Knowledge, Causes, and Effects of Drug Abuse among Youths Aged 15–35 Years in Bota Land Community, Limbe, Cameroon: A Descriptive Cross-Sectional Study

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ABSTRACT

Background: Drug abuse among youths remains a significant global and regional public health challenge, contributing to rising morbidity, mortality, and socioeconomic disruption. In Cameroon, reports indicate that a substantial proportion of young people have experimented with hard drugs, yet localized data describing knowledge, causes, and effects of drug abuse among youths in coastal communities such as Bota Land, Limbe, remain limited.

Objective: This study assessed the knowledge, causes, and perceived effects of drug abuse among youths aged 15–35 years in Bota Land Community, Limbe, South-West Region, Cameroon.

Methods: A descriptive cross-sectional design was employed among 100 youths selected through convenience sampling. Data were collected using a structured, self-administered questionnaire supplemented by in-depth interviews and observation, covering socio-demographic characteristics, knowledge of drug abuse, perceived causes, and perceived effects. Data were analyzed descriptively using Microsoft Excel, with results expressed as frequencies and percentages.

Results: Of the 100 participants, 70% were male and 50% were aged 25–30 years; 95% identified as Christian. Regarding knowledge, 75% of respondents demonstrated adequate overall knowledge of drug abuse, although only 50% could correctly define the term and only 42% correctly identified cannabis as a drug. Concerning causes, 49% cited socioeconomic factors and lack of parental supervision as the leading driver, while 85% believed that strict parenting reduces drug abuse risk. With respect to effects, 70% of participants displayed poor knowledge of the health consequences of drug abuse; 46% did not know that drug use was dangerous to health, and depression (40%) and school dropout (25%) were the most frequently cited consequences.

Conclusion: Although most youths in Bota Land Community demonstrated adequate general knowledge of drug abuse, considerable gaps persisted regarding its specific definitions, classifications, and health consequences. Socioeconomic pressure and inadequate parental supervision emerged as dominant perceived causes. Targeted community-based sensitization, strengthened parental engagement, and school-based health education are recommended to close these knowledge–behavior gaps.

Keywords: Drug abuse; Substance-related disorders; Adolescent; Health knowledge, attitudes, practice; Cameroon

INTRODUCTION

Drug abuse defined as the patterned, harmful use of psychoactive substances constitutes one of the most pressing global public health concerns of the twenty-first century (Rose et al., 2018). The World Health Organization estimates that approximately 275 million people worldwide, or 5.6% of the global population aged 15–64 years,

used drugs at least once in 2018, with roughly 31 million experiencing drug-use disorders requiring treatment (UNODC, 2018). Beyond the immediate physiological harms, drug abuse imposes severe psychological, social, occupational, and legal consequences, disproportionately affecting adolescents and young adults whose neurodevelopmental and social vulnerabilities heighten susceptibility to substance-related harm (Robinson et al., 2020).

In sub-Saharan Africa, the burden of drug abuse has intensified over the past decade. The United Nations Office on Drugs and Crime estimates approximately 28 million drug users across the continent, with an estimated 37,000 annual deaths attributable to illicit drug-related diseases (Ndinda, 2019). The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2020) further reports that 27 million people in high-risk categories experience recurrent drug use with attendant psychosocial harm. African governments have progressively adopted anti-drug legislation and regional coordination mechanisms, reflecting the scale of the challenge (Okafor, 2020).

Cameroon exemplifies this regional crisis. National statistics released by Cameroon's Anti-Drug National Committee indicate that 21% of the population has tried hard drugs, with 10% classified as frequent users, including 60% of young people aged 20–25 years (Business in Cameroon, 2020). Studies conducted in Yaoundé report that over 50% of secondary school students have used psychoactive substances at least once, while investigations in Douala found lifetime experimentation rates as high as 91.0%, with alcohol, tobacco, cocaine, and tramadol identified as the most commonly consumed substances (Business in Cameroon, 2020).

Despite this documented burden, few studies have examined drug abuse knowledge, causation, and consequences specifically among youths in coastal, semi-urban communities of the South-West Region, such as Bota Land, Limbe an area characterized by proximity to maritime activity and a documented pattern of tramadol use among young fishermen and swimmers seeking stimulant effects. This localized gap in evidence limits the design of context-appropriate interventions.

Guided by the Health Belief Model and Systems Theory in healthcare coordination frameworks emphasizing the interplay between individual perception, self-efficacy, and multi-level social systems (family, peers, school, and community) in shaping substance-use behavior this study aimed to assess the knowledge, causes, and effects of drug abuse among youths aged 15–35 years in Bota Land Community, Limbe. Specifically, the study sought to (i) determine the level of knowledge on drug abuse among youths, (ii) identify the perceived causes of drug abuse in the community, and (iii) evaluate youths' knowledge of the effects of drug abuse on health and social functioning.

METHODS

Study Design

A descriptive cross-sectional design was used to assess knowledge, causes, and effects of drug abuse among youths, allowing simultaneous quantitative characterization of these three domains within a single study population.

Study Area

The study was conducted in Bota Land Community, Limbe, South-West Region, Cameroon a coastal locality selected because of its high concentration of youths engaged in activities associated with drug consumption and its proximity to maritime livelihoods linked to substance use patterns, including the use of tramadol as a perceived stimulant against cold exposure during fishing and swimming.

Study Population and Eligibility Criteria

The target population comprised youths aged 15–35 years residing in the Bota Land Community. Inclusion criteria comprised youths within the specified age range who were residents of the community during the study

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period. Exclusion criteria comprised youths who were seriously ill, had cognitive or communication difficulties that precluded participation, or submitted incomplete questionnaires

Sample Size Determination

The sample size was calculated using the Cochrane formula: $n = (Z^2 \times p \times (1-p)) / E^2$, where Z is the z-score corresponding to the 95% confidence level (1.96), p is the estimated population proportion (0.5), and E is the margin of error (0.065). Substituting these values yielded $n = (1.96^2 \times 0.5 \times 0.5) / 0.065^2 = 100.02$, rounded to a final sample size of 100 participants.

Sampling Technique

A convenience sampling technique was applied, whereby youths available and willing to participate during the data collection period were recruited sequentially until the target sample size was attained.

Data Collection Tools and Procedure

Data were collected using a structured, interviewer-facilitated, self-administered questionnaire comprising four sections: socio-demographic characteristics, knowledge of drug abuse, perceived causes of drug abuse, and perceived effects of drug abuse. The questionnaire was complemented by in-depth interviews with a purposively selected subset of participants and direct field observation to triangulate self-reported data. Interviews were audio-recorded and transcribed verbatim, while observational data were captured using a standardized observation checklist.

Data Management and Statistical Analysis

Completed questionnaires were checked for completeness, manually cleaned, and coded using a standardized coding scheme prior to entry. Quantitative data were analyzed descriptively using Microsoft Excel 2016, with results summarized as frequencies and percentages and presented in tables and charts. Qualitative data from interviews and observations were analyzed thematically to contextualize the causes and effects of drug abuse.

Ethical Considerations

Ethical clearance and administrative authorization were obtained from the Director of St. David's Higher Institute of Nursing, Midwifery and Biomedical Science, the traditional authority (Chief) of Bota Land Community, and the Regional Delegation of Public Health, Buea. Written and verbal informed consent and Assent were obtained from all participants and their caregivers prior to data collection, and confidentiality of responses was strictly maintained throughout the study.

RESULTS

Socio-Demographic Characteristics

Of the 100 respondents enrolled, 70% were male and 30% were female. The majority (50%) were aged 25–30 years, 20% were aged 15–20 years, and 30% were aged 30–35 years. Regarding marital status, 50% were single, 35% married, and 15% divorced. With respect to occupation, 50% were self-employed, 35% were students, 10% unemployed, and 5% were civil servants. Christians constituted 95% of respondents, with Muslims comprising the remaining 5%.

Table 1. Socio-Demographic Characteristics of Respondents (N = 100)

Variable	Category	Frequency (n)	Percentage (%)
Sex	Male	70	70

	Female	30	30
Age (years)	15–20	20	20
	25–30	50	50
	30–35	30	30
Marital status	Single	50	50
	Married	35	35
	Divorced	15	15
Occupation	Self-employed	50	50
	Student	35	35
	Unemployed	10	10
	Civil servant	5	5
Religion	Christian	95	95
	Muslim	5	5

Knowledge of Drug Abuse

Overall, 75% of respondents demonstrated adequate knowledge of drug abuse, while 25% had inadequate knowledge. However, item-level analysis revealed important gaps: only 50% correctly defined drug abuse as the use of drugs or chemicals in ways causing social, physical, or mental harm, while 35% equated it narrowly with illegal drug use. Cannabis was correctly identified as an addictive substance by 42% of respondents (using the alternate item framing, marijuana was identified by 55%), while inhalants/glue were recognized by only 10%. The primary source of information on drug abuse was social media/internet (35%), followed by schools (30%), parents (20%), and friends (15%).

Table 2. Distribution of Respondents' Knowledge of Drug Abuse (N = 100)

Item	**Response**	**Frequency (n)**	**Percentage (%)**
Definition of drug abuse	Use of drugs/chemicals causing social, physical, or mental harm	50	50
	Use of illegal drugs only	35	35
	Excessive alcohol use only	15	15
Addictive substances identified	Marijuana	55	55
	Alcohol	20	20
	Cigarettes	15	15
	Inhalants/glue	10	10

Known consequences of drug abuse	Addiction	40	40
	Poor academic performance	30	30
	Mental health disorders	15	15
	Liver disease/HIV risk	15	15
Main information source	Internet/social media	35	35
	Schools	30	30
	Parents	20	20
	Friends	15	15

Overall, 75% of participants had adequate knowledge of drug abuse, while 25% had inadequate knowledge (Figure 1).

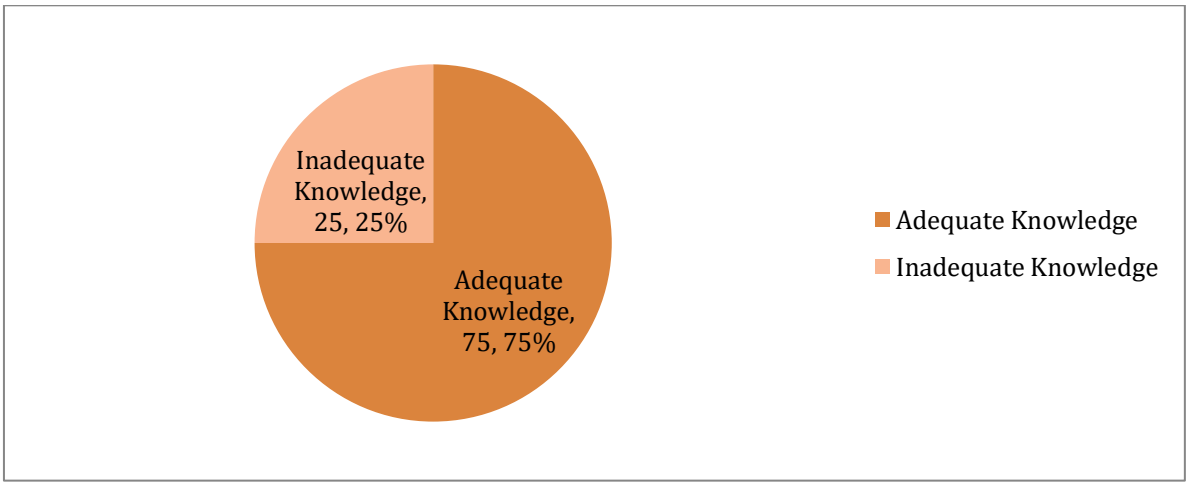

Figure 1. Overall Distribution of Respondents' Knowledge of Drug Abuse (N = 100). Source:

Causes of Drug Abuse

Regarding perceived causes, 49% of respondents cited lack of parental supervision as the leading driver of youth drug use, followed by curiosity (20%), peer pressure (15%), to escape stress/problems (10%), and high availability of drugs (6%). Sixty percent of respondents believed their environment did not substantially influence their risk of drug use, while 70% reported that addictive substances were readily available for sale near their school or home. Notably, 85% agreed that strict parenting reduces the risk of drug abuse, and 55% believed media (movies and music) does not influence youths to use drugs.

Table 3. Distribution of Respondents' Perceived Causes of Drug Abuse (N = 100)

Item	**Response**	**Frequency (n)**	**Percentage (%)**
Main reason youths use drugs	Lack of parental supervision	49	49
	Curiosity	20	20
	Peer pressure	15	15

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	To escape stress/problems	10	10
	High availability of drugs	6	6
Environment influences drug risk	No	60	60
	Yes	40	40
Substances sold near school/home	Yes	70	70
	No	30	30
Strict parenting reduces risk	Yes	85	85
	No	15	15
Media influences drug use	No	55	55
	Yes	45	45

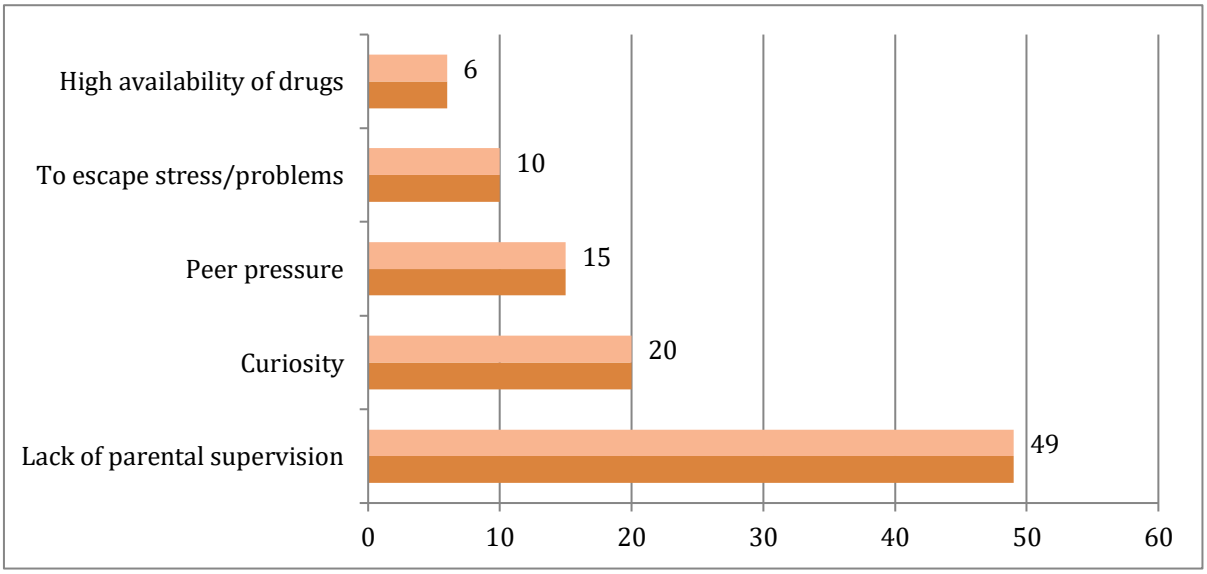

Figure 2. Distribution of Perceived Causes of Drug Abuse among Youths in Bota Land Community.

Effects of Drug Abuse

Regarding knowledge of health effects, 46% of respondents did not know that drug use was dangerous to health, 30% correctly acknowledged the danger, and 24% were uncertain. Depression/anxiety (40%) and aggressiveness (35%) were the most commonly identified psychological changes, while tremors (50%) and constant fatigue (18%) were the most cited physical changes. Depression (40%) and school dropout (25%) were identified as the leading perceived effects of drug abuse on youths, followed by accidents (15%), social isolation (10%), and sexually transmitted infections from unprotected sex (10%). Notably, 75% of respondents believed drug abuse does not affect school performance, while only 25% agreed that it does. Overall, 70% of participants demonstrated poor knowledge of the effects of drug abuse.

Table 4. Distribution of Respondents' Knowledge of the Effects of Drug Abuse (N = 100)

Item	**Response**	**Frequency (n)**	**Percentage (%)**
Awareness that drug use is dangerous	No	46	61

	Yes	30	39
	Don't know	24	24
Psychological changes observed	Depression/Anxiety	40	40
	Aggressiveness	35	35
	Hallucination	15	15
	Forgetfulness	10	10
Physical changes observed	Tremors	50	50
	Constant fatigue	18	18
	Red eyes	17	17
	Extreme weight loss	15	15
Effects on youths	Depression	40	40
	School dropout	25	25
	Accidents	15	15
	Social isolation	10	10
	STDs from unprotected sex	10	10
Drug abuse affects school performance	No	75	75
	Yes	25	25

Overall, 39% of participants were not aware that drug use is dangerous

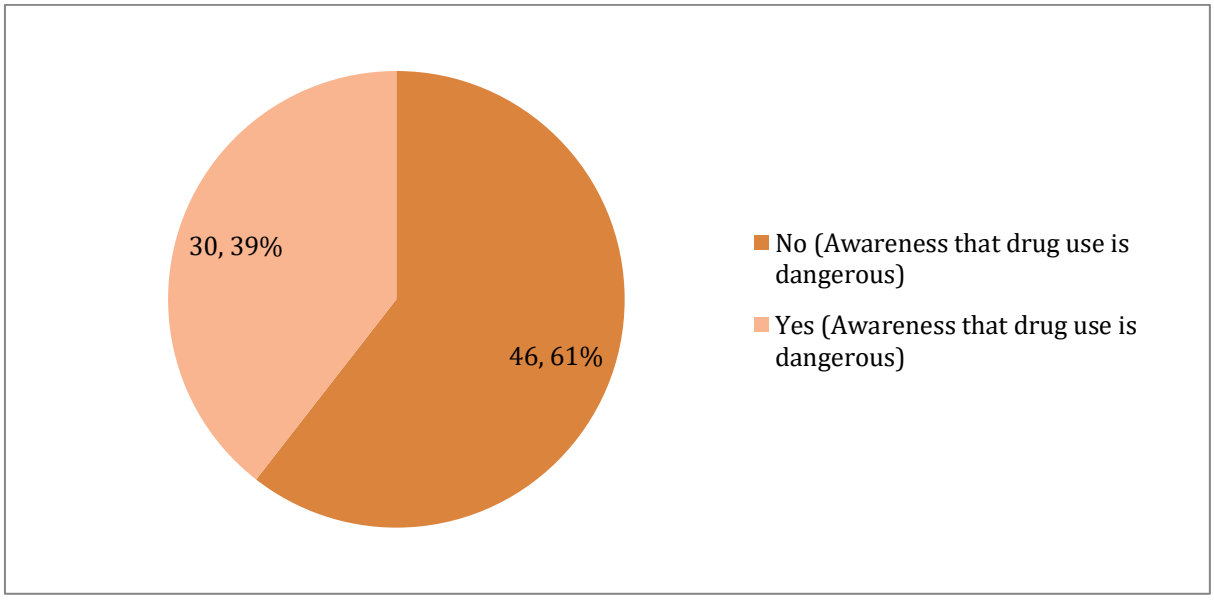

Figure 3. Overall Awareness of the Effects of Drug Abuse among Youths in Bota Land Community.

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DISCUSSION

This study found that although 75% of youths in Bota Land Community demonstrated adequate overall knowledge of drug abuse, only half could accurately define the concept, revealing a discrepancy between general awareness and precise conceptual understanding. This finding contrasts with Yadav and Parajuli (2021), who reported that 57.5% of secondary school students in Janak had poor knowledge of drug abuse; the disparity likely reflects differences in study setting, age composition, and educational exposure between the two populations. Similarly, Chioma et al. (2022), studying adolescents in Anambra State, Nigeria, found that 74.3% of participants had correct knowledge of the meaning of substance abuse, a proportion closer to this study's overall knowledge estimate, suggesting that awareness of drug abuse as a phenomenon may be improving across sub-Saharan African youth populations even where lifetime substance exposure remains a concern.

Lack of parental supervision emerged as the most frequently cited cause of drug abuse (49%), a finding that diverges from Padhy (2019), who identified peer pressure, family problems, and curiosity as the predominant initiating factors among undergraduate medical students. This divergence may be attributable to contextual differences: Bota Land youths, many of whom reside independently of parental oversight while engaged in informal economic or maritime activities, may experience weaker familial monitoring than campus-based cohorts. The finding that 85% of respondents endorsed strict parenting as protective is consistent with Systems Theory, which frames youth substance use as emerging from breakdowns across interconnected family, peer, and community support structures rather than isolated individual choice.

Regarding effects, nearly half of respondents (46%) did not recognize drug use as dangerous to health, and 70% overall demonstrated poor knowledge of its consequences despite the high rate of tramadol use reported anecdotally among youths engaging in maritime work. This gap between behavioral exposure and risk perception echoes findings from Lawal and Al-Mustapha (2018) in Katsina Metropolis, where peer pressure (75%) and desire for enjoyment (13.3%) were dominant causes, and where affected youths similarly underestimated the health risks associated with tobacco, codeine, and marijuana use. The belief among 75% of respondents that drug abuse does not affect school performance is particularly concerning, as it may perpetuate normalization of substance use among school-going youths and reduce the perceived urgency of intervention, a pattern also reported by Ofuebe (2020) among Nigerian undergraduates who similarly downplayed the health risks of drug use.

Collectively, these findings suggest that knowledge deficits in this population are concentrated less in general awareness of drug abuse as a phenomenon and more in specific risk perception—an important distinction for intervention design, since public health messaging that assumes baseline unawareness may fail to address the more consequential gap in understanding health and academic consequences.

Strengths

The study employed a triangulated data collection approach combining structured questionnaires, in-depth interviews, and direct observation, enhancing the validity of self-reported findings. The use of a scientifically derived sample size calculation further strengthens the representativeness of findings within the study community.

Limitations

The use of convenience sampling limits the generalizability of findings beyond Bota Land Community and may introduce selection bias toward more accessible or cooperative youths. The cross-sectional design precludes causal inference regarding the relationship between knowledge, causes, and effects of drug abuse. Additionally, reliance on self-reported data may be subject to social desirability bias, particularly regarding sensitive behaviors such as personal drug use.

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CONCLUSION

Youths in Bota Land Community, Limbe, demonstrated generally adequate overall knowledge of drug abuse, yet substantial gaps persisted in accurate definition, substance classification, and awareness of health and academic consequences. Lack of parental supervision and socioeconomic pressure were identified as the predominant perceived causes, while strict parenting was widely regarded as protective. Poor knowledge of the effects of drug abuse, particularly regarding its impact on school performance, represents a critical target for intervention.

RECOMMENDATIONS

- Researchers should conduct longitudinal and mixed-methods studies to establish causal pathways linking parental supervision, socioeconomic status, and drug abuse behavior in coastal Cameroonian communities.
- Health professionals should design targeted risk-communication campaigns addressing specific misconceptions about the health and academic consequences of drug abuse rather than assuming generalized unawareness.
- Policy makers should strengthen enforcement of regulations restricting the sale of controlled substances such as tramadol near schools and residential areas.
- Government should expand community-based drug rehabilitation and counseling services accessible to youths in semi-urban and coastal localities.
- Communities, including parents, religious leaders, and local authorities in Bota Land, should institute structured sensitization programs in schools, churches, and community gatherings to reinforce protective parenting practices and accurate risk perception.

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Conflict Of Interest

The author declares no conflict of interest.

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Ethical Approval

Ethical clearance was obtained from St. David's Higher Institute of Nursing, Midwifery and Biomedical Science, with additional administrative authorization granted by the Chief of Bota Land Community and the Regional Delegation of Public Health, Buea. Informed consent was obtained from all participants prior to enrollment.

Data Availability

The datasets generated and analyzed during this study are available from the corresponding author upon reasonable request, subject to institutional and ethical approval requirements protecting participant confidentiality.

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