

## An Empirical Study on Assessing the Societal Impact of Substance Use Among Individuals Aged 15-25 In Urban Liberia

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### Abstract

**Objectives:** During the study, we employed a cross-sectional mixed-methods design that included structured questionnaires delivered to 200 respondents: substance users, family members of users, healthcare providers, educators, security personnel, and community stakeholders.

**Methodology:** Chi-square and binomial tests are statistical methods used to examine associations and test hypotheses in the analysis

**Results:** The study revealed that the use of substances is strongly associated with peer pressure, unemployment, trauma, and family disruption. Crucial links were also established between substance use and adverse outcomes such as involvement in crime, family instability, poor health, and economic constraints.

**Conclusion:** Substance use among individuals aged 15-25 in urban Liberia is not only concerned with health impacts, but a wide-ranging societal issue that needs the integration of prevention, treatment, rehabilitation, mental health services, as well as economic empowerment programs for the young individuals.

**Keywords:** Substance Use, Societal Impact, Rehabilitation, Urban Liberia, Public Health

### 1. INTRODUCTION

Substance use is one of the key serious problems societies are continuously encountering today; the rise of substance use is worldwide (UNODC World Drug Report, 2023). Substance abuse is the difference in its uses, which range from the use of drugs to illegal narcotics, each with distinct psychological, social, and health impacts. The use of substances is not limited to individuals.

This study aimed to assess the societal Impact of substance use among individuals aged 15-25, concentrating on users who examine these chemicals as well as those who develop a long-term addiction to them.

At the community level, threats to security sense can occur, leading to loss of trust and social cohesion. Affectingly, the impact of this loss is experienced widely in the educational, criminal justice, and healthcare systems, which are not adequately equipped to handle the difficult problems generated by substance addiction. (World Bank, 2019). Furthermore, the WHO report 2020, lengthy usage can also cause serious mental health problems, including anxiety, depression, and psychosis. Since addiction changes an addict's conduct, relationships, and life aspirations, they frequently lose their sense of independence and self. It is vital to comprehend these psychological obstacles to design successful treatment programs and intervention strategies that aid people in overcoming addiction and rejoining society.

The social and psychological aspects of substance use have been assessed and examined in this study, presenting a complete picture of its effects on people and their communities.

**1.1 Problem Statement :** Many researchers don't focus on the lived experiences, drivers, and social pressures that are exclusive to young individuals and young adults. Studies tend to underrepresent slums and informal communities, where drug usage is more common. Additionally, Family, school, job, and community safety concerns are frequently given less attention than individual health consequences.

Due to a fear of being judged or facing legal repercussions, teenagers were a bit hesitant to admit to using drugs, and when interacting with these vulnerable and adolescent groups, it is essential to adhere to moral guidelines and informed consent procedures. The current prevalence of drug and substance usage, continuous outbreaks, and arrests of providers in Urban Liberia demonstrate a lack of sufficient infrastructure to follow-up research, rehabilitation facilities, and data gathering. It is challenging to identify the social effects of substance use since it frequently coexists with poverty, trauma, and mental health problems.

### 1.2 Research Objectives

1. To research how poverty influences family background, peer pressure, and trauma on substance use among individuals aged 15–25 in urban Liberia.

2. Evaluating how substance use affects individuals aged 15–25 in urban Liberia, family relationships, peer interactions, and community involvement to help us understand the social and economic impacts.

3. To assess the health effects of substance use among individuals aged 15–25 in urban Liberia, with a particular emphasis on physical health risks, mental health issues, and engagement in risky behaviours.

### 1.3 Hypotheses

#### Hypothesis 1

**H<sub>0</sub>:** Substance use among urban Liberian individuals aged 15-25 is not influenced by family, poverty, peer pressure, and trauma

**H<sub>1</sub>:** Substance use among urban Liberian individuals aged 15-25 is influenced by family, poverty, peer pressure, and trauma.

#### Hypothesis 2

**H<sub>0</sub>:** Substance use among urban Liberian individuals aged 15-25 is not linked to negative social, economic, and health outcomes.

**H<sub>1</sub>:** Substance use among urban Liberian individuals aged 15-25 is linked to negative social, economic, and health outcomes.

### 2. LITERATURE REVIEW

**2.1 Evolution:** This literature review considers current research on the social consequences of substance use,

Multiple studies claim that substance use worldwide has steadily grown over the past 20 years. According to the 2023 UNODC World Drug Report, Substance use has risen 23% over the past ten years, with significant growth in low- and middle-income countries. In addition to the misuse of prescription medications, there has been a dramatic increase in the use of synthetic substances like fentanyl and methamphetamine. Peer pressure, curiosity, trauma, and socioeconomic disadvantage are some of the variables that frequently contribute to the onset of drug use during adolescence or early adulthood (Hawkins et al., 2008). Additionally, Research reveals that there are also gender trends, with men typically having higher prevalence rates, but women do experience faster progression to dependency and greater stigma (Greenfield et al., 2010). Excessive alcohol and substance use can lead to serious problems like liver disease, job loss, and crime. and also indicating that factors influencing substance access include store proximity, marketing, and costs, in accordance with previous study findings. Furthermore, negative childhood experiences, which include abuse or neglect, increase the likelihood of future substance use in those involved with it.

**Theoretical Gaps:** In sub-Saharan Africa, most studies underscore the prevalence rates and risk behaviour of individuals, yet rarely examine simultaneously how family structures are an influential factor in substance use, as well as community cohesion, employment patterns, and public service systems.

Additionally, Age-specific social analysis is another area that few studies investigate and show how substance use in this population breaks long-term social and economic efficiency, even if those 15–25 make up a transitional group between young individuals and maturity.

**Comparative Analysis**

**Ghana – Community-Based Drug Prevention and Youth Engagement:** Ghana in West Africa has shown remarkable development in managing individuals’ substance abuse via community-based prevention and education programs. Early prevention initiatives, peer counselling, and public awareness campaigns are available from the Ministry of Health and the Ghana Narcotics Control Commission in collaboration with schools, religious institutions, and youth organisations. Having to incorporate the awareness of substance use in school curricula will help people to learn and be aware of the harmfulness, and be more exposed to substance use. Furthermore, community outreach initiatives focus on at-risk children in metropolitan regions by providing vocational counselling, sports, and life-skills training. These strategies have improved social integration and lowered trial.

**3. Research Methodology**

**3.1 Study Design :** This study employs a cross-sectional descriptive and analytical research design with both quantitative and qualitative components, utilising primary data collected through structured questionnaires involving the following approach;

**3.2 Research Frame & Sampling :** This research was conducted in Monrovia, Liberia, an urban region. Data was collected from ghettos and graveyards, as well as in rehabilitation centers, health facilities, and schools. attention, particularly given to individuals aged 15–25 who use substances. Secondary respondents included family members and healthcare workers. A total sample of 200 respondents was used, with 100 participants who were substance users making up half of the sample.

**Data Collection Tool:** A structured questionnaire was developed to ensure the information was systematic and relevant. It enabled a well-rounded understanding of the issue from multiple and diverse social, professional, and community perspectives.

**3.3 Data Analysis Plan**

Descriptive statistics included frequencies and percentages, while inferential analysis used the Chi-Square test to examine influencing factors and Binomial tests to assess negative outcomes under Hypothesis 2; all evaluations at a significance level  $\alpha = 0.05$ .

**Ethical Consideration**

1. This study was approved by the Institutional Ethics Committee of Uttaranchal University, Dehradun, and each participant had signed their informed consent
2. Data were anonymous and confidential to ensure no personally identifiable information could be associated with each respondent.
3. The Institutional Ethics Committee of Uttaranchal University, Dehradun, approved the study protocol

**4. Data Analysis and Results**

**4.1 Descriptive Statistics :** This study analysed data from 200 respondents (100 substance users, 30 family members, and 70 stakeholders).

**Table 1. Sample Characteristics**

Category	Responses	Percentage
Substance User	100	50%
Family Members of the User	30	15%
Local Leader	10	5%
Doctors	10	5%
Security Personnel	10	5%
Teachers	20	10%
Key Informants	20	10%

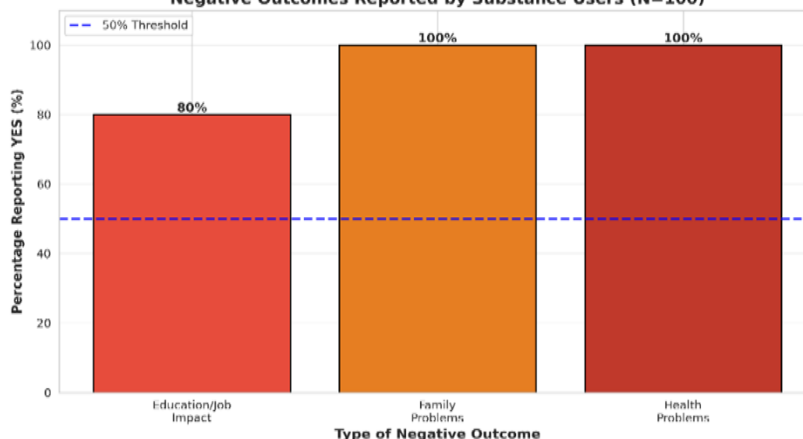
**Summary:** The substance users constitute the largest share of respondents (50%), followed by (15%) of family members, and teachers and key informants are (10% each). And the smaller proportions included local leaders, doctors, and security personnel (5% each)

**Table 2: Age and Gender Distribution of substance users**

Age Group	Responses	Percentage
15-20 years	38	38.0%
21-25 years	68	68.0%
Gender	Frequency	Percentage
Male	76	76.0%
Female	24	24.0%

**Summary:** Most users (62%) are aged 21–25, indicating that use becomes more established in later youth, while 38% begin earlier during (15–20). Use is mainly male, but the sizable percentage of female users (24%) suggests the need for gender-inclusive interventions.

**Negative Outcomes Reported by Substance Users (N=100)**

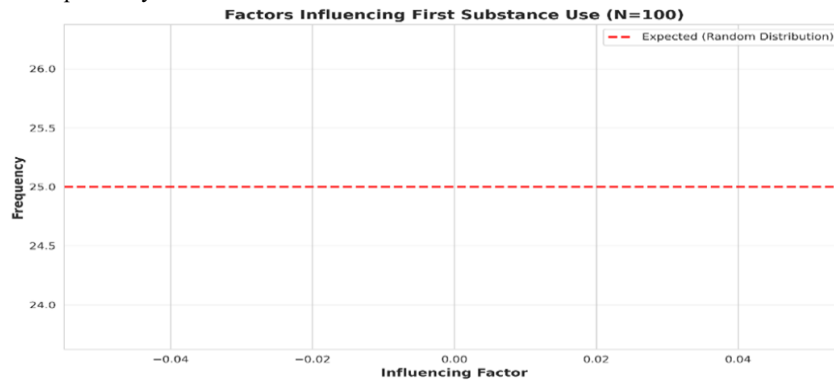


**Summary:** Most substance users (62%) are aged 21–25, noting that use becomes more established in later youth, while 38% begin earlier during (15–20). Use is mainly male, but the sizable percentage of female users (24%) suggests the need for gender-inclusive interventions.

**Table 3: Education Level**

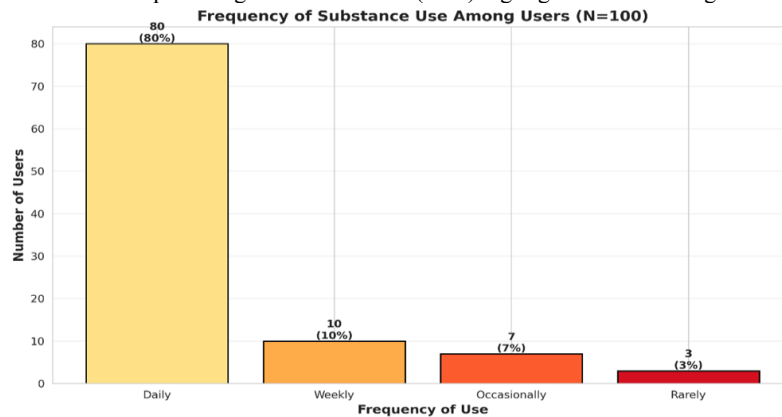
Level	Frequency	Percentage
Primary	10	10.0%
Secondary	65	65.0%
University	25	25.0%

**Summary:** The majority (65%) have secondary education, while 25% having university-level education. This contradicts the common assumption that substance use is primarily linked to low education.



**Summary:**

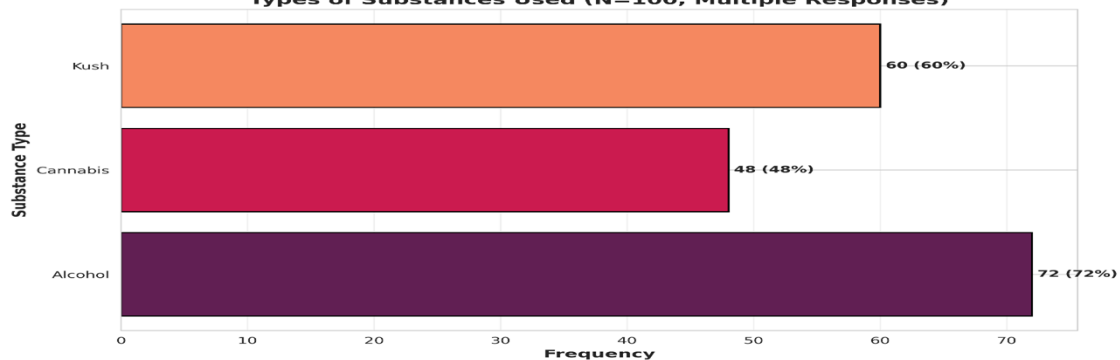
shows most substance users (62%) are aged 21–25, noting that use becomes more established in later youth, while 38% begin earlier during (15–20). Use is mainly male, but the sizable percentage of female users (24%) highlights the need for gender-inclusive interventions.



**Summary:**

Many users consume multiple substances as alcohol is most prevalent (72%), likely due to acceptance and availability, Kush (60%) and Cannabis (48%) show high prevalence, indicating widespread use hard drugs (22%) and prescription use (18%) indicate concerning escalation patterns total exceeds 100% confirming multiple substance use patterns and that of psychoactive substances Polysubstance use is common.

**Types of Substances Used (N=100, Multiple Responses)**



**Summary:** The overwhelming majority (80%) use substances daily, establishing high-level addiction rather than experimental or recreational use. This indicates the sample represents individuals with severe substance use disorders that need intensive intervention.

**4.2 Inferential Statistics**

H0: Substance use among individuals aged 15-25 in urban Liberia is not influenced by family, poverty, peer pressure, and trauma

H1: Substance use among individuals aged 15-25 in urban Liberia is influenced by family, poverty, peer pressure, and trauma

**Table 4. Influencing Factors**

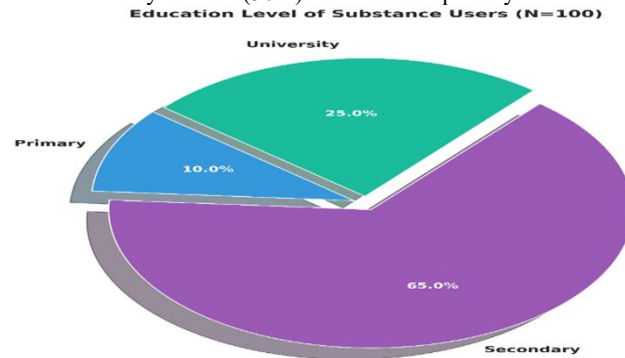
Factor	Frequency	Percentage
Friends/Peer Pressure	72	72.0%
Stress/Trauma	14	14.0%
Curiosity	10	10.0%
Family	4	4.0%

**Summary:** The highest factor is peer influence, accounting for 72% of responses, far more than any other reason. Stress/trauma (14%), curiosity (10%), and family influence (4%) play a relevant role.

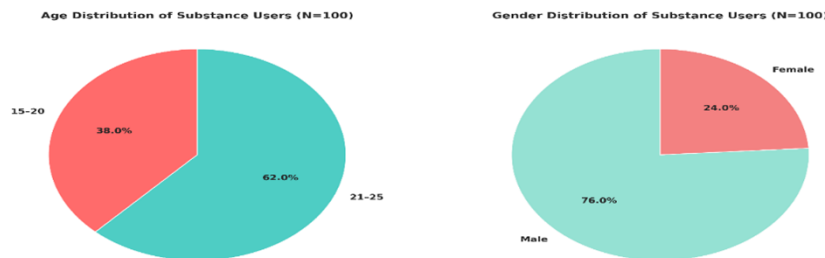
**Table 5: Influencing Factors**

Main Cause Identified	Responses	Percentage
Peer Pressure	20	100%
Stress/Trauma	20	100%
Curiosity	18	90%
Family	16	30%

**Summary:** The Perspectives of experts that unanimously identify peer pressure and trauma as primary causes (100%), with unemployment (90%) and family issues (80%) also viewed as key drivers. (30%) indicates that poverty is seen as a contributing but less significant factor.



**Summary:** Chi-Square Goodness of Fit test ( $\chi^2 = 119.840$ ,  $df = 3$ ,  $p < 0.0001$ ), indicating that the distribution of influencing factors differs significantly from an equal 25% random expectation, far exceeding the critical value of 7.815 at  $\alpha = 0.05$ . Providing very strong statistical evidence that substance use is driven by specific factors rather than random variation.



**Summary:** Firstly, Individual Binomial Proportion Tests were conducted to test if the proportion significantly exceeds 50% (majority)

**Table 6: Direct reports from Users**

Outcome	Proportion	P-Value	Significant
Family Relationship Problem	100/100	<0.000001	***
Education/Job Impact	80/100	<0.000001	***
Health Issues	100/100	<0.000001	***

**Summary:** All three outcomes significantly exceed 50% at the  $p < 0.001$  level. A chi-square test ( $\chi^2 = 225.333$ ,  $df = 1$ ,  $p < 0.0001$ ) displays a highly significant outcome.

**Table 7: Support for substance users' needs**

Support Type	Frequency	Percentage
Rehabilitation	100	100%
Counseling	100	100%
Job Opportunities	89	89%
Family Support	76	76%
Peer Support	38	38%

**Summary:** The universal need for rehabilitation and counselling, and a strong economic dimension, where 89% need job opportunities, as confirmed, addressing unemployment is critical.

**Hypothesis Testing:** Both null hypotheses are rejected. Hypothesis 1 shows strong empirical evidence that supports that substance use is influenced by peer pressure, trauma, family factors, and unemployment ( $p < 0.0001$ ). While Hypothesis 2 indicates conclusive evidence that demonstrates that substance use is associated with severe negative social, economic, and health outcomes ( $p < 0.0001$ )

## 5. Discussion

### 5.1 Interpretation of Findings

**Demographics and Usage Patterns:** While 62% of users are aged 21–25, 38% initiated use during early adolescence (15–20), marking this a critical window for intervention. Despite a male majority (76%), the 24% female prevalence requires gender-sensitive policy. Polysubstance use is the norm: alcohol (72%), Kush (60%), and cannabis (48%) are most prevalent, with 80% reporting daily use.

**Social Drivers :** A Chi-Square test confirmed that drivers are a non-random indicator. Peer pressure is the dominant catalyst (72%), followed by trauma (14%). While only 4% cited direct family initiation, 100% of stakeholders reported that family disruption is a universal consequence, suggesting that addiction rapidly erodes the user's primary support system.

**Societal Impact:** The rejection of the second null hypothesis ( $p < 0.0001$ ) establishes that substance use is inextricably linked to negative social and health outcomes. In post-conflict Liberia, substance use acts as a "multiplier" of structural poverty, requiring integrated health and economic interventions.

## 5.2 Challenges

1. Cross-sectional design
2. Self-reporting bias
3. Urban focus may not apply to rural areas
4. For some stakeholder groups, services, law enforcement, and healthcare systems limit the effectiveness of existing interventions.

## 6. Suggestions

1. Mental health services for trauma should be highly considered to address 14% trauma factor
2. A need for family education and strengthening programs
3. Establish rehabilitation centers that are a 100% need
4. There should be mandatory school prevention programs, as currently 0%.

## 6.1 Future Directions

1. Conduct longitudinal studies to establish causality
2. Support intervention effectiveness studies
3. Create a cost-benefit analysis of programs
4. Establish standardised data collection and data-sharing frameworks that go across sites

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## Declaration of Interest Statement

We declare that we have no competing interests related to this research, and confirm that there are no personal, financial, or professional relationships that could have influenced the study or its findings.

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