

## Original Research Article

## Addressing the Burden of Alcohol and Drug Abuse

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**Abstract:** The burden of substance abuse is an enormous public health issue. Globally, 1 in every 17 people 15-64 years uses at least one drug. Cannabis is the most used drug. In Kenya, 1 in every 6 people between 15 and 65 years are currently using at least one drug. The aim of this study was to determine the burden of alcohol and drug abuse in Kenya, and suggest ways of reducing the burden. A scoping review of literature was conducted through the Google Scholar according to the criteria and methodology by Arksey and O'Malley (2005). 96 studies fully met the inclusion criteria. The study concluded that Kenya faces a heavy burden of alcohol and drug abuse that causes enormous physical, mental, biological, social, spiritual, psychological, emotional, economic, intellectual, developmental and environmental sufferings, robbing individuals of social and economic opportunities, imposing an enormous burden on families and the society, and negatively affecting the country's development efforts. Recommendations for addressing alcohol and drug abuse include: enhancing awareness regarding alcohol and drug use-related harms and its consequences; advocating for healthy, balanced lifestyles; normalizing self-love, self-care and seeking help; resisting peer pressure; building resilience; fostering strong interpersonal relationships; scaling up positive parenting and strengthening families; addressing stressful situations; developing life skills; enforcement of strong measures to regulate access to alcohol and drugs; early identification and reduction of alcohol and drug use; avoiding stigmatization and discrimination; using multi-dimensional family therapy strategies; scaling up broad-based, positive, holistic, innovative, affordable and evidence-based prevention, treatment, recovery and rehabilitation approaches/interventions; including gender-responsive, trauma-informed and anti-oppressive approaches in alcohol and drug addiction treatment as well as gender-based violence interventions; use of court-mandated treatment for opioid use disorder; and ensuring a robust clinical, public health and research capacity in alcohol and drug abuse.

**Keywords:** Alcohol, Drug, Substance, Use, Abuse and Misuse.

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## INTRODUCTION

Substance abuse refers to the harmful (or hazardous) use of psychoactive substances, including alcohol and illicit drugs (World Health Organization, 2024).

Substance abuse is on a steady increase globally. According to the World Drug Report of 2023, globally, 1 in every 17 people between 15 and 64 years uses at least one drug. This increase was 23 per cent higher than a decade earlier, from 240 million in 2011, to 296 million in 2021. Cannabis was the most used drug with an estimated 219 million users (4.3 per cent of the global adult population). 36 million people had used

amphetamines, 22 million had used cocaine and 20 million had used "ecstasy"-type substances. The report further revealed that opioids continued to be the group of substances with the highest contribution to severe drug-related harm, including fatal overdoses with an estimated 60 million people engaged in non-medical opioid use, while 31.5 million of them had used opiates (mainly heroin) (United Nations Office on Drugs and Crime, 2023).

In 2019, 5,167,734 young people throughout the world were newly diagnosed with drug use disorder (DUD), while 18,141,973 young individuals already had DUD. Unfortunately, 12,058 DUD-associated deaths occurred in that year. Additionally, 3,755,462 disability-

adjusted life years (DALYs) of DUD occurred among the young population. The results further revealed that males had a much heavier disease burden of DUD, compared to females (Qu *et al.*, 2024).

In the African Region, cannabis is the most widely used illicit substance. The highest prevalence and increase in use was reported in West and Central Africa with rates between 5.2% and 13.5%. Amphetamine-type stimulants (ATS) such as "ecstasy" and methamphetamine ranked as Africa's second most widely abused drug type. Other substances that were used by children and youth included benzodiazepines such as diazepam, chlorpromazine and different inhalants, while 3.7% were injecting drugs. Unfortunately, injecting drugs carries an added, and very high risk of infection with blood borne viruses such as HIV, hepatitis B and C. Thus, sharing of contaminated needles and syringes is an important mode of transmission for those viruses (United Nations Office on Drugs and Crime, 2023; World Health Organization, 2024).

The global burden of alcohol and drug abuse is enormous, and, unfortunately, it continues to increase. It has been recognized as the main cause of public health issues. The long-term use of addictive substances causes chronic psychiatric disorders characterised by abnormalities in the central nervous system adaptive changes which are manifested as compulsive medication behavior, strong drug cravings, and relapse. Additionally, the burden of drug use disorders, as measured by the average annual percentage change (AAPC) of deaths and disability-adjusted life-years (DALYs) continues to increase. Although this burden varies significantly among regions, however, it has been found to be higher in high-income countries (HICs), and more concentrated among young people and males (Shen *et al.*, 2023).

Research has shown that people with substance use disorder (SUD) are at significantly greater risk of depression and suicide compared with the general population (Giusto *et al.*, 2023; Padmanathan *et al.*, 2022). Additionally, another study demonstrated that intimate partner violence, mental health, and substance use are concurrent problems (Lessard *et al.*, 2021).

Unfortunately, substance abuse negatively affects not just the individual, but the family, their community, the society, the nation, and the entire world generally. For example, one of the key impacts of substance abuse on society is the negative health consequences experienced by its members. Additionally, illicit drug use also puts a heavy financial burden on individuals, families and the society. Addiction to alcohol and drugs has been identified as a relevant social and health problem with regards to communicable diseases such as HIV infection, tuberculosis, and sexually transmitted infections as well as gender-based

violence (Amaro *et al.*, 2021; Fast *et al.*, 2020; Healy & Cannon, 2020; Jaguga & Kwobah, 2020; Jordans & Kohrt, 2020; Kamenderi *et al.*, 2021; Magidson *et al.*, 2020; Mbuthia *et al.*, 2020; Mootz *et al.*, 2022; Musyoka *et al.*, 2020; Nyongesa *et al.*, 2021; Philip *et al.*, 2020; Puffer *et al.*, 2020; Puffer, Friis-Healy, *et al.*, 2021; Puffer, Giusto, *et al.*, 2021; Puffer & Ayuku, 2022; Purgato *et al.*, 2020; Romo-Avilés *et al.*, 2023; Salonen *et al.*, 2024; Sarkar *et al.*, 2022; Shen *et al.*, 2023; Wall *et al.*, 2020; Wangensteen *et al.*, 2020; Watson *et al.*, 2020).

The evolution of the complex global illicit drug problem is driven by a range of factors. For example, socio-demographic trends are influential such as the population's gender, age and the rate of urbanization. In many cultures, alcohol has been widely used for centuries despite being a psychoactive substance with dependence-producing properties. The harmful use of alcohol causes a large disease, social and economic burden in societies. Environmental factors such as economic development, culture, availability of alcohol and the level and effectiveness of alcohol policies are relevant factors in explaining differences and historical trends in alcohol consumption and related harm. It is important to note that alcohol-related harm is determined by the volume of alcohol consumed, the pattern of drinking, and, the quality of alcohol consumed. The harmful use of alcohol is a component cause of more than 200 disease and injury conditions in individuals, most notably alcohol dependence, liver cirrhosis, cancers and injuries. The latest causal relationships established are those between alcohol consumption and incidence of infectious diseases such as tuberculosis and HIV/AIDS (Shen *et al.*, 2023).

According to the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA), one in every 6 Kenyans aged 15-65 years were currently using at least one drug or substance of abuse. Additionally, one in every 3 males aged 15-65 years and 1 in every 16 females were currently using at least one drug or substance of abuse. The results further showed that the Western region had the highest prevalence of current use of at least one drug or substance of abuse (26.4%) followed by Eastern (20.7%) and Nairobi (19.1%). Unfortunately, the report showed that the average age category for initiation of tobacco, alcohol, khat, cannabis, prescription drugs, cocaine and heroin was 16 – 20 years. However, the minimum age of initiation for tobacco was 6 years, alcohol (7 years), cannabis (8 years), khat (9 years), prescription drugs (8 years), heroin (18 years) while for cocaine it was 20 years (National Authority for the Campaign Against Alcohol and Drug Abuse, 2022).

Moreover, a study carried out in four counties in Kenya (Isiolo, Kajiado, Murang'a and Nyamira) revealed that the prevalence of drug and substance abuse (DSA) was 86.0%. The highest prevalence was observed

in Nyamira County (89.8%). According to age, the highest prevalence was observed in the age category of between 45 to 53 years (89.4%), followed by those aged between 36 to 44 years (88.0%). Furthermore, the majority of those who abuse drugs were males (94.5%). The results further showed that the most abused substances were packaged alcohol (25.2%), cigarettes (20.3%), local brew (chang'aa) (16.3%), and khat (miraa) (10.5%). The multi-variable analysis of risk factors revealed that DSA was significantly higher among males (adjusted odds ratio (aOR)=7.02 (95%CI: 5.21-9.45),  $p < 0.001$ ), government employees (aOR)=2.27 (95%CI: 1.05–4.91),  $p = 0.036$ ) and unmarried (aOR) = 1.71 (95%CI: 1.06–2.77),  $p = 0.028$ ) (Okoyo *et al.*, 2022).

Other studies have shown that there is increase in alcohol and drug abuse (ADA) among college students. This has become a global public health concern, and is associated with increased ADA disorders to the individuals as well as public health problems to their families and societies. Additionally, among the students, there was also the risk of poor academic performance, taking longer to complete their studies or dropping out of college (Mbuthia *et al.*, 2020; Musyoka *et al.*, 2020; Nyongesa *et al.*, 2021).

Drug demand and harm reduction policy in Kenya is based on Kenyan statutes, the Constitution of Kenya (2010), the Narcotic Drugs and Psychotropic Substances (Control) Act (1994), the Alcoholic Drinks Control Act (2010), as well as relevant legislation/policies on alcohol and drug abuse such as *Public Sector Alcohol and Drugs Workplace Policy (2017)*, *The Mental Health (Amendment) Bill (2020)*, *Kenya Mental Health Action Plan (2021-2025)*, *National Tele-Mental Health Guidelines (2021)*, *National Guideline on Workplace Mental Wellness (2023)* and *National Guidelines for Tobacco Dependence Treatment and Cessation (2017)*. Therefore, in line with the United Nations 2030 Agenda for Sustainable Development, Kenya is committed to strengthening prevention and treatment of substance abuse, including abuse of narcotic drug and harmful use of alcohol and tobacco towards the

overall promotion of healthy lives for all at all ages (National Authority for the Campaign Against Alcohol and Drug Abuse, 2022).

The drug and alcohol burden in Kenya calls for the need for the identification of barriers and facilitators of promotion, prevention, treatment and recovery so that they can be used to make care and treatment accessible to patients with substance use disorders and bridge the gaps, as well as developing effective interventions to prevent depression and suicide and reduce self-harm amongst people with drug and alcohol use disorder. Therefore, the aim of this study was to determine the burden of alcohol and drug abuse in Kenya, and suggest ways of reducing the burden.

## METHODOLOGY

**Method:** A scoping review of literature was conducted through the Google Scholar according to the criteria and methodology by Arksey and O'Malley (2005).

**Inclusion criteria:** Eligible studies were those addressing alcohol and drug abuse in Kenya. Only studies published in English, for which the full texts were available, and published between 2020 and 2024 in peer-reviewed scientific journals were included.

**Exclusion criteria:** Studies published earlier than 2020 and those for which the full text were unavailable.

**Literature search:** The search for studies was conducted from April to August 2024. The authors used the search terms “Alcohol”, “Drug”, “Substance”, “Abuse” and “Misuse”.

**The selection process:** The selection process included the following steps: (i) Specifying the research questions; (ii) Identification of studies; (iii) Selection of studies published between 2020 and 2024; (iv) Screening of the identified studies; and (v) Synthesis and reporting of the results. The flowchart of the selection process is presented in figure 1 below.

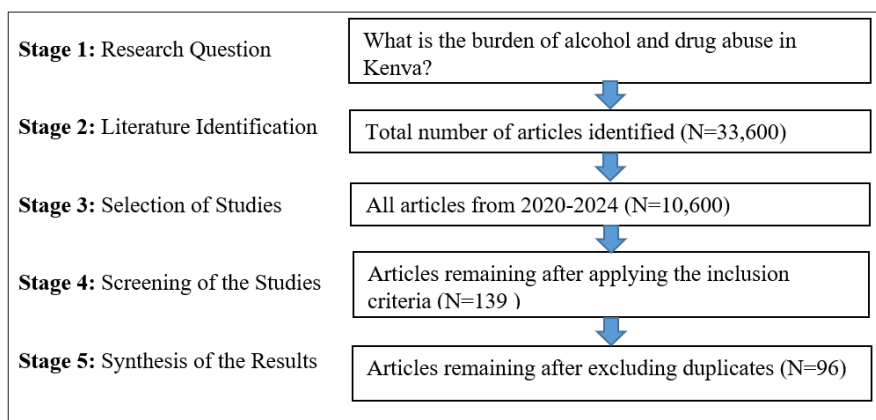


Figure 1: The flowchart

## RESULTS

Following a comprehensive literature review as shown in figure 1 above, only 96 studies fully met the inclusion criteria.

## DISCUSSION

The burden of substance use disorders presents a serious challenge for Kenya. The country, like many other countries throughout the world, faces a heavy burden of alcohol and drug abuse (ADA) that causes enormous physical, mental, biological, social, spiritual, psychological, emotional, economic, intellectual, developmental and environmental sufferings. Additionally, it robs individuals of social and economic opportunities, and further imposing an enormous burden on families and the society. Ultimately, negatively affecting the country's development efforts.

The results of a nation-wide study that was carried out by NACADA among Kenyans aged 15-65 years showed that one in every 6 Kenyans were currently using at least one drug or substance of abuse. Additionally, one in every 3 males and 1 in every 16 females were currently using at least one drug or substance of abuse. Moreover, the study showed that the prevalence of alcohol usage among the respondents was 12.2 percent, tobacco was 8.3 percent, khat (miraa) was 4.1 per cent and bhang or marijuana was 1.0 per cent. Furthermore, the study revealed that the average age category for initiation of tobacco, alcohol, khat, cannabis, prescription drugs, cocaine and heroin was 16-20 years. However, the minimum age of initiation for tobacco was 6 years, alcohol (7 years), cannabis (8 years), khat (9 years), prescription drugs (8 years), heroin (18 years) while for cocaine it was 20 years (National Authority for the Campaign Against Alcohol and Drug Abuse, 2022). This calls for evidence-based prevention programs as well as increasing access to affordable treatment and rehabilitation services in Kenya (Kamenderi *et al.*, 2021).

According to many studies, ADA has been associated with many evils, crime and indiscipline, such as, poor class attendance, poor performance, school dropout and destructive strikes that lead to damage the institution property or even death. Additionally, substance abusers are prone to many communicable diseases as they are likely to lower their morals and engage in risky sexual activities that can lead to sexually transmitted diseases (STDs) including HIV infection and AIDS (Kamenderi *et al.*, 2021; Mbuthia *et al.*, 2020; Morojele *et al.*, 2021; National Authority for the Campaign Against Alcohol and Drug Abuse, 2022; Regenauer *et al.*, 2022; Shen *et al.*, 2023; Yeo *et al.*, 2022). It is very unfortunate to note that addiction leads to the shameful spiral of more addiction (Batchelder, Glynn, *et al.*, 2022).

Studies carried out among students and youths in Kenya have revealed that the problem of ADA among students was on the increase. The studies showed that the commonly abused substances were alcohol, khat, cannabis and cigarettes. The factors that predisposed students to ADA included: easy accessibility to the substances, peer pressure, availability of funds, excess freedom, the male gender, and stress, not being active in religious activities, poor parenting and the African culture that upholds substances, such as alcohol, as an acceptable social drink. The studies showed that, unfortunately, ADA had led to various negative effects, such as poor performance, risky sexual behaviour, and mental disturbances (Chapia *et al.*, 2021; Makokha *et al.*, 2021; Mbuthia *et al.*, 2020; Musyoka *et al.*, 2020; Mutiso *et al.*, 2022; Nyongesa *et al.*, 2021; Okoyo *et al.*, 2022; Ssewanyana *et al.*, 2020; Theuri & Nzioka, 2021). For example, the study done by Musyoka *et al.* (2020) among university students at the University of Nairobi revealed that the lifetime and current alcohol and substance use prevalence were 25 per cent and 20 per cent respectively. The frequently used substances were alcohol at 22 per cent, cannabis at 8 per cent, and tobacco at 7 per cent. Additionally, there was multiple-substance use reported by 13 per cent of the respondents, and the main combinations being cannabis, tobacco, and alcohol. The study further showed that students living in private hostels were four times more likely to be current substance abusers compared with those living on campus (OR = 4.7, 95% CI: 2.0, 10.9). Another study carried out at the Kenyan coast revealed that substance use was high among young people. However, the frequency of use generally appeared to be lower among those living with HIV compared to the HIV-uninfected peers. The study emphasised the need for substance use prevention initiatives that targeted young people, regardless of their HIV infection status (Nyongesa *et al.*, 2021).

Studies have shown that parents influence their children to indulge in ADA. For example, a study carried out among secondary school students revealed that there was a statistically significant influence of parental influence on ADA (Chapia *et al.*, 2021). Thus, parents should abstain from drugs because they are role models of their children. Additionally, other studies have showed that ADA risk-taking behaviour in adolescents was higher where there was poor family stability, negative peer influence, breakdown of societal values and weak government measures. Thus, there is need for family-focused prevention and early intervention (Caponnetto *et al.*, 2020; Makokha *et al.*, 2021; Matson *et al.*, 2022; McGovern *et al.*, 2021; Muir *et al.*, 2023; Nelson *et al.*, 2022; Sieger & Haswell, 2020; Theuri & Nzioka, 2021; Wolfson *et al.*, 2021).

From various studies, it is evident that ADA mostly affects males and young people (Chapia *et al.*, 2021; Kamenderi *et al.*, 2021; Makokha *et al.*, 2021; Mbuthia *et al.*, 2020; McGovern *et al.*, 2021; Mehus *et al.*, 2021; Musyoka *et al.*, 2020; National Authority for



the Campaign Against Alcohol and Drug Abuse, 2022; Nyaga *et al.*, 2021; Nyongesa *et al.*, 2021; Okoyo *et al.*, 2022; Shen *et al.*, 2023; Ssewanyana *et al.*, 2020; Thor *et al.*, 2022). However, despite the harmful effects of ADA, pregnant women are not exempted from this vice. One study carried out among pregnant women at the coastal region of Kenya showed that, as opposed to observations from the developed counties, the respondents continued using illicit drugs during their pregnancy. This greatly underscores the need to put in place interventions to mitigate drug use during pregnancy, not just in coastal Kenya, but all over the country and globally (Mburu *et al.*, 2020).

Studies have linked ADA to lower rates of tuberculosis (TB) treatment and antiretroviral therapy (ART) initiation, non-adherence to treatment, decreased retention among patients enrolling in TB and HIV care and treatment programs, as well as poor treatment and/or patient outcomes due to various reasons such as stigma, shame, peer pressure, discrimination, negative self-conscious emotions, lack of social support, etc. Therefore, there is need for interventions to address these issues at multiple levels (Batchelder *et al.*, 2020; Batchelder, Burgess, *et al.*, 2022; Batchelder, Foley, Wirtz, *et al.*, 2021; Bonnevie *et al.*, 2020; Chiang & Bam, 2020; Gupta *et al.*, 2021; Kalichman *et al.*, 2020; Magidson *et al.*, 2022; B. Myers *et al.*, 2023; Bronwyn Myers *et al.*, 2020; Ngabirano *et al.*, 2022; Patsis *et al.*, 2020; Puryear *et al.*, 2020; Regenauer *et al.*, 2020; Velloza *et al.*, 2020; Wang *et al.*, 2020; Wijk *et al.*, 2024). For example, there should be combination behavioral interventions co-targeting psychosocial and cultural tailoring, as well as broadening the focus to multi-level interventions to address both interpersonal and structural mechanisms of change (Pantalone *et al.*, 2020).

One study carried out among drinking fathers revealed that there were three overarching themes that emerged: poverty, people, and practices. Poverty was found to be a motivator to accept help to support one's family financially, but stress from lack of work also drove drinking behaviours. People were found to be both barriers and facilitators of help-accepting. For example, negative help strategies or peer influence were found to deter fathers from accepting help to quit. Moreover, positive motivation, social support, and stigma against drinking were motivators. Practices that were culturally salient, such as religiosity and gender roles facilitated help acceptance. However, most help efforts were found to be short-term and only lead to very short-term behaviour change (Patel *et al.*, 2020). To address ADA among men, studies have recommended the use of an innovative strategy known as LEAD (Learn, Engage, Act, Dedicate) which combines motivational interviewing, behavioral activation, and masculinity discussion strategies (Giusto *et al.*, 2021; Giusto *et al.*, 2022).

In order to counter ADA, there is need for enforcement of strong measures to regulate access to substances especially for minors, as well as addressing social and cultural norms, alleviation of poverty, and instituting community empowerment. (Ssewanyana *et al.*, 2020). Additionally, there is need to recognize the role of families to aid in treatment-engagement and attending to the importance of poverty, people, and practices in designing treatment strategies. (Jordans & Kohrt, 2020; Patel *et al.*, 2020). Another study recommended capacity-building professional and lay healthcare workers with the skills and resources to decrease problematic alcohol use, as well as alcohol cessation in peer support structures (Lewis-Kulzer *et al.*, 2023). One study found that cognitive-behavioral therapy (CBT) interventions were more efficacious than healthy lifestyles education in reducing alcohol use among HIV-infected drinkers (Papas *et al.*, 2021).

Very many studies have recommended including gender responsive approaches in ADA treatment as well as gender-based violence interventions in the treatment of drug addiction. Undeniably, this person-centred approach, couples with careful consideration of individual cases and circumstances, would assist in tailoring interventions that are more successful, as well as reducing stigma and discrimination (Adams *et al.*, 2021; Batchelder, Foley, Kim, *et al.*, 2021; Bonnevie *et al.*, 2020; Fonseca *et al.*, 2021; Franke *et al.*, 2023; Govia *et al.*, 2022; Greaves, 2020; Harris *et al.*, 2022; Huhn & Dunn, 2020; Irfan *et al.*, 2021; Jessell *et al.*, 2024; Matsumoto *et al.*, 2021; Meyers *et al.*, 2021; Nelson *et al.*, 2022; Oni *et al.*, 2022; Paris *et al.*, 2020; Romo-Avilés *et al.*, 2023; Salameh *et al.*, 2021; Schamp *et al.*, 2021, 2022; Schweinhart *et al.*, 2022; Stone *et al.*, 2021; Thomas & Menih, 2022; Valencia *et al.*, 2020; Webb *et al.*, 2022; Wolfson *et al.*, 2021). Additionally, apart from being gender-responsive, the interventions should also be trauma-informed and anti-oppressive (Holmes, 2021). Another study suggested using court-mandated treatment as a more effective treatment pathway for opioid use disorder (OUD) (Lucabeche & Quinn, 2022).

## CONCLUSION

The study concluded that ADA causes enormous physical, mental, biological, social, spiritual, psychological, emotional, economic, intellectual, developmental and environmental sufferings in Kenya. It robs individuals of social and economic opportunities. It imposes an enormous burden on families and the society. It is a public health concern that negatively affects the country's development efforts.

## RECOMMENDATIONS

ADA requires broad-based approaches to prevention, treatment, recovery and rehabilitation interventions, such as:

- Enhanced awareness regarding ADA-related harms and its consequences.
- Addressing the multi-faceted individual and interpersonal factors that place young people at risk of ADA.
- Resisting peer pressure.
- Ensuring a healthy work environment.
- Building resilience.
- Addressing stressful situations, e.g. poverty, joblessness, trauma, etc.
- Advocating for healthy, balanced lifestyles.
- Normalizing self-love, self-care and seeking help.
- Fostering strong interpersonal relationships.
- Scaling up positive parenting and strengthening families.
- Supporting life skills development e.g. problem solving, healthy coping skills, etc.
- Enforcement of strong measures to regulate access.
- Early identification and reduction of alcohol and drug use.
- Avoiding stigmatization and discrimination.
- Scaling up innovative and evidence-based treatments/interventions.
- Increasing access to affordable treatment and rehabilitation services in Kenya.
- Recognizing the role of family in treatment e.g. use of multi-dimensional family therapy.
- Providing holistic care for ADA (physical, mental, biological, social, spiritual, psychological, emotional, economic, intellectual, developmental and environmental).
- Ensuring a robust clinical, public health and research capacity in alcohol and drug abuse.
- Including gender-responsive, trauma-informed and anti-oppressive approaches in ADA treatment as well as gender-based violence interventions.
- Use of court-mandated treatment for opioid use disorder.

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