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'DOWN TO EARTH' ACADEMIC SKILLS COLUMN

Screening Adolescents for Substance Use: a Four-Step Approach for Trainees

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The importance of brief screening and assessment of adolescent substance use is well-established [1]. Screening for substance use whenever adolescents receive care can identify substance use earlier, and, for those who screen negative, cue clinicians to offer anticipatory guidance [2]. The Substance Abuse and Mental Health Services Administration (SAMHSA) and American Academy of Pediatrics both recommend universal screening for substance use, brief intervention, and/or referral to treatment (SBIRT) as part of routine health visits [2, 3].

At this time, there is no clear consensus within the psychiatric community about specific screening tools, as many were developed for primary care settings and further data on sensitivity and specificity in psychiatric populations is limited [4, 5]. Nonetheless, correlation between psychiatric and substance use disorders is well-documented, and adolescents receiving mental health care should also be screened for substance use [6]. DeJong and colleagues aptly highlight substance use screening as a core skill that falls within the purview of general psychiatrists and identify areas within the general psychiatry curriculum where addiction psychiatry principles can be reinforced [5].

We expand on this recommendation with a paradigm to guide trainees as they screen adolescent patients. Adolescent patients face unique social pressures that may influence substance use patterns, and many are new to navigating the healthcare system with increased independence. This framework is aimed at supporting educators who train medical students, residents, and fellows rotating on psychiatry services, with special emphasis on risk mitigation and follow-up in an outpatient setting. These skills are also applicable to other trainees outside of psychiatry, as substance use is prevalent in all clinical settings where adolescents seek care.

While early screening and detection of substance use can prevent progression to substance use disorders (SUD) in adolescents, consistent use of evidence-based screening remains underutilized [1]. A notable barrier to screening is variable addiction training across US residency programs [7, 8]. Physicians also cite discomfort with nuanced confidentiality issues involving patients, insufficient staffing, and technology to manage screening, and a need for additional reimbursement to mitigate these challenges [9]. Furthermore, many physicians are uncertain about how to respond to a positive screen, appropriately assess the amount, duration, and impact of substance use, and administer effective brief intervention.

Here, we outline a practical, four-step approach to help trainees identify adolescents who use substances and may require further intervention or specialty referral. We aim to improve dissemination of validated screening tools and encourage trainees to incorporate substance use screening in their daily practice.

Screening Is an Initial Identification Process That Should be Followed by Further Assessment

Although the terms *screening* and *assessment* are often used interchangeably, they represent separate processes with different goals. Screening seeks to identify symptoms of a disorder that has not yet been detected or identify people likely to have a clinical condition (in this case, past or current substance use) during an early stage, and aims to prevent further progression of the condition, ideally before adverse symptoms develop [10]. Screening does not yield definitive diagnostic information, although it can determine the need for more comprehensive assessment. Assessments

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evaluate the extent and diagnostic features of a condition, which can determine treatment needs [11]. Trainees rotating on psychiatry services are uniquely positioned to perform in-depth assessment about the severity of substance use, as the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision provides a framework within which to query and tabulate symptoms. Here, we focus on educational strategies to guide trainees' screening of adolescents for substance use, which is a crucial precursor to assessment and intervention.

Step 1: Identify the Optimal Setting to Integrate Screening into the Interview

Screening for substance use should be universal, normalized, and a standard component of the general history gathering process. Substance use screening may be incorporated at the intake stage, when appointments are typically longer to allow comprehensive evaluation of a patient's baseline overall functioning and health. However, adolescents who present to emergency medical services with trauma or present with acute gastrointestinal issues should be screened during these visits as well [6].

Many existing approaches effectively integrate screening into the flow of an initial diagnostic conversation. For example, trainees may screen for substance use when discussing the adolescent's social history, such as when asking about school performance and interests. Alternatively, screening may accompany discussions about allergies and medications, as substances used are also external compounds introduced to the body.

Step 2: Review Confidentiality, and Ask for Consent to Screen

Screening should be conducted in a safe space where confidentiality and its limits are defined. State laws vary, and it is important to know what laws apply in the jurisdiction where the adolescent receives care. Confidentiality can be broken if imminent safety concerns emerge about the patient's well-being, such as risk of suicidality, homicidality, or harm from others [6]. After discussing confidentiality and its limits, obtain patient permission to screen for substance use.

Adolescents should be interviewed privately to discuss sensitive topics, including sexual history and substance use, and so potential exposure to abuse or violence can be queried [12]. If an adolescent prefers their parent or guardian stay for the entirety of the visit, this preference should be honored.

Step 3: Quantify Substance Use with a Validated Screening Tool

After reviewing confidentiality and obtaining the patient's consent to screen, a validated screening tool should be used. A comprehensive, though not exhaustive, exploration of these is discussed in Table 1 [13–18]. Of note, the accessibility of these tools, either through EMR integration or through the public domain, may impact practicality of their use. We aim to provide a comprehensive and pertinent review of validated screening tools, as there is educational value to exposing trainees to the breadth of options. Nonetheless, some screening tools may be less readily available and therefore less feasible in busy clinic settings. Table 1 indicates where these screening tools can be accessed publicly, as EMR integration is institution-specific. Here, we review three comprehensive screens for multiple substances: the Brief Screener for Tobacco, Alcohol, and Other Drugs (BSTAD), Screening to Brief Intervention (S2BI), and the CRAFFT (Car; Relax; Alone; Forget; Friends; Trouble) [13–15]. We also discuss the National Institute on Alcohol Abuse and Alcoholism (NIAAA) Screening Guide, and the Alcohol Use Disorders Identification Test (AUDIT), which focus solely on alcohol use [16, 19]. While less comprehensive, these two screens are used extensively in clinical settings. The Problem Oriented Screening Instrument for Teenagers (POSIT) is also briefly reviewed as it carries historical significance and has been validated in special populations [18].

Screening options abound, and one barrier to screening is clinician comfort with screening tools [20]. We recommend a validated screen, followed by a targeted assessment if the initial screen is positive. Comprehensive screening can take more time but also provides a fuller clinical picture. One example of this is the BSTAD, which was created by Kelly and colleagues [13] after expanding the NIAAA Screening Guide to include other drug and tobacco questions.

The National Institute on Drug Abuse (NIDA) released the BSTAD and S2BI online for free use [13, 14]. Both tools screen for frequency of use of eight common categories of substances (tobacco, alcohol, cannabis, diverted prescription medications, cocaine, heroin, nitrous oxide, and synthetic drugs) and stratify risk as mild, moderate, or severe, with additional intervention guidance. The algorithms recommend next clinical steps based on the frequency of substance use. The BSTAD measures frequency of substance use through the number of days a substance was used in the past year, and the S2BI quantifies frequency as the number of times a substance was used in the past year.

The CRAFFT utilizes six items to query alcohol use patterns, and other general drug use (Car; Relax; Alone;

Table 1 Common evidence-based screening tools for use in adolescent patient populations

Screen	Number of items	Age range (years)	Pros	Cons
Brief Screener for Alcohol, Tobacco and other Drugs (BSTAD) [13]	3–7, expands based on reported use	12–17	- Inquiry of up to 8 substance types (tobacco, alcohol, cannabis, cocaine, heroin, amphetamines and methamphetamines, hallucinogens, inhalants) - Computerized algorithm that risk-stratifies results with additional intervention guidance - Measures frequency in instances of use in past year - Publicly available at: https://nida.nih.gov/bstad/	- Queries substance use in the past year but not lifetime use
Screening to Brief Intervention (S2BI) [14]	3–7, expands based on reported use	12–17	- Inquiry of up to 8 substance types (tobacco, alcohol, cannabis, diverted prescription medications, cocaine, heroin, nitrous oxide, and synthetic drugs) - Computerized algorithm risk-stratifies and provides intervention guidance - Measures frequency in days of use in past year - Publicly available at: https://nida.nih.gov/s2bi/	- Queries substance use in the past year but not lifetime use
CRAFFT (Car, Relax, Alone, Forget, Friends, Trouble) [15]	6	12–18, and has been used up to age 26	- Queries consequences of drug use (some assessment components) - Offers targeted counseling - Later versions ask frequency of use - Available in multiple languages (33 at time of this publication) - Publicly available at: https://crafft.org/	- Broad query of drug use ("cannabis or other illegal drugs") though later versions expand on types of cannabis and nicotine products
National Institute on Alcohol Abuse and Alcoholism (NIAAA) and American Academy of Pediatrics (AAP) Brief Alcohol Use Screener [16]	2	9–18	- Concise - Risk-stratifies based on answers - Age-specific guidance - Publicly available at: https://www.niaaa.nih.gov/alcohols-effects-health/professional-education-materials/alcohol-screening-and-brief-intervention-youth-practitioners-guide	- Queries alcohol use only
Alcohol Use Disorders Identification Test (AUDIT) [17]	10	13–19	- Quantifies frequency of alcohol use - Queries consequences of alcohol use (i.e., injury, remorse, loss of memory) - Publicly available at: https://www.auditscreen.org/	- Queries alcohol only
Alcohol Use Disorders Identification Test – Concise (AUDIT-C) [17]	3	13–19, and has been studied down to age 10	- More effective than AUDIT at identifying youth at-risk for trying alcohol - Queries frequency of alcohol use, average daily use, and binge drinking frequency - Publicly available at: https://cde.nida.nih.gov/instrument/f229c68a-67ce-9a58-e040-bb89ad432be4	- Queries alcohol only - Less comprehensive than AUDIT
Problem Oriented Screening Instrument for Teenagers (POSIT) [18]	139 total, 11 or 17 item subscales	12–19	- Validated for use in high school students, adolescents involved in criminal justice system, and adolescents already in substance use treatment - Both subscales have high sensitivity for alcohol use and cannabis use disorder - Publicly available through National Clearinghouse for Alcohol and Drug Information P.O. Box 2345 Rockville, MD 20847–2345 (800) 729–6686 or at: https://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-4141A-ENG	- Full scale is lengthy at 139 items - Queries use of alcohol and other drugs, whereas other substance types are not explicitly listed

Forget; Friends; Trouble). Developed in 1999, it is one of the earlier, more widely used screens targeted to young people that can be self-administered or delivered as part of the clinical interview [15]. The CRAFFT asks if patients have ever ridden in a car driven by someone (including themselves) who was intoxicated, ever used alcohol or drugs to relax, ever used alcohol or drugs while alone, ever forgotten things done while using alcohol or drugs, ever had family or friends ask them to cut down, or ever gotten in trouble while using alcohol or drugs (cannabis or "other illegal drugs"). While the screen does not further define individual drug classes, it offers targeted discussion points, including counseling on the risk of riding in or operating a vehicle while intoxicated, and reinforces self-efficacy and empowerment [21].

The NIAAA Screening Guide was developed for pediatric primary care settings and presents two questions: (1) "Do you have any friends who drank beer, wine, or any drink containing alcohol in the past year?" and (2) "Have you ever had more than a few sips of beer, wine, or any drink containing alcohol?" Patients aged 14 to 18 are first asked about their own use, while younger patients are initially asked about friends' use, to ease into the conversation [16]. Cut-points are age-specific and provide guidance on determining next steps, including when the application of brief counseling or referral is most appropriate.

The AUDIT is a self-reported 10-item screen with a shorter, three-item version (AUDIT-C). The AUDIT and AUDIT-C clarify nuances in alcohol use patterns by quantifying consumption in the algorithm [22]. AUDIT-C has been validated for use in adults, though Coulton and colleagues [22] found the AUDIT-C was overall more effective than the 10-item AUDIT in identifying patients aged 10 to 18 who were at-risk for consuming alcohol.

The POSIT has a substance use subscale for ages 12 to 19 and is also validated for use in high school students, adolescents involved in the criminal justice system, and adolescents in substance use treatment [6, 23, 24]. It queries use of alcohol and other drugs, where other types of drugs are not specified further but can be clarified by the interviewer. With a full scale of 139 items, it is notably longer than the other previously mentioned screens. The POSIT has a 17-item substance use subscale and was revised further to an 11-item subscale. Both subscale versions have been found to have high sensitivity for alcohol use and cannabis use disorder [23].

As trainees gain familiarity with the various screening options, they may feel less apprehensive about screening. However, as previously noted, the prospect of a positive screen can be a daunting barrier to screening implementation, as further assessment is warranted.

Step 4: Encourage Trainees to Approach Screening Results with Curiosity and Collaboration

What happens when a patient screens positive for use of a substance? This outcome presents the opportunity for assessment, timely intervention, and goal-setting. If a patient answers "yes" to using any substance on one of the evidence-based screens, advise trainees to thank the patient for their honesty (affirmation) and ask for permission to probe the topic further (assent to continue). Identifying the amount, frequency, and routes of substance use helps trainees gauge the severity of substance use. Further assessment of the impact of substance use on the adolescent's daily life and functioning provides trainees with an opportunity to counsel their patient on associated high-risk behaviors, such as driving under the influence. Trainees should also discern substance use from substance use disorder, and they may use the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision criteria as a tool to clarify the diagnosis.

Trainees should approach adolescents who screen positive for substance use with empathy and explore the patient's readiness to change. They should also inquire about goals the adolescent has for themselves (for example, to join a sports team, or go to college) and through candid conversation, the trainee may reflect back to the patient how substance use jeopardizes such goals. Through shared decision-making, the trainee and patient may identify new goals to cut back or abstain from further substance use, and this planning is also a form of brief intervention.

Trainees should also explore available supports (including, for example, parents, guardians, mentors, or coaches), and need for specialty treatment. Referral to specialty treatment is generally correlated with high risk of developing a serious consequence of substance use disorder (e.g., overdose) or if the patient already meets criteria for a substance use disorder in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision. Regardless of whether a referral is made, the trainee and their team should plan to follow up in 1 to 3 months to check in about goals. This approach helps the patient grow accustomed to having these conversations with their healthcare team and lays the foundation for future discussion about substance use. If appropriate, plan to combine follow-ups for substance use and another medical issue (for example, asthma or anxiety), so substance use is framed as another medical reason to come to the clinic.

Confidentiality should be addressed at the beginning of the encounter, so it can be referenced again at this stage of the appointment. The patient should be made aware of the limits of confidentiality. For example, patients under the age of 18 should be made aware their legal guardian may have access to their medical record or billing statements and the laws surrounding disclosure vary by state. Patients should be encouraged to bring their parents/guardians into the conversation themselves; however, if they do not wish to disclose to their guardian and do not pose an acute risk to themselves, confidentiality should be maintained as essential to the therapeutic alliance. Trainees should discuss findings and next steps with their clinical supervisor and document their findings and plan accurately in the medical record.

Even a negative screen requires a response, and adolescents should be asked why they do not drink, smoke, or use drugs, and offered anticipatory guidance. Such questioning may identify people who avoid substances because of prior problems or a family history of SUD [25]. Furthermore, discussing a negative screen normalizes the topic and sets the expectation that patients will be screened again later. SAMHSA has also previously recommended that adolescents who screen negative but who are at a higher risk of substance use be screened again within 6 months [6].

Screening Takes Repetition and Reflection

With each encounter, trainees have an opportunity to try a different screening tool or brief intervention style, and these experiences ultimately help shape their own clinical approach. These encounters also acclimatize adolescents to conversations about substance use in the healthcare setting and provide them an opportunity to build a therapeutic alliance with their clinicians. Screening adolescents for substance use is an important yet underutilized skill; with training, encouragement, and repetition, we hope the next generation of clinicians will make such conversations a routine and expected part of practice.

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Declarations

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