Principles of Care for Young Adults With Substance Use Disorders

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abstract

Despite the disproportionate impact of substance use on young adults, as well as their unique developmental circumstances, there has historically been little attention given to the substance use care needs of this population. As a result, there are currently few evidence-based recommendations to guide clinicians in caring for young adults with substance use disorders. The Grayken Center for Addiction Medicine at Boston Medical Center convened an interdisciplinary meeting of experts to establish principles of care to guide the management of young adults with substance use disorders, to help health care organizations establish effective care systems for these patients, and to help guide policy. In this article, we review the care principles and introduce a series of linked articles that go into further details of principles in the domains of evidence-based substance use treatment, family engagement in care, recovery support services, comorbid psychiatric illness, harm reduction, and criminal justice system reform.

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Young adults, defined as individuals aged 18 to 25 years, use substances at higher rates than any other age group in the United States.[1] An estimated 23.3% of young adults report current illicit drug use, most commonly marijuana and nonmedical use of prescription psychotherapeutics.[2] Two in 3 adults in treatment for opioid use disorder report that their first use occurred before the age of 25[3]; and between 2002 and 2013, the rate of past-year heroin use increased >100% among young adults,[4] making this age group an epicenter of today's overdose epidemic. Among those with substance use disorders (SUDs), young adults have the highest incident rate of HIV infection,[5] an increasing incidence of viral hepatitis,[6] and a disproportionately high rate of co-occurring mental health disorders.[7] Young adults are also the most likely population to be incarcerated for drug-related crimes.[8]

Increasingly, young adulthood is seen as a distinct developmental phase.[9] Human brain development continues long after individuals reach legal adult status at age 18, with cognitive and executive functions approaching final adult form as late as age 26.[10] Young adulthood often demarcates critical changes in relationships, housing, education, employment, and access to health care, leading to important transitions in one's identity, stability, and focus.[9] Perhaps most critically, young adulthood is often the time when individuals begin to plan for the future and understand long-term implications of near-term decisions.[11]

Despite the disproportionate impact of substance use on young adults, as well as their unique developmental circumstances, there has historically been little attention given to the substance use care needs of this population. As a result, there are currently few evidence-based recommendations (for either treatment or prevention) to guide clinicians in caring for young adults with SUD, and there is sparse guidance to help health system leaders organize care most effectively for them.

Compounding these problems is the complex issue of engagement with (and retention in) care: only 1 in 13 adolescents and young adults identified as needing substance use treatment receives it,[12] and once in treatment, younger adults are less likely to be retained in care than older ones.[13] Furthermore, the widespread criminalization of drug use means that young adults with problematic substance use–related behaviors are often captured by the criminal justice system before the health care system, leading to suboptimal addiction care quality and ultimately poor outcomes.[14] Many of these challenges also cut along lines of race and ethnicity, exacerbating existing health inequities and widening health disparities.

Because of the unique needs of the young adult population relative to substance use care and in light of the relative lack of attention that this population has received, the Grayken Center for Addiction Medicine at Boston Medical Center (the Grayken Center) convened a longitudinal meeting of interdisciplinary experts to establish principles of care to guide the management of young adults with SUDs and to help health care organizations establish effective care systems for these patients. The recommendations in this article are not American Academy of Pediatrics policy, and publication herein does not imply endorsement.

METHODS

The Grayken Center convened a longitudinal meeting of young adult addiction experts. Work began in 2018 with the goals of defining principles of care for young adults with SUDs and of developing a strategy for disseminating and implementing these principles as broadly as possible. Invited guests (Table 1) included young adults and members of the recovery community, as well as experts from addiction medicine, pediatric medicine, addiction psychiatry, criminal justice, health policy, community health sciences, and epidemiology. Represented professions included medicine, law, nursing, social work, psychology, public health practice, and research. The experts were selected on the basis of their national leadership roles, track record of scholarship, and the applicability of their expertise to a series of prespecified topic areas (discussed below).

The meeting had 3 components: a prework phase, in which participants used conference calls and e-mails to produce preliminary drafts of the care principles; an in-person, full-day work session (October 2018), which used facilitated breakout groups to reach consensus on the principles; and a postwork phase, in which participants returned to conference calls and e-mails to refine the language of each agreed-on principle and ultimately to ratify a full set of principles. The process started in March 2018 and ended in December 2019.

The expert attendees were divided into 6 prespecified workgroups, covering the topics of evidence-based substance use treatment, family engagement in care, recovery support services, comorbid psychiatric illness, harm reduction, and criminal justice system reform. During the prework phase, meeting conveners drafted sample principles of care for each group; the primary purpose of the prework phase was to differentiate the process of deriving principles from other, more traditional exercises in guideline development. Participants reviewed the sample principles and began the process of drafting and editing principles in their content areas. Group facilitators

TABLE 1 Experts in Attendance to the Meeting

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Sarah Bagley, MD, MSc, Boston Medical Center
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Zev Schuman Olivier, MD, Cambridge Health Alliance
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Sarah Valentine, PhD, Boston Medical Center
Kathleen Meyers, PhD, JBS International, Inc
Leo Beletsky, JD, MPH, Northeastern University School of Law
Audrey Morrissey, My Life My Choice
Fred Muench, PhD, Partnership for Drug-Free Kids
Daniel Raymond, National Harm Reduction Coalition
Jessica Gaeta, MD, Boston Health Care for the Homeless
Justin Luke Riley, Young People In Recovery
Scott Strode, The Phoenix
Joshua Sharfstein, MD, The Johns Hopkins Bloomberg School of Public Health
Alexander Walley, MD, MSc, Boston Medical Center
Alysse Wurcel, MD, MS, Tufts Medical Center
Ben Linas, MD, Boston Medical Center
Michael Silverstein, MD, MPH, Boston Medical Center
Benjamin Le Cook, PhD, Cambridge Health Alliance
Bruce Schackman, PhD, MBA
Saul P. Steinberg, Weill Cornell Medical College
David Henderson, MD, Boston Medical Center
Danya Fast, PhD, British Columbia Centre on Substance Use
Doug Tieman, Caron Treatment Centers
Greg Williams, Facing Addiction
James Hiatt, MSW, Massachusetts League of Community Health Centers
Jeffrey P. Bratberg, PharmD, University of Rhode Island
Jeffrey Samet, MD, MS, MA, Boston Medical Center
Jenni Watson, Boston Medical Center
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Nick Motu, Hazelden Betty Ford Foundation
Norman Stein, Boston Medical Center
Rachelle Gardner, Hope Academy
Rebecca Butler, LCSW, State Youth Treatment - Implementation Initiative
Sarah Wakeman, MD, Massachusetts General Hospital
Senator Jason Lewis, state senator representing the Fifth Middlesex District of Massachusetts
Sheryl Ryan, MD, Penn State Health Milton S. Hershey Medical Center
Ted Park, MD, Boston Medical Center
Tisha Wiley, MD, National Institute on Drug Abuse

calibrated the level of specificity of each principle and prepared summary documents and brief evidence presentations for the subsequent in-person work session. During the prework phase, attendees agreed on a series of definitions for common terms expected to be used throughout the process (Table 2). During this phase, meeting organizers decided to limit the scope of the meeting to treatment and programs for SUD proper; therefore, issues concerning prevention and screening were not formally assigned to workgroups.

During the in-person work session, the full group met for a facilitated discussion of the foundational underpinnings of each principle (eg, that each principle should strive for patient centeredness or cultural competence). The workgroups then met individually in roundtable format to further define the individual principles of care, review the evidence supporting each principle, consider potential obstacles facing the implementation of each principle, and decide on actions that could be undertaken to address these obstacles. Each workgroup had a dedicated facilitator and notetaker, and an individual from each group was identified to serve as the primary writer for any correspondence, white paper, or publication emanating from meeting processes. After the conclusion of the breakout sessions, the full group convened to share individual workgroup principles and solicit feedback from the full group.

The postwork phase started with the distribution of the agreed-on principles from the work session. Although the main message of each principle could no longer be changed at this point, participants were given the opportunity to clarify language, add specificity to each principle, and reconcile any inadvertent discrepancies that arose across related principles. Workgroup facilitators led this process and reviewed all changes with Grakyen Center leadership to ensure that no principles were changed beyond their original intent. The refined principles were sent to the full group and ratified by consensus agreement.

RESULTS

Foundational Underpinnings

The full expert panel agreed on the foundational assumption that young adults are at a developmentally

TABLE 2 Taxonomy of Terms

	Description
Young adults and/or emerging adults	Young adults and/or emerging adults are a distinct demographic group with unique developmental characteristics. For the purposes of these principles, we define this period as ages 18–26. According to psychologist Jeffrey Arnett, emerging (young) adulthood is characterized by identity exploration, feeling in-between, self-focus, instability, and a time of possibilities. These characteristics promote positive risk-taking that can lead to important choices about careers, relationships, and families but also puts young adults at higher risk for drug use and consequences of drug use.
SUDs	SAMHSA defines SUDs as those that occur when the recurrent use of alcohol and/or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.
Social determinants of health	Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Five key determinants include economic stability, education, social and community context, health and health care, and neighborhood and built environment.
Harm reduction	The Harm Reduction Coalition defines harm reduction as a set of practical strategies and ideas aimed at reducing negative consequences associated with drug use. Harm reduction is also a movement for social justice built on a belief in, and respect for, the rights of people who use drugs.
Developmentally appropriate	A developmentally appropriate practice is grounded in theory and research on typical young adult development. Developmentally appropriate practices involve adults (eg, teachers, parents, caregivers, and clinicians) meeting young adults where they are on the basis of their stage of development. Establishing autonomy and identity in school, at home, at work, and in the community allows young adults to thrive.
Trauma informed	According to the SAMHSA concept of a trauma-informed approach, a program, organization, or system that is trauma informed "realizes the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures, and practices; and seeks to actively resist retraumatization."[15]
Pharmacotherapy	In the context of substance use, pharmacotherapy is often referred to as medication-assisted treatment or medication for addiction treatment, usually referring to the use of methadone, naltrexone, or buprenorphine, all of which are commonly used to treat opioid addiction. Robinson and Adinoff note that "[Labels like] 'Medication-Assisted Therapy' for opioid use disorder is singled out and discussed as inherently confusing, providing the message that pharmacotherapy for this disorder is a secondary treatment to other services."[16] To avoid reinforcing the documented stigma against pharmacotherapy, Robinson and Adinoff recommend simply referring to pharmacotherapy for SUD as simply "medication," as is done for other chronic medical disorders.[16]
Justice system	The justice system encompasses all interactions with the civil and criminal court and oversight processes, from when someone first interacts with law enforcement to involvement in the prosecution process, pretrial release and detention, disposition, and sentencing. In cases in which the sentence involves incarceration in prisons or jails, the justice system extends to postrelease supervision.
Involuntary commitment	Involuntary commitment in the context of substance use occurs when a parent, family member, or concerned significant other uses the justice system to compel an individual to an inpatient treatment facility. This can only occur under certain circumstances, but the

distinct phase of life, marked by critical periods of brain development. They therefore have to be considered a distinct population from both the adolescent and general adult populations. This developmental stage, furthermore, puts them at risk for using harmful substances and experiencing unique short- and long-term consequences of substance use. It makes the substance use care and recovery needs of young adults unique, and it has repercussions on how young adults experience the criminal justice process, particularly incarceration.

The full panel agreed that each principle needed to convey a commitment to compassion, therapeutic optimism, and social justice and that each principle should be discussed, evaluated, and ratified on the basis of its evidence base, its specificity to the young adult population, and its person centeredness. Furthermore, the decision was made that reduction in substance use proper should not be assumed to be the goal of treatment and that the harms associated with substance use should be reduced at every opportunity, even if a person is not able to stop using substances or engage fully with care.

Lastly, the panel asserted that the principles must be applied so that they are trauma informed and account for characteristics such as race, ethnicity, gender identity, sexual orientation, physical and intellectual ability, religion, community resources, family circumstances, and socioeconomic status.

Topic 1: Evidence-Based Substance Use Treatment

The workgroup derived 6 principles regarding evidence-based substance use treatment (Table 3). These principles emphasize access to comprehensive, yet tailored, services

TABLE 2 Continued

	Description
	particular circumstance and the quality of the facilities available for such treatment vary widely. In total, 37 states and the District of Columbia have statutes in place allowing the involuntary commitment of individuals suffering from a SUD or alcohol use disorder per the National Alliance for Model State Drug Laws.

SAMHSA, Substance Abuse and Mental Health Services Administration.

as soon as possible after needs are identified. They also emphasize the delivery of treatment services in the least restrictive environments possible. In specifying that services ought to be comprehensive, the workgroup specifically called out psychological and pharmacologic addiction treatment modalities aimed at reducing illicit substance use, as well as harm reduction and other recovery services so long as those services are supported by evidence.

Equally as important, the workgroup specifically offered that a goal of care be continuous engagement, which itself is associated with improved addiction and other health outcomes.[17] To maximize engagement, the workgroup asserted that young adults should enter care voluntarily and that external leverage should be used sparingly and strategically. Involuntary commitment should be a last resort.

Regarding evidence standards, the workgroup held that substance use care should be held to the same evidence and quality improvement standards as those expected in other areas of medical care for other chronic health conditions. A corollary of this principle is that additional clinical and health services research specific to the young adult population that uses substances is critical. Traditionally, clinical addiction research has included young adults alongside either adolescents or older adults with little acknowledgment of the different developmental considerations of these different groups. The workgroup called for clinical trials testing interventions that are tailored to the unique needs of young adults.

Topic 2: Family Engagement in Care

In considering how to incorporate families in the care of young adults with SUDs, the workgroup took a broad view of family, using the concept to encompass nuclear and extended family, friends, and other loved ones. The workgroup acknowledged that at times, such families (particularly if they involve persons actively using substances or perpetrators of trauma) may exert a negative influence on an individual's recovery trajectory; however, with that caveat, it felt that the evidence demonstrated that safe and thoughtful involvement of the right family members in an individual's substance use care was associated with improved outcomes.

The workgroup emphasized that the affected young adult be the one to invite other family members to be involved in her or his care and that this individual be the one to control the flow of information across family members. The group also made explicit distinctions between evidence-based and non–evidence-based approaches to family engagement, and in doing so, the group explicitly called for family members to be counseled (and even formally trained) in evidence-based strategies. Lastly, the workgroup assumed that a mentally and physically healthy family member would be the best support to his or her loved one, and on this basis, the group recommended evidence-based strategies to support the health of family members.

Topic 3: Recovery Support Services

The workgroup recognized that the recovery process takes place primarily outside the realm of conventional, medical system–based treatment settings. Thus, a treatment model that focuses on single-episode acute care or that takes place in isolation from other community-based services is at odds with longitudinal studies indicating that more than half of patients entering publicly funded addiction programs require multiple episodes of treatment over several years to achieve sustained recovery.[18] As a result, clinicians should recognize that regardless of the level of substance use treatment, young patients without access to a variety of recovery social services often experience a delayed and tenuous recovery. Such services, the workgroup felt, should be fully integrated into SUD treatment.

The workgroup also identified evidence indicating that there are benefits to having peer workers in the workforce to support young adults with SUD.[19] Recovery coaches, for example, are individuals with lived experience who can provide support by sharing experiences, providing frequent check-ins between medical appointments, and helping young adults navigate the health care system. There are potential mutual benefits between patients and peer workers who themselves are in recovery and could benefit with increased self-esteem by virtue of motivating others to cope with challenges.[19]

Topic 4: Comorbid Psychiatric Illness

In considering the common comorbidity of SUDs and other psychiatric conditions, the workgroup noted a lack of clarity relative to cause and effect between the two. For some individuals, a predisposing

TABLE 3 Care Principles

Evidence-based substance use treatment
Principle 1: Young adults should be offered access to care and services as soon as needs are identified.
Principle 2: Young adults should have access to a comprehensive set of assessment, psychosocial and pharmacologic treatment, harm reduction, and recovery services supported by evidence.
Principle 3: Respecting the diversity of young adults, services should be tailored to individual strengths and needs, using the least restrictive environment possible.
Principle 4: To maximize engagement, young adults should enter care voluntarily. External leverage should be used strategically, but involuntary commitment should be a last resort and when used, it must be as good as or better than noncoercive care.
Principle 5: A goal of care should be continuous engagement, including during periods of relapse.
Principle 6: Substance use care should be held to the same evidence and quality improvement standards as those expected in other areas of medical care for other chronic health conditions.
Family engagement in care
Principle 1: When possible, care should involve family members.
Principle 2: Family members should be counseled on evidence-based approaches that can enhance their loved one's engagement in care.
Principle 3: Family members should be counseled on resources that can improve their own health.
Recovery support services
Principle 1: Given their developmental needs, young adults affected by SUD should have access to a wide variety of recovery support services regardless of the levels of care they need.
Principle 2: The workforce for addiction services for young adults benefits from the inclusion of individuals with lived experience in addiction.
Principle 3: Recovery support services should be integrated to promote recovery most effectively and provide the strongest possible social support.
Co-occurring psychiatric illness
Principle 1: Young adults should receive integrated mental health and addiction care across treatment settings.
Principle 2: Care should be responsive to the needs of young adults exposed to trauma and other adverse childhood experiences.
Principle 3: Treatment programs should regularly assess and respond to the evolving mental health needs, motivations, and treatment goals of young adults with co-occurring disorders.
Harm reduction
Principle 1: Harm reduction services are critical to keeping young adults alive and healthy and can offer opportunities for future engagement in treatment.
Principle 2: All evidence-based harm reduction strategies available to older adults should be available to young adults.
Criminal justice system reform
Principle 1: To the extent possible, young adults with SUDs should be diverted from the criminal justice system to effective care.
Principle 2: Young adults who have SUDs and are subject to the formal justice system should have access to the full range of developmentally appropriate, high-quality addiction treatment modalities during system involvement, particularly during incarceration and reentry processes.
Principle 3: The justice system should provide resources dedicated to supporting the safe transition of young adults from a period of incarceration back to their communities.
Principle 4: The justice system must reduce the harm caused by criminal records that create insurmountable barriers to young adults' full and healthy community engagement and their sustained recovery from SUDs.

factor may lead to both SUD and other mental illness; for some, the SUD may precipitate the other psychiatric illness; for others, the other illness may lead to self-medicating behavior and ultimately SUD. Because of this complex, and incompletely understood relationship, the workgroup recommended integrating substance use and mental health care at both the individual patient and systems levels. It also noted that this may need to involve distinct care teams working together and sharing information about individual patients.

The workgroup noted how ubiquitous trauma is among young adults with SUD, and it recommended both trauma-informed and trauma-specific services. Whereas the former represents approaches to care that should be applied to all patients[20] (on the assumption that trauma is common enough to be an expectation in SUD treatment rather than an exception[20]), the latter represents services directed at trauma-related symptoms and is thus reserved for individuals with trauma-related mental health diagnoses, such as posttraumatic stress disorder.[21]

The workgroup noted the dynamic quality of many mental health conditions and how, in the presence of SUD, health needs, motivations, and treatment goals continually change. Care teams, the workgroup felt, should acknowledge the dynamic nature of these conditions, monitor patients accordingly, promote engagement with care over time, and modify therapeutic approaches on the basis of a patient's changing needs and circumstances.

Topic 5: Harm Reduction

The full expert panel felt that harm reduction represents one of the most critical goals of substance use treatment and that the evidence that supports many harm reduction strategies is among the strongest in the addiction field.[22] The group also felt that although some of these strategies may be considered preventive care (which was out of scope for the meeting), they are also critical components of substance use treatment proper. The group considered strategies aimed both at reducing the transmission of infectious diseases common among persons who use drugs (eg, medication to prevent the transmission of HIV) and at reducing morbidity and mortality associated with using drugs (eg, naloxone distribution and other forms of overdose prevention).

The workgroup recommended that harms be reduced at every opportunity, regardless of an

individual's interest or ability to minimize use of substances. The group felt that harm reduction programs should be facilitative and incremental, meaning that they should address an individual's needs by facilitating any positive change, regardless of how small or incremental that change may be. The workgroup concluded that the evidence was clear that rather than enabling or increasing substance use, harm reduction services are safe, pragmatic, evidence-based interventions that reduce the harms from substance use. Such programs should therefore be offered to young adults with SUDs.

The workgroup recommended that whenever possible, harm reduction programs should be tailored to young adults and should be developmentally appropriate. The group identified several developmental issues that make engaging some young adults in harm reduction services especially challenging: problematic relationships with authority, reluctance to engage in adult-led interventions, high degree of self-reliance, protection of autonomy, cynicism toward personnel in helper roles, and distrust of all but close peers. The workgroup advised that young people who use drugs be meaningfully involved in all aspects of harm reduction program design, implementation, service delivery, and evaluation.

Topic 6: Criminal Justice System Reform

The workgroup considered a wide range of evidence relevant to criminal justice system reform, including the impact of incarceration in the adult prison system on young adults, the current lack of evidence-based treatments being delivered to incarcerated persons, the hazards of transitioning out of prison into society, and the long-term impact of a criminal record on recovery. Considering this evidence, the workgroup asserted that to the extent possible, young adults with SUDs should be diverted from the criminal justice system to venues in which effective addiction care is more easily and reliably delivered. If incarceration must happen, incarcerated young adults should have access to the full range of age-appropriate, high-quality addiction treatment modalities they would have in general society.

The workgroup noted the extreme morbidity and mortality risks that occur with reentry into society[14] and asserted that the justice system should provide resources dedicated to supporting safe transition. Lastly, the workgroup asserted that the justice system should reduce the harm caused by criminal records that create insurmountable barriers to young adults' full and healthy community engagement and their sustained recovery from SUDs.

DISCUSSION

On the basis of a multifaceted, longitudinal process aimed at generating expert consensus, a group of 54 experts on addiction among young adults derived a series of care principles in the domains of evidence-based substance use treatment, family engagement in care, addiction support services, comorbid psychiatric illness, harm reduction, and criminal justice system reform. Each principle was based on the foundational assumptions that young adults represent a developmentally unique segment of the population and that their substance use care needs are unique. Each principle was evaluated and ratified on the basis of its evidence base, its specificity to the young adult population, and its person centeredness.

As part of the process of developing the principles themselves (Table 3), the panel found that the quality of evidence, as well as its applicability to the young adult population, was highly variable. In some cases, the evidence was confined only to descriptive epidemiology; in others, quasi-experimental studies suggested the efficacy of certain treatment approaches; and in others, rigorous experimental studies were invoked to directly support the principles of care. However, across the board, there were few studies specific to the young adult population, and much information had to be extrapolated from other adult or adolescent populations.

The Grayken Center leadership designed the expert consensus process of this meeting specifically to develop care principles as opposed to formal guidelines. The primary reasons for developing principles was that it was felt that the state of the evidence for interventions for the young adult population was not developed enough to support specific care recommendations or guidelines and that the field still needed to come to consensus around the philosophical underpinnings of substance use care for young adults.

Although useful to the purpose of developing principles of care, this approach has limitations. The first is that meeting organizers had to draw arbitrary lines concerning what was in scope for meeting proceedings and what was not. It was decided, for example, that screening and prevention were out of scope for this meeting because such activities assume either an "asymptomatic" population or a population without SUDs. Second, within the universe of young adults, there are many other subpopulations with specific and unique needs, including pregnant persons, individuals with cognitive impairment, and persons experiencing homelessness. Furthermore, other subpopulations based on race, ethnicity, gender identity, sexual orientation, or geography likely experience SUDs differently and so too have unique needs. Unfortunately, such detailed work at the subpopulation level was

beyond what this workgroup was able to do. Lastly, although the workgroups did their best to find the best possible evidence to support the principles, the evidence reviews did not meet the standards of a systematic review; thus, the reviews themselves could have gleaned biased information.

These limitations withstanding, what follows in the present *Pediatrics* supplement is a series of 6 special articles and 4 perspectives in which authors review principles of care for young adults with SUDs and offer informed opinions concerning policy ramifications, approaches to screening and prevention for young adults, and health equity. Each special article begins with a succinct review of its particular care domain; then, for each principle, the authors offer guidance on the workgroup's principal findings, provide a brief review of the evidence that supports its guidance, and end with a section on practice (or policy) considerations that address potential issues with implementation or gaps in the current evidence base. The intent of the full supplement is to provide a philosophical grounding to the field of young adult addiction, from which specific recommendations and guidelines will emanate in the future.

ABBREVIATION

SUD: substance use disorder

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