



## Socio-economic vulnerability and youth drug abuse in Turkana central sub-county, Kenya

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### Abstract

Drug abuse among youth remains a major public health and socio-economic challenge globally, with developing countries experiencing increasing rates of substance use due to unemployment, poverty, weak social structures, and changing cultural values. In Kenya, the problem has continued to affect the social, economic, and psychological well-being of young people, particularly those aged between 18 and 34 years. This study examined the socio-economic determinants of drug abuse among youth in Turkana Central Sub-County, Kenya, with specific focus on employment levels, cultural values, and education levels. The study was anchored on Social Learning Theory and Sociocultural Theory and adopted a descriptive research design. Data was collected from 100 youth respondents selected through cluster and simple random sampling, as well as 30 key informants comprising area chiefs, village administrators, and ward administrators selected purposively. Structured questionnaires and interview guides were used in data collection, while SPSS was used to analyze quantitative data through descriptive and inferential statistics. The findings established that socio-economic factors significantly influence drug abuse among youth in Turkana Central Sub-County. Regression analysis indicated that education level had a statistically significant influence on drug abuse ( $B = 0.183$ ,  $p = 0.014$ ), while employment level and cultural values demonstrated weaker relationships with drug abuse. Qualitative findings revealed that unemployment, idleness, peer influence, weakening traditional cultural structures, and low educational attainment were major contributors to substance abuse among youth. The study concludes that socio-economic challenges continue to expose youth to drug abuse despite existing interventions. It recommends strengthening youth empowerment programs, improving access to education, promoting culturally sensitive awareness initiatives, and creating sustainable employment opportunities for young people in Turkana County.

**Keywords:** Drug abuse, Youth, Employment level, Cultural values, Education level, Turkana Central, Kenya

### Introduction

Drug and substance abuse continues to be a major social and public health concern, particularly among young people. The use of substances such as alcohol, tobacco, cannabis, and other illicit drugs has negatively affected health, productivity, and social well-being across many societies. According to the World Health Organization (WHO, 2023) [30], youth form a large proportion of individuals affected by substance use disorders. Similarly, the World Drug Report (2021) notes that factors such as unemployment, urbanization, and social inequality have contributed to increased drug abuse among young people globally. Addressing youth drug abuse is increasingly recognized as part of broader social sustainability and community well-being efforts, particularly within marginalized communities. In Africa, drug abuse has increasingly been linked to socio-economic challenges such as poverty, unemployment, low literacy levels, and weakening social structures. Studies in Sub-Saharan Africa indicate that many young people engage in substance abuse due to economic frustrations, peer influence, and social exclusion (Jungeun *et al.*, 2020) [11]. The increasing accessibility of drugs has further exposed youth to problems such as crime, violence, and school dropout.

In Kenya, drug abuse remains a significant challenge despite government interventions and awareness campaigns led by institutions such as NACADA. According to NACADA (2021), alcohol, tobacco, bhang, and miraa are among the most abused substances among youth aged between 18 and

34 years. Substance abuse has been associated with unemployment, family instability, insecurity, mental health challenges, and reduced productivity. However, many previous studies in Kenya have mainly focused on urban areas, with limited attention given to marginalized regions such as Turkana County.

Turkana Central Sub-County is characterized by high poverty levels, unemployment, low educational attainment, and changing cultural systems. Although traditional Turkana cultural structures previously guided youth behavior through communal responsibility and social control, socio-economic changes and modernization have gradually weakened these systems. Odongo (2012) [18] observed that alcohol and bhang remain among the most abused substances among youth in Turkana Central Sub-County, particularly among unemployed and socially vulnerable young people.

This study therefore, sought to examine the socio-economic determinants of drug abuse among youth in Turkana Central Sub-County, Kenya, with a specific focus on employment levels, cultural values, and education levels. The study contributes to existing knowledge on youth substance abuse and provides information that may support policy interventions and youth empowerment programs within marginalized communities.

### 1. Statement of the Problem

Drug and substance abuse remains a growing public health and social concern among youth globally. Despite efforts by governments and international organizations to address the

problem, many young people continue to abuse substances such as alcohol, tobacco, bhang, and other drugs, particularly in developing countries affected by poverty, unemployment, and weak social support systems (United Nations, 2015<sup>[27]</sup>; WHO, 2023).

In Kenya, drug abuse has increasingly affected youth aged between 18 and 34 years. According to NACADA (2021), alcohol, tobacco, bhang, and miraa are among the most abused substances among young people. Drug abuse has been associated with challenges such as school dropout, unemployment, crime, family instability, and mental health problems. Although the government and other stakeholders have introduced interventions to address the problem, substance abuse among youth remains a major concern.

The problem is more evident in marginalized regions such as Turkana County, where poverty, unemployment, low education levels, and weakening traditional social structures continue to expose youth to substance abuse. The African Census Bureau (2016)<sup>[2]</sup> reported that alcohol and bhang are among the most abused substances in Turkana Central Sub-County. In addition, socio-economic changes and modernization have weakened traditional cultural systems that previously guided youth behavior and social responsibility.

Previous studies have linked youth drug abuse to unemployment, weak cultural systems, and low educational attainment (Schlenger & Galvin, 2017; Botvin, 2016; Aashir *et al.*, 2018)<sup>[1, 7, 21]</sup>. However, many of these studies focused on urban or developed settings, with limited attention given to marginalized pastoralist regions such as Turkana County. Consequently, there remains limited empirical evidence explaining how employment levels, cultural values, and education levels influence drug abuse among youth in Turkana Central Sub-County.

This study therefore, sought to examine the socio-economic determinants of drug abuse among youth in Turkana Central Sub-County, Kenya, focusing on employment levels, cultural values, and education levels. The findings of the study are expected to support policies and interventions aimed at reducing youth drug abuse in Turkana County and similar marginalized regions.

## 2. Objectives of the Study

The specific objectives of the study included:

1. To determine the influence of youth employment levels on drug abuse among youth in Turkana Central Sub-County.
2. To examine the extent to which cultural values contribute to drug abuse among youth in Turkana Central Sub-County.
3. To investigate the impact of education levels on drug abuse among youth in Turkana Central Sub-County.

## Review of Literature

This section reviews literature on the socio-economic determinants of drug abuse among youth, with particular focus on employment levels, cultural values, and education levels. Previous studies have associated youth drug abuse with unemployment, poverty, weak cultural systems, peer influence, and low educational attainment (Schlenger & Galvin, 2017; Aashir *et al.*, 2018; Botvin, 2016)<sup>[1, 7, 21]</sup>. Although these studies provide important insights into substance abuse among youth, most were conducted in urban or developed settings, with limited focus on

marginalized pastoralist regions such as Turkana County. In addition, many studies examined these determinants independently rather than collectively. This study, therefore sought to examine how employment levels, cultural values, and education levels influence drug abuse among youth in Turkana Central Sub-County, Kenya.

## Theoretical Review

This study was anchored on Social Learning Theory and Sociocultural Theory. The theories explain how social interaction, cultural environments, and socio-economic conditions influence youth behavior toward drug abuse.

### 1. Social Learning Theory

Social Learning Theory, advanced by Bandura (1977)<sup>[6]</sup>, explains that behavior is learned through observation, imitation, and interaction within social environments. The theory argues that individuals acquire attitudes and behaviors by observing peers, parents, teachers, and other role models, especially where such behavior appears acceptable or rewarding. In relation to substance abuse, the theory suggests that youth exposed to drug-using peers and risky social environments are more likely to adopt similar behavior. Studies by Akers (1998) and Bahr *et al.* (2005)<sup>[3, 5]</sup> further show that peer influence and social exposure are significant predictors of youth drug abuse. In this study, the theory explains how unemployment, low educational attainment, and social vulnerability expose youth to environments where drug abuse behavior is learned and reinforced.

### 2. Sociocultural Theory

Sociocultural Theory, developed by Vygotsky (1978)<sup>[28]</sup>, emphasizes that social interaction, cultural experiences, and community environments shape human behavior. The theory explains that individuals acquire values, beliefs, and behavioral patterns through interaction with parents, elders, peers, and community members. In relation to substance abuse, the theory suggests that weakening cultural structures, changing social norms, and exposure to permissive environments increase youth vulnerability to drug abuse. Rogoff (2003) and Wertsch (1991)<sup>[20, 29]</sup> further established that cultural systems and socialization processes significantly influence individual behavior. In this study, the theory explains how changing cultural values and weakening communal structures contribute to youth drug abuse in Turkana Central Sub-County.

Together, Social Learning Theory and Sociocultural Theory provide a framework for understanding how socio-economic conditions, social interaction, and cultural environments influence drug abuse among youth in Turkana Central Sub-County.

## Empirical Review

This section reviews empirical literature related to employment levels, cultural values, and education levels in relation to youth drug abuse.

### 1. Employment Levels and Youth Drug Abuse

Several studies have linked unemployment to increased substance abuse among youth. Schlenger and Galvin (2017)<sup>[21]</sup> found that unemployed youth are more likely to engage in substance abuse due to stress and lack of productive engagement. Similarly, Melchior *et al.* (2019), Henkel (2018), and Jungeun *et al.* (2020)<sup>[9, 11, 14]</sup> established that unemployment and low socio-economic status increase

vulnerability to alcohol, cigarette, and drug abuse. Storti *et al.* (2016) [23] further observed that employment opportunities improve rehabilitation and recovery outcomes among substance users. Although these studies demonstrate a strong relationship between unemployment and substance abuse, most were conducted in developed or urban settings with limited focus on pastoralist communities such as Turkana County.

## 2. Cultural Values and Youth Drug Abuse

Studies have shown that cultural values significantly influence youth attitudes toward substance abuse. Aashir, Faye, and Jagers (2018) [1] found that strong cultural identity and religiosity reduce alcohol use among adolescents. Similarly, Johnson (2020) [10] established that communal values and social control systems shape patterns of drug use across societies. Sudhinaraset and Wigglesworth (2018) [25] further identified peer influence, family environment, and changing cultural norms as major determinants of substance use among youth. Shell, Newman, and Fang (2019) [22] also found that weakening traditional cultural systems increases youth vulnerability to substance abuse. However, few studies have focused on pastoralist communities, such as those in Turkana County.

## 3. Education Levels and Youth Drug Abuse

Previous studies indicate that education plays an important role in reducing youth drug abuse. Botvin (2016) [7] found that low educational attainment increases vulnerability to substance abuse due to limited awareness regarding the harmful effects of drugs. Similarly, the American Addiction Center (2022) [4] and SAMHSA (2013) observed that school dropout and low educational attainment increase susceptibility to alcohol and drug abuse. Momanyi (2019), Onyango (2013), and Githae (2018) [8, 15, 19] further established that educational background significantly influences youth attitudes and behavior toward substance use. Nevertheless, most previous studies focused on urban settings, with limited attention given to marginalized pastoralist regions such as Turkana County.

Overall, the reviewed literature demonstrates that employment levels, cultural values, and education levels significantly influence youth drug abuse. However, limited localized empirical evidence exists on how these factors influence drug abuse among youth in Turkana Central Sub-County, Kenya. This study therefore sought to address this gap.

## Research Methodology

This study adopted a mixed-methods research approach that integrated quantitative and qualitative techniques to

examine the socio-economic determinants of youth drug abuse in Turkana Central Sub-County, Kenya. A descriptive research design was used to describe and analyze the relationship between employment levels, cultural values, education levels, and drug abuse among youth without manipulating the study variables (Kothari, 2019) [13].

The study was conducted in Turkana Central Sub-County, specifically in Lodwar Township, Kanamkemer, and Kalokol wards, which were selected due to their high youth population and increasing cases of youth drug abuse. According to the Kenya Population and Housing Census (2019) [12], the sub-county has approximately 59,297 youths aged between 18 and 34 years.

The target population comprised youth aged between 18 and 34 years as well as 30 key informants consisting of 7 area chiefs, 18 village administrators, and 5 ward administrators. A multi-stage sampling procedure was adopted whereby cluster sampling was used to identify the study wards, simple random sampling was used to select youth respondents, and purposive sampling was used to select key informants due to their administrative knowledge regarding youth drug abuse.

Using the Nassiuma (2000) [17] formula, a sample size of 100 youth respondents was obtained. In addition, all the 30 key informants were included through census sampling, bringing the total sample size to 130 respondents.

Quantitative data was collected using structured questionnaires administered to youth respondents, while qualitative data was collected using interview schedules administered to key informants. The questionnaire contained closed-ended and open-ended items covering employment levels, cultural values, education levels, and drug abuse behavior. Likert-scale items ranging from Strongly Disagree (1) to Strongly Agree (5) were used to measure respondents' perceptions.

To ensure validity, the instruments were reviewed by experts in sociology, public health, and research methodology to assess clarity, relevance, and alignment with the study objectives. Expert opinion was utilized to improve content validity and suitability of the instruments.

Reliability of the instruments was assessed through a pilot study conducted in Turkwel Ward within Loima Sub-County, an area with socio-economic characteristics similar to the study area. The pilot study involved 10 youth respondents and 3 key informants, representing approximately 10% of the study sample as recommended by Mugenda and Mugenda (2012). Internal consistency reliability was tested using Cronbach's Alpha coefficient, where values of 0.70 and above were considered acceptable (Fraenkel & Wallen, 2000).

**Table 1:** Reliability Test Results

Variable	Number of Items	Cronbach Alpha	Interpretation
Employment Level	5	0.781	Reliable
Cultural Values	5	0.756	Reliable
Education Level	5	0.803	Reliable
Drug Abuse among Youth	5	0.821	Reliable
Overall Scale	20	0.79	Reliable

Source: Survey Data (2026)

The findings indicate that all variables recorded Cronbach Alpha coefficients above the recommended threshold of 0.70, confirming acceptable internal consistency reliability of the research instruments.

Data collection was conducted after obtaining the necessary research permits and ethical approvals from relevant authorities. Quantitative data was coded and analyzed using SPSS version 28 through descriptive and inferential

statistics, including frequencies, percentages, Pearson correlation, and multiple regression analysis. Qualitative data from interviews was analyzed thematically to complement and triangulate quantitative findings. The study adhered to research ethical principles by ensuring voluntary participation, informed consent, confidentiality, anonymity, and secure handling of collected data.

### Research Findings, Analysis and Discussion

This section presents the findings of the study based on data collected from the respondents. The findings are presented through response rate, correlation analysis, regression analysis, ANOVA, and regression coefficients in order to determine the socio-economic determinants of drug abuse among youth in Turkana Central Sub-County, Kenya.

### 1. Response Rate

The study targeted 130 respondents comprising 100 youth respondents and 30 key informants from Lodwar Township, Kanamkemer, and Kalokol wards. Out of the 100 questionnaires distributed to youth respondents, 91 were successfully completed and returned, representing a response rate of 91%. In addition, all the 30 key informants participated in the interviews, resulting in a 100% response rate for qualitative data collection.

### 2. Correlation Analysis

Pearson Product-Moment Correlation analysis was conducted to determine the relationship between Employment Level, Cultural Values, Education Level, and Drug Abuse among the Youths.

**Table 2:** Correlation Analysis

		Correlations			
		Employment Level	Cultural Values	Education Level	Drug Abuse among the Youths
Employment Level	Pearson Correlation	1			
	Sig. (2-tailed)				
Cultural Values	Pearson Correlation	.395**	1		
	Sig. (2-tailed)	.000			
Education Level	Pearson Correlation	.054	.365**	1	
	Sig. (2-tailed)	.612	.000		
Drug Abuse among the Youths	Pearson Correlation	-.024	.138	.296**	1
	Sig. (2-tailed)	.824	.191	.004	
	N	91	91	91	91

\*\* Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data 2026

The findings revealed a significant positive relationship between Cultural Values and Employment Level ( $r = 0.395$ ,  $p = 0.000$ ) as well as between Cultural Values and Education Level ( $r = 0.365$ ,  $p = 0.000$ ). However, the relationship between Education Level and Employment Level was weak and statistically insignificant ( $r = 0.054$ ,  $p = 0.612$ ). Drug Abuse among the Youths had a weak negative and statistically insignificant relationship with Employment Level ( $r = -0.024$ ,  $p = 0.824$ ). These findings contrast with Schlenger and Galvin (2017) and Henkel (2018) [9, 21], who found that unemployment significantly increases substance abuse among youth. However, the findings support Storti *et al.* (2016) [23], who argued that employment alone may not independently predict substance abuse behavior.

Cultural Values also showed a weak and statistically insignificant relationship with Drug Abuse among the Youths ( $r = 0.138$ ,  $p = 0.191$ ). The findings differ from Aashir, Faye, and Jagers (2018) [1], who found that strong cultural identity reduces substance abuse among youth.

However, the findings support Sudhinaraset and Wigglesworth (2018) [25], who observed that cultural influence on substance abuse is often shaped by peer groups and social environments. Education Level had a positive and statistically significant relationship with Drug Abuse among the Youths ( $r = 0.296$ ,  $p = 0.004$ ). The findings differ from Botvin (2016) [7], who established that higher education generally reduces drug abuse. However, the findings agree with Githae (2018) [8], who found that drug abuse may persist among educated youth due to unemployment, frustration, and peer pressure. Overall, Education Level recorded the strongest statistical relationship with Drug Abuse among the Youths.

### Regression Analysis

Multiple linear regression analysis was conducted to determine the combined predictive effect of Employment Level, Cultural Values, and Education Level on Drug Abuse among the Youths.

**Table 3:** Model Summary of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.303 <sup>a</sup>	.092	.061	.48459

a. Predictors: (Constant), Education Level, Employment Level, Cultural Values

Source: Survey Data 2026

The regression model produced an R value of 0.303, indicating a moderate relationship between the independent variables and Drug Abuse among the Youths. The R Square value of 0.092 implies that Employment Level, Cultural Values, and Education Level explained 9.2% of the variation in youth drug abuse. The findings suggest that although socio-economic factors influence youth drug abuse, other factors such as peer pressure, family

background, mental health, and accessibility of drugs may also contribute significantly to substance abuse behavior among youth.

### ANOVA of Regression

Analysis of Variance (ANOVA) was conducted to determine the overall significance of the regression model.

**Table 4: ANOVA of Regression**

ANOVA <sup>a</sup>						
Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	2.071	3	.690	2.940	.038 <sup>b</sup>
	Residual	20.430	87	.235		
	Total	22.501	90			
a. Dependent Variable: Drug Abuse among the Youths						
b. Predictors: (Constant), Education Level, Employment Level, Cultural Values						

Source: Survey Data 2026

The ANOVA results revealed that the overall regression model was statistically significant ( $F = 2.940, p = 0.038$ ). This indicates that Employment Level, Cultural Values, and Education Level collectively influenced Drug Abuse among the Youths.

The findings agree with Jungeun *et al.* (2020) and Henkel (2018) [9, 11], who established that socio-economic and socio-

cultural factors jointly influence youth substance abuse behavior.

**Coefficients of the Regression Model**

The regression coefficients were analyzed to determine the individual contribution of each independent variable to Drug Abuse among the Youths.

**Table 5: Coefficients of Regression Model**

Coefficients <sup>a</sup>						
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	3.938	.372		10.591	.000
	Employment Level	-.052	.092	-.063	-.564	.574
	Cultural Values	.033	.064	.062	.519	.605
	Education Level	.183	.073	.277	2.508	.014
a. Dependent Variable: Drug Abuse among the Youths						

Source: Survey Data 2026

The regression equation derived from the coefficients was expressed as:

$$Y = 3.938 - 0.052X_1 + 0.033X_2 + 0.183X_3$$

Where:

Y = Drug Abuse among the Youths

X<sub>1</sub> = Employment Level

X<sub>2</sub> = Cultural Values

X<sub>3</sub> = Education Level

Employment Level had a negative but statistically insignificant effect on Drug Abuse among the Youths ( $B = -0.052, p = 0.574$ ). These findings partially align with Melchior *et al.* (2019) [14], who linked unemployment to increased substance abuse among youth. Cultural Values also had a positive but statistically insignificant effect on Drug Abuse among the Youths ( $B = 0.033, p = 0.605$ ). The findings contrast with Johnson (2020) [10], who established that strong cultural systems influence substance use behavior.

However, Education Level had a positive and statistically significant effect on Drug Abuse among the Youths ( $B = 0.183, p = 0.014$ ). The findings differ from Botvin (2016) and SAMHSA (2013) [7, 24], which found that higher education reduces substance abuse. However, the findings agree with Githae (2018) and Momanyi (2019) [8, 15], who observed that drug abuse may persist among educated youth due to socio-economic frustrations and peer influence. Overall, the findings indicate that Education Level was the most significant socio-economic determinant of youth drug abuse among the variables studied.

**Conclusion**

The study established that socio-economic factors influence drug abuse among youth in Turkana Central Sub-County, Kenya. Employment challenges, weakening cultural structures, and educational limitations were found to contribute to youth vulnerability to substance abuse.

Although employment level and cultural values showed weak statistical relationships with drug abuse, qualitative findings indicated that unemployment, peer influence, social pressure, and changing cultural systems continue to expose many young people to substance abuse.

The findings further showed that education level significantly influenced youth drug abuse. While education increases awareness regarding the dangers of substance abuse, educational attainment alone was not sufficient to protect youth from drug abuse, particularly among unemployed and socially vulnerable young people.

The study therefore concludes that youth drug abuse is a multidimensional socio-economic challenge that requires collaborative efforts from government institutions, schools, families, religious organizations, community leaders, and youth groups. Strengthening youth empowerment initiatives, community support systems, and access to education may help reduce substance abuse among young people in Turkana County. The study also contributes to broader discussions on social sustainability, youth inclusion, and community resilience within marginalized communities by highlighting the importance of addressing the socio-economic conditions associated with youth drug abuse.

**Policy Recommendations**

National and county governments should strengthen youth empowerment initiatives through vocational training, entrepreneurship support, and employment creation programs targeting young people in Turkana Central Sub-County. Such initiatives would help reduce idleness, economic frustration, and youth vulnerability to substance abuse.

The government and relevant stakeholders should also implement culturally sensitive drug prevention programs involving community elders, religious leaders, local administrators, schools, and youth groups. Community awareness campaigns, mentorship programs, and life skills

education should be strengthened to promote positive values and increase awareness regarding the dangers of substance abuse.

County governments, NGOs, CBOs, and Faith-Based Organizations should collaborate in providing accessible counseling, rehabilitation, and psychosocial support services for affected youth. In addition, young people should be encouraged to participate in sports, cultural activities, and other community programs that provide productive alternatives to drug abuse.

### **Practical and Social Implications of the Study**

The findings of this study provide practical insights for policymakers, county governments, educational institutions, and community organizations involved in youth development and drug prevention programs. The findings highlight the importance of addressing unemployment, weak social structures, and limited educational opportunities as part of broader strategies aimed at reducing youth drug abuse within marginalized communities.

Socially, the study emphasizes the need to strengthen family support systems, cultural guidance, mentorship, and community participation in addressing substance abuse among youth. Reducing youth drug abuse may contribute to improved mental health, reduced crime, increased productivity, and stronger social cohesion within communities.

The study also contributes to broader discussions on social sustainability, youth inclusion, and community resilience within arid and semi-arid regions. In addressing the socio-economic drivers of substance abuse, stakeholders may promote healthier, more productive, and socially stable youth populations in Turkana County and similar marginalized settings.

### **Areas for Future Research**

The study was limited to Turkana Central Sub-County and therefore, the findings may not fully represent youth experiences in other regions of Kenya. In addition, the study relied on self-reported data, which may have been affected by response bias due to the sensitive nature of substance abuse. The cross-sectional research design also limited the ability to establish long-term causal relationships between socio-economic factors and youth drug abuse.

Future studies should examine additional determinants of youth substance abuse, such as mental health, peer influence, family structure, and social media exposure. Further research may also assess the effectiveness of government and community-based interventions aimed at reducing youth drug abuse within marginalized regions. Comparative studies between urban and pastoralist communities are also recommended to provide a deeper understanding of socio-cultural influences on youth substance abuse.

### **References**

1. Aashir F, Faye M, Jagers R. Cultural identity and adolescent substance use: Protective roles of religiosity and community attachment. *Journal of Adolescent Research*,2018;33(4):456-472.
2. African Census Bureau. Population and housing census report. African Census Bureau, 2016.
3. Akers RL. Social learning and social structure: A general theory of crime and deviance. Northeastern University Press, 1998.

4. American Addiction Centers. Education and substance abuse prevention. American Addiction Centers, 2022.
5. Bahr SJ, Hoffmann JP, Yang X. Parental and peer influences on adolescent drug use. *Journal of Youth and Adolescence*,2005;34(4):353-365.
6. Bandura A. Social learning theory. Prentice Hall, 1977.
7. Botvin GJ. Preventing drug abuse in schools: Social and competence enhancement approaches. *Journal of Primary Prevention*,2016;37(2):121-138.
8. Githae J. Educational attainment and youth drug abuse in Kenya. *African Journal of Education Studies*,2018;12(3):45-59.
9. Henkel D. Unemployment and substance use: A review of empirical literature. *Current Drug Abuse Reviews*,2018;11(1):4-18.
10. Johnson M. Cultural orientations and substance use patterns among adolescents. *Journal of Cultural Psychology*,2020;14(2):201-219.
11. Jungeun K, Karl M, Lacey T. Socio-economic hardship and youth vulnerability to substance abuse in Sub-Saharan Africa. *African Journal of Social Sciences*,2020;15(2):67-84.
12. Kenya National Bureau of Statistics. Kenya population and housing census 2019. Kenya National Bureau of Statistics, 2019.
13. Kothari CR. Research methodology: Methods and techniques. 4th ed. New Age International Publishers, 2019.
14. Melchior M, Chollet A, Gulizar T. Unemployment and substance use among young adults in France. *European Journal of Public Health*,2019;29(3):456-462.
15. Momanyi J. Family educational background and youth drug abuse in Kenya. *Journal of African Studies in Education*,2019;7(1):89-102.
16. NACADA. Status of drug and substance abuse in Kenya. National Authority for the Campaign Against Alcohol and Drug Abuse, 2021.
17. Nassiuma DK. Survey sampling: Theory and methods. University of Nairobi Press, 2000.
18. Odongo P. Substance abuse among youth in Turkana Central Sub-County. *Kenya Journal of Social Development*,2012;5(2):112-124.
19. Onyango S. Household education levels and adolescent drug abuse in Kenya. *East African Journal of Public Health*,2013;10(2):77-85.
20. Rogoff B. The cultural nature of human development. Oxford University Press, 2003.
21. Schlenger W, Galvin D. Unemployment and adolescent drug abuse: A longitudinal study. *Journal of Substance Abuse Treatment*,2017;82(1):45-53.
22. Shell DF, Newman I, Fang X. Western cultural values and adolescent alcohol use. *Journal of Youth Studies*,2019;22(5):623-639.
23. Storti C, De Grauwe P, Sabadash A. Employment opportunities and rehabilitation willingness among drug users. *European Journal of Health Economics*,2016;17(4):567-579.
24. Substance Abuse and Mental Health Services Administration. National survey on drug use and health. Substance Abuse and Mental Health Services Administration, 2013.
25. Sudhinaraset M, Wigglesworth C. Peer influence and cultural norms in youth alcohol use. *Journal of Adolescent Health*,2018;62(3):354-361.

26. United Nations Office on Drugs and Crime. World drug report 2021. United Nations Office on Drugs and Crime, 2021.
27. United Nations. Transforming our world: The 2030 agenda for sustainable development. United Nations, 2015.
28. Vygotsky LS. Mind in society: The development of higher psychological processes. Harvard University Press, 1978.
29. Wertsch JV. Voices of the mind: A sociocultural approach to mediated action. Harvard University Press, 1991.
30. World Health Organization. Substance use disorders: Global health estimates. World Health Organization, 2023.