use, anxiety, or depression, additional evaluation should be employed.

Standardized screening beyond the use of HEEADSS is crucial in identifying risk for and existence of anxiety and depression in adolescents. The American Academy of Pediatrics (AAP) and the US Preventive Services Task Force recommend routine screening for depressive symptoms in adolescents age 12 years and older.[18–20] The Women's Preventive Services Initiative recommends routine screening for both anxiety and depression starting at age 13 years for females.[21] The Patient Health Questionnaire-9 (PHQ-9), a standardized 9-question self-assessment tool for depressive symptoms, has been validated for use with adolescents (sensitivity 85%, specificity 78.8%).[22] A shortened PHQ-2 consisting of the first two questions of the PHQ-9 can be used for initial depression screening, with a positive score (≥ 2 points) prompting full PHQ-9 screening for a more thorough assessment of depression and suicide risks.[23–25]

The Generalized Anxiety Disorder 7-item scale (GAD-7) is a helpful screening tool for identifying the presence of anxiety. It is well-validated in adults and has shown similar psychometrics with adolescents.[26,27] The Screen for Child Anxiety Related Disorders (SCARED) questionnaire, another validated screening tool used among pediatric and adolescent populations, offers a standardized comprehensive risk assessment of overall anxiety symptoms and identifies specific forms of anxiety (generalized anxiety, panic disorder, social anxiety, separation anxiety, and school avoidance).[28–30] This tool can help the primary care provider better assess anxiety and tailor recommendations to the patients' needs. Both the GAD-7 and the SCARED questionnaires can be used to monitor symptoms over time with repeated measures, providing a quantifiable assessment of patient progress.

The PHQ-9 and GAD-7 are readily available from the American Academy of Pediatrics Bright Futures Tool Kit (https://brightfutures.aap.org) and the American Academy of Child and Adolescent Psychiatry (AACAP) Toolbox for Clinical Practice and Outcomes (https://aacap.org) for use as pre-visit or in-person screening tools. The AACAP Toolbox also includes the SCARED questionnaire for clinical use. Both paper and electronic versions of these tools are available, with the AAP offering individual practice support for integration into electronic health records as well. When planning for implementation of adolescent screening tools, practice resources (personnel, finances, type of records used–electronic vs paper, availability of devices for patient use in office), individual patient access to technology and electronic health records, and completion rates of pre-visit requirements must be considered.

Patients older than age 11 years should also be routinely screened for use of tobacco, electronic nicotine products, alcohol, marijuana, and illicit substances using a standardized screening questionnaire or using HEEADSSS.[18,19,21,31] General substance-use questions are included in the HEEADSSS assessment, but the

Table 3. 2020 National Survey on LGBTQ Youth Mental Health[11]

Identity	Past 12 months seriously considered suicide	Past 2 weeks reported symptoms of generalized anxiety	Past 2 weeks reported symptoms of major depressive disorder	Past 12 months reported engaging in self-harm	Ever physically threatened or harmed due to LGBTQ identity	Ever experienced homelessness, been kicked out, or ran away	Past 12 months desired professional counseling but unable to receive it
LGBTQ youth	40%	68%	55%	48%	30%	29%	46%
Transgender & nonbinary youth	52%	> 75%	> 67%	> 60%	40%	--	--

LGBTQ, lesbian, gay, bisexual, transgender, queer, questioning.

SBIRT [Screening, Brief Intervention, and Referral to Treatment] framework provides a more structured evaluation consisting of Screening to Brief Intervention questions of how often the adolescent uses alcohol, tobacco, and marijuana.[31,32] Considering the increasing use of electronic nicotine products by adolescents (4.9% of middle school and 20.8% of high school students in 2018) and that the current Screening to Brief Intervention questions use the language of tobacco only, it is essential for providers to inquire specifically about electronic nicotine products when screening patients.[33] The terms "Juuling" and vaping are most familiar to adolescents and consistent with the vernacular used in their peer group.

During the adolescent physical examination, it is important to pay close attention to affect, language and behavioral cues, scarring or evidence of cutting/self-harm, bruising, or other indicators of physical abuse, sexual abuse, or trauma. Careful attention to changes in weight, specifically unexpected weight loss or gain, can provide additional cues for more extensive evaluation. Appropriate laboratory testing may include thyroid levels and/or drug screening if there are concerning physical exam findings or positive mental health screening results.

Clinical management

Effective treatment of anxiety and depression requires early identification of symptoms, mitigation of risks, and promotion of protective factors that reduce symptoms, risk of substance use disorder, and suicide. Conditions are diagnosed using specific criteria outlined in the *Diagnostic and Statistical Manual of Mental Disorders,* 5th ed., and treatment guidelines are available for managing adolescent anxiety and depression via primary care.[34,35] Moderate-to-severe and complex/comorbid conditions managed with pharmacologic and cognitive behavioral therapies from mental health specialists have the best long-term outcomes. Although adolescents with suicidal ideation require immediate interventions, primary care providers may initiate pharmacologic therapy for adolescent depression and anxiety. Selective serotonin reuptake inhibitors (SSRIs; citalopram, escitalopram, fluoxetine) are the accepted first-line agents.[34,35] It is important to remember that these medications do include a black box warning for possible increased suicidal thoughts and behaviors in children, adolescents, and young adults, requiring close monitoring and education of the patient and family. As multiple studies support the combination of an SSRI and psychotherapy as more effective than either of these treatment modalities alone, the clinician should also facilitate referral to mental health counseling.[34,36] Adolescents with mild or transient symptoms of depression and anxiety may benefit from primary care interventions promoting well-being and relieving mild symptoms, reducing the risk for suicide, drug use, or acting out behaviors, and providing support and education. These include:

- **Drink more water.** Irritability is one of the first signs of mild dehydration. Promoting six to eight 8-ounce glasses of water/day improves hydration, mood, mental clarity, and gastric motility. Suggesting a personalized reusable water bottle or canteen often motivates adolescents. Those who dislike "plain water" may consider readily available flavor additives that are sugar and caffeine free.
- **Get some rest.** Sleep hygiene, aiming for 8 to 10 hours of unin-

terrupted sleep/night as recommended by the National Sleep Foundation, can ease symptoms of anxiety, irritability, and depression by "resetting" the brain and quieting the mind. Eliminating caffeine and avoiding vigorous exercise in the evening and blocking the blue light from devices at least an hour before bedtime are recommendations for all adolescents, especially those with mental health concerns. Recommending reading or other relaxing quiet activities, establishing a bedtime hygiene routine, and using mindfulness practices like slow-paced breathing 4-7-8 (inhaling for 4 counts, hold breath for 7 counts, exhale for 8 counts), brief meditation, or guided imagery are effective strategies to promote sleep. Taking melatonin an hour before designated sleep time may assist in establishing the routine to promote uninterrupted sleep.

- **Attitude of gratitude.** Mindfulness practices focusing on positive characteristics strengthen resiliency. The simple practice of identifying "three good things" daily, " counting blessings," or using words of gratitude throughout the day releases endorphins, promoting a sense of well-being and stimulating growth of neuro pathways.[36] Other strategies include journaling, creative movement (dance/yoga), artistic expression, playing/listening to music, volunteering in the community, or spending time in nature.[37,38] Cognitive behavioral therapy (CBT) is a mainstay of managing anxiety and depression—helping adolescents avoid negative thinking can help prevent feeling negative emotions. Utilizing the foundations of CBT and motivational interviewing skills to set mutual goals for gratitude thinking and including this practice at follow-up visits is an effective strategy.
- **Build a bridge.** Adolescents benefit from meaningful longitudinal relationships with adults and peers who serve as role models, mentors, coaches, or "safety nets" to promote resiliency and reduce rates of depression, drug use, and risky sexual behaviors.[38,39] The supportive adult can be the parent or caregiver but can also include an educator, coach/advisor, community leader, or healthcare provider, as the common developmental task of adolescence is to separate self from parents. Providers establishing a long-term, trusting relationship with adolescents can leverage their influence to express concern, establish mutual goals to manage depression/anxiety symptoms, and maintain the relationship as their medical home by requesting follow-up visits with adolescents who have positive screening results. Evidence shows that telehealth, text messaging, phoning, or establishing peer-mentoring efforts are effective in promoting resiliency, reducing anxiety symptoms and hopelessness.[40–42]

Of special importance, are strategies to promote attentive care specific to vulnerable populations that can increase protective factors and promote further resiliency. As LGBTQ adolescents are at increased risk for ACEs, substance use, depression, anxiety, and suicidal ideation, it is important to provide intentional personalized support. Primary care providers must work diligently to demonstrate an accepting and safe environment for LBGTQ adolescents, as affirming care is associated with improved outcomes in general, and consistently lower rates of suicide attempts, especially among transgender and nonbinary adolescents.[11] Using adolescents' chosen pronouns, strategically including icons such as a rainbow or pink triangle in clinical settings, demonstrating a culturally competent, nonjudgmental posture and using appropriate terminology throughout patient interviews, and having community and national support resources readily available to LBGTQ adolescents and their caregivers are important in creating an open, inclusive, and respectful environment. These resources can include the **Trevor Project**[A], the **Gay and Lesbian Support Network**[B], the **American Academy of Pediatrics**[C], the **CDC**[D], and the **Parent, Families and Friends of Lesbians and Gays**[E] organization. Considering that 46% of LGBTQ adolescents desire professional assistance with their mental health concerns but are unable to obtain it, and 40% report concerns of parental permission as a barrier to receiving care, it is even more important to provide affirming care in the primary care setting.[11]

HEEADSSS remains a valuable strategy in primary care for all adolescents to identify social contributors of health (eg, home, education/employment, eating, activities, drugs, sexuality, suicide, safety) that may also place them at risk for mental health issues. Providing assistance as needed through referral to available resources is important in both prevention and treatment of mental health conditions.

Covid-19 and adolescent mental health

Adolescents have needs for social interaction and peer relationships that have been significantly challenged with the Covid-19 pandemic.[43,44] The prolonged quarantine and shift from in-person to virtual learning

made it difficult for adolescents to maintain their peer support networks and meaningful interpersonal relationships. Although many tried to stay connected via social media and other virtual technologies, this work-around was not equivalent to in-person interaction and led to common feelings of social isolation and resulting mental health consequences.[43] The continued uncertainty of when a true return to normal will occur creates a lingering atmosphere of stress and anxiety. Additionally, the pandemic has impacted access to care for adolescents with pre-existing mental illness. It is important, and will continue to be important for some time to come, to inquire about, support, and address these issues in the primary care setting. Providing screening for anxiety, depression, and suicidality at every visit with an adolescent is a necessity in the post-Covid landscape. Although we understand this situation and its impact on the immediate mental health of adolescents, we will not have a true and thorough comprehension of the long-term consequences until well into the future.[44]

Conclusion

Women's health nurse practitioners and other clinicians who provide primary care for adolescents can improve screening, identification, and treatment of anxiety and depression. Incorporating an adolescent-centered comprehensive history approach, standardized screening tools, and interventions that promote and support resiliency, providers can impact substance use, high-risk behaviors, adolescent safety, and mental health outcomes. With the significant prevalence of mental health concerns in adolescents, this evidence-based approach can have a marked impact on the health of each young patient. It is essential that primary care providers screen for and address concerns at every visit to best support the success of adolescent patients in this vulnerable time of growth and development. ■

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Web resource

A. thetrevorproject.org
B. glsen.org/
C. healthychildren.org/English/ages-stages/teen/dating-sex/Pages/Four-Stages-of-Coming-Out.aspx
D. cdc.gov/lgbthealth/youth-resources.htm
E. pflag.org