



Prevalence of drug abuse among youth in Mubende Regional Referral Hospital. A cross-sectional study.

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Abstract

Background:

Understanding the prevalence of drug abuse among youth is essential for assessing the magnitude of the problem and guiding appropriate public health interventions. Therefore, this study aims to determine the prevalence of Drug Abuse among Youth in Mubende Regional Referral Hospital.

Methodology:

The study adopted a cross-sectional study design in which quantitative data were collected. Questionnaires were used to collect data from 54 respondents. Data was analyzed using Microsoft Excel, and results were generated and presented in tables, charts, and graphs.

Results:

Most of respondents 33(61.1%) were aged 20-25 years whereas 21(38.39) were aged 15-19 years. Majority of the respondents 42(77.78%) were male while 12(22.22%) were female. Most of them, 25(46.3%), had attained primary education, whereas the least, 7(12.96%), had attained tertiary education. A significant number of youths, 44(81.48%), were Christians. The leading source of income was business 21(38.89%), and the least 13(24.07%) reported salary as their main source of income. 50(94%) reported having used a drug at a point in their life, whereas 4(6%) reported not having used a drug. Alcohol was the most commonly abuse drug 34(62.96%), following by khat 9(16.67%), then marijuana 5(9.26%), and the least abused was aviation oil 3(5.56%) and kuber 3(5.56%). 36(66.67%), started using drugs between 13 and 15 years, whereas the least number, 4(7.41%), started using drugs above 15 years. 42(77.78%), reported daily drug use, whereas the least 4(7.41%) reported using drugs once a month.

Conclusion:

Drug abuse is a significant concern among youth, highlighting the need for focused public health and clinical interventions.

Recommendation:

Implement routine screening and targeted prevention programs to reduce substance use and its associated risks.

Keywords: Prevalence of drug abuse, youth (15–24 years), mental health unit, psychiatric comorbidity, Mubende Regional Referral Hospital.

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Background of the study

Drug abuse, defined as the harmful or hazardous use of psychoactive substances such as alcohol, cannabis, tobacco, khat, sedatives, and opioids, remains a major global public health concern (Ester, 2023). Young people aged 15–24 years are particularly vulnerable because this developmental stage is characterized by experimentation, identity formation, and peer influence, all of which increase the likelihood of initiating substance use and progressing to dependence (Mark, 2022).

Globally, approximately 275 million people were reported to have used drugs in 2021, with alcohol accounting for the highest prevalence (43%), representing a 16% increase from 2010 (Ester, 2023). The burden of drug use disorders, including premature mortality and disability, is disproportionately concentrated in low- and middle-income countries (Benard, 2025). In sub-Saharan Africa, drug use prevalence among youth ranges between 20% and 45%, with alcohol, cannabis, and tobacco being the most frequently used substances, alongside emerging forms such



as shisha and pharmaceutical misuse (Daniel, 2024). Similarly, in East Africa, lifetime prevalence of substance use among youth is estimated at 48.9%, largely driven by alcohol (34.2%), cannabis (28.9%), and khat (22%) (Darius, 2023). These statistics demonstrate a significant regional burden and emphasize the need for localized prevalence studies.

In Uganda, evidence indicates that approximately 30–40% of youth aged 15–24 years have used at least one psychoactive substance, with alcohol and cannabis leading, followed by tobacco and inhalants (Nakibuuka, 2022). Increasingly, substance use is being reported among young people seeking mental health services, with rising cases of substance-induced psychosis documented in regional hospitals (Micheal, 2023). Mubende Regional Referral Hospital has similarly experienced growing numbers of youth presenting with co-occurring mental health disorders and substance use, suggesting a potentially high prevalence within this population (Hellen, 2024).

Despite these concerning trends, there is limited empirical data quantifying the prevalence of drug abuse among youth attending mental health units in Uganda, particularly at Mubende Regional Referral Hospital. Establishing the prevalence is therefore essential for understanding the magnitude of the problem, informing targeted interventions, and guiding policy and prevention strategies within the hospital and surrounding communities. Therefore, this study aims to determine the prevalence of Drug Abuse among Youth in Mubende Regional Referral Hospital.

Methodology

Study design

A cross-sectional descriptive study design was used for the study simply because it allowed the collection of data from a vast group of people within a short period of time. This study design aimed at quantifying the distribution of certain variables related to drug abuse among youths at one point in time.

Study area

This study was conducted in Mubende Regional Referral Hospital, Mubende District. The hospital lies approximately 150 km west of Kampala, serving as a major Referral Hospital for the greater Mubende sub-region. It's bordered by Kiboga to the north, Mityana to the east, Sembabule to the south, and Kyegegwa to the west. It is a public-funded hospital that offers services like delivery (maternity), minor and major surgeries, internal medicine, orthopedics, laboratory, radiology, family planning, counselling, antenatal care services, pediatric care, and immunization

services, etc., to the people of Mubende and neighboring districts.

Study population

The study population comprised 54 youths aged 15-24 years attending Mubende Regional Referral Hospital during the study period. This category of respondents was chosen because they are susceptible to drug abuse, hence, useful and meaningful to the researcher.

Sample size determination

The sample size was calculated using the Kish and Leslie formula

$$n = \frac{z^2 pq}{d^2}$$

Where:

Z=1.96(for 95% confidence level)

P=0.17(prevalence of drug abuse in Mubende Regional Referral Hospital) Q= (1-p)

d=0.05(margin of error) Substituting in the values:

$$n = \frac{[1.962 \times 0.17(1 - 0.17)]}{0.052} = 217$$

However, due to resource and time constraints, the sample size will be divided by 4; that is

$$n = 217/4 = 54$$

This was acknowledged as a limitation for this study.

Sampling techniques

A convenience sampling technique was used to select study participants based on availability and willingness to participate.

Sampling procedures

Data was collected from the mental health clinic on scheduled clinic days and approached youths aged 15-24 years attending the clinic. The purpose of the study was explained, and those who consented (or whose guardians consented below 18 years) were recruited. Participants were included consecutively until the target participants were reached. This process continued across clinic days until the required sample size was attained.

Data collection method

Data were collected using a structured questionnaire administered to the study participants by the researcher. The questionnaire included standardized, closed-ended questions designed to capture information on demographics and the prevalence of drug abuse. This method ensured uniformity in responses, minimized interviewer bias, and facilitated easy coding and analysis of the data.



Data collection tool.

A structured questionnaire was used. The study tool was preferred because it ensured efficiency in collecting data, which is standardized within a short period of time.

Data collection procedure.

An introductory letter was sought from the Mildmay Institute of Health Sciences and presented to the Mubende regional referral hospital research committee. The study participants were allowed to receive medical attention after being involved in the study. Each study participant was interviewed for a maximum of 30 minutes. Those who were not able to understand English had their questions translated into their local language.

Quality control

Pretesting of study tools.

The questionnaire was pretested among students and staff at the school to assess clarity, reliability, and validity. Feedback obtained was used to revise and improve the tool.

Giving ample time for data collection

Additional time was included to ensure smooth data collection and to address any foreseen delays during data collection.

Clear inclusion and exclusion criteria

Inclusion

Youths aged 15–24 years who consented (or whose guardians consented for those below 18) and who were available during the study period

Exclusion

Critically ill youths who could not respond to the questionnaire.

Data analysis and presentation

Study data was analyzed using Microsoft Excel to generate tables, pie charts, and bar graphs.

Ethical consideration

Ethical approval was obtained from the Mildmay research committee. An introductory letter obtained from the Mildmay Institute of Health Sciences granted permission to collect data from Mubende Regional Referral Hospital. Written consent was obtained from study participants after explaining the purpose of the study to the respondents. The respondents were assured of anonymity and confidentiality, as no names were required. Privacy was maintained during the interview process. The participants were free to withdraw at any time without fear. Informed consent was obtained from the participants.

Results

Socio-demographic characteristics of respondents.

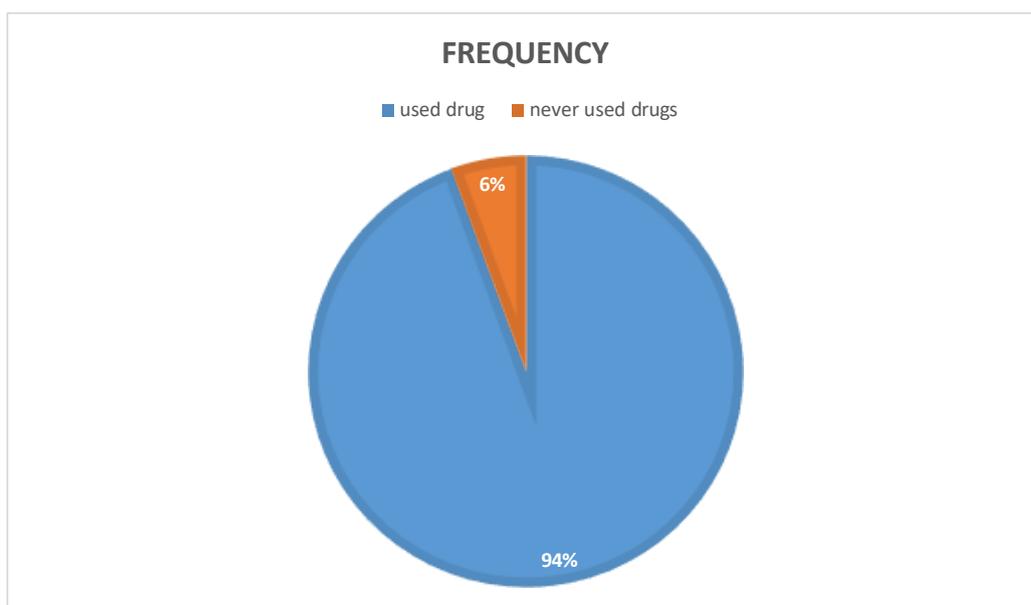
Figure 1: socio-demographic characteristics of the respondents.

Variable	Frequency	Percentage (%)
Age		
15-19	21	38.89
20-25	33	61.11
Total	54	100
Gender		
Male	42	77.78
Female	12	22.22
Total	54	100
Level of education		
Primary level	25	46.3
Secondary level	22	40.74

Most of respondents 33(61.1%) were aged 20-25 years whereas 21(38.39) were aged 15-19 years. Majority of the respondents 42(77.78%) were male while 12(22.22%) were female. Most of them, 25(46.3%), had attained primary education, whereas the least, 7(12.96%), had attained tertiary education. A significant number of youths, 44(81.48%), were Christians. The leading source of income was business 21(38.89%), and the least 13(24.07%) reported salary as their main source of income.

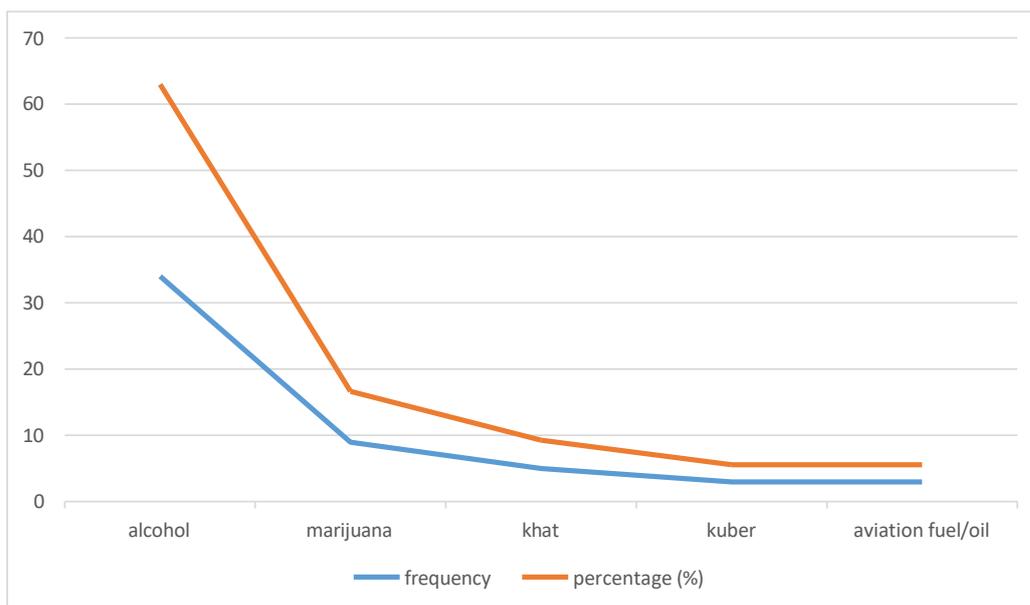
Prevalence of drug abuse among youths.

Figure 1: A pie chart showing respondents who have ever used drugs



A significant number of respondents, 50(94%), reported having used a drug at a point in their life, whereas 4(6%) reported not having used a drug.

Figure 2: A Line Graph showing commonly used substances





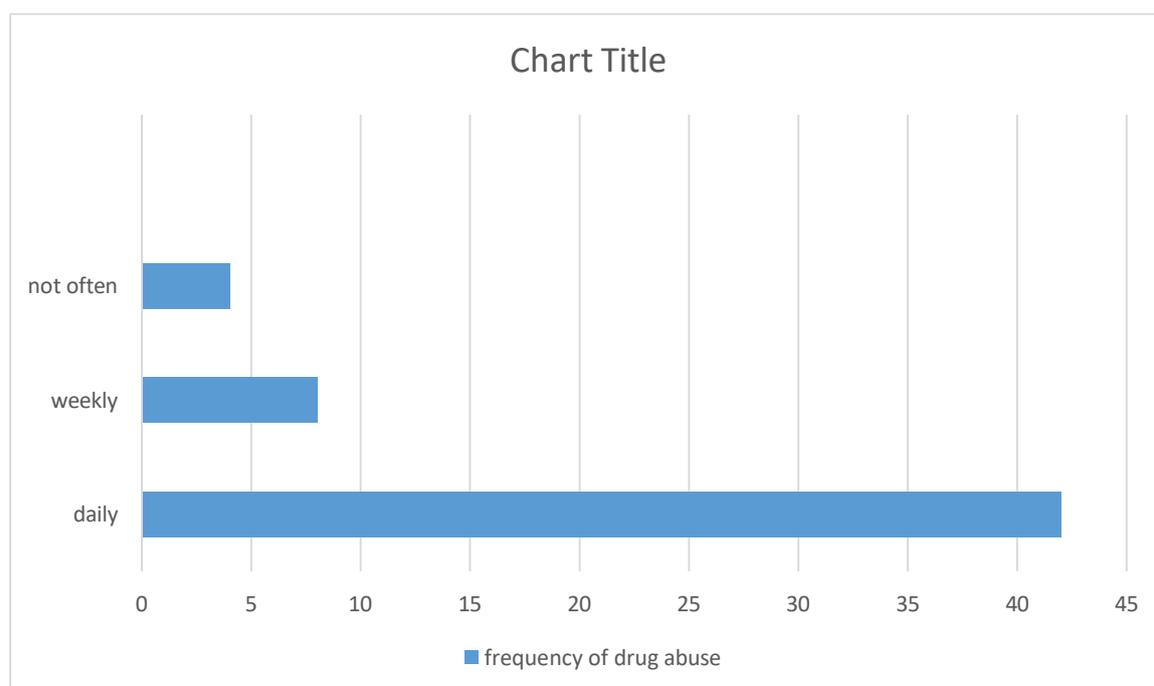
Alcohol was the most commonly abuse drug 34(62.96%), following by khat 9(16.67%), then marijuana 5(9.26%), and the least abused was aviation oil 3(5.56%) and kuber 3(5.56%).

Table 2 shows the age at first drug use.

Variable	Frequency	Percentage (%)
10-12 years	14	25.93
13-15 years	36	66.67
Above 15 years	4	7.41
Total	54	100

The majority of respondents, 36(66.67%), started using drugs between 13 and 15 years, whereas the least number, 4(7.41%), started using drugs above 15 years.

Figure 3: frequency of drug use.



The majority of respondents, 42(77.78%), reported daily drug use, whereas the least4(7.41%) reported using drugs once a month.



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Discussion

Prevalence of drug abuse among youths

Study findings revealed a high prevalence of drug abuse among youths aged 15-24 years, with the majority, 51(94.44%) of respondents, having used a psychoactive substance at least once in their lifetime. The most commonly used drugs were alcohol 34(62.96%) and khat 9(16.67%), followed by marijuana 5(9.26%) and kuber 3(5.56%). These findings indicate that the prevalence of drug abuse among youths in this community is high, probably due to the widespread availability of psychoactive substances in the community, limited enforcement of drug control laws, and socio-cultural acceptability of alcohol consumption. This results in the normalization of early consumption and experimentation with drugs among the youth. These findings agree closely with those reported by Immaculate (2022) in Kampala, who found that 70.1% of youths in urban slums had experimented with substances, predominantly alcohol and cannabis. Similarly, a study conducted in northern Uganda reported that 47% of adolescents had used alcohol, 12% cannabis, and 8% khat (Pamela, 2022). The results further support the WHO report, which indicated that 42% of youths globally consume alcohol, while 22% use tobacco (Danpanichkul et al., 2025). Furthermore, studies in sub-Saharan Africa support this trend, with reports showing alcohol and cannabis being the most frequently abused substances (Jones, 2024; Manariyo & Dusabe, 2025). These findings are explained theoretically with the social learning perspective, which states that people adopt behavior modeled by their peers, family, or community. The high prevalence expressed by the results implies the need for school-centered prevention programs and community-based awareness aimed at reducing youth early engagement and consumption of drugs.

Study limitations

The use of a convenience sampling technique meant that only youths who were available and willing to participate during the clinic days were included, which introduced selection bias and limited the representativeness of the sample.

Although the sample size was calculated using the Kish and Leslie formula, it was reduced due to practical constraints, which weakened the statistical power of the study and limited the ability to detect more suitable associations between the variables.

The report relied solely on self-reported information obtained through structured questionnaires, and this was affected by recall bias and social desirability bias, as some respondents might have either over-reported or under-reported their drug use.

Conclusion

Drug abuse is highly prevalent among youths attending the mental health unit at Mubende Regional Referral Hospital, indicating a serious public health and clinical concern that requires urgent preventive and treatment interventions.

Recommendations

All youths attending the mental health unit should undergo routine screening for substance use during admission and follow-up visits.

Schools and communities should implement preventive education programs targeting children at an early age to delay initiation of drug use.

Authorities should strengthen the regulation and control of access to commonly abused substances, especially alcohol.

Establish adolescent-friendly rehabilitation and addiction treatment services within or linked to the hospital.

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