

Addiction on Educational Campuses: A Conceptual Review of Substance Use and Interventions in U.S. High Schools and Colleges

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Abstract

Guided by the Social Learning Theory, this conceptual review examines the prevalence, risk factors, and consequences of substance use among students, drawing on evidence from national surveys, peer-reviewed research, and practitioner-oriented reports. The findings revealed that peer influence, academic stress, and campus culture strongly influenced substance use patterns, while co-occurring mental health issues, such as anxiety and depression, often worsened outcomes. Equity concerns, including racial, socioeconomic, and sexual minority students' disparities in both risk and access to services, are emphasized throughout the review. Emerging trends, such as vaping and the opioid crisis, further complicate this landscape. This review highlights promising interventions, including evidence-based prevention curricula, harm-reduction strategies, collegiate recovery programs, and family engagement initiatives. For practitioners, this study provides actionable insights into early identification, intervention, and the design of recovery-supportive environments that prioritize equity, belonging, and integrated mental health-substance use care.

Keywords

Addiction, Substance Use in Education, High School and College Students, Recovery Programs, Mental Health and Equity

1. Introduction

Adolescence and emerging adulthood are critical developmental stages characterized by exploration, identity formation, and heightened susceptibility to risk-taking behaviors (Arnett, 2005; Steinberg, 2014). Within this window, substance use often emerges, with high school and college campuses functioning as key contexts

in which experimentation may escalate into problematic use or addiction. National surveillance data reveal the magnitude of this problem. According to the Monitoring the Future (MTF) survey, by 12th grade, more than half of adolescents (55%) have consumed alcohol, one-third have used cannabis, and nearly one in five have vaped nicotine (Johnston et al., 2023). Among college students, binge drinking remains pervasive, with 33% reporting heavy episodic drinking within the past two weeks, and misuse of prescription stimulants such as Adderall and Ritalin rising sharply during examination periods (McCabe et al., 2021). The consequences of these patterns are profound and multifaceted in nature. In high schools, substance use is strongly linked to absenteeism, declining grades, school disciplinary actions, and an increased risk of dropout (Brière et al., 2011; Henry et al., 2012). Early initiation of substance use also predicts long-term dependence and adverse health outcomes in adulthood (Grant et al., 2006). On college campuses, substance misuse contributes not only to academic underachievement but also to sexual risk behaviors, interpersonal violence, accidental injuries, and mental health crises (Patrick & Terry-McElrath, 2020; Wechsler & Nelson, 2008). These ripple effects extend beyond individual students, disrupting campus communities, burdening institutional resources, and creating climates in which substance use is normalized and even celebrated.

The COVID-19 pandemic has added new complexities to this landscape. While some studies noted a decline in binge drinking due to fewer large gatherings (Hingson et al., 2017; Merino-Casquero et al., 2025), the solitary use of substances such as cannabis, prescription drugs, and alcohol increased as students turned to them for stress relief, boredom, or coping with isolation (Graupensperger et al., 2021; Patrick et al., 2022). Rising levels of anxiety and depression among youth during this period further intensified the risk of self-medication and co-occurring disorders (Hawes et al., 2021). Thus, the pandemic revealed the ways in which substance use is intertwined with mental health and broader social conditions, raising urgent questions about how schools and colleges can respond effectively to this issue.

Peer influence emerges as one of the most consistent and powerful determinants of substance use during adolescence and young adulthood (Azzopardi et al., 2021; Quadri, 2025). Social Learning Theory (Bandura, 1977) provides a compelling framework for understanding this dynamic. The theory posits that individuals learn behaviors through observation, modeling, and reinforcement. Students often encounter peers who model drinking or drug use as part of social rituals, and abstaining can come at the cost of exclusion or social stigma (Borsari & Carey, 2006; Perkins, 2002). This is especially evident in college subcultures such as fraternities, athletic teams, or party networks, where substance use is both highly visible and socially rewarded (Jackson et al., 2014; Weitzman et al., 2003). Although high school environments are less permissive, they also reproduce peer modelling in subtle ways, whether through group experimentation, online influence, or community norms. The structural and institutional contexts of schools

further shape such behaviors. In many high schools, substance use is met with punitive disciplinary policies such as suspension or expulsion, which often exacerbate inequities and fail to address the underlying drivers of use (Wald & Losen, 2003; Skiba et al., 2014). In contrast, on college campuses, institutional responses are more variable, ranging from wellness campaigns to inconsistent enforcement of policies on alcohol and drug use (Wechsler & Nelson, 2008). However, both settings reveal a gap between the recognition of the problem and the implementation of effective, evidence-based interventions.

Addiction among students cannot be understood in isolation from their mental health. High rates of co-occurring conditions such as anxiety, depression, and ADHD have been documented among students who misuse substances (Arria et al., 2013; Conway et al., 2016). Many students report using substances to cope with academic stress, social anxiety, or family problems; however, the temporary relief often leads to worsening symptoms and dependence over time. Compounding this challenge is stigma: both substance use and mental illness are highly stigmatized, discouraging students from seeking help until crises emerge (Eisenberg et al., 2009). The result is a cycle in which untreated mental health needs intersect with substance use, producing cascading effects on academic and personal trajectories. The urgency of addressing addiction in schools is thus twofold: first, the high prevalence and serious consequences of substance use demand attention; second, the developmental stage of adolescence and emerging adulthood makes intervention especially consequential, as patterns established during this time shape lifelong health, well-being and productivity (Hingson et al., 2017). However, existing approaches remain fragmented. School-based prevention programs like D. A. R. E. have long been criticized for their lack of effectiveness (Ennett et al., 1994), while evidence-based alternatives such as Life Skills Training have not been universally adopted (Botvin & Griffin, 2015). College campuses have pioneered interventions such as Brief Motivational Interventions (BMIs) and Collegiate Recovery Programs (CRPs), but these remain uneven in terms of availability and scope (Laudet et al., 2016; Tanner-Smith & Lipsey, 2015).

This article addresses these gaps by examining addiction among high school and college students through the lens of Social Learning Theory. This framework emphasizes both the risks of environments that normalize misuse and the potential of leveraging peer dynamics for prevention and recovery by foregrounding the role of peers and modeling in shaping substance use. Drawing on empirical evidence from psychology, education, and public health, the study synthesizes prevalence data, risk and protective factors, and intervention strategies. The aim is to document the scope of the problem and to suggest pathways toward equity-driven, evidence-based solutions that prioritize students' academic success, mental health, and long-term well-being.

2. Literature Review

Substance use among adolescents and young adults remains a persistent and

evolving concern in the United States. Longitudinal data from the Monitoring the Future Survey indicate that by 12th grade, more than half of students have consumed alcohol, nearly one-third have used cannabis, and one-fifth have vaped nicotine (Johnston et al., 2023). On college campuses, patterns of misuse remain equally concerning, with approximately one-third of students reporting binge drinking in the past two weeks and an increasing misuse of prescription stimulants such as Adderall and Ritalin, particularly during examination periods when academic stress peaks (McCabe et al., 2021; Schulenberg & Patrick, 2012). These trends are not static; the COVID-19 pandemic introduced new dynamics, with declines in social binge drinking due to reduced gatherings but a rise in solitary consumption and reliance on substances to cope with isolation and anxiety (Patrick et al., 2022). Importantly, substance use behaviors differ across demographic groups. Students from marginalized racial, ethnic, and socioeconomic backgrounds often experience compounded stressors, including discrimination and financial insecurity, which heighten their vulnerability to misuse (Merrill et al., 2017; Mulia et al., 2008). Similarly, international students may encounter cultural dissonance and limited social support, shaping both the forms and contexts of their substance use (Yakushko et al., 2008). Understanding these behaviors requires attention to the underlying mechanisms. Social Learning Theory (Bandura, 1977) has been widely applied to explain adolescent and young adult substance use, emphasizing that peers shape behavior through modelling, reinforcement, and the establishment of social norms. For example, college drinking culture often normalizes heavy consumption, making abstinence or moderation socially costly (Borsari & Carey, 2006; Weitzman et al., 2003). Peer modeling intersects with other risks, including family history of substance use, experiences of trauma, and heightened academic pressure (Hingson et al., 2017; Schulenberg & Maggs, 2002). At the same time, protective factors such as strong family bonds, school connectedness, participation in extracurricular activities, and supportive mentorship have consistently been shown to buffer students against substance misuse (Bond et al., 2007; Henry et al., 2009; Resnick et al., 1997). Environments that foster belonging, inclusion, and purpose are particularly effective in mitigating risks, suggesting that prevention must be as much about promoting resilience as about reducing exposure.

Mental health represents another critical dimension. Substance misuse among students rarely occurs in isolation but often co-occurs with depression, anxiety, ADHD, and other psychiatric conditions (Arria et al., 2013; Duffy et al., 2019). The self-medication hypothesis suggests that students often turn to alcohol or drugs as coping mechanisms for academic stress, loneliness, or social anxiety (Conway et al., 2016). While these substances may provide temporary relief, over time they exacerbate underlying symptoms, creating a cycle of worsening mental health and dependence (Marmorstein, 2010). This intersection of mental health and addiction is compounded by stigma, which discourages help-seeking, and by structural limitations on campuses where counseling centers are underfunded and

overburdened (Eisenberg et al., 2007; Lipson et al., 2019). Consequently, students may fall through institutional cracks, heightening the risk of dropout, overdose, suicide, or chronic addiction as they enter adulthood. The educational context further shapes these outcomes. In high schools, substance use is often framed through disciplinary rather than supportive measures, with students facing suspension or expulsion for infractions. Such punitive approaches not only fail to address underlying issues but also increase academic disengagement and disproportionately affect marginalized students, thereby perpetuating inequities (Mallett, 2016; Skiba et al., 2014). In contrast, college environments often implicitly condone substance use through campus cultures that valorize drinking at fraternity parties, athletic events and social gatherings (Wechsler & Nelson, 2008; Perkins, 2002). Universities may promote wellness initiatives and prevention campaigns; however, the enforcement of policies is inconsistent, and peer influence frequently outweighs institutional messaging (Larimer & Cronce, 2007). These contextual contrasts illustrate that both high school and college environments present unique yet interconnected challenges in addressing addiction.

Efforts to intervene have evolved considerably since then. Early prevention programs such as D. A. R. E. have faced sustained criticism for their limited long-term effectiveness (West & O'Neal, 2004), leading to a pivot toward evidence-based models such as Life Skills Training, which equips students with coping strategies, decision-making skills, and refusal techniques that have been demonstrated to be significantly effective (Botvin & Griffin, 2015). At the college level, Brief Motivational Interventions (BMIs) and frameworks such as Screening, Brief Intervention, and Referral to Treatment (SBIRT) have been effective in reducing hazardous drinking and improving student outcomes (Tanner-Smith & Lipsey, 2015; Saitz, 2014). Beyond clinical interventions, peer-led programs and Collegiate Recovery Programs (CRPs) have gained recognition for providing community-based support that normalizes sobriety, offers safe spaces, and enhances academic persistence for students in recovery (Laudet et al., 2016; Hennessy et al., 2022). Importantly, these interventions suggest that peer belonging, often a risk factor under Social Learning Theory, can also be leveraged as a protective factor when recovery and wellness are embedded within campus culture.

3. Theoretical Framework

Social Learning Theory

Bandura's (1977) Social Learning Theory offers a critical framework for understanding substance use among students. According to this theory, individuals learn behaviors not only through direct reinforcement but also through observing others. For high school and college students, peers are powerful models whose behaviors influence their perceptions of normalcy. When students observe peers engaging in drinking or drug use, particularly in social contexts that reward such behavior with belonging or status, they are more likely to imitate it (Borsari & Carey, 2006). Reinforcement occurs when substance use leads to social approval

or reduced stress, reinforcing the likelihood of repeated behavior. Conversely, environments where non-use is modeled and rewarded foster healthier norms (Perkins, 2002). Social Learning Theory also emphasizes reciprocal determinism, in which behavior, environment, and personal factors interact. For students, this means that peer norms, school culture, and personal stressors combine to shape the patterns of substance use. This theoretical lens reveals the importance of peer-led interventions, role modeling by teachers and mentors, and campus environments that reinforce healthy behaviors.

4. Methodological Orientation

This study adopted a conceptual and integrative review design. This design is well-suited for examining complex issues that cut across multiple disciplines, such as addiction in students (Singha et al., 2025). Conceptual reviews allow scholars to synthesize diverse bodies of literature into a coherent narrative, reveal gaps in knowledge, and propose new directions for research and practice (Snyder, 2019). In this study, addiction is treated as a public health concern and an educational and psychosocial challenge, which requires an integrative lens that spans psychology, education, sociology, and public health. The scope of the review is limited to U.S. high schools and colleges. It focuses on adolescents and emerging adults aged 14 - 24 years. This demographic is particularly important because high school and college represent developmental transition points where substance experimentation often escalates into patterns of misuse (Schulenberg & Zarrett, 2006; Schulenberg & Patrick, 2012). A thematic synthesis approach (Thomas & Harden, 2008) guided this analysis. This approach involves three iterative stages: 1) coding data from the primary studies, 2) grouping these codes into descriptive themes, and 3) generating analytical themes that extend beyond the original findings. This process allowed for the systematic identification of recurring patterns, such as peer influence, stress, campus culture, and mental health comorbidities, while also integrating insights into promising interventions, such as peer mentoring and counselling initiatives.

The review prioritized sources from the past 15 years to ensure contemporary relevance and integrated foundational research to establish the historical trajectories of substance use among adolescents (Johnston et al., 2005; Johnston et al., 2023). Sources were drawn from peer-reviewed databases including PubMed, PsycINFO, and ERIC, as well as major national surveillance systems such as Monitoring the Future (MTF), the Youth Risk Behavior Surveillance System (YRBSS), and the National Survey on Drug Use and Health (NSDUH). Additionally, policy and practice-oriented reports were included from organizations like the Substance Abuse and Mental Health Services Administration (SAMHSA, 2022), the National Institute on Drug Abuse (National Institute on Drug Abuse, 2023), and advocacy groups such as the American College Health Association (ACHA, 2021). As integrating evidence from these diverse sources, this methodology ensures both breadth and depth: breadth in drawing from multiple disciplines and data types,

and depth in thematically analyzing how addiction is experienced, understood, and addressed within educational institutions. This approach is particularly suitable for a conceptual inquiry that explores the intersection of research, policy, and practice. This methodology enabled the study to generate a comprehensive account of student addiction and to emphasize evidence-based pathways for intervention that can inform both school-level strategies and broader policy frameworks.

5. Discussion

5.1. Addiction, Peer Influence, and Social Learning

The evidence consistently demonstrates that peer influence functions as one of the most powerful drivers of adolescent and young adult substance use. Social Learning Theory (Bandura, 1977) provides a useful framework for understanding how modeling, reinforcement, and perceived norms shape behaviors in high school and college contexts. When adolescents observe peers using alcohol, cannabis, or other substances in social settings, they are more likely to adopt these behaviors as a means of fitting in, avoiding social exclusion, or signaling maturity (Borsari & Carey, 2006; Perkins, 2002). Peer approval and reinforcement amplify this effect, especially in environments such as fraternities, athletic teams, and tightly knit high school peer groups where substance use is embedded into social rituals (Weitzman et al., 2003; Jackson et al., 2014). Conversely, peers can also exert protective influence. Research shows that when abstinence or moderate consumption is modeled by influential peers, it can significantly reduce the likelihood of risky drinking or drug use among adolescents (Merrill & Carey, 2016; Prince et al., 2019). Thus, peer influence represents both a risk and a resource, depending on the norms being reinforced within the group. High schools and colleges are unique ecological contexts where these peer dynamics are intensified. Adolescents are undergoing identity formation and are highly sensitive to peer evaluation (Steinberg & Monahan, 2007). For college students, developmental transitions such as leaving home, navigating newfound autonomy, and managing academic pressure create conditions where peer norms can overshadow family influence (Schulenberg & Maggs, 2002). These findings emphasize the importance of interventions that target peer groups, not just individuals, recognizing that substance use often reflects collective social behavior rather than purely personal choice.

5.2. Role of Teachers, Counselors, and Peers

While peers play a central role, educators, school counselors, and staff shape the institutional environments that either reinforce or challenge substance use norms. Teachers who cultivate high expectations, strong relationships, and a supportive classroom culture reduce the likelihood of substance misuse among students (Battistich & Hom, 1997; Wang & Eccles, 2012). Similarly, school connectedness, the degree to which students feel cared for, respected, and included in their school community, is one of the strongest protective factors against both substance use

and poor mental health outcomes (Resnick et al., 1997; Bond et al., 2007). Counselors and mental health staff play a pivotal role by identifying early warning signs, provide brief interventions, and connect students to specialized care. Unfortunately, counseling centers on many campuses remain underfunded and overburdened, leaving many students without timely access to help (Eisenberg et al., 2007; Lipson et al., 2019). This structural gap emphasizes the need for policy reforms such as expanding funding for campus mental health services, adopting integrated care models that connect counseling, addiction support, and academic advising, and building telehealth partnerships to ensure timely access for students in underserved areas. When schools and universities lack adequate infrastructure to address substance use, students are more likely to rely on peers for support (Mme-thi et al., 2025). This can perpetuate cycles of risky behavior if the peer group normalizes heavy use. Promisingly, peer-led recovery and support groups offer a counterbalance. Collegiate Recovery Programs (CRPs), for instance, provide students in recovery with communities that normalize sobriety, integrate academic success with wellness, and offer role models who demonstrate that it is possible to thrive without substance use (Laudet et al., 2016; Moberg & Finch, 2008). Similarly, high school-based recovery groups and peer mentoring programs show that students can model resilience and positively influence one another's choices, transforming the same peer influence mechanisms that fuel addiction into tools for prevention and recovery (Kelly et al., 2018).

5.3. Lack of Acceptance and Mental Health Consequences

The stigmatization of addiction in schools has profound consequences for student well-being. When substance use is framed primarily as a disciplinary issue rather than a health concern, students often experience shame, social isolation, and disrupted educational trajectories (Mallett, 2016; Skiba et al., 2014). High school disciplinary practices such as suspension and expulsion disproportionately affect students from marginalized backgrounds, reinforcing systemic inequities while failing to address the underlying drivers of substance use (Wald & Losen, 2003). Instead of exclusionary discipline, schools can implement restorative practices and trauma-informed supports that keep students engaged in learning while addressing the root causes of substance use. Such punitive measures remove students from supportive environments, increase academic disengagement, and elevate the likelihood of dropout or criminal justice involvement (Hemphill et al., 2006). In college contexts, stigma operates more subtly but is equally damaging. Students who struggle with addiction or co-occurring mental health conditions often conceal their difficulties to avoid being labeled “weak” or “irresponsible” (Eisenberg et al., 2009). The result is that many delay seeking treatment until problems escalate, leading to worsened mental health, strained academic performance, and increased risk of overdose or suicide (Arria et al., 2013; Lipson et al., 2019). Importantly, stigma not only silences individuals but also perpetuates cultures where addiction is trivialized, through jokes, party rituals, or dismissive attitudes, mak-

ing it harder for students to view substance use as a legitimate health concern requiring support. Understanding substance use on campuses requires looking at the full cycle, from the factors that place students at risk, to the consequences they experience, and finally to the interventions that can disrupt these patterns. **Figure 1** illustrates this conceptual pathway, showing how peer influence, academic stress, socioeconomic disparities, and stigma feed into harmful outcomes such as addiction, mental health crises, and academic decline, while also revealing the evidence-based interventions that can break this cycle.

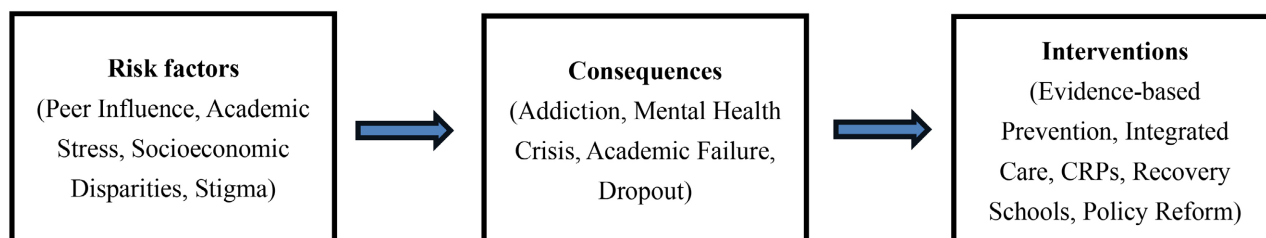


Figure 1. Conceptual pathway illustrating how risk factors contribute to substance use consequences and how targeted interventions can disrupt this cycle. Risk factors include peer influence, academic stress, socioeconomic disparities, and stigma; consequences include addiction, mental health crises, and academic failure; interventions include prevention programs, integrated care, recovery supports, and policy reforms.

5.4. Promising Practices

A growing body of evidence points to several promising practices that reframe addiction as a health and equity issue while supporting recovery and inclusion in educational contexts (Laudet et al., 2016; Hennessy et al., 2022). Recovery High Schools integrate treatment with academics, offering adolescents a structured environment where sobriety is supported alongside educational achievement. These schools have shown improved academic outcomes, higher graduation rates, and greater engagement compared to traditional disciplinary pathways (Finch et al., 2019; Moberg & Finch, 2008). At the college level, Collegiate Recovery Programs (CRPs) offer safe spaces and peer-based communities for students pursuing sobriety. These programs not only provide social belonging but also support academic persistence, helping students in recovery achieve comparable or better graduation rates than their peers (Laudet et al., 2016; Hennessy et al., 2022). In order to foster environments where sobriety is normalized and celebrated, CRPs counteract the dominant culture of heavy drinking and drug use on many campuses. Harm reduction approaches also hold significant promise. Brief Motivational Interventions (BMIs) and Screening, Brief Intervention, and Referral to Treatment (SBIRT) have proven effective in reducing hazardous drinking and improving readiness for change among adolescents and college students (Saitz, 2014; Tanner-Smith & Lipsey, 2015). These approaches respect student autonomy while addressing risk behaviors, making them particularly well-suited to educational contexts where mandatory abstinence policies may fail to resonate. Family involvement remains another critical dimension. Parent engagement programs that strengthen monitoring, communication, and connectedness reduce adolescent

risk of substance use while promoting healthier coping mechanisms (Hawkins et al., 1992; Ryan et al., 2010). For college students, ongoing family support, whether emotional or financial, buffers against stressors and reduces the likelihood of problematic substance use, even in highly permissive peer environments (White & Jackson, 2004). As shown in **Figure 1**, interventions are most effective when they directly address the root causes of risk and the cascading consequences that follow, rather than treating symptoms in isolation.

5.5. Global Comparisons and Policy Implications

Globally, countries have taken different approaches to adolescent and student substance use, offering useful points of comparison. For example, Australia has implemented school-wide social and emotional learning (SEL) programs that incorporate substance use prevention into broader well-being curricula, showing significant reductions in alcohol and drug use (Durlak et al., 2011). In the United Kingdom, harm reduction frameworks emphasize equipping students with information and resources to make safer choices, rather than focusing exclusively on abstinence (Midford, 2010). Canada has increasingly promoted school-community partnerships, linking educational settings with local health providers to ensure that students receive coordinated care (Paglia-Boak et al., 2012). These international models suggest that integrated, multi-level approaches are most effective, combining school culture change, peer engagement, family involvement, and access to professional support. For U.S. contexts, policy frameworks such as the Individuals with Disabilities Education Act (IDEA) and the Americans with Disabilities Act (ADA) underscore the obligation of schools to provide supportive, non-discriminatory environments for students with health-related needs, including substance use disorders. Yet, implementation often lags behind intention. While federal law protects students from discrimination, many schools still default to punitive measures or fail to provide adequate accommodations for those in recovery (Substance Abuse and Mental Health Services Administration [SAMHSA], 2020). Addressing addiction on campus therefore requires aligning policy rhetoric with practice, ensuring that equity and belonging guide institutional responses.

5.6. Integrating Addiction and Mental Health Supports into School Culture

The discussion points to the need for systemic integration of addiction and mental health supports into the fabric of high school and college life. School leaders must move beyond reactive or piecemeal interventions and adopt comprehensive approaches that treat substance use as both a public health and an educational equity issue (Lipson et al., 2019; Schulenberg & Maggs, 2002). Treating mental health and substance use in isolation is often ineffective, as students rarely experience these challenges separately. Epidemiological studies show that nearly half of adolescents and young adults with a substance use disorder also meet criteria for at least one mental health condition, such as depression or anxiety (Conway et al.,

2016; National Institute on Drug Abuse [NIDA], 2020). Anxiety, trauma, and depression often worsen substance misuse, as it creates a reinforcing cycle where one condition fuels the other (Arria et al., 2013; Blanco et al., 2017). When services are fragmented, such as separate offices for counseling and addiction treatment, students are more likely to fall through the cracks, delay seeking care, or disengage altogether (Hunt & Eisenberg, 2010). Fragmentation also perpetuates stigma, as students perceive their needs to be “too complex” for one institution to handle (Eisenberg et al., 2009). Integrated treatment models directly address this problem by combining prevention, intervention, and recovery supports under one umbrella. For example, SBIRT (Screening, Brief Intervention, and Referral to Treatment) has been widely adapted in school and college settings to identify risky substance use early as well as screening for co-occurring mental health needs (Saitz, 2014; Tanner-Smith & Lipsey, 2015). Evidence also shows that integrated wellness centers, which colocate counseling, health services, and recovery supports, improve access and reduce stigma by providing a single, normalized entry point for help (American College Health Association [ACHA], 2021; Watkins et al., 2017). Similarly, Collegiate Recovery Programs (CRPs) demonstrate how embedding peer support, counseling, and academic services in one community fosters belonging and reduces relapse (Laudet et al., 2016; Hennessy et al., 2022). These integrated approaches align with social-ecological models of health, which emphasize that individual outcomes are shaped by interactions between personal, institutional, and cultural factors (Bronfenbrenner, 1979; Stokols, 1996). Expanding integration also requires innovation beyond campus walls. Telehealth partnerships have proven effective in extending access to licensed providers, particularly for rural and underserved students who face long wait times for in-person care (Moreno et al., 2020; Shaw et al., 2018). Peer mentoring and peer recovery groups enhance formal services by building social networks that foster belonging and resilience (Bassuk et al., 2016; Kelly et al., 2018). Embedding prevention curricula into classrooms has further been shown to normalize help-seeking and reduce risky behaviors when paired with strong teacher-student relationships (Durlak et al., 2011; Wang & Eccles, 2012). Faculty and staff training in trauma-informed practices is equally critical, ensuring that vulnerability is met with compassion rather than punishment (Dorado et al., 2016; SAMHSA, 2020). Studies make clear that addiction on campus is not merely an individual failing but a collective issue shaped by peer influence, institutional structures, and cultural norms (Perkins, 2002; Merrill & Carey, 2016). Integrated systems of care transform schools into environments of resilience, where prevention, counseling, recovery supports, and academic resources are coordinated rather than fragmented. When we reframe addiction through the lenses of health, equity, and belonging, schools and colleges can move from disjointed responses to holistic, sustainable systems of support (Eisenberg et al., 2012; SAMHSA, 2020).

5.7. Equity and Access in Substance Use Interventions

Equity concerns are central to understanding addiction on educational campuses,

as patterns of risk, access to treatment, and outcomes are not distributed evenly across student populations. Racial disparities remain especially pronounced. Research shows that Black and Latino students are disproportionately suspended, expelled, or referred to law enforcement for substance-related infractions compared to their White peers, despite reporting similar or even lower levels of substance use (Mallett, 2016; Wald & Losen, 2003; Skiba et al., 2014). These exclusionary practices contribute to the “school-to-prison pipeline”, exacerbating educational disengagement and long-term inequities (Gregory et al., 2010). Moreover, schools serving predominantly minority and low-income populations often lack the resources to provide prevention and recovery programs, further compounding inequities (Crenshaw, 2011; Darensbourg et al., 2010). Socioeconomic disparities similarly shape student substance use and outcomes. Students from low-income families face elevated exposure to stressors such as housing instability, food insecurity, and unsafe community environments, all of which increase vulnerability to substance misuse (Galea & Vlahov, 2002; Mulia et al., 2008). Financial stress also reduces access to counseling or recovery programs, particularly in underfunded public schools and community colleges where mental health staffing is limited (Lipson et al., 2019; Reardon, 2011). By contrast, students in more affluent districts and private colleges are more likely to encounter prevention campaigns (Warner, 2024), wellness initiatives (Moore et al., 2021) and recovery supports (Broman et al., 2025). These differences reveal the role of structural inequality in shaping substance use trajectories. Beyond race and class, sexual and gender minority students also experience heightened risks. Studies consistently show that sexual and gender minorities students report higher rates of alcohol, cannabis, and polysubstance use compared to heterosexual and cisgender peers (Marshal et al., 2008; Newcomb et al., 2014). These disparities are linked to minority stress theory, which highlights the role of stigma, discrimination, and social isolation in shaping risky coping behaviors (Meyer, 2003). College campuses often lack sexual and gender minorities students affirming counseling services, and peer environments may marginalize students based on their identity, creating barriers to help-seeking (Woodford et al., 2018; Coulter et al., 2019). Even when services are available, sexual and gender minority students may avoid them out of fear of disclosure or prior experiences of bias from health professionals. Immigrant and international students represent another overlooked group. Cultural stigma around substance use, language barriers, and limited familiarity with U.S. health and education systems may prevent these students from accessing support (Choi et al., 2020; Yakushko et al., 2008). Some turn to substances as a coping mechanism for acculturative stress, while others experience challenges going through inconsistent campus policies or fear jeopardizing their visa status if they seek treatment (Lee et al., 2021). These disparities suggest that equity cannot be addressed through generic programming alone. Schools and universities must target structural inequities by investing in underfunded campuses, and train educators and counselors in culturally responsive, trauma-informed practices (Gay, 2018;

SAMHSA, 2020). At the same time, they need to provide tailored supports for marginalized groups, such as recovery programs that affirm racial/ethnic identity, socioeconomic background, sexual and gender diversity, and immigrant experiences. Equally important, institutions should integrate the voices of students from historically excluded communities into the design of prevention and recovery initiatives to ensure that interventions are relevant and effective.

5.8. Emerging Trends in Campus Substance Use

Substance use among students is constantly changing, and recent years have brought several new challenges for schools and universities. One of the most visible shifts is the rise of vaping, which has quickly displaced cigarettes as the most common form of nicotine use among adolescents and young adults. Flavored products, sleek devices, and the ease of concealment make vaping particularly attractive in classrooms and dorms. While often perceived as harmless, research shows links to nicotine dependence, lung damage, and even greater likelihood of experimenting with other substances (Glantz & Bareham, 2018; Johnston et al., 2023). These patterns raise questions about how schools can adapt prevention campaigns to address health risks and the cultural appeal of vaping. Alongside this trend, the misuse of prescription stimulants such as Adderall and Ritalin has become normalized in many college settings, especially during exam periods (Gonzalez, 2023). Students often describe these drugs as “study aids”, using them to stay awake longer or concentrate under pressure (Hupli et al., 2016). National surveys suggest that as many as one in five college students report nonmedical stimulant use (McCabe et al., 2021). While sometimes seen as performance enhancers, misuse is associated with anxiety (Schifano et al., 2018), sleep disruption (Coliță et al., 2022), cardiovascular problems, and dependency (Sivalokanathan et al., 2021). To deal with this problem, schools should educate students that prescription stimulants do not really improve academic performance, and they should also work on reducing the high-pressure academic culture that drives students to misuse these drugs. Perhaps most concerning, the broader opioid crisis has reached student populations, not necessarily through regular use but through the dangerous contamination of recreational drugs with fentanyl. This reality means that even infrequent experimentation, such as taking a pill at a party, can result in fatal overdose (Volkow et al., 2019). Schools and universities are increasingly recognizing their role in prevention, with some adopting harm-reduction strategies such as stocking naloxone (Narcan), offering overdose response training, and partnering with community health providers (McDonald et al., 2022). These steps signal a shift from purely punitive approaches to more pragmatic strategies aimed at saving lives.

6. Implications and Recommendations

Addiction among students demands comprehensive, equity-driven responses that extend beyond punitive measures. Several priorities emerge:

- School-Wide Practices: Implement evidence-based prevention programs, build school connectedness, and integrate trauma-informed practices to foster resilience.
- College Initiatives: Expand Collegiate Recovery Programs (CRPs), campus counseling, and peer-led recovery groups to provide safe spaces and normalize sobriety.
- Integrated Mental Health Supports: Ensure co-treatment for substance use and co-occurring mental health disorders, reducing fragmented care.
- Teacher and Staff Training: Equip educators and staff with skills to identify early warning signs, respond with empathy, and connect students to support.
- Policy Reform: Shift from zero-tolerance and exclusionary discipline to restorative, supportive approaches that prioritize equity and inclusion.

7. Conclusion

This review shows the urgent need to address addiction as a systemic challenge on U.S. campuses, where substance use undermines both academic success and also mental health and long-term well-being. Evidence consistently shows that peer influence, stigma, and institutional cultures play a decisive role in shaping risk and recovery. For practitioners and educators, the implications are clear: prevention and intervention must move beyond punitive approaches toward supportive, evidence-based practices that integrate mental health, family engagement, and recovery supports. Collegiate Recovery Programs, Recovery High Schools, and peer-led models illustrate how schools can create cultures of belonging that counteract the normalization of substance use. Policymakers are urged to expand resources, strengthen campus-based services, and ensure equitable access to treatment and prevention programs. As a conceptual review, this study provides a foundation for future empirical work and equips practitioners with research-informed strategies to respond to addiction in educational settings.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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