



## Psycho-Social Characteristics of Patients with Substance Use Disorder Seen at the Sierra Leone Psychiatric Teaching Hospital (USLTHC), Kissy-Freetown

<sup>1</sup>Ofovwé C. E. & <sup>1</sup>Lewis J. S.

<sup>1</sup>Psychiatric Hospital Kissy, University of Sierra Leone Teaching Hospital Complex, Freetown, Sierra Leone.

Corresponding Author: Ofovwé Caroline E; [Cofovwe@yahoo.com](mailto:Cofovwe@yahoo.com)

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#### Corresponding Author:

Ofovwé Caroline E

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### ABSTRACT

**Background:** The rising incidence of substance use in Sierra Leone poses a public health concern. Its impact on the country and her citizenry particularly the youths has multifaceted negative implications. This study sought to examine the psychosocial characteristics of patients with substance abuse disorder seen at the Sierra Leone Psychiatric Teaching Hospital, Kissy

**Methods:** The study employed a cross-sectional design. One hundred and sixty-five respondents being treated for substance use disorder were consecutively recruited between October, 2023 and April, 2024. Data was drawn from a "Reflection Form" designed by one of the authors (CEO) to elicit information in the course of psychotherapy with patients. SPSS version 29 was used to analyse the data.

**Results:** More males (79.4%) were found to use psychoactive substances. The majority of the substance users were students (60.6%). Kush was found to be the most used psychoactive substance (76.4%). A desire for improved sleep, increased appetite, facilitation of meditation, peer group influence (76.4%) and stress (73.3%) were reasons given for taking psychoactive substances. The source of funding substance use was stealing (32.1%), sale of property (17.0%), begging (15.2%), allowance (46.7%) and earnings (58.2%). The age range at onset for most of the respondents was between 16 and 25 years. A majority of the respondents (68.5%) have used psychoactive substances for a duration of 1 to 5 years.

**Conclusion:** The predominant involvement of students in substance use found in this study calls for public and school-based enlightenment campaigns. In view of the manifold implications of early onset of substance use, stringent policies, sanctions, community intervention and family involvement should be upheld to curtail substance abuse in young persons.

**Key words:** Psycho-Social, Youth, Substance Use, Public- Health, Sierra Leone

### 1. INTRODUCTION

Sierra Leone has faced several highly devastating challenges in her 63 years as an independent Nation; a civil war that lasted more than a decade (1991-2002), the deadly Ebola outbreak in 2014, a mudslide in 2017<sup>1-2</sup>. and currently a glaring substance use pandemic<sup>3</sup>. These unfortunate experiences, undoubtedly, have exposed the country and its citizenry to economic hardship and other distressing social indices. It is reported that more than half (52.9%) of Sierra Leoneans live below the poverty line<sup>4</sup>. The recent declaration of a state of emergency in response to a rising incidence of substance use in the country especially among the youths is an indication of the alarming epidemic of substance use in Sierra Leone particularly the use of Kush<sup>3</sup>. This affirms research findings indicating a rising trend in substance use among adolescents in sub-Saharan Africa (SSA), with substantial implications for their health and well-being<sup>5</sup>.

Globally, substance use among young people is noted as a critical public health concern, significantly contributing to the burden of disease<sup>6</sup>. The Global Burden of Disease (GBD) study identifies substance use disorders (SUDs) as major contributors to morbidity and mortality among young people.

**Table 2: Distribution by Type of Substance, Reasons for Use and Source of Funding**

Variables	Response	Response	Total
<b>Substance of Use</b>	Yes (%)	No (%)	
Kush	152 (92.1)	12 (7.3)	164*
Marijuana	58 (35.2)	107(64.8)	165
Tramadol	39 (23.6)	126 (76.4)	165
Others	58 (35.2)	106(64.2)	164*
<b>Reason (s) for Use</b>			
Peer Influence	126 (76.4)	39(23.6)	165
Stress	121(73.3)	44(26.7)	165
Sleep, Appetite, Meditation	157(95.2)	8(4.8)	165
<b>Source of Funding</b>			
Stealing	53 (32.1)	112(67.9)	165
Sale of Property	28 (17.0)	137(83.0)	165
Begging	25 (15.2)	140(84.8)	165
Allowance	77 (46.7)	88(53.3)	165
Earnings	96 (58.2)	69 (41.8)	165

\*Missing Data

ple particularly in SSA<sup>7 & 8</sup>

Substance use is defined as a patterned use of any substance (including alcohol and/or psychoactive drugs) in quantities (or through methods) that are harmful to the user or others<sup>9</sup>. A psychoactive substance is any substance that can affect the feelings, perceptions, thought processes and behavior by altering the functions of the nervous system. There is reportedly a high prevalence rates in low and middle-income settings, where socio-cultural and economic factors contribute to distinct challenges in addressing this problem<sup>10</sup>. The consequences of substance use are multifaceted, they include the legal, economic, medical and the psychological; the user as well as the society are negatively impacted in manifold dimensions. Substance use is associated with a range of risky behaviours, such as unprotected sex, violence, and criminal activities<sup>11,12</sup>, increase the likelihood of poor health outcomes, such as sexually transmitted infections (STIs), injuries, and mental health disorders<sup>13-14</sup>. In addition, substance use can lead to chronic conditions, with increased risks of long-term morbidity and premature mortality<sup>15,16</sup>. Expectedly, the impact of substance use extends beyond individual's health, it affects families, communities, and societal structures<sup>17</sup>.

The enormity of substance use as a public health concern and its related complications is aptly captured in the 2021 World Drug Report which states that approximately 275 million people used drugs worldwide in the preceding year, with another 36 million persons diagnosed with substance use disorders globally<sup>18</sup>. Despite existing evidence that Africa is battling with a drug use epidemic, with an estimated 37000 people in Africa dying annually from substance use-associated complications<sup>19,20</sup>, available data for Africa are still either weak or non-existent<sup>21</sup>. In Sierra Leone, specifically, there is a paucity of data regarding the psychosocial characteristics of substance use. This paper therefore sought to examine the socio-demographic and psycho-social characteristics of patients with substance use disorder seen at the Sierra Leone Psychiatric Teaching Hospital, Kissy as well as provide baseline information in an area in dire need of empirical data.

## 2. MATERIALS AND METHODS

One hundred and sixty-five patients admitted into the Sierra Leone Psychiatric Teaching Hospital. Kissy for substance use disorder were consecutively recruited for the study between October, 2023 to April, 2024. The Sierra Leone Psychiatric Teaching Hospital,

**Table 1: Socio-Demographic Characteristics of Respondents**

Variables	Frequency n=165	Percent
<b>Age Group (Years)</b>		
< 18	10	6.1
19-25	85	51.1
> 26	70	42.4
<b>Sex</b>		
Male	131	79.4
Female	34	20.6
<b>Level of Education</b>		
Primary	10	6.1
Secondary	76	46.1
Tertiary	73	44.2
*Total = 159		
<b>Occupation</b>		
Student	100	60.6
Civil Servant	6	3.6
Self-Employed	33	20.0
Unemployed	26	15.8
<b>Marital Status</b>		
Single	147	89.1
Married	13	7.9
Separated/Divorced	4	2.4
Widowed	1	0.6

\*Missing Data

Kissy was historically known as "Kissy Lunatic Asylum," it was opened in 1820 and was the oldest asylum in sub-Saharan Africa<sup>22</sup>. The hospital currently enjoys a new status under the University of Sierra Leone Teaching Hospital Complex, Freetown. It is a one hundred and fifty-five bed facility with six wards (M=4, F=2) and an annex for both male and female patients. It serves the country's four provinces namely, Eastern, Northern, North West, Southern provinces and the Western Area.

Data was collected using a self-report open-ended questionnaire titled "Reflection Form" designed by one of the authors (CEO) to elicit information on socio-demographic characteristics and information related to substance use. Questions asked included "How old were you when you started taking substance(s)? Why did you start taking substance(s)? How were you funding the habit? What are your future plans? etc. The Reflection forms were administered after informed verbal consent was obtained prior to the conduction of psychotherapy sessions. Participation was based on a diagnosis of substance use disorder as evaluated by the psychiatrist. An eligibility criterion of not being in a psychotic state was necessary for participation in view of the interactive nature of psychotherapy. The study adopted a cross-sectional design and involved a review of the information on the reflection form of patients referred to the psychotherapy clinic from the wards as part of their management. Data was analysed descriptively using SPSS Version 29.

### 2.1 Data Availability Statement

The dataset that supports the findings of this study is openly available at the Open Science Framework (OSF) repository at: [osf.io/36hm8/files/osfstorage/686301813e77cc172b03ad0c](https://osf.io/36hm8/files/osfstorage/686301813e77cc172b03ad0c)

## 3. RESULT

### 3.1 Socio-Demographic Characteristics

As shown in Table 1, of the one hundred and sixty respondents who participated in the study, 131 (79.4%) were males and 34 (20.6%) females, 76 (46.1%), 73 (44.2%) had secondary and tertiary education respectively while 10 (6.1%) had primary educa-

**Table 3: Distribution by Age at Onset and Duration of Use**

Variables	Frequency	Percent
<b>Age at Onset (In Years)</b>		
<16	14	8.5
16-20	69	41.8
21-25	48	29.1
>25	32	19.4
*Total	163	
<b>Duration of Use (In Years)</b>		
<1	8	4.8
1-5	113	68.5
6-10	27	16.4
11-15	8	4.8
16-20	6	3.6
>21	2	2.1
*Total	164	

\*Missing Data

tion. A majority of the respondents 100 (60.6%), were students 6 (3.6%) were civil servants, 33(20.0%) were self-employed and engaged in activities like sewing, plumbing and other semi-skilled jobs while 26 (15.8%) were unemployed. A majority of the respondents were single 147 (89.1 %), 13 (7.9%) were married and 4 (2.4%) were either separated or widowed.

### 3.2 Type of Substance, Reasons for Use and Source of Funding

As shown in Table 2, Kush was the most used psychoactive substance 152 (92.1%), followed by Marijuana 58 (35.2%) and Tramadol 39 (23.6%). Other substances of abuse such as alcohol, cigarettes, cocaine, ecstasy, etc were used by 58 (35.2%) of the respondents. Reason (s) reported for use included peer group influence, stress, recreation, euphoria, to boost appetite, induce sleep and to facilitate meditation. A respondent could have either a single reason or multiple reasons for use. Sleep, appetite and meditation accounted for the reasons for use for 157 (95.2%) respondents. One hundred and twenty-six (76.4%) respondents claimed peer influence while 121 (73.3%) indicated that stress was the reason for their use of psychoactive substance (s). The source of funding the substance habit was stealing 53 (32.1%), sale of personal or family property 28 (17.0%), begging 25 (15.2%), allowance 77 (46.7%), earnings from salary, provision of services for the self-employed and payments for odd jobs like carrying goods in the market, washing clothes or cars and the like 96 (58.2%).

As shown in Table 3, the age of onset of substance use vary, 14 (8.5%) started using psychoactive substances before the age of 16, 69 (41.8%) claimed to have started use between 16 to 20 years of age, 48 (29.1%) started use between 21 to 25 years while 32 (19.4%) claimed to have started use after the age of 25. The duration of use spanned from less than 1year to above 21years. The majority of the respondents have used psychoactive substances for a duration of 1 to 5 years 113 (68.5%), 27 (16.4%) for 6 to 10 years, while 2 (2.1%) of the respondents have used substances for more than 21 years.

## 4. DISCUSSION

Substance abuse and use in Sierra Leone took a turn for the worse in the last five years with the introduction of a very addictive synthetic drug known as “Kush”. Kush can be regarded as a novel psychoactive substance, defined by the United Nations Office on Drugs and Crime (UNODC) as a substance of abuse (existing either in its pure form or as a preparation) that are not controlled by either the 1961 or 1971 conventions on narcotic drugs and psy-

chotropic substances, respectively, but pose significant threats to public health globally due to spikes in intoxications and fatalities associated with their use<sup>23</sup>. Laboratory reports from the Sierra Leone Psychiatric Teaching Hospital indicate that Kush contains constituents of Benzodiazepine, Methadone, Tricyclic Antidepressants, Ecstasy, Amphetamine, Methamphetamine, Marijuana and Tramadol. (Personal notes) The easy availability, low cost and high addictive potential makes the use of Kush an urgent public health concern particularly in a country with a predominate youth population.

This study revealed that males are more involved than females in substance abuse in Sierra Leone which is not surprising as substance use is generally more associated with men than women. According to the United Nations Office on Drugs and Crime (UNODC) gender roles, social norms and cultural beliefs influence substance use patterns among men and women in Africa<sup>24</sup>. Across Africa, substance use is stigmatized, however, women experience more social disapproval than men. This is perhaps why fewer women than men are involved in substance use. In other words, traditionally, males are less regulated than females which may increase the likelihood to embark on risky behaviours like substance use. Furthermore, men are more explorative; a developmental paradigm that subscribes to a “boys will be boys” stance encourages a tendency towards exploration and experimentation with novel behaviours. These factors may contribute to the finding of more males using substances in this study.

The high involvement of men in substance use and the male gender being a risk factor in substance use has been reported in other studies<sup>25</sup> supporting the finding of this study. The implications herein extend beyond the multiple negative consequences substance use imposes on the user. It has national development implications as captured by the national emergency declared by the government<sup>3</sup>. In Africa, males are looked up to for the survival and sustenance of the family-line, their roles are associated with economic productivity and leadership. Thus, a huge loss is accrued as able-bodied young men are swept off by substance use where and when they are needed most. The loss of manpower and associated implications also apply to the loss of females in Sierra Leone to substance use. Their contribution at familial, community and national level is not only lost, but additionally, it exposes and costs families, communities and the nation massive deficits. This view reiterate research findings that have associated substance use with far reaching loss to not just the user but to their families and communities as well<sup>11-17</sup>.

A majority of the respondents were students from secondary and tertiary institutions. This could be attributed to the social milieu of school settings where peer group influence/pressure, experimentation, curiosity, pressure to join fraternities, lowered parental supervision thrive. In the course of psychotherapy, some of the respondents revealed that the fraternities they joined as they got admitted to institutions of higher learning introduced them to substance use. They claimed they were expected and mandated to take substances to prove their allegiance to the fraternity. Regrettably, many who had these experiences were not protected in any form rather they were exploited and exposed to a lifestyle they did not bargain for such as wild parties where sex partners were allocated to participants with free distribution of psychoactive substances. This justifies the need for school-based intervention strategies targeted at students at all educational levels to prevent the

commencement of substance use, discourage its use and curtail the increase in the incidence of substance use among the youths.

Other studies have asserted to the proneness of students to the use of substances on an account of academic and peer pressure, the appeal of popularity and identification, readily available pocket money, and relatively easy accessibility of several substances, especially in industrial, urban elite areas<sup>26,27</sup>. Participants in this study reported peer pressure, stress, desire for sleep, a need to boost appetite as reasons for taking psychoactive substances. In Ghana, it is reported that peer pressure and curiosity are major drivers of drug addiction<sup>28</sup>.

This study revealed that Kush was the most used psychoactive substance when compared to Marijuana and Tramadol. Findings from Nigeria show that cannabis was the most commonly used drug, which was followed by opioids (non-prescription or in cough syrup)<sup>29</sup> while alcohol, Kath and tobacco were the most popular substances in Ethiopia<sup>30</sup>. The widespread use of novel psychoactive substance has become a global public health concern<sup>31</sup>. In south Africa, "Nyope" also known as "Whoonga" a cocktail of low-grade heroin, marijuana, antiretroviral drugs (Efavirenz) and other undisclosed substances is used. In Egypt, a novel psychoactive substance known as "Strox" or Egyptian spice is used, in Nigeria, "black mamba" "happy boy" are some of the novel psychoactive substances in use<sup>32-34</sup>.

Kush is relatively new in Sierra Leone; its five to six years existence has resulted in an extremely high incidence of its use, this supports our results which show that a majority of the respondents have used substances for a duration of 1 to 5 years, coinciding with the introduction of Kush in Sierra Leone. As reported by Trenchard<sup>35</sup> in an article titled "Cheap, plentiful and devastating: A synthetic drug Kush is walloping Sierra Leone, Kush is both potent and dangerously unpredictable. It's also easily accessible and dirt-cheap and has proved irresistible to a generation of unemployed young Sierra Leoneans seeking an escape from lives of grinding poverty". The potency, availability and cost are salient factors that may be attributed to Kush being the preferred substance of abuse among respondents in this study. However, the use of Kush is not limited to unemployed youths, Kush attracts persons from all walks of life particularly students as shown in this study.

Novel psychoactive substances like Kush pose extreme health implications. Their use is associated with cognitive impairments, anxiety, and paranoia hallucinations, convulsions, psychiatric disorders, kidney failure and fatalities<sup>33</sup>. The effects of these substances transcend beyond their immediate medical consequences, they negatively impact the life trajectory of users, families, communities and the society at large. Almost routinely, an educational/occupational pursuit is abandoned, family ties and relationship bonds are either broken or threatened, and a high incidence of crime and violence occurs due to the usage of these substances.

The reasons given for using psychoactive substances in this study include a need to improve appetite, sleep, facilitate meditation, recreation, peer influence and stress. Some studies have reported that the choice to take substances is influenced by psychological and physical reasons. Psychological issues, including mental illness, traumatic experiences, or even general attitudes and ideas. (36) Stress, personal challenges and economic work-related pressures have also been enumerated as factors that motivate substance use, specifically the use of Kush in Sierra Leone<sup>37</sup>. These

findings give support to the results obtained in this study as the reasons to take psychoactive substances can be traced to unmet physical and psychological needs. The socio-economic situation in Sierra which is marked with a high index of poverty<sup>4</sup> serves as both precipitating and perpetuating factors for substance use. Some respondents claimed they take substances "to forget" their stresses, thus substances serve the purpose of defence mechanisms against psychological, economic and social issues that cannot be readily handled<sup>38</sup>. It is reported that stress has the capacity to trigger cravings, activate the brain's reward system. leading to cravings for substances like drugs and alcohol<sup>39</sup>.

Stealing, sale of property, begging, allowances and earnings were the varied sources of funding the substance use habit by respondents. Readily available pocket money has been cited as a reason for use in some research findings<sup>39</sup>. Not surprisingly, the students in this study reported the use of their allowances as a means of funding their drug habit. The predominant means of earning was from carrying out menial jobs like washing cars and / or clothes, carrying goods in the market, working at construction sites as daily paid workers among other odd jobs which provide just enough to sustain the substance use habit. Respondents causally referred to this type of earning as "hustling" reflective of their self-made means of making ends meet in a desperate stress laden environment. Some respondents resorted to selling their personal belongings or family property when the urge to use the substance got overwhelming.

The predominate age of onset of substance use in this study was 16 years to 25 years of age. This supports results of surveys of drug use among the general population which show that substance use peaks between 18 years and 25 years of age<sup>40</sup> with drug use among young people exceeding that of older people<sup>9</sup>. Almost half of the respondents started using psychoactive substances between ages 16-20, this age bracket is usually associated with youthful exuberance, experimentation, curiosity, stress, increased autonomy, reduced parental monitoring, greater involvement with peers and other social factors that increase susceptibility to risky behaviors including substance use. Studies have shown that early onset of substance use increases the likelihood of the development of psychiatric disorder, a higher likelihood of addiction and more psychosocial problems which adversely affect behavior patterns, academic performance and familial systems<sup>41</sup>. The early use of substances found in this study projects a sad trajectory as early onset of substance use is known to affect beyond the immediate, it compromises the future as well.

#### 4.1 Conclusion

This study has shown the psycho-social characteristics of patients with substance use disorder seen at the Sierra Leone Psychiatric Teaching Hospital, our findings revealed that youths, particularly students are more involved in substance use. This calls for school-based intervention strategies to curb the rising incidence of substance use. The use of Kush which is found to be the most used psychoactive substance calls for policies and sanctions to address the menacing situation. The early onset of substance use reported in this study demands the involvement of the family and community, as parental supervision and pro-health activities can direct the focus of the youths appropriately. There is also a need for youth empowerment programmes to gainfully engage the youths to alleviate the impact of an adverse economic situation. It is recommended that intervention strategies should be extended



ed beyond the individual who uses substances to include the family, immediate environment/community, the health care system and policies that inadvertently control the reality of day-to-day living.

### Limitation of the Study

The study being institutionally based has a limitation of generalization; there is also a likelihood of social desirability associated with self-reports; however attempts were made to mitigate this limitation by further exploring responses during psychotherapy sessions. The open-ended mode of the reflection form used to elicit information in the study made it difficult to strictly curtail responses to specific areas. The strengths of the study reside in the fact that it provides a baseline data for further studies. In addition, it highlights the psychosocial characteristics of substance use; a public health concern that calls for urgent intervention.

### Contributor Roles Taxonomy (CRediT) Statement

**Conceptualization:** The concept that informed this study was initiated by Ofovwe, Caroline, E. in the course of running routine psychotherapy clinic at the Sierra Leone Psychiatric Teaching Hospital, Kissy, University of Sierra Leone Teaching Hospital Complex, Freetown.

**Data Collection:** The administration of the Reflection Forms was predominately carried out by Lewis Joseph S. A social worker at the Sierra Leone Psychiatric Teaching Hospital, Kissy, University of Sierra Leone Teaching Hospital Complex, Freetown.

**Writing:** The paper was written by Ofovwe, Caroline E.

### Conflict of Interest:

The authors declare that they have no financial or personal relationship which may have inappropriately influenced them in writing this paper.

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