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Mental Health and Substance Use Challenges among Emerging Adults in Coastal Kenya

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Abstract
Globally, emerging adults (EAs) aged 18–29 face a disproportionate burden of substance use and mental health challenges, with particularly acute impacts in sub-Saharan Africa. In Kenya's coastal region, high rates of cannabis, khat, alcohol, cigarettes, and heroin use among EAs intersect with limited mental health awareness, stigma, and restricted access to care. This developmental stage—characterised by identity formation, educational transitions, and economic instability—heightens vulnerability to mental disorders and maladaptive coping. This qualitative study examined mental health challenges, psychological problems, and maladaptive coping mechanisms among EAs with substance use disorders (SUDs) in coastal Kenya. Nine focus group discussions (FGDs) were conducted with 88 participants recruited from treatment facilities across Mombasa, Kilifi, and Kwale counties. Data were collected using a semi-structured guide, transcribed, translated, and thematically analysed using NVivo 11. Findings revealed significant mental health challenges, mainly depression and anxiety; key psychosocial problems, including poor educational and occupational outcomes, dysfunctional relationships, and maladaptive coping strategies. These interconnected issues hurt treatment outcomes for this population. A key limitation of the study is the exclusion of non-treatment-seeking individuals, which may limit generalizability. Stakeholders should prioritise the integration of WHO's PM+/PM+A and evidence-based CBT approaches to expand culturally responsive, community-based mental health care. While the study focused on treatment-seeking individuals, future research should include non-treatment-seeking EAs and explore gendered experiences to inform inclusive interventions.

Introduction

Mental illness and substance use disorders (SUDs) are leading contributors to the global burden of disease, particularly affecting individuals aged 15–49—the demographic most vulnerable to self-harm, interpersonal violence, and drug-related morbidity (Jia et al., 2025). According to the World Health Organisation, mental health needs remain critically unmet worldwide, with emerging adults facing increasing psychosocial problems, limited access to care, and greater exposure to maladaptive coping strategies such as substance use (Sturgeon, 2006).

Substance use among emerging adults (18–29 years) is an escalating public health concern across both high-income countries, such as the U.S. and Canada, and regions like sub-Saharan Africa (Lo, 2022). The World Drug Report identifies alcohol as the most used substance among this demographic, followed by tobacco, cannabis, and opioids (UNODC, 2020). In sub-Saharan Africa (SSA), these trends

are compounded by systemic challenges, including poverty, stigma, under-resourced health systems, and sociocultural barriers to mental health care. Despite growing recognition of mental health as a public health priority, SSA continues to face significant gaps in service delivery and data, especially concerning youth populations (Yu et al., 2025).

Emerging adults (EAs) in SSA often navigate transitional life stages characterised by identity exploration, economic instability, and social pressures—factors that increase vulnerability to mental disorders and substance use (Wangari, 2024). Kenya reflects these regional patterns. Studies report high prevalence of depression, anxiety, and substance use among young adults, particularly in urban and peri-urban coastal counties such as Mombasa and Kwale (Mwangala, 2025). According to NACADA, cannabis, khat, alcohol, cigarettes, and heroin are widely used among youth, with emerging trends indicating increased polydrug use and earlier initiation (NACADA, 2023).

The availability of drugs and limited mental health infrastructure in coastal Kenya further compound risks for EAs, who face environments that facilitate drug access and limit care options (Musyoka et al., 2022). Additional factors—such as unemployment, exposure to violence, food insecurity, and lack of psychosocial support—have also been identified as drivers of psychological distress and maladaptive coping (Mwangala et al., 2025).

However, locally grounded research that contextualises these intersecting challenges remains scarce. This study addresses this gap by examining the mental health challenges, psychosocial problems, and maladaptive coping mechanisms among EAs with SUDs at the Kenyan Coast, contributing to the evidence base for culturally responsive prevention and treatment strategies.

Theoretical Framework

The biopsychosocial model, initially proposed by Engel (1977), offers a comprehensive framework for understanding the multifaceted nature of substance use and its associated challenges. This model posits that health and illness arise from dynamic interactions among biological, psychological, and social factors, rather than being solely the result of biological pathology (Engel, 1977; Borrell-Carrió et al., 2004).

In the context of emerging adults in coastal Kenya, this model is particularly relevant. Biological factors may include genetic predisposition, neurodevelopmental vulnerabilities, and the direct effects of substances on brain function (Volkow et al., 2016). Psychological components encompass mental disorders such as depression and anxiety, learning difficulties, low self-esteem, poor self-care attitudes, and emotional overwhelm. In addition to these, social factors—such as strained relationships, family conflict, socio-economic hardship, and exposure to culturally normative substance use—further compound the risk landscape (Ndetei et al., 2006; Musyoka et al., 2022).

Applying the biopsychosocial model allows for a holistic understanding of how substance use interacts with mental health challenges and maladaptive coping mechanisms. It also provides a foundation for integrating intervention strategies that address biological vulnerabilities, strengthen psychological resilience, and enhance social support systems. This approach is especially pertinent in resource-constrained settings like coastal Kenya, where the convergence of these vulnerabilities is acute, and effective interventions must be contextually adapted (Borrell-Carrió et al., 2004; Musyoka et al., 2022).

Method

Study design

This study is part of a larger study that explores the comorbidity of mental disorders and substance use among emerging adults. This cross-sectional study used a convergent parallel mixed method. The current study used a qualitative approach.

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Study Site

This study was conducted in Mombasa, Kilifi, and Kwale counties in coastal Kenya. Data collection took place in Medically Assisted Therapy (MAT) clinics, drug treatment centres, and drop-in centres. The MAT clinics are government-run facilities providing pharmacological and psychosocial support for individuals with substance use disorders. At the same time, the drop-in and rehabilitation centres are privately operated and offer a range of services, including harm reduction, counselling, and rehabilitation.

Mombasa County is Kenya's smallest county, covering 229.9 km², with an estimated population of 1.2 million (KNBS, 2019). It is a significant economic hub—second only to Nairobi—where tourism constitutes approximately 68% of formal employment (CJGEA-Kenya, 2015). Kilifi County, by contrast, is significantly larger, spanning 12,370.8 km², and has a population of 1,453,787, with a relatively youthful demographic profile (KNBS, 2019). Kwale County covers 8,270.2 km² and has a population of approximately 858,748 (KNBS, 2019).

These counties were selected due to their high reported prevalence of substance use, particularly among youth, as well as their varying access to treatment infrastructure. The inclusion of both urban (Mombasa) and more rural (Kilifi and Kwale) settings allows for a broader understanding of the contextual factors influencing substance use and treatment experiences in coastal Kenya.

Study Participants

The study involved three primary groups of participants. First, we recruited emerging adults (EAs) aged 18–29 years who use drugs. Second, we included caregivers of EAs, defined as individuals closely involved in their lives during periods of active substance use. These included parents, spouses, siblings, or other family members who had lived with or provided care for the EA.

Third, we engaged service providers working in substance use treatment settings. These included addiction counsellors, psychologists, social workers, clinicians, nurses, pharmaceutical technologists, laboratory technologists, and outreach workers. To be eligible, service providers were required to have worked in their respective facilities for a minimum of 12 months before recruitment.

Sample size and sampling strategy

Study participants were recruited from MAT clinics, drop-in centres, and substance use rehabilitation centres across Mombasa, Kilifi, and Kwale counties. A total of nine focus group discussions (FGDs) were conducted, involving 88 participants. In each county, three FGDs were held—one each with caregivers, service providers, and emerging adults —ensuring equal distribution across study sites.

To obtain rich, diverse perspectives from well-informed individuals, purposive sampling was employed. This strategy was appropriate for the qualitative design, as it allowed for the selection of participants with direct experience and knowledge of substance use and mental health challenges in their respective contexts.

Data collection procedures

Focus group discussions were conducted at three drop-in centres and four government-run MAT clinics across Mombasa, Kwale, and Kilifi counties. The FGDs lasted approximately 60 to 100 minutes and were audio-recorded. The first author facilitated all FGDs, supported by two trained research assistants (RAs) responsible for note-taking and recording. The RAs had prior experience and training in qualitative interviewing techniques.

Interviews were conducted in Kiswahili and English, often using a combination of both languages to accommodate participant preferences. To protect confidentiality and ensure anonymity, each participant was assigned a unique identifier used throughout the discussions.

A bilingual semi-structured interview guide in English and Kiswahili was developed to explore participants' perceptions of mental health challenges, psychosocial problems, and coping mechanisms among EAs with SUDs. The guide included a demographic section capturing sex, age, education level, marital status, and occupation. Its content was informed by a review of relevant literature and consultation with experts in substance use prevention, treatment, and mental health practitioners with over five years of relevant experience.

The first author carried out all the FGDs, which lasted around 60 to 100 minutes and were audio recorded, assisted by two trained research assistants (RAs) in note-taking and recording. The two RAs had prior experience and training in qualitative interviews. The FGDs took place at the three drop-in centres and four government-run MAT clinics in Mombasa, Kwale and Kilifi counties. Interviews were conducted in two national languages, Kiswahili and English and sometimes a combination of the two. Each participant was assigned a number to be used during the FGD instead of their name to protect their confidentiality and ensure anonymity of the participants. We developed an English and Kiswahili language semi-structured interview guide to explore participants' perceived mental health challenges, psychosocial problems and coping mechanisms for EAs with SUD. The guide had a demographic section that captured sex, age, level of education, marital status, and occupation. The interview guide was informed by a review of relevant literature and consultation with experts in substance use prevention and treatment, and mental health practitioners with relevant experiences of more than five years.

Data Analysis
Thematic analysis was selected as the appropriate method for describing, analysing, and reporting patterns within the qualitative data (Braun & Clarke, 2006). Following their step-by-step procedure, the first author (SAT) led the analysis, beginning with familiarisation through transcription, translation, and repeated reading of the data, during which initial interpretive notes were made. The coding process was inductive, with initial codes generated systematically from the data. Relevant data segments were collated under each code. With guidance from co-authors (NJ and CS), these codes were reviewed and organised into overarching themes and sub-themes. The process of refining and finalising themes was iterative and collaborative. All analysis was conducted using NVivo 11 software.

Ethical Approval
Ethical approval for this study was obtained from the Institutional Ethics and Research Committee (IERC) of United States International University – Africa (USIU-A), approval number USIU-A/IERC/US127-2024. Additionally, a research permit was granted by the National Commission for Science, Technology and Innovation (NACOSTI), License No. NACOSTI/P/24/38249. Before participation, all participants were provided with written informed consent forms, which were explained thoroughly, and any questions were addressed before obtaining their voluntary consent.

Results
The data analysis identified several key themes related to the mental health challenges, psychosocial problems, and coping mechanisms of EAs with SUD. These themes were broadly categorised into three areas: mental health challenges, psychosocial problems, and maladaptive coping mechanisms. Before discussing these in detail, the socio-demographic characteristics of the participants are presented.

Participant characteristics
Table 1 presents the socio-demographic characteristics of the 88 study participants. The gender distribution was nearly balanced with 51% male and 49% female. Most were aged 25–34 years (50%) and married (56%). Educational levels ranged from no formal education to bachelor's degrees, with

the majority having completed primary or secondary education. Nearly half were employed (48%), while others were unemployed (27%) or self-employed (25%). The relatively high employment rate reflects the inclusion of health service providers in the sample.

Table 1: Socio-Demographic Characteristics of the Participants (N = 88)

Characteristic	Frequency (n)	Percentage (%)
Gender	Male: 45	51%
	Female: 43	49%
Age Group	18 – 24: 12	14%
	25 – 34: 44	50%
	35 – 44: 14	16%
	45 – 54: 10	11%
	55+: 8	9%
Marital Status	Single: 34	39%
	Married: 49	56%
	Divorced:3	3%
	Widowed: 2	2%
Educational Level	No Education: 5	6%
	Primary Level: 29	33%
	Secondary Level: 23	26%
	Certificate Level: 2	2%
	Diploma Level: 21	24%
	Bachelor's Level: 8	9%
Occupation Level	Unemployed: 24	27%
	Employed: 42	48%
	Self-employed: 22	25%

Mental Health Challenges

This theme emerged as one of the key concerns shared by the participants during the FGDs. Most of the participants reported comorbid mental disorders among EAs with SUD who experience stress, poor self-care, anxiety and depression. These effects limit their functional abilities and also impact their family members, causing psychological trauma.

> *"Changaa causes mental illness among our age groups, and it is available for twenty shillings, fifteen shillings, ten, which that many of our brothers have been addicted. It leads to shaking of the body, aggression, poor hygiene, relationship conflict and violent behaviour, including stealing"* (Kilifi FGD Emerging Adults P7).

> *"People often turn to using alcohol to solve the depression that they're experiencing, but instead, they end up being more depressed. From mild depression to severe depression. there's a strong link relationship between depression and the substances"* (Kilifi FGD SP P3)

> *"The mental health problem mostly has to do with anxiety, psychosis, schizophrenia, depression, insomnia, all that comes with the drug use and then on the economic part"* (Mombasa FGD SP P1).

Several participants highlighted poor self-care practices, neglecting self-hygiene. This behaviour was partly linked to a belief held by some users that bathing diminishes the drug's potency by causing it to "evaporate," leading them to avoid bathing to prolong its effects.

> *"Because there are certain drugs like heroin, when you take a shower, all the drugs will be evaporated, and you will not feel it in your brain, and you want it to remain in your brain. So, you will not be bathing, and due to not being clean, it will make people isolate you because every time you are dirty, and no one will want to be closer to you"* (Mombasa FGD Emerging Adults P8).

Educational Challenges

Education was identified as a key area negatively affected by mental health challenges and substance use among emerging adults. Participants described issues such as truancy, poor concentration, classroom fatigue, declining academic performance, and school dropout—all of which hinder future opportunities. The section below presents supporting quotes that illustrate the theme.

> *"Most of them start using drugs when they are younger, like 15 years, which affects their education. Even if they finish form 4, they will fail because they focused on drugs, and that will be the end of their education." (*Kwale FGD Service Providers P4).

> *"…. these are people who cannot progress because first, they cannot continue with school, so they will drop out, they can't get employed and remain stagnant in society"* (Mombasa Service Providers FGD P1).

> *"I scored 314 KCPE, but drugs ruined my focus. I couldn't understand anything in class and eventually I found school to be useless and bhang to be very important. You are sleeping when the teacher is teaching, you will drop your performance"* (Mombasa FGD Emerging Adults P8).

Impact on Work Performance

Reduced work performance was a recurring theme across interviews, often linked to co-occurring depression and anxiety among emerging adults with substance use disorders. Participants described absenteeism, fatigue, and behavioural issues that led to job loss and unemployment.

> *"These drugs have greatly affected our brothers. They start with low doses, they work well, but eventually they increase their dosage, they fail to perform their duties and start messing up with their work, and they get fired"* (FGD Kwale service providers P9).

Caregivers observed that addiction leads to disengagement from work, with some youth turning to stealing instead of employment:

> *"Our children have become too lazy to work. They prefer stealing to working, because most of the youth have been addicted to drugs… fishermen are unable to even go fishing anymore"* **(**FGD KIilifi Caregiver P2).

> *"They fall asleep at work, can't perform, so they don't continue in employment. They are not on good terms with their families, so that's how they end up being depressed, rather than saying heroin itself is causing them depression"* (Kilifi FGD Service Providers P11).

In some of the discussions, parents shared frustrations over repeated failed attempts to help their children maintain jobs:

> *"I sent my son to Qatar and Saudi Arabia, but he couldn't keep a job even for seven months. The employers are saying he is not capable of working"* (FGD Mombasa Caregiver P4)

Sexual Dysfunction

Participants reported that both prolonged drug use and withdrawal can lead to sexual dysfunction, including reduced libido and performance issues. These challenges often contribute to depression and strained relationships. The quotes below illustrate more details.

> *"When you stop using heroin you it kills your sexual desire with a woman… so it will force me to go back into heroin use so that I can function again with my partner"* (Kilifi FGD Emerging Adults P6).

> *"Muguka impacts your mental health. It affects your sexual performance, leading to short erections and quick release…it doesn't last, different from those who don't use it"* (Kwale FGD Emerging Adults P12).

Dysfunctional Families

Relationship strain and conflict leading to dysfunctional families emerged as a key theme with sub-themes including alienation from family, quarrelling with family members and in some extreme cases, domestic violence.

The participants noted that sometimes family members were threatened with being killed by their relatives who use substances.

> *"He is violent, you can't correct him…he even threatens to kill you. As a parent, you are afraid."* (Kwale FGD Caregiver P2).

> *"The family members of addicts go through a lot of traumas… we had an experience of a client overdosed, then when we communicated with the family, they told us that they want him dead, please bring us his body, not him alive. So, you can imagine the exhaustion." (*Kilifi FDG Service Providers P2).

Violence and mistrust were common, with some caregivers reporting physical fights and destruction of property during withdrawal episodes.

> *"My brother accused me of being a witch for warning him against using tablets called C and shashaman (cannabis). He breaks kitchenware when he is experiencing withdrawal symptoms. He is ruthless,"* (Kilifi FGD Caregiver P2).

Parental disagreements over how to handle children who use drugs further destabilised households. In the example below, the parents keep disagreeing because one parent is perceived to protect the child who is using drugs.

> *"Parents' conflict is common, the father often protects the son who uses drugs, while the mother resents them for using drugs and stealing, such as a jewellery ring or chain. When reported to, he responds if you feel you're not content here anymore, just leave, and I will look for another wife. So, the father is protecting the son. Sometimes, you'll find the mother is on his child's side. Ignoring the father and turning her back all night, denying him conjugal rights. It's a challenge we've experienced as parents. These issues destroy most of the marriages,"* (Kwale FGD Caregiver P6).

> *"The other children who do not use drugs end up suffering; it causes them a lot of trauma. Because most of the time the parents are fighting, affecting the child's wellbeing, including school performance.* "Kilifi FGD Service Providers P11.

Maladaptive Coping: Sex Work and Stealing

Economic hardship was a consistent theme across FGDs, pushing EAs who use drugs toward survival strategies like sex work and stealing. These coping mechanisms often led to stigma, violence, and health risks. This coping mechanism further exposed them to stigma, violence, and health risks.

> *"Women turn to sex work to sustain their drug use. They engage in puff–kende system. This is when you want to smoke one puff, you will have to offer yourself for one sexual act. So, one sexual act - one puff."* (Kwale FGD Service Providers P9).

> *"My body has weakened due to heroin…. so, I will need to have sex with a man, so I can get that quick money to go and heal my body. This is hurting us as young people because we are no longer able to do work and sustain ourselves, we have become weak"* (Kilifi FGD Emerging Adults P6).

> *"Users they've gone to the extent of stealing for them to sustain their daily drug use; they suffer a lot of violence, physical mob justice"* (Kilifi FGD Service Providers P5).

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Discussion

This study reveals that emerging adults (EAs) with substance use disorders (SUDs) in coastal Kenya face intertwined mental health and psychosocial challenges that fuel maladaptive coping strategies. While biological factors such as genetic predisposition were beyond the study's scope (Volkow et al., 2016), findings align with the biopsychosocial model, emphasizing psychological distress (e.g., depression, anxiety) and social stressors like family conflict, poverty, and exposure to substance use norms (Ndetei et al., 2006; Musyoka et al., 2022).

High rates of depression and anxiety among EAs with SUDs mirror regional and global trends (Jaguga et al., 2022; Onyango et al., 2023). For instance, over half of female injecting drug users in Nairobi reported moderate to severe depression (Anundo, 2019). The bidirectional link between substance use and mental health—where one exacerbates the other—is well documented (Hudson et al., 2018). Although causality cannot be inferred from this cross-sectional study, the findings underscore the urgent need for youth-friendly, integrated mental health services in Mombasa, Kilifi, and Kwale.

Educational and occupational disruptions were common, consistent with evidence that cannabis and other substances impair cognitive function and productivity (Dellazizzo et al., 2022; Rodríguez-Sáez et al., 2025). These setbacks often push EAs toward high-risk survival strategies like theft and sex work, increasing vulnerability to violence and health risks. Addressing these socio-economic drivers requires expanded access to education, vocational training, and employment support tailored to youth.

Participants frequently reported family conflict and marital problems. Dysfunctional family dynamics were linked to emotional distress, including anger and rage among substance-using EAs, as well as disagreements among family members regarding management approaches. Sexual dysfunction, a common issue among individuals with SUD (prevalence rates ranging from 15% to 100%) (Ghosh et al., 2022), was also reported as negatively impacting marital relationships. These findings suggest the need for comprehensive treatment plans that include systemic family and couple therapy, in addressing relational strain among individuals with SUDs as standalone or complementary treatments (Hogue et al., 2022).

Conclusions

This study underscores the complex link between substance use and mental health among emerging adults in coastal Kenya. Addressing these challenges requires a coordinated, culturally sensitive approach across health, education, and social sectors. Stakeholders—including government, civil society, and community leaders—should prioritise evidence-based interventions like WHO's PM+ and PM+A, which are effective in low-resource settings.

Integrating cognitive behavioural therapies (CBT) based approaches such as relapse prevention, community reinforcement approach (CRA), and behavioural couple therapy (BCT) into community and facility-based care systems can improve recovery outcomes and strengthen support systems. Sustainable impact depends on collaboration among policymakers, service providers, and researchers to promote mental health awareness, reduce stigma, and expand EAs-centred services.

Investment in locally grounded research that reflects the lived realities of EAs in coastal Kenya should be prioritised to ensure indigenous knowledge systems and practices are integrated into a more inclusive and resilient framework of support—one that empowers EAs to respond effectively to the challenges they face.

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