Hazelden Betty Ford Foundation

Emerging Drug Trends Report

August 2019 | Shedding new light on America's No. 1 public health problem

Pediatricians—"First responders" for preventing substance use

Overview

As substance use-related deaths increase at an unprecedented rate, prevention and intervention efforts must be part of the overall strategy to respond to the current crisis. Because substance use is typically initiated during adolescence, this age group is a particularly important prevention target (Miech et al., 2016). Not only are young people using alcohol and marijuana, but in fact, almost 900,000 adolescents reported misusing opioids in the past year in 2017 (Substance Abuse and Mental Health Services Administration, 2018).

The vast majority of children under 18—93 percent according to the latest national statistics—saw a doctor or other health care professional during the past year (National Center for Health Statistics, 2017). The critical role that pediatricians can play in promoting behavioral health has been increasingly recognized by professional associations like the American Academy of Pediatrics (AAP). Specific recommendations have been made by the AAP for pediatricians to routinely screen adolescent patients for alcohol and other drug use, and to conduct brief interventions and/or refer to more intensive treatment when needed. Unfortunately, new research shows that this prevention and intervention strategy has not been as fully embraced and as widely implemented by pediatricians as one might hope. This report discusses the need for routine screening among adolescents and describes new research findings on how often screening is occurring within pediatric settings. A concerted effort is needed to give physicians the tools and resources to play this critical "first responder" role to prevent substance use and related consequences among youth.

The importance of early detection of substance use among youth

It has long been recognized that the roots of addiction begin in adolescence. The adolescent brain is primed for risk-taking while its capacity for thoughtful planning and awareness of future consequences is incomplete. These and other features of adolescent brain development put this age group at heightened risk for substance use initiation. Among adolescents in one study who had consumed alcohol by 12th grade, the most common time of initiation was 9th grade (Miech et al., 2018). Similarly, among adolescents who had used marijuana by 12th grade, more than half had initiated use by 9th or 10th grade.

The peak developmental period for the onset of substance use disorders is young adulthood (Chambers, Taylor, & Potenza, 2003). Because pediatricians have a long-term relationship with children and their families, often from birth until young adulthood, they are uniquely able to observe changes that might be related to substance

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use initiation and perhaps detect signs of more frequent use (Kulig, 2005). However, pediatricians do not need to rely on their instincts; rather, routine short self-report screening tools have been scientifically validated for use in pediatric settings. These tools can assess past and current alcohol consumption and drug use, and assess the propensity for developing a substance use disorder. Resources recommended by the AAP include the CRAFFT tool (Knight et al., 1999), the Global Appraisal of Individual Needs (GAIN; Dennis, Chan, & Funk, 2006), and the Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993). Using these screening tools can be brief and simple. For example, the National Institute on Alcohol Abuse and Alcoholism (2011) developed an empirically based, two-question screen for adolescent patients ages 9 to 18 that asks about their friends' use of alcohol and then their own to identify patients at early stages of alcohol use and their current risk for problematic drinking behavior.

Most youth will endorse no use of tobacco, alcohol or marijuana, and the physician in those cases can play an important role by reinforcing that healthy choice and the benefits of never starting to use. If use is detected, the integrated approach of substance use screening, brief intervention and referral to treatment (SBIRT) can be utilized. SBIRT is an evidence-based practice used across multiple settings and age groups (Agerwala & McCance-Katz, 2012; Schweer, 2009). SBIRT allows clinicians to identify young people who are at risk for developing a substance use disorder and choose an appropriate and informed response (Levy & Williams, 2016). In some cases, a brief intervention may be needed, and in the minority of more serious cases, the adolescent patient can be referred to more intensive and/or specialized treatment. In short, the unique access and influence pediatricians have on health behaviors throughout the early stages of life make them an essential point of intervention for adolescent substance use.

Professional associations strongly encourage screening in pediatric settings but evaluation studies are also needed

Promoting behavioral health has been increasingly seen as a responsibility of pediatricians. Having a healthy diet, practicing good sleep hygiene and staying physically active are preventive strategies that, if begun early in life and maintained, can help reduce the risk for many common chronic conditions. Any tobacco use, underage drinking and/or other substance use increase the risk for a wide range of health and safety consequences among youth. Recent guidance from the AAP (2016) highlights the disease burden associated with adolescent substance use, as well as the need to increase the capacity of the pediatric workforce to routinely screen to prevent initiation and identify youth who might need further clinical management. Since 1995, the AAP has recommended that pediatricians discuss alcohol and other drug use with all adolescent patients as a part of a routine risk-behavior assessment (American Academy of Pediatrics, 1995). During the past decade, several professional organizations have released guidance on the clinical use of SBIRT. In 2011, the AAP released a policy statement recommending that pediatricians, specifically, screen all adolescent patients for drug use with formal, validated screening tools at every "well-child" visit and appropriate acute illness visits (Levy & Kokotailo, 2011). Two years later, the Substance Abuse and Mental Health Services Administration (2013) published a technical assistance guide with information relevant to the implementation of universal screening, early prevention and timely referral to treatment for those discovered to have a substance use disorder.

Sharon Levy is a lead author of the American Academy of Pediatrics SBIRT guidance as well as director of the Adolescent Substance Use and Addiction Program (ASAP) at Boston Children's Hospital and associate professor of pediatrics at Harvard Medical School. She says, "If I had to boil the SBIRT guidelines down to a bumper sticker, I would say the most important thing pediatricians can do for kids is to be unwavering in the message

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that non-use is best for health. That can be a prevention message or the start of a brief intervention. It is simple, accurate and easy to remember."

Despite the recommendation of the AAP to consistently screen adolescent patients for substance use, the U.S. Preventive Services Task Force (USPSTF; U.S. Preventive Services Task Force, 2018) continues to conclude that "the current evidence is insufficient to assess the balance of benefits and harms of screening and brief behavioral counseling interventions for alcohol use in primary care settings in adolescents aged 12 to 17 years." This is not a recommendation against screening adolescents using SBIRT techniques, but rather a statement that more research must be done to evaluate this practice. For example, the systematic review conducted for the USPSTF in 2012 found that no interventions that screen adolescents for alcohol misuse have been evaluated, compared with 23 studies using adult samples (Jonas et al., 2012). Given the considerable number of rigorous studies with encouraging results and the features of brief intervention that are particularly attractive to adolescents—such as a client-centered, non-confrontational approach—the SBIRT model is well-suited for an adolescent population (Mitchell et al., 2013). In order for more research to be conducted examining SBIRT efficacy and effectiveness in reducing alcohol use among adolescents, screening adolescents in pediatric settings must first become more uniform in terms of practice and use of validated tools.

How often are pediatricians screening for substance use?

Research studies have shown that many health care providers are not screening adolescents for substance use disorder (Harris et al., 2012; Millstein & Marcell, 2003; O'Connor, 1997). Pediatricians in a national sample obtained from the American Medical Association were asked about their beliefs and attitudes regarding alcohol use prevention and their delivery of related services (Millstein & Marcell, 2003). Less than a quarter (23 percent) of pediatricians surveyed routinely ask adolescents ages 11 to 14 about their alcohol use, and only 43 percent ask adolescents ages 15 to 17. A statewide study surveying primary care physicians in Massachusetts found that 86 percent of pediatricians screen adolescents for substance use annually, but more than half use "informal screening" or clinical judgement rather than a validated screening tool (Harris et al., 2012). Another study of 437 primary care physicians in California found that only 5 percent of pediatricians surveyed use standardized, evidence-based screening tools when assessing their patients' alcohol and other drug use (Sterling et al., 2012). Validated screening tools provide statistically tested, consistent and valid measures of how much risk is associated with an individual's level of substance use. A study of 109 medical care providers conducted at a large adolescent clinic found that using clinical impressions alone, pediatricians correctly identified 76 percent of the adolescents who had a substance use disorder as having used a substance, prior to any knowledge of their diagnosis; however, 50 percent of those patients were misclassified as having used minimally or without experiencing related problems (Wilson et al., 2004). Researchers concluded that clinical impressions, without the use of validated screening tools, underestimated adolescent substance use, and when use was correctly detected by the pediatrician, there was a high likelihood that a problem or disorder existed.

Possible reasons for not screening

Physicians cite time constraints with the patient, insufficient training on screening tools and intervention skills, and a lack of substance use treatment resources as barriers to routine screening (Van Hook et al., 2007; Yoast, Wilford, & Hayashi, 2008). Of 427 primary care pediatricians surveyed in one study, a considerable proportion felt unprepared to diagnose alcohol use (42 percent), marijuana use problems (37 percent) and other illicit drug use problems (56 percent; Sterling et al., 2012). Eighty percent reported lack of time as a barrier, 12 percent said they

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did not know enough about referrals, and interestingly, 48 percent felt satisfied with their current education on addressing problems with alcohol and other drug use. Nearly one-third of pediatricians said that the tendency of their patients to not tell the truth about substance use, as well as confidentiality policies and regulations, were additional reasons for not asking their patients about alcohol and other drug use. Despite evidence to the contrary (National Institute on Drug Abuse, 2014), more than half (52 percent) of the pediatricians felt that substance use disorder treatment was not very or at all effective.

Our health system needs to address the fact that a large number of pediatricians are not consistently screening their patients for substance use and eliminate the barriers cited for this lack of implementation. Some have suggested that giving pediatricians additional time to screen (76 percent), utilizing other staff to conduct screening (56 percent) and implementing pre-appointment screens (51 percent) could help facilitate more consistent screening (Sterling et al., 2012). Another need often discussed is more robust general medical education on addiction and recovery (Office of National Drug Control Policy, 2016).

A summary of best practices for pediatricians

The USPSTF reports that further evaluation is needed to endorse screening for substance use in pediatric settings and is in fact currently updating recommendations for behavioral intervention in the primary healthcare setting. (U.S. Preventive Services Task Force, 2018). However, given the strong evidence base of SBIRT for alcohol use among adult populations, other entities such as the AAP (Levy & Williams, 2016) and the National Institute on Drug Abuse (2012) encourage adapting this technique to address all substance use and misuse of prescription drugs among adolescents, so that robust evaluations can be conducted.

There is a range of roles that pediatricians can play related to preventing substance use and related problems. Helpful actions could include: encouraging youth who have not initiated substance use not to start, conducting brief interventions with youth who have initiated substance use and who might be at risk for developing a substance use disorder, and facilitating access to treatment for youth who meet criteria for addiction. The last is especially important, given that only 10 percent of adolescents who need treatment for a substance use disorder receive substance use treatment (Substance Abuse and Mental Health Services Administration, 2017).

While more research is needed to help us fully understand the importance of having early dialogues to prevent initiation of use, it is a sensible strategy for pediatricians—because of their sustained and trusted relationships with children—to have a brief conversation during routine annual visits about not starting to use tobacco, alcohol or other drugs. As recommended by Dr. Robert DuPont, president of the Institute for Behavior and Health, "Pediatric providers, as uniquely respected and trusted sources of health information, can help their adolescent patients make one choice about substance use for their health: no use of any alcohol, nicotine, marijuana or other drugs. A steadily increasing percentage of American youth have been making this healthy choice for nearly four decades. Pediatricians can encourage this well-established drug-free trend." Later, during adolescence and into young adulthood, more comprehensive risk assessments by pediatricians are warranted because of the heightened vulnerability for initiation and development of substance use problems.

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The importance of prevention cannot be overemphasized. In a randomized clinical trial, Saitz et al. (2014) found that brief intervention—while previously shown to be effective for reducing alcohol use among adults (Solberg, Maciosek, & Edwards, 2008)—was not effective for reducing other unhealthy substance use among adult primary care patients who were identified through screening. These results suggest that among the adult population, brief interventions may serve primarily as bridges to lengthier, more complex treatment strategies, rather than as prevention solutions. Similarly, research among a younger subpopulation of adults—college students—found that brief intervention alone aimed at reducing marijuana use does not have long-term impact (Lee et al., 2013). These results among adult populations actually underscore the need to identify adolescents with substance use problems earlier in primary care settings before treatment needs extend beyond brief intervention.

The clinical implications of primary care screening for substance use among adolescents make the practice of SBIRT even more vital. Shrier et al. (2003) found that adolescents with substance use disorder and other less-severe substance use problems are at increased risk for many psychiatric symptoms compared with their counterparts. New research findings suggest that SBIRT in pediatric primary care settings might also reduce subsequent psychiatry visits, mental health diagnoses and chronic conditions (Sterling et al., 2019).

Whether early substance use problems represent the initial stages of substance use disorder, indicate psychological or social problems, or are associated with other medical and psychiatric issues, identifying substance use in adolescents with validated screening tools in a pediatric setting is necessary for quality, prevention-based medical care.

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Insights and Perspectives

Joseph Lee, MD, Medical Director, Hazelden Betty Ford Foundation Youth Continuum

- "The opioid crisis has ravaged our country with tragedy in its wake. Yet, 10 or 20 years from now, there may be another epidemic involving other chemicals, coupled with more heartache, loss, and anguish. Even as we struggle now to overcome this epidemic, we must not forget that there are generations of youth incubating right now in our school systems, and we are not doing nearly enough to prevent the same mistakes that have so dearly cost us in the present. Without aggressive and strategic investment in our youth, we are bound to suffer again.

  "Addiction is a developmental disorder, with risk factors that can be detected years earlier. Due to stigma, so much of our dialogue about addiction is about drugs. We fret about which drugs and what drug and how to rank drugs. We anthropomorphize drugs as if they have personalities or moral qualities. In this tragic satire, we've lost our focus on people. People develop addiction, but addiction is not about drugs; it's about people. If we are brave enough to invest in people, especially our youth, we can transform our approach to addiction forever."

Dr. Stephen Delisi, MD, Medical Director, Professional Education Solutions, Hazelden Betty Ford Foundation

- "Standing at the front line of where the neurodevelopmental disease of addiction starts, pediatricians are in the unique position to practice primary prevention of a disease that begins in adolescence. Our focus needs to be on prevention at the societal level, targeting young people who have not yet fully expressed the disease of addiction, but who are at greater risk of doing so."

Alaina Steck, MD, Assistant Professor of Emergency Medicine, Emory University School of Medicine

- "Routine substance use screening by a trusted provider brings substance use discussions into a more mainstream context. If substance use is addressed regularly and non-judgmentally, this topic becomes less stigmatized, and discussions regarding use come to be an expected part of the health maintenance conversation, like seatbelt use and safer sex practices. Much as we've seen with other sensitive topics—early HPV vaccination being an excellent example—the earlier we introduce even 'taboo' concepts to our patients, screen for risk and intervene, the more we as providers can impact long-term outcomes. Hopefully with time and repetition, adolescents and young adults may become more able to discuss and seek treatment for themselves and for others when problematic substance use arises, rather than living in shame with a disorder that not even their doctors would address."

Joseph Skrajewski, Executive Director, Medical and Professional Education, Hazelden Betty Ford Foundation

- "The need for expanded education on substance use disorders in adolescence has been demonstrated for years, and the time for change is long past due. Numerous studies and our own experiences have demonstrated that the earlier we can intervene on youth and address the inherent challenges they face with alcohol and other drugs, the better the outcome will be. Thousands of medical students, residents and fellows have long stated that they feel ill-prepared to address substance use with any of their patients, least of all adolescents. In a system that stigmatizes and marginalizes the emphatic need for the future of medicine to be competent and comfortable in helping those with substance use disorders, change is necessary. In our medical school curriculums, in our clinical interactions with patients and in our everyday actions with friends and family, it's time to do better for our fellow human beings."

Nick Motu, Vice President and Chief External Affairs Officer, Hazelden Betty Ford Foundation

- "If we want to change the tide on America's longstanding addiction problem, we can't just wait to treat people when they hit the late stages of the disease. We have to educate early and often, identify those who are most at risk, and intervene with preventative measures and then robust care, when needed, as early as possible in the progression of the disease. Pediatric screenings are a key part of a comprehensive overall strategy."

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Emerging Drug Trends Report | Hazelden Betty Ford Foundation Recovery Advocacy

Shedding new light on America's No. 1 public health problem

This report was produced in collaboration with the University of Maryland School of Public Health, with support from the Hazelden Betty Ford Foundation's Butler Center for Research.

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Our mission is to provide a trusted national voice on all issues related to addiction prevention, treatment and recovery, and to facilitate conversation among those in recovery, those still suffering and society at large. We are committed to smashing stigma, shaping public policy and educating people everywhere about the problems of addiction and the promise of recovery.

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