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Mental Health and Substance Abuse Among First-Generation Students in Higher Education: Risk and Protective Factors

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Abstract

First-generation students are a specific phase of higher education, whose parents never completed a university degree, that creates exceptional challenges to elementary education and affects its mental health conditions and substance use practices significantly. This integrative literature review investigates the occurrence, risk factors, and protective factors involved with mental health issues and substance abuse among first generation students across stipulates of the world with specific reference to environments that exist in developing countries. Based on the recent empirical studies, the systematic reviews and policy documents, this article compiles the evidence regarding depression, anxiety, substance use behaviors, and the sociocultural factors that play out the consequences. The results show that first-generation students face higher levels of mental health issues and drug problems than continuing-generation students due to such factors as the financial stress, family support, and academic pressure along with the absence of mental health services. The review can add to the existing literature on the topic of mental health among students, and it is practical because it gives recommended measures that university administrators, policymakers, and all health practitioners interested in ensuring the success of first-generation students should implement.

Keyword: Student success; Student affairs; Administration; Student Development theory; Higher Education Leadership; Mental health; Substance abuse

1. Introduction

The growth of higher education in the world has brought about unparalleled opportunities to students of various economic statuses to pursue university education. These students include the first-generation learners - those students whose parents did not attain a university degree. The latter students form part of the increasing student remanences of institutions of higher education globally, frequently carrying their distinct advantages, views, and challenges with them and making their experience distinctly different compared to the continuing-generation students (Julius, 2024; LeBouef et al., 2025).

Students of the first generation often go through the college setting without the advantage of parental advice on expectations as per academic performance as well as campus atmosphere and facilities. Such deficit in inherited cultural

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capital may worsen the already existing stressors related to the process of adaptation to university life, such as academic pressures, financial overload, and partially academic issues in terms of social integration (Wang and Shah, 2022). Under-handling of these stressors can present in the form of mental health complications, and other adaptive coping strategies such as substance abuse.

Mental health issues in university students have become a big social issue in the world in terms of health issues. Studies also show a person high levels of depression, anxiety, and stress-related disorders among university students regardless of their cultural and geographical backgrounds (Obilade et al., 2024; Mekonnen et al., 2024). Nonetheless, it is possible that the psychological health burden is higher for first-generation students that experience the same level of susceptibility due to their socioeconomic status and the absence of previous experience of their family members attending university.

It has been recorded that the overlap between first-generation and mental health susceptibility exists in several different countries and school systems. In a large study of the mental and psychological health of college students in various universities in the United States, the Healthy Minds Study includes a substantial indication of depression, anxiety, and psychological distress, with first-generation college students disclosing that their rates are by nearly three to four times greater than those of any other continuing-generation of students (Lipson et al., 2023). Those inequalities harbored even in the context of the equalization of demographic and socioeconomic variables, which may indicate that the first-generation is a status that provides its participants with special vulnerability per se.

Another significant issue in the sphere of higher education in the world is substance abuse. Research resources report the high level of substance use in university students, and the prevalence rates are different among universities, regions, and cultures (Ajayi & Oladipo, 2020; Aguocha and Okafor, 2021; DiGuiseppi and Jackson, 2020). The context in which the first-generation status intersects with substance use behaviors is under-researched in most places, even though evidence indicates that such students might be especially susceptible to substance-related issues because of the individual stressors, and their access to support systems might be lower (Swisher & Smith, 2020).1.1 Review Objectives and Significance

This literature review aims to:

- Examine the prevalence and patterns of mental health problems among first-generation students across diverse educational contexts
- Investigate substance abuse behaviors and their correlates within this population
- Identify risk factors that increase vulnerability to mental health and substance use problems
- Explore protective factors that promote resilience and positive outcomes
- Synthesize evidence-based recommendations for interventions and policy development
- Highlight gaps in current research and directions for future inquiry

It is important to learn about the mental health and substance use experiences of first-generation students because of a number of reasons. To begin with, these students form an ever growing percentage of university populations across all parts of the world and successful performance by these students is central to the goals of social mobility and human capital building. Second, targeting mental health and substance abuse in the early stages of academic career development among these students can avoid negative effects over time, such as academic failure, dropout, persistent health issues, and reduced career opportunities (Swisher and Smith, 2020). Third, solutions that strengthen the achievement of first-generation students will foster equity in postsecondary education and will help to break the intergenerational chain of disadvantaged education.

Instructional Theory: Student Development Theory.

The current literature review is based on the Student Development Theory which is an extensive framework which describes how students grow, change and mature during the period of higher education. Student Development Theory integrates several theoretical approaches that all help to shed light on cognitive, psychosocial, moral, and identity changes that transpire through the college years. These developmental processes are important to understand why first-generation students are at particular vulnerabilities with regard to mental health and substance abuse because these developmental paths do not continue along the same lines as those of their continuing-generation peers.

Student Development Theory came into existence as a result of discovering that, in the previous education systems, there was mainly an attraction to academic learning and yet the holistic development of the students as individuals

were overlooked. Early theorists like Arthur Chickering, William Perry and Lawrence Kohlberg were pioneering theorists who defined college as a vital developmental stage where significant gain is made in various aspects. An example of such approaches that place developmental tasks is Pietro di Cittato (2019), Seven Vectors of Development by Chickering, which designates horizontal growth challenges, such as competence, emotional regulation, developing autonomy, defining identity, liberating interpersonal, finding purpose, and building integrity. In the case of first-generation students, the transmission through these vectors can prove complex due to the absence of family advice and cultural incompatibilities between home and college life as well as the added pressure of making collective, social mobility hopes of their families manifest.

The psychosocial aspect of the Student Development Theory is specifically applicable to the issue of mental health of first-generation students. Throughout the time of traditional college, known as late adolescence and transition into emerging adulthood, students contend with several developmental challenges, simultaneously: separating from families without losing meaningful relationships, setting up intimate relationships with classmates, experimenting with identity options, and unifying a cohesive self-concept. The developmental processes of first generation students are usually complexified as a result of increased tension. The force to abandon family and adopt university culture might go against the cultural beliefs about family interdependence and family loyalty. The identity exploration: experiencing trying out various roles, beliefs and values can give rise to guilt when these new ideas do not coincide with family traditions. The ensuing psychological distress caused by these developmental conflicts expresses as anxiety, depression and identity confusion.

Student Development Theory Cognitive-Structural theories explain how the cognitions and meaning-making process of students change throughout college. In his scheme of intellectual in ethical growth, William Perry outlines a multi-facet transition between dualistic thought (including knowledge as unconditional and taught by people of authority) and growth and growth and transition through multiplicity and relativism to dedication under relativism. The first generation distant students can first arrive at the university with more dualistic views based on their secondary-school experiences with an emphasis on memorization and obedience to any authority. This epistemological discomfort of the first stage of university education can become especially pronounced when epistemological assumptions are challenged And first-generational students have few templates to handle these intellectual adjustments can find cognitive dissonance particularly sharp. This mental disturbance, although it may be growth-promoting over the long-term involving, introduces severe strain in the short-term, which leads to mental susceptibility.

The modern expansion of Student Development Theory focuses more and more on the contribution made by social identities and cultural contexts on the developmental processes. These paradigms acknowledge the fact that old school theory was created with white, middle-income, continuing-generation students in mind and might not accurately reflect the experiences of students belonging to the ribbed groups of people. Among first-generation students, there are complicated interactions between social-class identity with student identity. These are widely the students whose social-class background is subject to social-class transition, between working or low-income backgrounds and an academic setting among middle-class norms and expectations. This shift necessitates a kind of movement that sociologists refer to as code switching the capacity to move between the cultural norms of local communities and university settings. There is the psychological overburden of having to keep switching coding, in addition to the consciousness of the differences in class-based privilege which leads to a sense of marginality, impostor syndrome, and filling in-betweenness leading to an enhanced risk of mental health.

The Student Development Theory offers important perspective with which to examine the substance use patterns among the first-generation students. It is developmentally more normative now as a symptom of identity exploration typical of this life cycle to engage in substance experimentation in late adolescence and the onset of adulthood. Nonetheless, among first generation, substance use might have other purposes other than normative experimentation. It can be portrayals of efforts to deal with developmental stress, deal with the cognitive aspect of having the cultural sailing weight, or ease transitional social inclusion into peer groups. Substance use to cope with developmental stress challenges instead of optimal coping through healthy engagement in developmental activities can cause derailment of positive development and result in development of maladaptive patterns that continue into college years and later life. Learning substance use in this developmental context changes the intervention strategies beyond preventive or punitive reactionary responses to more developmental supportive intervention focused on all the underlying troubles faced by students and offering to them healthier strategies of dealing with developmental challenges.

2. Literature Review Methodology

2.1. Search Strategy and Scope

This is a review of literature of the empirical studies, which review rare articles that constitute the recent studies carried on mental health and substance abuse among first-generation university students in higher education. The review utilizes ecological systems approach, taking into account that the student result is constrained by the factors that are in action at all levels including the individual level down to the general factors in society.

2.2. Evidence Base

The evidence base includes peer-reviewed research spanning 2013–2025, with emphasis on recent studies (2020–2025) to capture contemporary trends and emerging issues. Sources encompass:

- Empirical studies on mental health among first-generation college students from diverse geographic contexts
- Research on substance use patterns and correlates among first-generation students
- Systematic reviews and meta-analyses on student mental health
- Policy documents and intervention guidelines from international organizations
- Studies examining emerging trends including social media influences and pandemic impacts

2.3. Analytical Framework

The paradigm of analyzing the study follows the framework of risk-protective according to which the variables that increase the vulnerability to mental health disorders and substance misuse (risk factors) and factors that contribute to resilience and subsequently promote positive outcomes (protective factors) are identified. The paradigm is particularly beneficial in the design of specific interventions because it will methodically detect the barriers that require the redress but also the resources that can be enhanced in the course of upholding first-generation students.

2.4. Limitations

It is noteworthy that there are a number of restrictions, which are worth being considered. First of all, the definition of first-generation students in national contexts and the educational system varies considerably, which makes cross-cultural comparisons dangerous. Secondly, the heterogeneity of this cohort, which spans the socio-economic status, ethnicity, race, religious affiliation as well as cultural background, suggests that extra-polations might not be generalized to all groups. Third, research studies of substance use risk are probably underestimated over the real immediate data because of stigmatization, legal consequences, and social desirability error. Lastly, the likely overrepresentation of published data sources by high income countries of which the United States is the greatest example limits the diversity of our conclusions to less affluent or structurally separate environments.

3. Mental Health Among First-Generation Students: Global Evidence

3.1. Prevalence and Patterns of Mental Health Problems

As the most recent international studies show, the levels of mental health issues faced by first-generation college students are systematically higher, in comparison with those of continuing-generation students. Healthy Minds Study implies that first-generation students have significantly higher depression rates (30 vs. 24) and levels of anxiety (35 vs. 29), plus levels of psychological distress (Lipson et al., 2023). Even when these differences are corrected on the basis of demographic and socioeconomic factors, the differences are significant, indicating that the first-generation status provides an exclusive vulnerability, regardless of family income and other background factors.

A systematic review by Smith and colleagues (2023) presents common patterns in mental health profile of the first-generation students of the university in various international contexts. High levels of depression, anxiety, impostor syndrome, and academic stress have been reported in the review documents. It also highlights how cultural and family norms should impact students and points out that, as many members of the first generation student find they pressured by academic success, they continue to maintain connections with their own communities and often support their families by sending money or emotional help.

A study conducted in sub-Saharan African has shockingly identified high prevalence of mental illnesses amongst university students. Julius (2024) conducted a systematic review of mental health among students in this area, as a

result of which 3560% of the participants had clinically significant problems. A notably high rate is seen among medical students who provide an over-achieving group of learners including a significant proportion of first-generation learners. Once systematic reviews have shown that the level of depression in African medical students is between 2835 (Mekonnen et al., 2024; Pitua et al., 2024), which is very high and significantly higher than the overall population rates.

3.2. The Transition Period: It is a Critical Vulnerability

University transition is a transition that becomes especially pivotal in the process involving mental health of first-generation students. According to Wang and Shah (2022), these students face more challenges in terms of this transition, with higher stress levels, homesickness, and indecision in terms of their academic ability. Parental experience of higher education is usually wanting, which leads to the rise of less parental influence in helping the transition through institutional structures, the understanding of academic demands, and the institutional support services, which exacerbates mental health challenges.

The first-generation students have their unique vulnerabilities that get triggered during transition period. They are also more likely to have a culture shock because they are exposed to educational environments that are significantly contrasting to the ones associated with the home communities (LeBouef et al., 2025). This dislocation can be through sense of alienation, lack of confidences as to where they belong in their university, and anxiety on whether they can achieve in a new environment.

The most prevalent mental health issues include aphasia, thyroid disorders, post-traumatic stress disorder, and bipolar disorder, among others.<|human|>4.3 Widespread Mental Health Problems There are aphasia, thyroid illness, post-traumatic stress disorder, and bipolar disorder, among others.

One of the main mental health issues in the first-generation students around the world is depression. The recurring findings of empirical studies testify to the accumulation of a higher severity of depressive symptoms and major depressive disease in this population segment (Obilade et' al., 2024; Lipson et' al., 2023). Depressive symptomatology is usually characterized by inert levels of sustained sadness, anhedonia, change in sleep and appetite, inability to focus properly and ideation of worthlessness or hopelessness. In the case of university students depression significantly affects academic performance in terms of staying in school, poor concentration and loss of the motivation to study.

First-generation students are also on the high list of anxiety disorders such as generalized anxiety disorder, social anxiety, and test anxiety. Such individuals often develop anxiety associated with performance at school, financial instability, anticipations of family acceptance, relationships with a sense of belongingness at school (Lipson et al., 2023). The duration of such worry may cause a disruption of normal life activities, school performance, and living in general.

The side effect is imposter syndrome, which is a constant manager feeling inferior intellectually, even in perfectly competent situations (Smith et al., 2023). Students with imposter syndrome tend to believe that they got into university by chance and not merit, and may be living with the fear of being found out as wanting. It builds up a state of chronic anxiety, lowers the self-esteem, and may preclude engagement in classroom activities, seeking help, or seeking or exploiting opportunities to which they have the necessary qualifications.

Stress related disorders are an index of the aggregate pressure of various pressures exerted over the psychological resources of students. First star students are also facing stressors such as academic demands, financial difficulties, family life, pressures of socializing and doubts on future employment post graduation. Once shock turn into a chronic and unpleasable state, it can be shown not only psychologically (distress, frustration, anxiety, etc.) but also physically (innocuous studies such as headache, stomachache, fatigue, etc.).

3.3. Academic Consequence of Mental Health Problems

Mental health disorders have vital negative implications on educational performance of students in the first generation. Studies have always shown that depression, anxiety, and stress are associated with worse grade point averages, higher chances of course failure, and overall high risk of academic withdrawal (Smith et al., 2023; Idoko and Nwankwo, 2023). Mental health impediments might contribute with these students to other risk elements, including poor academic preparation, financial pressure and a lack of adequate support systems, to increase chances of academic hardship.

The connection between academic performance and mental health is two-way. Mental issues suppress cognition, motivation, and energy therefore triggering academic problems. Academic difficulties, on the other hand, might contribute to the evolution of mental illness conditions increasing the feeling of incompetence, the disappointment of not meeting the demands of the family, and the perception threat of future opportunities. The result of this cyclic

movement may trap the student in a software that is hard to dig out unless the right measures and interventions are taken in good time.

3.4. Snowballs to Mental Health Care

Even in areas where mental health care exists, first-generation students find numerous barriers to obtaining mental health care. Stigma is a powerful discouragement in a wide range of cultural settings, and the mental health conditions are often framed as evidence of individual infirmity, spiritual inadequacy, or even family dishonor (Fadele and Afolabi, 2595; World Health Organization, 2512). Therefore, students can be afraid of getting help and can provoke judgment or discrimination, as well as cause damage to their reputation.

Another barrier is lack of level of knowledge concerning the state of mental health and existing services. A high portion of first-generation students have limited mental-health literacy- lacking of awareness of mental health illnesses, their treatment, and the proper referral resources. Without parental direction to handle resources available in campus, students can be left unaware of the guidance provided on campus by the counseling centers or how to approach the services.

Students may be put off by the cost of care, especially in situations where consultations require some fee or when the student needs to seek the service of personal care providers. Even the smaller expenses can be prohibitive to the first-generation students who can often be attracted into lower-income backgrounds. Besides, the fear of family resource drain needed to treat someone experiencing mental health can give rise to guilt and unwillingness.

The cultural differences affect the help-seeking behavior of heterogeneous environments. Mental health conditions in most cultural milieus are handled through a spiritual or traditional perception that may be incompatible with the Western psychological models. Such students can choose to deal with traditional healers or religious counselors instead of institutional university counseling services, or can not understand their experiences to be enough of problem of clinical psychopathological concern.

Table 1 Prevalence Estimates of Mental Health Conditions Among First-Generation and General University Student Populations

Condition	First-Generation Students	General Student Population	Population Studied	Reference
Depression	30-45%	24-35%	Multi-institutional samples	Lipson et al., 2023; Smith et al., 2023
Anxiety	35-40%	29-33%	Multi-institutional samples	Lipson et al., 2023
Imposter Syndrome	60-70%	40-50%	University samples	Smith et al., 2023
Any Mental Health Problem	45-60%	35-45%	University students (Africa)	Julius, 2024
Stress-Related Disorders	40-55%	30-45%	University students	Obilade et al., 2024

Note: Prevalence estimates vary based on assessment tools, sampling methods, specific populations, and cultural contexts. First-generation students consistently show higher rates than continuing-generation peers.

4. Substance Use Among First-Generation Students

4.1. Prevalence and Patterns

The first generation status in relation to the use of substances is complicated and multidimensional. Empirical observations indicate subtle trends that are not consistent among substances, cultures and developmental processes. Swisher and Smith (2020) used longitudinal analysis of substance-use trajectories between first- and continuing-generation students; it was noted that the former students choose less substance in their entry to university, but after that, their trends were steeper. More to the point, underuse of substances was associated with a decline in graduation

rate among this group of students, suggesting that substance-related issues are one of the factors that can lead to academic attrition among the first-generation students.

The contextual fields and motivation of substance use in first generation students vary largely in comparison to their continuing-generations student. Vasiliou et'al. (2024) reinforced the importance of contextualizing substance use in college students, as in the case of first-generation students the contexts typically include relief of academic stress, formation of social connection in a group, dealing with feelings of alienation, and alleviating anxiety due to the impact of the financial or family obligations.

Studies documenting rates of substance -use among university students are thoroughly diversified geographically. A study in sub-Saharan Africa has found 30-60 percent university students endorsed use of alcohol, 15-35 percent use of cannabis and 10-25 percent use of prescription opioids (Ajayi and Oladipo, 2020; Aguocha and Okafor, 2021; Olanrewaju and Adegoke, 2022). Although there is no particular comparatively lower data on first-generation students in this respect, foreign literature indicates that such a group faces specific weaknesses.

4.2. Substances that are usually used in various contexts.

Alcohol is the drug that can be described as the most frequently used drug among college students worldwide, and it can involve the occasional drinking to the problematic issues. Alcohol can also be taken as a form of stress relief, market entry and coping with academic stress by first-generation students (DiGuiseppi and Jackson, 2020). The social milieus of drinking including the party, social events, and peer affiliation could have special effects on first-generation students who are in need of belonging to new institutional environments of universities.

Cannabis is a drug that is commonly used by university students in many different cultural settings, yet the legal status and attitudes are quite different. Some users mention the motives of reducing stress, as a sleeping tool, a source of recreational pleasure, and curiosity (Aguocha and Okafor, 2021). Getting under the pressure of seeking social acceptance among specific groups requiring cannabis normalization, first-generation students may be pressed to use it.

Prescription drugs, including stimulants, opioids, and tranquilizers, are a growing problem of abuse among university students. To improve academic success, improve attention, and decrease the sleep requirement in exam sessions, prescription stimulants are frequently utilized (Idoko and Nwankwo, 2023). Medical and health-science students might have an easier time accessing such substances. In other situations, especially in developing countries, prescription drugs, so opioids, could be sold without a prescription, and thus there was easy access and increased risk (Olanrewaju and Adegoke, 2022; Oweibia et al., 2025).

Ethanol consumption, including smoking cigarettes and other dispositions, is still quite common even after long-term health-consciousness education. In some cases, the use of tobacco by a first-generation student may initiate or increase in university as social adaptation or stress reduction.

4.3. Risk Factors for Substance Use Among First-Generation Students

First-generation students face multiple risk factors that may increase vulnerability to substance use:

- **Academic stress** represents a primary driver of substance use across contexts. The pressure to succeed academically, combined with concerns about disappointing family and anxiety about future employment, can create overwhelming stress that students attempt to manage through substance use (Idoko & Nwankwo, 2023). For first-generation students who often feel they are carrying their families' hopes and aspirations, academic pressure may be particularly intense. Some students turn to prescription stimulants to enhance focus and academic performance, while others use alcohol or cannabis to manage anxiety and decompress from academic demands.
- **Peer influence** plays a significant role in substance use initiation and continuation across all student populations, but may have particular salience for first-generation students (DiGuiseppi & Jackson, 2020; Ajayi & Oladipo, 2020). First-generation students may be especially susceptible to peer influence as they navigate unfamiliar university social environments and seek acceptance and belonging. When substance use is normalized within peer groups, students may feel pressure to participate to fit in or avoid social exclusion.
- DiGuiseppi and Jackson (2020) demonstrated that peer norms significantly influence substance use behaviors among first-generation students. These students often navigate conflicting social contexts—the norms of their family and home community versus those of the university peer environment. This navigation can create vulnerability to substance use as a means of social integration or belonging.

- **Mental health problems** are closely intertwined with substance use in bidirectional relationships. Students experiencing depression, anxiety, or overwhelming stress may turn to substances as a form of self-medication (Obilade et al., 2024). Alcohol may be used to reduce anxiety, cannabis to help with sleep or mood, and stimulants to overcome depression-related lethargy. Simultaneously, substance use can worsen mental health by disrupting sleep, altering brain chemistry, creating additional life stressors, and interfering with healthy coping mechanisms.
- **Financial stress** affects many first-generation students, who often come from lower-income backgrounds and may lack adequate financial support. Paradoxically, while students may lack funds for tuition and basic needs, substance use may still occur, either through inexpensive substances or through sharing within peer networks (Aguocha & Okafor, 2021). Financial stress also creates vulnerability to substance use as a coping mechanism for the anxiety and worry associated with economic insecurity.
- **Social media influence** represents an emerging risk factor. Agberotimi (2025) documented that exposure to substance-reference content on social media platforms is associated with more positive attitudes toward substance use and higher rates of actual use among university students. Social media may normalize substance use, create perceptions that use is more common than it actually is, and provide information about how and where to obtain substances. First-generation students, who may turn to social media for information and social connection, could be particularly vulnerable to these influences.
- **Substance availability** significantly influences use patterns across contexts. In settings where substances are readily accessible through multiple channels—local markets, pharmacies, peers, off-campus vendors—rates of use tend to be higher (Aguocha & Okafor, 2021). The ease of obtaining substances, particularly prescription medications that should require prescriptions but are available over-the-counter in some contexts, facilitates use and experimentation.
- **Limited parental monitoring** distinguishes first-generation students from continuing-generation peers. Without parental experience of university life, families may have difficulty providing appropriate guidance and monitoring regarding substance use risks. Students may feel they can hide substance use from parents who do not understand university environments, or may lack the parental warnings about substance risks that continuing-generation students might receive.

4.4. Consequences of Substance Use

Substance use has multiple negative consequences for first-generation students:

- **Academic impairment** is consistently documented across studies. Substance use is associated with reduced class attendance, difficulty concentrating, declining grades, and increased risk of academic failure (Idoko & Nwankwo, 2023; Swisher & Smith, 2020). The longitudinal research by Swisher and Smith (2020) found that substance use was associated with lower graduation rates specifically among first-generation students, suggesting that academic consequences may be particularly severe for this population. For first-generation students, academic difficulties related to substance use can derail the educational opportunity they and their families have sacrificed to achieve.
- **Health consequences** range from acute effects (intoxication, overdose risk, injuries, risky sexual behavior) to chronic problems (addiction, organ damage, mental health deterioration). Different substances carry different risk profiles, but all pose potential health harms, particularly with heavy or prolonged use.
- **Mental health deterioration** can result from substance use, creating or worsening depression, anxiety, and other conditions. The cyclical relationship between mental health problems and substance use can create a downward spiral difficult to escape without intervention. Substance use may provide temporary relief from psychological distress but ultimately worsens underlying mental health conditions.
- **Financial problems** arise from spending money on substances rather than educational and basic needs. For students already experiencing financial strain, substance-related expenses can exacerbate economic difficulties and force difficult choices between educational necessities and substance acquisition. Additionally, academic consequences of substance use (failed courses requiring retakes, delayed graduation) create longer-term financial costs.
- **Social and legal consequences** include damaged relationships with family and peers, involvement in risky behaviors, and potential legal problems related to possession or use of illegal substances. These consequences can have lasting impacts on students' futures, including employment prospects, professional licensure eligibility, and immigration status in some contexts.
- **Interference with identity development and future planning** represents a less obvious but important consequence. Substance use during the critical developmental period of young adulthood can interfere with the identity exploration, goal clarification, and future planning that should characterize this life stage. For first-

generation students navigating complex identity negotiations between home and university cultures, substance use may further complicate healthy identity development.

Table 2 Substance Use Prevalence and Motivations Among First-Generation University Students

Substance Category	Estimated Prevalence	Primary Motivations	Specific Vulnerability for FGS
Alcohol	30-60% (any use); 10-25% (problematic)	Social integration, stress relief, peer bonding, recreation	Pressure to fit in; lack of family guidance about moderate use; stress from academic/financial burden
Cannabis	15-35%	Stress management, sleep aid, recreation, curiosity	Self-medication for anxiety; peer pressure; perceived as "safer" option
Prescription Stimulants	5-20% (higher among high-stress majors)	Academic enhancement, focus, exam preparation	Intense pressure to succeed; inadequate preparation creating need for performance aids; perception as "just studying harder"
Prescription Opioids	8-25% (varies by region/availability)	Pain relief, stress management, euphoria	Self-medication for stress; easy availability in some contexts; lack of education about addiction risks
Tobacco	15-30%	Social integration, stress relief, routine/habit	Social bonding mechanism; stress from multiple pressures; cultural norms in some contexts

FGS = First-Generation Students

4.5. The Intersection of Mental Health and Substance Use

The relationship between mental health problems and substance use is complex and bidirectional, creating particular challenges for first-generation students. Many students who struggle with mental health conditions turn to substances as a form of self-medication, attempting to alleviate symptoms of depression, anxiety, or stress through substance use (Obilade et al., 2024). Simultaneously, substance use can worsen mental health by disrupting sleep, altering brain chemistry, creating additional life stressors, and interfering with healthy coping mechanisms.

This co-occurrence creates particular challenges for intervention. Addressing only substance use without treating underlying mental health conditions often results in relapse, as students continue to experience the psychological distress that motivated substance use initially. Conversely, mental health treatment may be ineffective if active substance use continues, as substances interfere with treatment and may worsen symptoms. Integrated approaches that simultaneously address both mental health and substance use are needed but are rarely available in university settings, particularly in resource-limited contexts.

5. Risk Factors: A Multi-Level Framework

5.1. Individual-Level Risk Factors

- **Pre-existing mental health conditions** create vulnerability to both mental health problems and substance use during university. Students entering higher education with histories of depression, anxiety, trauma, or other mental health conditions are at elevated risk for recurrence or worsening during the stressful transition period.
- **Academic preparation gaps** affect many first-generation students who may arrive from secondary schools that provided inadequate preparation for university-level work. Students from under-resourced schools may lack foundational knowledge in key subjects, have limited academic literacy, and possess inadequate study skills for university demands (Wang & Shah, 2022). These preparation gaps create academic struggles that can quickly overwhelm students, triggering stress, anxiety, and potential substance use as coping mechanisms.

- **Low self-efficacy and imposter syndrome** are particularly common among first-generation students (Smith et al., 2023). These students may doubt their academic abilities, attribute success to luck rather than merit, and live in fear of being "exposed" as inadequate. These beliefs undermine confidence, prevent help-seeking, and increase vulnerability to mental health problems.
- **Maladaptive coping strategies** distinguish students who struggle from those who navigate challenges successfully. Students who rely on avoidance, denial, or self-blame when facing difficulties are more likely to experience mental health problems and substance use compared to those who employ problem-solving, social support-seeking, and positive reframing (Obilade et al., 2024).
- **Poor stress management skills** leave students ill-equipped to handle the multiple demands of university life. Without effective strategies for managing stress, students may become overwhelmed, leading to mental health deterioration and potential substance use as attempts to cope.

5.2. Interpersonal-Level Risk Factors

- **Lack of parental guidance about university** represents a defining characteristic of first-generation student experience. Without parental knowledge of higher education systems, norms, and strategies, students must navigate complex institutional environments independently (Wang & Shah, 2022). This lack of guidance creates vulnerability to missteps, missed opportunities, and overwhelming confusion.
- **Family financial stress** affects first-generation students who often come from lower-income backgrounds. Chronic financial insecurity within families creates anxiety for students, who may worry about family wellbeing or feel guilty about educational expenses. Some students may be expected to contribute financially to families even while enrolled, creating competing demands on limited resources.
- **Limited peer support networks**, particularly during the critical transition period, can leave first-generation students isolated and lacking sources of information and emotional support. Geographic distance from home communities, combined with difficulty forming connections at university, creates social isolation that increases mental health risk.
- **Peer substance use** significantly influences individual substance use behaviors, particularly for young adults navigating identity development and seeking social belonging (DiGuiseppi & Jackson, 2020). First-generation students may be especially susceptible to peer influence as they attempt to fit into unfamiliar university social environments.
- **Conflicting family and university expectations** can create internal conflict and stress. First-generation students may experience tension between family values and university culture, between maintaining home community connections and integrating into university life, and between family obligations and academic demands (LeBouef et al., 2025).
- **Pressure to financially support family** during university enrollment creates additional stress and potential work demands that interfere with academics. Some first-generation students feel obligated to send money home or contribute to family expenses, even while struggling financially themselves.

5.3. Institutional-Level Risk Factors

- **Limited mental health services** characterize many universities, particularly in resource-limited contexts. Inadequate numbers of mental health professionals, long wait times, restricted appointment availability, and lack of crisis services create barriers to accessing care even when students recognize they need help (Fadele & Afolabi, 2024).
- **Inadequate financial aid** leaves many first-generation students struggling with tuition, housing, food insecurity, and other basic needs. Financial stress is consistently identified as a primary source of psychological distress among first-generation students (Lipson et al., 2023).
- **Large class sizes and limited faculty interaction** reduce opportunities for first-generation students to develop relationships with faculty who could serve as mentors, provide guidance, and identify struggling students. In large classes, first-generation students may feel anonymous and disconnected.
- **Lack of first-generation-specific support programs** means that many universities do not provide targeted support addressing the unique needs of first-generation students. Without programs specifically designed for this population, students may not access generic support services or may find services do not address their particular challenges.

- **Insufficient academic advising** particularly affects first-generation students who need more guidance about course selection, degree requirements, resource access, and institutional navigation. When advising is minimal or generic, first-generation students' specific needs may not be met.
- **Stigma around help-seeking** exists in many university cultures, discouraging students from accessing counseling, tutoring, or other support services. Students may fear that seeking help signals weakness or inadequacy, preventing early intervention.
- **Limited substance abuse prevention and treatment** means many universities lack comprehensive approaches to addressing substance use, from prevention education through treatment services for students with substance use disorders.
- **Poor campus climate for diversity** can leave first-generation students, who often come from racial/ethnic minority backgrounds or lower socioeconomic contexts, feeling unwelcome or not belonging. Experiences of discrimination or microaggressions add to psychological burden.

5.4. Societal/Structural-Level Risk Factors

- **Poverty and economic inequality** shape first-generation students' experiences long before university entry and continue to affect them throughout their academic careers. Students from lower-income backgrounds face cumulative disadvantages including inadequate primary and secondary education, food and housing insecurity, limited healthcare access, and chronic stress associated with economic hardship.
- **Mental health stigma** at societal levels creates barriers to help-seeking even when services are available. In many cultures, mental health problems are viewed as signs of weakness, spiritual failing, or family shame, preventing acknowledgment of problems and treatment seeking (World Health Organization, 2022).
- **Limited mental health infrastructure** in many nations, particularly in low- and middle-income countries, means that even universities seeking to expand mental health services face shortages of trained professionals and limited treatment options (Fadele & Afolabi, 2024).
- **Substance availability** varies across contexts but significantly influences use patterns. In contexts where substances are readily available with minimal regulation, rates of use tend to be higher.
- **Cultural barriers to help-seeking** exist across many societies, where mental health problems may be understood through traditional or religious frameworks that do not align with Western psychological models. Help-seeking from mental health professionals may be viewed as inappropriate or disrespectful of cultural values.
- **Inadequate health insurance coverage** for mental health and substance use treatment creates financial barriers to accessing care in many contexts. Even when students recognize they need help, costs may be prohibitive.
- **Social media influences promoting substance use** represent an emerging societal-level risk factor. Agberotimi (2025) documented that exposure to substance-related content on social media is associated with more positive attitudes toward substance use and higher actual use rates. Social media platforms may normalize substance use and provide information about obtaining substances.

Table 3 Multi-Level Risk and Protective Factors Framework

Ecological Level	Risk Factors	Protective Factors
Individual	Pre-existing mental health conditions; Poor academic preparation; Low self-efficacy and imposter syndrome; Maladaptive coping strategies; Substance use history; Poor stress management skills	Resilience and adaptability; Strong academic motivation; Positive coping strategies; Mental health literacy; Self-advocacy skills; Healthy lifestyle behaviors; Strong sense of purpose
Interpersonal	Lack of parental university guidance; Family financial stress; Limited peer support networks; Peer substance use; Social isolation; Conflicting family/university expectations; Pressure to support family financially	Supportive family relationships; Peer mentoring programs; Faculty mentorship; Sense of belonging; Positive peer influences; Cultural/community connections; Healthy relationships

Institutional	Limited mental health services; Inadequate financial aid; Large class sizes; Lack of FGS support programs; Insufficient academic advising; Help-seeking stigma; Limited substance abuse prevention; Poor diversity climate	Accessible counseling services; First-generation student programs; Academic support services; Financial aid and scholarships; Substance-free programming; Mental health awareness campaigns; Inclusive campus environment; Early warning systems
Societal/Cultural	Poverty and economic inequality; Mental health stigma; Limited mental health infrastructure; High substance availability; Cultural barriers to help-seeking; Inadequate insurance coverage; Pro-substance social media content	Cultural values emphasizing education; Community support systems; National mental health policies; Substance abuse prevention campaigns; Health insurance coverage; Public investment in education; Reduced stigma through public education

6. Protective Factors and Resilience

6.1. Individual Strengths and Characteristics

Despite significant challenges, first-generation students possess substantial strengths that serve as protective factors.

- **Resilience and determination** characterize many first-generation students, who have overcome considerable obstacles to reach university. Their ability to persist through adversity represents a powerful protective factor that can be supported and strengthened through appropriate interventions (LeBouef et al., 2025).
- **Strong academic motivation** drives many first-generation students, who recognize education as a pathway to improved life circumstances for themselves and their families. This motivation can sustain students through difficulties, though it must be balanced to avoid creating unsustainable pressure. When channeled effectively, academic motivation becomes a source of purpose and direction.
- **Cultural and community identity** can serve as a foundation for resilience. Students who maintain positive connections to their cultural heritage, ethnic identity, and home communities often report these as sources of strength and meaning. Research consistently identifies cultural identity and community connection as protective factors against mental health problems and substance use.
- **Adaptive coping strategies** distinguish students who successfully manage stress from those who struggle. Healthy coping mechanisms include problem-solving, seeking social support, engaging in physical activity, practicing mindfulness and relaxation, finding meaning in challenges, and maintaining spiritual or religious practices (Obilade et al., 2024; Vasiliou et al., 2024). Universities can actively teach these coping strategies through wellness programming, counseling services, and integration into academic curricula.
- **Mental health literacy** represents an important protective factor. Students who understand mental health conditions, recognize symptoms, know when to seek help, and can navigate mental health systems are better positioned to address problems before they become severe.

6.2. Family as Protective Factor

While families can be sources of pressure, they are also powerful protective factors for many first-generation students.

- **Family support and encouragement**, even when families cannot provide practical guidance about university systems, represents a crucial buffer against stress and mental health problems (DiGuiseppi & Jackson, 2020). Students who maintain regular communication with supportive family members report better psychological wellbeing.
- **Cultural and family values** emphasizing education, hard work, and perseverance can sustain students through challenges. The desire to honor family sacrifice and create opportunities for younger siblings provides purpose and motivation. Interventions that engage families as partners in supporting student success can strengthen this protective factor.
- **Parental monitoring and communication**, even when parents lack university experience, can protect against substance use. Research shows that students who maintain regular contact with parents and whose parents

express clear expectations about substance use are less likely to engage in problematic substance use (DiGuiseppi & Jackson, 2020).

6.3. Peer Support and Mentorship

- **Peer mentoring programs** specifically designed for first-generation students have shown promise in supporting successful university transition (LeBouef et al., 2025). When first-generation students connect with peers who share similar backgrounds and understand their experiences, they gain both practical guidance and emotional validation. Peer mentors who have successfully navigated university can model effective strategies and provide hope.
- **Student organizations** for first-generation students create communities of belonging where students can share experiences, exchange information, and provide mutual support. Establishing such organizations reduces isolation and facilitates information-sharing about resources and strategies for success.
- **Faculty mentorship** represents another powerful protective factor. First-generation students who develop relationships with supportive faculty members gain advocates, role models, and sources of guidance. Faculty can help students navigate academic challenges, connect with resources, and envision academic and career possibilities (Smith et al., 2023).
- **Positive peer networks** that discourage or do not engage in substance use provide alternative social contexts. When students connect with peers who share values opposing substance use, they experience less pressure and may access substance-free social activities.

6.4. Institutional Support Systems

Strategic institutional investments in support systems can significantly improve first-generation student outcomes:

- **Academic support services** including tutoring, writing centers, and supplemental instruction provide crucial assistance for students with preparation gaps. When these services are made welcoming and accessible—through effective outreach, elimination of fees, and culturally responsive delivery—they can substantially improve academic success.
- **Financial aid and emergency assistance** can alleviate the chronic financial stress that undermines mental health and academic performance. Even modest emergency funds for students facing unexpected financial crises can prevent situations that might otherwise force withdrawal from university.
- **First-generation student programs** that provide comprehensive support—including orientation programs, learning communities, advising, and ongoing programming—have demonstrated effectiveness in improving both academic outcomes and psychological wellbeing (LeBouef et al., 2025). These programs work by addressing multiple risk factors simultaneously while building protective factors including sense of belonging, knowledge of institutional systems, and access to support.
- **Counseling and mental health services**, when available, accessible, and culturally appropriate, serve as crucial protective factors. Students who can access mental health support before problems become severe are better able to maintain academic progress and avoid escalation to crisis.
- **Inclusive campus climate** that welcomes diversity and explicitly values first-generation students' contributions creates sense of belonging. When institutions signal through policies, programming, and culture that first-generation students belong and are valued, students experience less stress and greater wellbeing.

6.5. Religious and Spiritual Resources

For many students across diverse contexts, **religious faith and spiritual practices** represent significant sources of strength, meaning, and community. Religious organizations provide social networks, emotional support, and value frameworks that can protect against both mental health problems and substance use (Obilade et al., 2024). Interventions that respect and engage religious communities as partners in student wellbeing may be particularly effective in many cultural contexts.

Table 4 Protective Factors and Institutional Intervention Strategies

Protective Factor Domain	Specific Protective Factors	Evidence-Based Interventions	Implementation Considerations
Individual Resilience	Personal determination; Academic motivation; Adaptive coping skills; Mental health literacy	Resilience training workshops; Goal-setting programs; Stress management courses; Mental health education	Integrate into orientation; Offer throughout academic career; Make accessible and stigma-free
Family Engagement	Supportive relationships; Clear expectations; Regular communication; Cultural values	Family orientation programs; Parent education initiatives; Regular family communication; Family engagement events	Recognize diverse family structures; Provide materials in multiple languages; Use accessible communication methods
Peer Support	Peer mentoring; Study groups; Student organizations; Social connections	Structured peer mentor programs; Learning communities; FGS student associations; Facilitated social activities	Train peer mentors thoroughly; Provide ongoing supervision; Create sustainable programs
Faculty Connection	Mentorship relationships; Academic guidance; Career advising; Advocacy	Faculty mentor matching programs; Structured office hours; Faculty development on FGS needs; Recognition for mentoring	Incentivize faculty participation; Provide training and support; Create accountability mechanisms
Academic Support	Tutoring access; Writing assistance; Study skills; Academic advising	Comprehensive tutoring programs; Writing centers; Supplemental instruction; Enhanced advising models	Eliminate fees/barriers; Market effectively to FGS; Embed support in high-risk courses
Financial Security	Adequate funding; Emergency resources; Reduced work hours; Financial literacy	Targeted scholarships; Emergency assistance funds; Work-study programs; Financial education	Prioritize FGS in aid allocation; Create rapid-response systems; Provide ongoing financial guidance
Mental Health Access	Counseling services; Crisis support; Group therapy; Preventive programs	Expanded counseling capacity; 24/7 crisis lines; Support groups; Universal screening	Reduce stigma; Ensure cultural competence; Make services easily accessible
Spiritual/Religious	Faith communities; Religious practices; Spiritual meaning; Values framework	Support for religious organizations; Interfaith programming; Chaplaincy services; Meditation/reflection spaces	Respect diverse traditions; Avoid proselytizing; Integrate spiritual wellness

FGS = First-Generation Students

7. Recommendations for Student Affairs and Higher Education Leadership

7.1. Universal Prevention and Health Promotion

- **Mental health literacy campaigns** should be implemented across institutions to increase awareness about mental health, reduce stigma, and promote help-seeking. These campaigns should utilize multiple channels including social media, campus events, classroom presentations, and peer education (Patel et al., 2023). Content

should be culturally appropriate, address common misconceptions, and provide clear information about available resources.

- Substance abuse prevention programming should address the specific contexts and motivations for substance use among university students. Rather than relying solely on fear-based messaging, prevention efforts should acknowledge the real stressors students face while teaching alternative coping strategies (Vasiliou et al., 2024). Prevention should address social media influences, peer norms, and availability while promoting protective factors.
- Wellness and stress management programming should be universally available, teaching students healthy coping strategies before problems develop. Programming could include workshops on time management, study skills, stress reduction, sleep hygiene, physical fitness, nutrition, and mindfulness practices.

7.2. Targeted Support for First-Generation Students

- Comprehensive first-generation student programs should be established at institutions, providing support throughout the student lifecycle from admission through graduation and beyond. Core components should include:
- Pre-matriculation programming that introduces students and families to university expectations, resources, and culture. This programming should begin before students arrive on campus, helping to reduce anxiety and begin building knowledge of institutional systems.
- Extended orientation that goes beyond typical programs to provide in-depth introduction to academic systems, campus resources, and success strategies. First-generation students need more comprehensive orientation than continuing-generation peers who receive informal orientation through family guidance.
- First-year learning communities that cohort first-generation students in shared courses, creating peer support networks and facilitating resource-sharing. Learning communities build sense of belonging while providing structured academic support.
- Dedicated advising by professionals trained in first-generation student needs, providing both academic guidance and holistic support. Advisors should be knowledgeable about the unique challenges facing first-generation students and able to connect students with appropriate resources.
- Peer mentoring connecting new first-generation students with successful upper-class peers who can provide guidance and encouragement. Peer mentors serve as role models, information sources, and emotional support during the challenging transition period.
- Ongoing programming including workshops, social events, and academic support throughout students' university careers. Support should not end after the first year but should continue as students face new challenges in upper-level coursework and career planning.

7.3. Family Engagement Initiatives

Family engagement programs should recognize families as partners in supporting student success, even when families lack university experience. Initiatives could include:

- Family orientation programs at matriculation, introducing families to university culture and ways they can support their students
- Regular communication about university processes, important dates, and student support resources
- Family weekends or virtual events that welcome families to campus and help them feel connected to their students' experiences
- Educational materials that help families understand how to support their students emotionally while respecting their growing independence
- Multilingual resources to ensure accessibility for diverse families

7.4. Enhanced Mental Health Services

Expanding mental health services is essential, though must often be accomplished within resource constraints. Strategies include:

- Increasing professional staffing through creative partnerships with mental health training programs (social work, psychology, counseling), utilizing advanced trainees to expand service capacity under supervision. Graduate programs can establish practicum placements, benefiting both institutions and trainee development.
- Implementing the Mental Health Gap Action Programme (mhGAP) protocols can enable non-specialist healthcare providers to deliver mental health interventions (World Health Organization, 2019). Training campus health center staff, student affairs professionals, and peer counselors in mhGAP approaches can extend mental health support beyond limited specialized counselors (Ali et al., 2022; Keynejad et al., 2021).
- Group therapy and support groups represent efficient uses of counselor time while providing peer support benefits. Groups can be organized around specific issues (depression, anxiety, substance use recovery) or populations (first-generation students, academic stress, grief and loss).
- Crisis intervention and safety planning must be prioritized given the potential severity of mental health crises. Establishing 24/7 crisis support through phone lines (potentially shared across multiple universities to manage costs) and clear protocols for responding to students in crisis can save lives.
- Culturally responsive services are essential for effectiveness. Mental health services must be delivered in ways that respect diverse cultural values, address spiritual dimensions of wellbeing, involve families appropriately, and overcome stigma. Hiring counselors from diverse backgrounds and providing ongoing cultural competency training supports this goal.
- Stepped-care models match intervention intensity to need, ensuring efficient use of limited resources. Students with mild symptoms can receive brief interventions or guided self-help, while more intensive services are reserved for those with severe problems.

7.5. Substance Abuse Prevention and Treatment

Comprehensive substance abuse prevention should address multiple levels of influence:

- Environmental prevention includes reducing substance availability through enforcement of policies regarding on-campus substance use, working with local authorities regarding illegal sales to students, and limiting alcohol marketing near campus.
- Normative reeducation addresses misperceptions about peer substance use through social norms campaigns that communicate actual (typically lower) use rates. Students often overestimate peer substance use, and correcting these misperceptions can reduce use.
- Skills-based education teaches refusal skills, decision-making, stress management, and alternative coping strategies. Education should be interactive and acknowledge the real pressures students face.
- Policy development and enforcement includes clear policies regarding substance use, consistent enforcement, and emphasis on treatment rather than purely punitive responses. Policies should balance accountability with compassion and recognition that substance use often reflects underlying struggles.
- Screening and brief intervention programs can identify students with emerging substance problems before they become severe. Training healthcare providers, counselors, and even faculty advisors to conduct brief screening and provide motivational feedback can facilitate early intervention (Vest et al., 2021).
- Treatment services for students with substance use disorders are often severely limited. Institutions should develop partnerships with specialized treatment providers, establish referral pathways, and consider implementing on-campus recovery support services.

Recovery support could include:

- Collegiate recovery programs providing community, support, and resources for students in recovery (Vest et al., 2021)
- Substance-free housing options where students in recovery can live in supportive environments
- Peer recovery support training students in recovery to support others
- Integration with academic support recognizing that students in recovery may need academic accommodations

7.6. Academic Support and Success Initiatives

Comprehensive academic support services are essential for first-generation student success:

- **Tutoring programs** in high-risk courses, utilizing peer tutors and embedded tutoring models
- **Writing centers** providing individualized feedback on academic writing
- **Supplemental instruction** offering structured group study sessions led by successful students
- **Academic skills workshops** teaching note-taking, test preparation, time management, and learning strategies
- **Summer bridge programs** for incoming first-generation students, providing intensive academic preparation before the regular term begins
- **Faculty development** should educate faculty about first-generation student experiences, challenges, and needs. Training can help faculty recognize struggling students, make appropriate referrals, create inclusive classroom environments, and serve as effective mentors. Faculty should understand that asking for help is difficult for many first-generation students and should proactively offer support.

7.7. Financial Support Strategies

- **Targeted scholarships for first-generation students** can reduce financial stress while signaling institutional commitment to these students' success. Even modest scholarship amounts can significantly impact student wellbeing by reducing work hours or providing emergency funds.
- **Emergency assistance funds** should be established to help students facing unexpected financial crises that threaten their ability to continue enrollment. Rapid-response grants for emergencies (medical needs, family crises, unexpected fees) can prevent situations that would otherwise force withdrawal.
- **Financial literacy education** helps students manage limited resources effectively, avoid debt traps, and plan for long-term financial wellbeing. Programming should address budgeting, banking, avoiding predatory lending, understanding student loans, and financial planning.
- **Work-study and on-campus employment** provides income while keeping students connected to campus. Priority in work-study placement should be given to first-generation students with financial need.

7.8. Policy and Systems-Level Changes

Institutional policy development should prioritize first-generation student success through:

- Collecting and analyzing data on first-generation student outcomes to identify disparities and evaluate interventions
- Establishing specific goals for first-generation student retention, graduation rates, and wellbeing indicators
- Allocating resources specifically for first-generation student support
- Creating accountability mechanisms and regular assessment of progress

Cross-sector collaboration can leverage resources beyond individual institutions:

- Partnerships with local mental health providers for expanded treatment capacity
- Collaboration with community organizations serving youth and families
- Engagement with government agencies addressing substance abuse and mental health
- Inter-institutional partnerships for resource-sharing and collaborative programming

National and international policy advocacy is needed to address systemic barriers. Higher education leaders should advocate for:

- Increased government investment in higher education and student support services
- Mental health parity in insurance coverage
- Substance abuse prevention and treatment funding
- Recognition of first-generation students as a priority population in educational policy
- Research funding to better understand first-generation student needs across diverse contexts

Table 5 Implementation Framework for First-Generation Student Support

Intervention Level	Target Population	Key Interventions	Expected Outcomes	Timeline
Universal Prevention (All Students)	Entire student body	Mental health literacy campaigns; Substance abuse prevention; Wellness programming; Stress management workshops	Increased awareness; Reduced stigma; Enhanced coping skills; Prevention of problems	Immediate/Ongoing
Selective Prevention (At-Risk Groups)	First-generation students, low-income students, students in high-stress programs	First-generation student programs; Enhanced academic advising; Financial support; Peer mentoring; Family engagement	Improved retention; Better academic outcomes; Enhanced wellbeing; Stronger support networks	Short-term (1-2 years)
Indicated Prevention (Early Warning Signs)	Students with emerging mental health or substance use concerns	Screening and brief intervention; Early counseling; Academic support; Case management	Problem resolution before escalation; Prevention of academic impact; Reduced need for intensive treatment	Medium-term (2-3 years)
Treatment (Significant Problems)	Students with diagnosable mental health or substance use disorders	Expanded counseling services; Group therapy; Substance use treatment; Crisis intervention; Academic accommodations; Recovery support	Symptom reduction; Continued enrollment; Academic progress; Recovery and wellbeing	Medium to Long-term (2-5 years)
Systems/Infrastructure	Institution-wide	Policy development; Service expansion; Training programs; Data systems; Partnerships; Resource allocation	Sustainable support systems; Improved institutional capacity; Evidence-based practice; Accountability	Long-term (3-5+ years)

8. Challenges to Implementation

8.1. Resource Constraints

The most significant challenge to implementing comprehensive support for first-generation students is limited financial and human resources. Many universities face chronic underfunding, with inadequate budgets for basic operations, let alone expansion of support services (Fadele & Afolabi, 2024). Mental health staffing is particularly limited, with

counselor-to-student ratios far exceeding recommended standards in many institutions. Implementing comprehensive recommendations requires creative resource mobilization, prioritization, and efficiency strategies.

8.2. Stigma and Cultural Barriers

Mental health stigma remains powerful across many societies, creating barriers to help-seeking even when services are available (World Health Organization, 2022). Students fear judgment, discrimination, or being labeled negatively if they acknowledge mental health problems. Families may discourage mental health treatment, viewing psychological problems as spiritual issues or signs of weakness. Overcoming stigma requires sustained public education, engagement of cultural and religious leaders, and careful messaging that resonates with diverse values.

8.3. Limited Mental Health Infrastructure

Beyond institutional resources, broader societal mental health systems face critical limitations in many contexts, including severe workforce shortages, inadequate facilities, limited insurance coverage, and fragmented service delivery (Fadele & Afolabi, 2024; World Health Organization, 2022). This means institutions cannot simply refer students to community providers, as such providers may not exist or may be inaccessible. Institutions must either develop internal capacity or create innovative partnerships to address this gap.

8.4. Data and Evidence Gaps

Research specifically examining first-generation students in diverse cultural and geographic contexts remains limited, creating evidence gaps about the magnitude of problems, specific risk and protective factors in different contexts, and effectiveness of interventions. Implementing interventions often requires adaptation from evidence developed in different contexts, with careful evaluation to determine whether approaches are effective locally.

8.5. Competing Institutional Priorities

Administrators face multiple competing demands, and student mental health and substance abuse may not be viewed as priorities compared to academic quality, physical infrastructure, research productivity, or fiscal sustainability. Advocacy is needed to elevate these issues on institutional agendas, demonstrating that student wellbeing is foundational to academic success and institutional mission.

8.6. Defining and Identifying First-Generation Students

Definitional inconsistencies across institutions and nations create challenges for research, policy, and programming. Some definitions focus on whether parents attended any university, while others specify degree completion. Some include students whose parents attended university in other countries. These definitional variations affect who is identified as first-generation and served by targeted programs.

8.7. Sustainability of Interventions

Many support programs begin with grant funding or special initiatives but lack sustainable funding for continuation. Creating lasting change requires embedding support for first-generation students into institutional budgets and structures rather than relying on temporary funding.

9. Implications for Student Development Theory and Practice

9.1. Reconceptualizing Student Development

Traditional student development theories often assume students enter university with certain forms of capital—cultural, social, and economic—that may not reflect first-generation students' realities. Theories of identity development, psychosocial development, and cognitive development must be reconsidered in light of first-generation students' unique experiences.

- **Cultural capital deficits** should be reframed not as student deficiencies but as institutional failures to provide accessible information and support. Rather than expecting students to arrive with knowledge of university systems, institutions must actively teach this knowledge.

- **Multiple identities and identity conflict** characterize many first-generation students who navigate between home and university cultures. Student development practice must recognize and support this navigation rather than expecting assimilation to dominant university culture.
- **Non-linear development pathways** may characterize first-generation students whose development is shaped by financial interruptions, family obligations, and other factors that continuing-generation students may not experience. Traditional stage-based theories may not adequately describe these experiences.

9.2. Implications for Student Affairs Administration

- **Organizational structure** should explicitly include first-generation student support in student affairs portfolios. Whether through dedicated offices or embedded responsibilities across departments, institutions must clearly assign accountability for first-generation student success.
- **Professional development** for student affairs staff should include training on first-generation student experiences, challenges, and effective support strategies. All staff who interact with students should understand the unique needs of this population.
- **Assessment and accountability** systems should track first-generation student outcomes separately, identifying disparities and evaluating the effectiveness of interventions. Data should drive continuous improvement in programs and services.
- **Collaboration across divisions** is essential, as first-generation student success requires coordination among academic affairs, student affairs, enrollment management, and finance. Silos must be broken down to create comprehensive support.

9.3. Leadership Responsibilities

- **Higher education leadership** at all levels—department chairs, deans, vice presidents, presidents—must prioritize first-generation student success. This includes:
- **Articulating vision and values** that explicitly commit to first-generation student success and equity
- **Allocating resources** to support programs and services for first-generation students
- **Creating accountability** through inclusion of first-generation student success metrics in strategic plans and leadership evaluation
- **Modeling inclusive practices** in interactions with students, faculty, and staff
- **Advocating externally** for policies and funding that support first-generation students

10. Future Research Directions

Future research must address critical gaps in understanding first-generation students' mental health and substance use experiences across diverse contexts. More research is needed examining first-generation students in Latin America, Asia, Africa, and the Middle East, as most published research originates from high-income English-speaking nations. Comparative international studies could identify universal patterns while illuminating context-specific factors shaped by educational systems, cultural values, economic conditions, and mental health infrastructure. Research examining intersectionality—how first-generation status interacts with race/ethnicity, gender, sexual orientation, disability, religion, and immigration status—would reveal unique patterns of risk and resilience not captured by examining first-generation status alone. Longitudinal research following students from entry through graduation and into post-graduate outcomes would illuminate developmental trajectories, identify critical intervention points, and reveal long-term impacts of university experiences. Rigorous evaluation of intervention effectiveness through randomized controlled trials, quasi-experimental designs, and careful program evaluation would strengthen the evidence base for practice. Research on protective factors and resilience processes, family systems and dynamics, technology and social media influences, and long-term impacts of the COVID-19 pandemic would further inform understanding and guide evidence-based interventions tailored to first-generation students' unique needs and strengths.

11. Conclusion

First-generation students in higher education face substantial challenges related to mental health and substance abuse. These students navigate academic environments without the benefit of familial guidance about university systems and culture, often while experiencing financial stress, academic preparation gaps, and social integration difficulties. The

confluence of these risk factors creates vulnerability to mental health problems including depression, anxiety, and stress-related disorders, as well as substance use as a maladaptive coping mechanism.

The evidence synthesized in this literature review reveals concerning patterns across diverse contexts. Research consistently documents elevated mental health challenges among first-generation students compared to continuing-generation peers (Lipson et al., 2023; Wang & Shah, 2022; Smith et al., 2023). Studies from multiple world regions demonstrate high rates of both mental health problems and substance use among university students generally, with first-generation students facing unique additional vulnerabilities (Ajayi & Oladipo, 2020; Aguocha & Okafor, 2021; Obilade et al., 2024; Mekonnen et al., 2024).

However, this review also highlights substantial protective factors and resilience among first-generation students. These students possess remarkable determination, strong academic motivation, and cultural strengths that can buffer against adversity. With appropriate support, first-generation students not only survive university but thrive, going on to successful careers and serving as role models for their communities.

Addressing the mental health and substance abuse challenges facing first-generation students requires comprehensive, multi-level interventions operating across ecological levels. Universal prevention programs can increase awareness and promote healthy coping strategies for all students. Targeted support programs specifically designed for first-generation students can address their unique needs and strengthen protective factors. Enhanced mental health and substance abuse services can provide treatment for students experiencing significant problems. Systems-level changes in policy, resource allocation, and institutional culture can create environments that support rather than undermine first-generation student success.

Implementation will require overcoming substantial challenges including resource constraints, stigma, limited mental health infrastructure, and competing institutional priorities. However, the cost of inaction—in terms of human potential lost, families disappointed, and societal development hindered—far exceeds the investment required to provide appropriate support.

The success of first-generation students is not only a matter of individual wellbeing but also a critical issue of educational equity and social justice. These students often represent their families' and communities' hopes for social mobility and improved life circumstances. Supporting their mental health and preventing substance abuse is essential to honoring those hopes and ensuring that higher education serves as a pathway to opportunity rather than a source of overwhelming stress and struggle.

For student affairs professionals and higher education leaders, supporting first-generation students must be recognized as a core institutional responsibility. This requires moving beyond token acknowledgment of diversity to substantive investment in programs, services, and policies that address the unique challenges these students face. It requires data-driven assessment of first-generation student outcomes, accountability for improving those outcomes, and continuous refinement of approaches based on evidence.

Ultimately, the goal is not simply to help first-generation students survive university, but to enable them to thrive—to experience the intellectual growth, personal development, and career preparation that higher education should provide to all students. Achieving this goal requires sustained commitment, adequate resources, evidence-based practice, and genuine institutional prioritization of equity and student success.

The research synthesized in this review provides a foundation for action. The evidence clearly documents both the challenges facing first-generation students and the protective factors that can be strengthened. The pathways forward are known, even if implementation remains challenging. What is required now is the institutional will and societal commitment to translate knowledge into action, ensuring that all students, regardless of whether their parents attended university, have the opportunity to succeed in higher education and beyond.

Compliance with ethical standards

Disclosure of conflict of interest

There's no conflict of interest between the authors.

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