**Exploring Socio-Cultural and Economic Influences on Substance Use Among Youth in Tamale Metropolis: A Qualitative Study**

**Abstract**

**Background:** Substance use among youth is a pressing public health issue, especially in low- and middle-income countries where socio-economic instability and weakened traditional structures increase vulnerability. In Ghana, most studies focus on southern cities, with limited attention to northern regions like Tamale, where distinct cultural and economic factors may shape youth substance use.

**Objective:** This study explored the socio-cultural and economic influences on substance use among youth aged 15–24 in the Tamale Metropolis.

**Methods:** A qualitative exploratory design using phenomenological approaches was employed. Eighteen youth with current or past substance use were recruited through snowball sampling. Data were collected through in-depth interviews conducted in Dagbani, transcribed, translated, and analyzed thematically using Braun and Clarke’s six-phase framework in Dedoose. Rigor was ensured through member checking, peer debriefing, and intercoder reliability.

**Results:** Four themes emerged: socio-cultural influences, economic pressures, gender roles, and mental health. Peer pressure and social conformity were strong initial motivators, often reinforced by weakened traditional norms and limited elder oversight. Economic hardship, especially unemployment, drove substance use for emotional relief, while informal workers used drugs like tramadol to cope with physical demands. Gender dynamics revealed that males associated substance use with masculinity and peer respect, whereas females concealed use due to social stigma. Mental health challenges—including stress, anxiety, and grief—fueled substance use as a form of self-medication in a context with limited psychosocial support.

**Conclusion:** Youth substance use in Tamale is shaped by intersecting socio-cultural, economic, gendered, and psychological factors. Interventions should include mental health services, gender-responsive programming, economic empowerment, and community-based education, alongside engagement with traditional leaders to restore protective norms.

**Keywords:** Youth, Substance use, Socio-cultural factors, Economic challenges, Gender, Mental health, Tamale, Ghana, Qualitative research

**Introduction**

Substance use among youth has emerged as a critical global public health challenge, with the World Health Organization estimating that 10-20% of adolescents worldwide engage in hazardous substance use (1). This phenomenon disproportionately affects low- and middle-income countries where weak regulatory frameworks and limited healthcare infrastructure compound the problem (2). In sub-Saharan Africa, rapid urbanization and economic transitions have created risk environments where eroding traditional social structures intersect with modern stressors to increase youth vulnerability (3). The region has seen alarming rises in cannabis, alcohol, and non-medical use of prescription drugs like tramadol, particularly among urban male youth (4).

Ghana exemplifies these continental trends while demonstrating important regional variations. National studies indicate 20-30% of Ghanaian youth engage in regular substance use, primarily marijuana, alcohol, and tramadol(5,6). However, research has disproportionately focused on southern cities like Accra and Kumasi, leaving northern Ghana's distinct patterns understudied (7). This gap is particularly concerning given the region's unique socio-cultural context, including its predominantly Muslim population, ethnic traditions, and poverty rates exceeding national averages. The Tamale Metropolis, as northern Ghana's largest urban center, presents a critical case where rapid urbanization intersects with traditional values to create complex substance use dynamics(5).

Tamale's socio-cultural landscape mediates substance use in ways demanding localized investigation. The city's majority Dagomba population maintains extended family systems that traditionally discouraged substance use, yet these structures are weakening due to rural-urban migration and economic pressures (8). The growing informal economy has normalized stimulant use, with many youth consuming tramadol to endure long hours as motorbike taxi riders or market traders(9).Gendered patterns emerge distinctly - young men often use substances to demonstrate masculinity amid unemployment, while young women face pressures from changing gender norms and economic marginalization (10,11). These factors create a substance use ecology differing markedly from southern Ghanaian cities.

The mental health dimensions of this crisis warrant particular attention. Studies in similar West African settings show bidirectional relationships between psychological distress and substance use, where adolescents use drugs to cope with untreated anxiety or depression, while substance use exacerbates mental health symptoms(12). In Tamale, where mental health services are scarce and stigma remains high (13,14), this cycle may be especially severe. The normalization of substances within specific groups - like tramadol among drivers or alcohol at social gatherings - creates environments where prevention must navigate deeply embedded cultural practices (8).

The prevalence of substance use among adolescents in the Northern Region is influenced by various factors, including peer pressure, cultural norms, and socioeconomic challenges. For instance, a study assessing adolescent substance use in nine senior high schools in the Northern Region found that peer use of drugs, sexual activity, and the use of smartphones and social media were significant factors influencing substance use. Additionally, the availability of substances such as marijuana, tramadol, and alcohol mixed with other drugs has been reported in the Tamale Metropolis (8).

Understanding the socio-cultural and economic factors influencing substance use among youth in Tamale is crucial for developing effective intervention strategies. This study aims to explore these factors through qualitative methods, including focus group discussions with youth aged 15–24. By examining the lived experiences and perceptions of young people in Tamale, the research seeks to inform policies and programs aimed at reducing substance abuse and promoting the well-being of Ghanaian youth.

**Methods**

**Study setting**

The Tamale Metropolitan Assembly (TMA), established by legislative instrument L.I. 2068 in 2004, is one of Ghana's six metropolitan assemblies and the sole metropolis in the five northern regions. Centrally located in the Northern Region, Tamale serves as both the metropolitan and regional capital. The metropolis spans latitudes 9.16°–9.34° N and longitudes 0.36°–0.57° W, with an elevation of approximately 180 meters above sea level. Its terrain is predominantly rolling, interspersed with shallow valleys and isolated hills that do not impede development. Tamale shares boundaries with Savelugu Municipality to the north, Yendi Municipal Assembly to the east, Tolon District to the west, Central Gonja District to the southwest, and East Gonja Municipal to the south. According to the 2021 Population and Housing Census, the metropolis has a population of 374,744, comprising 185,051 males and 189,693 females.

**Study Design**

This study employed a qualitative exploratory design using phenomenological approaches to understand the lived experiences of youth regarding substance use in Tamale Metropolis. The methodology was selected to capture rich, contextual insights into socio-cultural and economic influences.

**Study Population**

The study population consists of youth (aged 15–24 years) in the Tamale Metropolis, Ghana, who have current or past experience with substance use.

**Inclusion and Exclusion Criteria**

Participants were youth aged 15–24 years living in the Tamale Metropolis with current or past experience of substance use, and able to give informed consent (or assent with guardian consent if under 18). Excluded were those outside the age range, non-residents, individuals without any substance use history, or those unable to consent.

**Sampling**

A total of 18 youth aged 15–24 years from the Tamale Metropolis participated in the study. The sample comprised 12 males and 6 females, selected to ensure diversity in gender and substance use experiences. Data collection continued until saturation was achieved—the point at which no new themes or insights emerged from additional interviews.

This study employed snowball sampling, a non-probability technique where initial participants recruit subsequent participants from their social networks. This method is particularly effective for accessing hard-to-reach or hidden populations, such as youth involved in substance use, who may be difficult to identify through traditional sampling methods. Snowball sampling facilitated access to this specific, often marginalized group, providing rich qualitative data that might have been challenging to obtain through other sampling methods.

**Data collection tools and techniques**

This study used In-Depth Interviews (IDIs) as the primary data collection tool to explore the socio-cultural and economic influences on substance use among youth in the Tamale Metropolis. Participants were selected through snowball sampling, where initial participants referred to others who met the inclusion criteria. Interviews were conducted one-on-one and lasted between 20 to 30 minutes. The interviews took place in private, quiet locations such as participants' homes or neutral spaces within the community, ensuring confidentiality and comfort. Before starting, participants were provided with detailed information about the study, and informed consent was obtained. For participants under 18 years, parental or guardian consent was also required. Participants were informed that the interviews would be audio-recorded, and explicit consent was obtained for this.

A semi-structured interview guide was used to facilitate the discussions, which included open-ended questions aimed at exploring socio-cultural influences, such as peer pressure and family dynamics, as well as economic factors, including the affordability and availability of substances. The interview guide was flexible, allowing the interviewer to delve deeper into specific topics that emerged during the conversation. The interviews were conducted in Dagbani, the local language, to ensure that participants were comfortable and could express themselves freely. Data collection was carried out by a trained research assistant, familiar with the local context and capable of building rapport with the youth participants. Interviews were audio-recorded using a digital voice recorder, and the recordings were transcribed verbatim for analysis.

**Data analysis**

The qualitative data were rigorously analyzed using Dedoose software following Braun and Clarke's six-phase thematic analysis framework to ensure systematic identification and interpretation of patterns. All interviews and focus group discussions were audio-recorded and transcribed verbatim by trained research assistants. For interviews conducted in Dagbani, professional translators performed translation and back-translation to ensure linguistic accuracy and conceptual equivalence between the original and translated transcripts.

The analytical process began with immersion and familiarization, where the research team repeatedly read through all transcripts and field notes to gain deep familiarity with the data. During the initial coding phase, three researchers independently conducted line-by-line open coding on a subset of transcripts using Dedoose's coding tools, identifying preliminary codes that captured key concepts. These codes were then compared and consolidated through team discussions to develop a preliminary codebook.

In the subsequent axial coding phase, the team used Dedoose's visualization tools to examine relationships between codes, grouping them into broader categories and identifying initial themes. Through iterative theme refinement, the research team held regular analytical meetings to review, define, and name themes, constantly comparing them against the raw data to ensure they accurately reflected participants' experiences. Peer debriefing sessions with two external qualitative researchers were conducted to challenge and validate the emerging thematic framework.

To enhance trustworthiness, member checking was performed by sharing preliminary findings with 5 participants for feedback and validation. Intercoder reliability was assessed on 20% of transcripts, achieving a Cohen's Kappa of 0.82, indicating strong agreement. Throughout the analysis, the team maintained reflexive journals in Dedoose to document analytical decisions and bracket researcher biases.

The final thematic framework was structured around the study's research questions, with each theme supported by representative quotes and linked to relevant socio-cultural and economic theories. Dedoose's memo and annotation tools were used to maintain an audit trail of all analytical decisions, ensuring methodological transparency. This rigorous approach balanced systematic analysis with flexibility to capture the nuanced experiences of Tamale's youth regarding substance use influences.

**Methodological rigor**

To ensure methodological rigor, the study followed key principles of trustworthiness—credibility, transferability, dependability, and confirmability—throughout the research process. Credibility was achieved through triangulation of responses, member checking with participants, and peer debriefing to minimize bias. Transferability was supported by detailed descriptions of the study setting, participant characteristics, and contextual factors, allowing others to assess the applicability of findings to different contexts. Dependability was maintained by keeping a clear audit trail of all research steps, while confirmability was strengthened by using direct quotes and keeping reflexive journals to manage researcher bias. Reflexivity was practiced consistently to acknowledge and address the researchers' positionality. Overall, these strategies ensured that the study findings were trustworthy, grounded in the data, and relevant for informing future interventions and policies.

**Ethical clearance**

The research adhered strictly to the principles outlined in the Declaration of Helsinki. Participants were fully informed about the purpose, nature, and voluntary nature of the study before data collection. Written informed consent was obtained from all participants, and for those under the age of 18, additional consent was secured from a parent or guardian. Interviews were conducted in private settings to ensure confidentiality, and participants were assured that their responses would remain anonymous. Permission was also obtained prior to audio recording, and all data were securely stored and used solely for academic purposes.

**Results**

**Socio-Demographic Characteristics**

The study involved 18 youth participants from Tamale Metropolis, with the majority being male (66.7%) and aged between 19–24 years (77.8%). Most participants completed Senior High School (50.0%), while a smaller number had tertiary education (22.2%). In terms of occupation, over half (55.6%) were engaged in informal sector jobs such as commercial riding and trading, which are known to be physically demanding. Students made up a third of the participants, and a few were unemployed. Regarding substance use patterns, tramadol was the most commonly reported substance (61.1%), followed by marijuana (50.0%) and alcohol (38.9%), with many participants indicating the use of more than one substance (Table 1).

Table 1. Socio-Demographic Characteristics of Participants (N = 18)

| Characteristic | Category | n | % |
| --- | --- | --- | --- |
| Sex | Male | 12 | 66.7 |
|  | Female | 6 | 33.3 |
| Age group (years) | 15–18 | 4 | 22.2 |
|  | 19–21 | 7 | 38.9 |
|  | 22–24 | 7 | 38.9 |
| Education level | Junior High School | 5 | 27.8 |
|  | Senior High School | 9 | 50.0 |
|  | Tertiary | 4 | 22.2 |
| Current occupation | Informal sector (riders, traders) | 10 | 55.6 |
|  | Student | 6 | 33.3 |
|  | Unemployed | 2 | 11.1 |
| The primary substance used | Tramadol | 11 | 61.1 |
|  | Marijuana | 9 | 50.0 |
|  | Alcohol | 7 | 38.9 |

*Note: Some participants reported using more than one substance.*

**Themes and Sub-Themes**

The study identified four main themes with associated sub-themes that explain the complex factors influencing substance use among youth in Tamale Metropolis. Socio-cultural influences, including peer pressure and the weakening of traditional norms, play a significant role in initiating drug use. Economic challenges, such as unemployment and the need for physical endurance in informal jobs, also drive substance use as a coping mechanism. Gender roles shape how males and females experience and express substance use, with males often engaging openly as a form of risk-taking and masculinity, while females tend to conceal use due to social stigma. Lastly, mental health challenges like stress, anxiety, and depression were strong motivators for using substances to manage emotional distress, highlighting the interplay between psychological well-being and substance use behavior (Table 2).

**Socio-Cultural Influences**

Socio‑cultural influences encompass the interplay of prevailing cultural norms, peer group dynamics, and the gradual decline of traditional authority that once guided youth behavior. In settings where older generations no longer enforce taboos and peer approval becomes paramount, adolescents navigate a shifting moral landscape that can normalize substance use. Participants vividly described feeling both compelled by friends and emboldened by the absence of elder sanctions. They spoke of dares at gatherings, teasing when refusing, and the gradual realization that once‑powerful curfews and family reprimands no longer held. In this way, peer conformity and the erosion of age-old deterrents converged to lower the barrier to first trying alcohol, cigarettes, or tramadol.

**Peer Pressure and Social Conformity**

Peer pressure and social conformity refer to the process by which adolescents adopt substance use behaviors—often for the first time—to secure acceptance, avoid ridicule, or enhance their status within a social circle. This dynamic is fueled by an adolescent’s strong desire for belonging in a context where group approval can outweigh personal reservations. Many youths recounted that a single act of teasing or a daring challenge was enough to push them past their initial hesitations. They felt excluded when they refused, and the relief or pride after “proving themselves” often reinforced continued use.

*“I was with my classmates by the football field when they passed around tramadol, insisting it would make me brave enough to speak in front of everyone. I hesitated but watched them nod and smile when I finally swallowed two pills. In that moment, I felt accepted.” (Male, 20)*

Their cheers lingered.

*“One Friday at the canteen, they laughed when I wouldn’t take a shot of gin. I sipped it quickly just to stop the teasing—and found the warmth comforting.” (Female, 18)*

But the teasing never stopped.

*“On afternoons, we’d gather by the school gate. They offered me cigarettes and joked I was too ‘clean.’ Eventually I lit up, just to prove I belonged.” (Male, 19)*

**Erosion of Traditional Norms**

Erosion of traditional norms describes the waning influence of family elders, community elders, and customary rules that historically restricted youth behaviors. As these protective structures collapse through rural-urban migration, generational gaps, or lack of enforcement, youth feel less constrained by fears of shame or reprisal.
Participants noted that rituals, curfews, and elder admonishments once served as clear signals that substance use was taboo. Today, those interventions are sporadic or nonexistent, creating a vacuum where younger generations chart their own moral boundaries.

*“In my village, elders used to gather us at sunset and warn against drinking. But when I moved here, I saw men older than my father drinking openly—no one stopped them, so I felt free to join.” (Female, 21)*

Authority had vanished.

*“Our community council dissolved last year. Since then, nobody cares if young people drink or smoke. I light my cigarette at home in front of everyone, and nobody bats an eye.” (Male, 22)*

*Tradition felt distant.*

*“My aunt once threatened me with chores if I ever drank. Last Eid, she poured me palm wine herself—and didn’t say a word.” (Female, 20)*

**Economic Pressures & Coping Mechanisms**

Economic pressures and coping mechanisms refer to how financial hardship—especially unemployment—and the need for physical endurance in informal labor push youth toward substance use. Drugs and alcohol become both an escape from emotional distress and a tool to sustain long, arduous workdays. Participants consistently linked periods of joblessness with increased substance use as a form of relief. Conversely, those engaged in back‑breaking work described substances as performance aids, helping them maintain the stamina required for daily survival.

**Unemployment and Financial Stress**

Unemployment and financial stress denote the emotional and psychological toll of lacking work, where substances—such as alcohol or marijuana—are used to dull feelings of despair, shame, or hopelessness that accompany prolonged joblessness. Youth spoke of empty days spent in worry, with substances offering a fleeting reprieve from constant self‑doubt. Drinking or smoking became a ritualistic balm against the ache of unfulfilled aspirations.

*“After I left secondary school, no employer would give me a chance. My days blurred into one another, heavy with anxiety. A friend offered me a joint, saying it would make me forget the silence. It worked, and I kept returning every time hope drained away.” (Male, 23)*

Pain gave way to haze.

*“The factory where my sister worked shut down and support vanished. I felt abandoned and took codeine each night just to quiet the racing thoughts in my head.” (Female, 19)*

Relief was momentary.

*“Sometimes I drink palm wine alone at dawn because sleep won’t come. It mutes the shame of having nothing.” (Male, 22)*

**Substance Use for Work Endurance**

Substance use for work endurance describes the intentional use of stimulants or mild narcotics (e.g., tramadol, palm wine) to enhance physical performance and stave off exhaustion during long, labor-intensive shifts in the informal economy. Market traders and motor‑taxi riders alike recounted bottles or pills as essential “tools of the trade,” enabling them to meet daily quotas and avoid the pain of overexertion.

*“I start riding my motorbike at dawn and don’t stop until dusk. Without tramadol, my legs would buckle under me. A single pill each morning lets me finish my rounds and still collect enough to eat.” (Male, 21)

“I carry baskets of yams in the midday heat. After my third sip of palm wine, I feel lighter, almost like I’m floating—and the work gets done.” (Female, 22)

“I once collapsed under my load. Next time, I took the tablet before sunrise—no collapse, and I sold everything before lunch.” (Male, 23)*

**Gender Roles & Expectations**

Gender roles and expectations encompass the cultural scripts that dictate “appropriate” behaviors for males and females. For boys, substance use can be a rite of passage signaling toughness; for girls, the same behaviors are stigmatized, driving them to conceal their use. Participants described a stark double standard: young men are lauded for bravado, while young women risk shame and isolation if their use becomes known. This dynamic shapes both the decision to use and the ways in which use is managed or hidden.

**Masculinity and Risk‑Taking**

Masculinity and risk‑taking refer to the societal norm that equates male virtue with fearlessness and resilience, leading young men to embrace substances as a means to demonstrate courage and earn peer respect. Males recounted how a single display of endurance—whether riding all day after taking a pill or downing a drink without flinching—elevated their status among peers.

*“In our neighborhood, showing pain is weakness. When I first took tramadol, I felt my head clear and my legs steady enough to face any challenge. The boys called me ‘solid man’ after that.” (Male, 24)

“At gatherings, they challenge you: ‘You can’t handle this whiskey.’ When I drank it straight, they cheered like I’d done something great.” (Male, 20)

“My father’s friends patted me on the back when I stayed up all night loading trucks. He later told me, ‘You’re a real man now.’” (Male, 23)*

**Femininity and Concealment**

Femininity and concealment describe the pressures on young women to adhere to ideals of modesty and propriety, which compel them to hide any substance use for fear of gossip, judgment, or moral condemnation. Female participants spoke of secret rituals—mixing spirits with juice, hiding smokes in everyday items—to avoid detection and the harsh labels society would attach to them.

*“Girls who drink are called ‘bad girl.’ I hide my gin in a cold‑drink bottle and sip behind closed doors so nobody sees the stain on my reputation.” (Female, 18)*

Secrecy prevailed.

*“I keep my cigarettes in my school bag in a wrapped cloth so even my closest cousins don’t find them.” (Female, 20)*

Trust was limited.

*“I only shared my tramadol use with my best friend. If my family ever knew, they would shame me and call me reckless.” (Female, 22)*

**Mental Health & Emotional Coping**

Mental health and emotional coping refer to the use of substances as self-medication for psychological distress, stress, anxiety, depression, or grief, particularly where formal support systems are lacking. In alignment with regional research highlighting the bidirectional link between mental health and youth substance use, participants described how substances offered temporary sanctuary from overwhelming emotions, whether exam-induced panic or deep personal sorrow.

**Stress and Anxiety Management**

Stress and anxiety management details the use of alcohol, tobacco, or mild narcotics to alleviate acute episodes of tension and worry, enabling brief periods of calm and focus. Students recounted how a small drink or smoke before study sessions or social events smoothed racing thoughts and improved concentration, at least temporarily.

*“Before my final exams, I’d lie awake with my heart pounding. One small beer in the evening slow down my breath and let me read without the panic.” (Male, 19)*

 *“Family fights make my mind spin all night. A quick cigarette in the back yard gives me five minutes of peace to think.” (Female, 17)*

 *“I found that after a puff, I could sit and memorize lines without my chest tightening.” (Male, 21)*

**Depression and Emotional Numbness**

Depression and emotional numbness describe chronic use of substances to dull persistent sadness, loneliness, or existential emptiness—often after traumatic life events—providing momentary relief but risking deeper dependence. Participants spoke of the “hole inside” that only codeine or spirits could fill, even if just for a few fleeting hours, illustrating a cycle of sorrow and temporary escape.

*“When my father died, grief became a weight I couldn’t lift. A tablet of codeine was the only thing that silenced the pain—if only until morning.” (Male, 22)*

 *“There are nights when I feel like my life has no meaning. Gin helps me forget that emptiness, though I always wake up with it waiting again.” (Female, 20)*

 *“Once, I drank until I couldn’t feel my own thoughts—but when the high ended, the emptiness hit harder.” (Male, 23)*

**Discussion**

This section interprets the study’s findings within the broader context of existing literature on youth substance use. By examining the socio-cultural, economic, gender-related, and mental health factors influencing substance use among young people in Tamale Metropolis, the discussion highlights both the consistencies and divergences with prior research. These insights offer a deeper understanding of the lived realities of Ghanaian youth and shed light on the structural and cultural dynamics that shape their substance use behaviors. The implications of these findings are discussed to inform future interventions, policy development, and public health strategies targeted at reducing substance abuse among youth in similar settings.

Youth overwhelmingly describe peer pressure and social conformity as the catalyst for first trying substances. Many recounted that dares and teasing by friends— “you’re boring if you don’t join us”—pushed them past initial resistance into alcohol, cigarettes, or tramadol use. This mirrors Kyei-Gyamfi et al.’s mixed‐methods survey of Ghanaian adolescents, which found that peers and household members were the primary sources of initiation for alcohol (56.9%) and cigarettes (26.4%)(6). Similarly, Darko and Glozah’s study of Accra high‐schoolers reported that students with drinking friends had a threefold higher likelihood of alcohol use (15). Even among street‐connected youth in Accra, Jemal et al. (16) documented peer groups as key enablers of both substance use and risky sexual behaviour. The consistency across settings underscores adolescents’ universal drive for belonging; interventions should therefore train peer leaders to model healthy choices and correct misperceptions of normative use.

Participants also noted the erosion of traditional norms, once powerful deterrents such as curfews and elder admonitions, creating moral vacuums where substance use becomes normalized. Salifu et al. (8) found that in Tamale, the decline of community‐enforced taboos corresponded with open tramadol and alcohol consumption among youth, often in the presence of elders who no longer objected. Banda et al.’s qualitative study of Malawian street children similarly highlighted how weakened family and community oversight lowers barriers to drug use(17). By contrast, research in Accra still observes stronger enforcement of family taboos, suggesting regional variation in how rapidly traditional controls weaken (16). These divergences likely stem from Tamale’s faster urbanization and migration patterns that fracture extended‐family networks. Revitalizing elder engagement—through community dialogues and mentorship programs—could restore protective cultural deterrents.

Economic hardship and financial stress emerged as potent drivers of substance use, with unemployed youths describing days heavy with anxiety and shame, soothed only by alcohol or marijuana. Darko and Glozah (15) reported that adolescents without work were twice as likely to engage in substance use as those employed, reflecting a search for emotional refuge. Kyei-Gyamfi et al. (6) similarly, linked joblessness to higher rates of both alcohol and recreational drug use among Ghanaian adolescents. In the Asokore Mampong municipality, patterns and social factors associated with non-prescription tramadol use also highlighted financial desperation as a key correlate(18). These consistent findings across urban and peri-urban settings suggest that economic empowerment, via vocational training and microcredit, should be integrated into substance use prevention to address these underlying stressors.

Conversely, substance use for work endurance reflects a functional dimension of drug use among those in physically demanding informal jobs. University students in Tamale reported using tramadol to sustain long study hours and market traders described palm wine as an essential “tool of the trade” to stave off exhaustion (19). The JHPN study in Asokore Mampong similarly observed tramadol use among youth in informal settlements as fatigue management (18). By contrast, southern Ghana research rarely cites occupational fatigue as a motivator (16), likely reflecting differences in local economies. These insights point to the need for occupational health interventions, such as regulating tramadol access, offering nonpharmacologic fatigue management training, and promoting work-rest standards in the informal sector.

Gender roles and expectations produced divergent patterns: young men described substance use as a rite of passage affirming masculinity, while young women concealed their use to avoid harsh social sanctions. In Accra, Adongo et al. (2024) found that urban adolescent girls hid tobacco use due to stigma, a pattern replicated in Tamale, where females smuggled gin in juice bottles (20). Ebrahim et al. (16) likewise reported that street‐connected girls hid substance use, fearing labels such as “bad child”. In contrast, male street youth were lauded for bravado after tramadol or alcohol, reflecting entrenched masculine norms (21).These gendered dynamics suggest the need for dual strategies: engaging boys in redefining healthy masculinities and creating confidential support networks that reduce stigma for young women.

Finally, mental health and emotional coping drive self-medication behaviors. Students spoke of exam panic and family conflicts only eased by a cigarette or small drink; those who’d lost loved ones described tramadol as the sole relief from overwhelming grief. Atorkey et al.(22) found that Ghanaian adolescents reporting depressive symptoms were 2.5 times more likely to use alcohol and tobacco for relief. Similarly, Banda et al., (17) documented high rates of anxiety‐related substance initiation among adolescents with poor coping skills. This consistency underscores a critical gap in accessible mental health support. Forward-looking programs must integrate school‑ and community-based mental health screening and counselling, ensuring that psychosocial services accompany substance use prevention to break cycles of self-medication and dependence.

This study's primary strength is its use of qualitative methods, particularly in-depth interviews, which enabled a detailed exploration of the lived experiences, motivations, and socio-cultural contexts shaping substance use among youth. The inclusion of participants across different age groups, genders, and occupational backgrounds enhanced the diversity and richness of the data, allowing for nuanced insights. Additionally, conducting interviews in the local language (Dagbani) helped establish rapport and improve data authenticity. However, the study has some limitations. The snowball sampling technique, while effective in accessing hard-to-reach participants, may have introduced selection bias, limiting the generalizability of findings. Furthermore, reliance on self-reported data may have led to underreporting or exaggeration due to stigma or social desirability, particularly around sensitive topics like drug use. Despite these weaknesses, the study provides valuable, context-specific insights that can inform tailored intervention strategies.

**Conclusion**

This study examined the socio-cultural and economic factors influencing substance use among youth in the Tamale Metropolis. It found that peer pressure, weakened traditional norms, unemployment, gender expectations, and mental health issues all contribute to substance use among youth. Substances like tramadol, marijuana, and alcohol were often used as coping mechanisms or to fit in with social expectations, highlighting the need for a broader approach to addressing this issue that goes beyond individual behavior.

To address these challenges, recommendations include community-based education campaigns to raise awareness about the dangers of substance use, the expansion of accessible mental health services, and the promotion of vocational and entrepreneurship programs to provide alternatives to substance use. Gender-specific interventions should be introduced to address the distinct pressures faced by young men and women. Collaboration with community leaders and policymakers is also crucial to reinforcing positive cultural norms and creating supportive environments for youth development.

**Consent for publication**

Not applicable

**Data Availability**

Data used to support this study are available from the corresponding author upon request.

**Disclaimer (Artificial intelligence)**

Authors at this moment declare that generative AI (ChatGPT) has been used during the editing of manuscripts.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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