



## COMMENT

# Improving care for adolescents with substance use disorder: more than screening

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Adolescence is a critical developmental period for the onset and exacerbation of substance use.<sup>1</sup> National estimates from the 2019 Monitoring the Future study indicate that 36% of US youth reported past-year alcohol use, 25% reported past-year use of marijuana, and 9% reported past-year use of other illicit substances.<sup>2</sup> Adolescent substance use contributes to a greater risk for traumatic injury resulting in emergency health care. On the other side of the coin, traumatically injured adolescents are at higher risk of developing a substance use disorder (SUD), including opioid use disorder (OUD), than the general population.<sup>3</sup> Moreover, among youth who experience traumatic injuries, those with pre-existing substance use or mental illness are particularly vulnerable to negative post-injury behavioral health outcomes,<sup>4</sup> which can dramatically affect the quality of life, physical recovery, and the ability to return to previous activities. Trauma centers and emergency departments—which provide care for over five million children and adolescents annually—can play a valuable role in identifying youth who are at high risk of developing SUD and initiating behavioral health services for those who may benefit from further assessment and treatment.

The study by Maxwell and colleagues (2020, this issue) highlights major gaps in the implementation of routine screening for substance use among youth who present to US trauma centers. Using registry data drawn from a national database of 752 trauma centers, the investigators found that fewer than one in three (28.9%) young people under the age of 21 years were screened for alcohol or other drugs as part of their trauma admission, despite national guidelines recommending universal screening for patients over the age of 12 years. Among those who were screened, substance use was commonly identified with 37% screening positive for one or more drugs. Thus, the study findings highlight the potential value of conducting routine screenings and at the same time exposes a major missed opportunity to detect those youth who may benefit from substance use-related clinical services. Indeed, up to 90% of patients who could benefit from behavioral health interventions following traumatic injury do not receive it.<sup>5</sup>

In light of these findings, the authors rightly call for improvements in screening rates. This recommendation raises questions about what strategies might be most effective in accomplishing that goal. A more thorough understanding of the barriers and facilitators of screening in trauma centers is needed to guide the development and evaluation of strategies to increase screening. Common barriers include lack of awareness or knowledge of recommendations, over-reliance on a clinical judgment about who should be screened based on potentially biased perceptions of which patients are likely to have SUD, inadequate time or personnel support to conduct the

screenings, or insufficient reimbursement.<sup>6</sup> Each of these factors implicates different provider-, clinic-, system-, and policy-level interventions to increase awareness, ensure sufficient time, and compensate trauma centers with sufficient financial incentives for performing screenings. A range of strategies like standardized EHR prompts, local Plan-Do-Study-Act quality improvement cycles, and focused provider trainings have shown efficacy in improving screening and follow-up in pediatric primary care.<sup>7</sup> Similar approaches may be useful in increasing substance use screenings in trauma centers and other settings (ER and Urgent Care settings).

Perhaps, even more important to increasing screening is the need to expand the availability and accessibility of robust, evidence-based prevention and intervention services for those youth identified as at risk or in need of treatment. The Screen-Brief Intervention-Referral to Treatment (SBIRT) model has been advanced as one framework for organizing prevention and intervention programming and connecting the dots between screening and follow-up.<sup>8</sup> Some trauma centers may forego screening because they are unsure of available options for the next steps. Indeed, the field would benefit from a greater array and broader dissemination of robust, empirically supported brief intervention strategies that could be implemented prior to or soon after discharge from the trauma center to boost patients' motivation to reduce their substance use.

Solid, evidence-based adolescent substance use treatment programs are scarce in many communities, which may limit referral options for trauma center staff. This problem extends, in part, from a well-documented nationwide workforce shortage in pediatric behavioral health, especially in rural communities.<sup>9,10</sup> Any plan to increase screening—thereby also increasing referrals to additional services—should be coupled with a framework for determining an appropriate level of care to maximize the efficient allocation of scarce specialist resources. Stepped care models, where patients “step up or down” from more or less intensive levels of intervention based on functioning and needs at the time, present one promising option. Technology-facilitated approaches to assessment, symptom monitoring, and treatment delivery will likely play a critical role in this work. For instance, mobile health strategies that leverage patients' own mobile devices like smartphones for active data collection (e.g., surveys test messages, calls, etc.) or passive sensing (e.g., GPS location, accelerometry-derived motion, sleep, etc.) are highly portable, scalable, and increasingly affordable and actionable.<sup>11</sup> Such tools could be integrated into clinical workflows that blend and augment provider-delivered services with technology-facilitated components for personalized, just-in-time interventions. Early work in this

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arena has been promising in addressing post-traumatic stress and depression in youth,<sup>12,13</sup> but more research is needed to understand how to optimize similar interventions for childhood SUD. It is critical that any tools generated for this purpose follow best practice guidelines for the development of behavioral interventions, including ongoing patient-centered evaluation and refinement.<sup>14</sup>

Additional policy solutions are required to address gaps in the behavioral health services infrastructure. First, increased federal funding for the training, continuing education, and loan repayment for new providers—particularly for historically underserved and underrepresented communities—are needed to expand the available clinical workforce and improve the dissemination and implementation of best practice substance-use intervention services for youth. Second, proper reimbursement should remain available for ongoing tele-mental health care. The last year has ushered in dramatically accelerated expansion of tele-mental health services in the United States. Such services may be especially beneficial for post-discharge follow-up of pediatric trauma patients with substance-use and other mental health concerns given they may not live near the trauma center where they received care or may have other barriers to accessing in-person services, whether due to their injury or other factors. Third, enhanced payment rates are needed to fully cover the costs associated with delivering high-quality, evidence-based treatment services, including ongoing progress monitoring and coordinating care for adolescents with SUD. Collectively, these efforts to expand and incentivize high-quality, accessible care—along with ongoing research to improve the effectiveness of interventions for trauma patients with substance use—hold promise in improving the long-term health and safety of this at-risk population.

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#### ADDITIONAL INFORMATION

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