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Substance Misuse Among Adolescents:

To Screen or Not to Screen?

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Alcohol, tobacco, and marijuana are the top 3 substances of misuse among teenagers. According to the Monitoring the Future study,[1] marijuana use continues to increase in contrast to tobacco or alcohol use, which has leveled off; currently, more than one-third of 12th graders report having used marijuana in the past year, and 6.5% report using it regularly. Emerging evidence suggests that the adolescent brain is highly vulnerable to exposure to alcohol or cannabis consumption, resulting in proximal and distal impairments in neurocognitive functioning (including memory and intelligence), sensitivity to reward, and emotional regulation. Moreover, deaths in adolescents are largely preventable because most are a result of substance-related motor vehicle accidents and overdose or unintentional poisoning. Substance use disorders (SUDs), especially those that begin during adolescence, have a high likelihood of persisting into adulthood, with associated negative medical, personal, and professional consequences. Pediatric care physicians are well positioned to prevent initiation or curb the progression of substance misuse among adolescents.

The available screening tools to detect substance misuse in pediatric settings have several limitations. In response, the National Institute on Drug Abuse provided a funding opportunity announcement[2] to validate a quick and combined (ie, tobacco, alcohol, marijuana, and other commonly abused substances) screening and brief assessment tool for universal administration to adolescents (age range, 12–17 years) in pediatric settings. Among other criteria, the National Institute on Drug Abuse required that the quick tool triage responses lead the physician to clinically actionable problem categories; be suitable for self-administration by the teen and administration by clinicians or staff; be delivered on an electronic platform, such as an iPad; factor in workflow considerations at medical settings; and made available in the public domain.

In this issue, Levy and colleagues[3] present the results of 1 of the 3 validation projects that were funded. The quick tool selected by the authors was composed of the past-year frequency screen questions from the National Institute on Drug Abuse Quick Screen (for tobacco, alcohol, marijuana, and several other drug use categories), followed by an Alcohol Use Disorders Identification Test for adolescents with positive alcohol screen results, or the RAFFT questions (ie, CRAFFT without the car question) for adolescents with positive

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marijuana and other substance screen results. The psychometric properties of the screen and brief assessment were excellent for self-administration and interviewer administration, and it took less than 1 minute to complete. The authors serendipitously found that asking the frequency of use screen questions alone was sufficient to identify the 3 types of *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition) (*DSM-5*) SUD diagnostic categories, further simplifying the process. Of course, these findings need to be replicated in larger samples to allow validation of these and other common substances, such as prescription stimulants and prescription opioids, and to determine whether the teens' responses to the screen may change if they were told that they will be shared with the treating pediatric physician.

Strategies to disseminate the use of this validated screening tool would need to overcome barriers to perform routine screening in pediatric primary care settings. Among these barriers[4] are the lack of knowledge on how to screen for substances of abuse, the lack of training in or familiarity with the management of adolescents with substance use problems, and the burden on pediatric physicians to treat these patients within the time constraints of busy practices.

Perhaps an even bigger barrier to widespread adoption is the lack of an evidence base to clinically guide the pediatric physician when substance misuse is uncovered in an adolescent. How and when does he/she intervene? To date, no clinical trials have reported the efficacy of brief (or extended) interventions for alcohol, cannabis, or other prescription medication misuse in pediatric settings. As a result, the US Preventive Services Task Force[5] has issued an "I" (for insufficient) recommendation for screening and interventions for adolescents with illicit drug use, alcohol misuse, or nonmedical pharmaceutical use. According to their definition, *insufficient* means that the existing evidence is either lacking or of poor quality, thereby precluding them from making a recommendation *for* or *against* screening and/or interventions for alcohol or substance abuse in pediatric settings. The natural course of adolescents with mild to moderate problem categories remains unknown, further confounding the decision to intervene. The use of substances without meeting the criteria for an SUD is potentially dangerous, as seen in drunk and drugged driving scenarios, limiting the utility of *DSM-5* diagnostic categories. Psychiatric disorders, such as attention-deficit/hyperactivity disorder and depressive disorders, appear to frequently predate the onset of SUDs in adolescents, representing a shared vulnerability, a risk factor, or both. However, the field lacks strategies to evaluate the severity of substance misuse in the context of co-occurring psychiatric or chronic medical problems or other known risk factors. The management of substance use problems in adolescents also involves unique confidentiality concerns. When is it appropriate to share information about misuse with the parent or legal guardian? When and for whom is parent involvement beneficial? Other pertinent questions are whether efficacious behavioral and technology-based interventions tested in specialty SUD treatment settings should be adapted and implemented in pediatric medical settings and, for those adolescents with higher-severity SUDs who cannot be treated on site, whether effective referral strategies can be identified that would successfully connect these teens to specialty SUD care.

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The recently legislated Patient Protection and Affordable Care Act (2010) and the Mental Health Parity and Addiction Equity Act (2008) could be the catalysts for change in how substance abuse problems are handled in primary medical settings. They mandate services for substance use problems and coverage for screening, assessment, and intervention or treatment for these problems to ensure parity in behavioral health and SUD treatment. The study by Levy and colleagues represents a major advance, yet only the beginning of a larger, urgently needed evidence-gathering process to inform the utility of screening and the adequate management of substance misuse in adolescents by pediatric primary care physicians.

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