

# Literature Review: Opioid Crisis in South West, Nigeria

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## Abstract

The opioid crisis in Southwest Nigeria has significantly increased, with socioeconomic factors such as lack of healthcare access, unemployment, and poverty exacerbating the problem. The review explores the interactions between biological variables, cutting-edge technologies, financial constraints, and environmental factors that contribute to drug abuse and substance use disorders. It also analyzes the major classes of opioids and distinguishes between medicinal and non-medical uses. The epidemic has negative impacts on personal well-being, healthcare infrastructure, and societal cohesion. The research suggests a multifaceted strategy, including interventions and policy implications. It suggests reducing poverty as a first step in treating the underlying causes, increasing access to mental health services, early detection and intervention programs, and public awareness initiatives to prevent disease. Medication-assisted treatment (MAT) is also emphasized as a recovery strategy. The evaluation advocates for policy changes, tighter guidelines for opioid prescriptions, and public awareness initiatives to inform people about opiate abuse risks and encourage cautious use.

**Keywords:** Opioid Crisis, Drug Abuse, Substance Use Disorder, Public Health, Nigeria.

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## INTRODUCTION

The term "opioid" refers to both synthetic opiates and their opiates that function similarly to morphine. Therefore, opioids are frequently utilized as anesthetics during surgery, as well as painkillers for both acute and chronic pain. Users of heroin claimed that smoking was their usual method of using synthetic opioids, which come in a range of structurally diverse and strong forms. These medications include methadone, buprenorphine, various fentanyl derivatives, and heroin proper [1]. Drug misuse is becoming a global public health issue. According to the United Nations Office on Drugs and Crime's (UNODC) 2019 World Drug Report, 271 million (5.5%) of the world's population (aged 15 to 64) took drugs in the previous year [2]. The world is facing a crisis of drug misuse, with 275 million people taking prescription pharmaceuticals daily, including 34 million with opioids and 27 million with addiction. In 2015, 450,000 people died from drug use, with 160 thousand linked to drug use disorders and 118 thousand to opioid use disorders. The 2018 UNODC report "Drug Use in Nigeria" shows that one in seven people aged 15-64 has used a drug in the previous year. Drug addiction leads to community disintegration, high economic and

social costs, increased crime, and death, and is prevalent regardless of age, socioeconomic status, education, race, ethnicity, or region. Nigeria, Africa's largest country, is experiencing a surge in drug usage, a growing public health concern due to its reputation as a hub for drug trafficking, particularly among young people [3]. Drug misuse has been the cause of many criminal offenses, such as theft, burglary, sex work, and shoplifting etc. The opioid epidemic, also known as the opioid crisis, refers to the rapid rise in overuse, misuse/abuse, and overdose deaths that can be linked in part or totally to the class of medications known as opiates/opioids [4]. It addresses the major detrimental effects that the abuse of numerous drugs for medicinal, non-medical, and recreational purposes has on the health, society, psychology, economy, and people.

### Epidemiology of Opioid

Opioids can be taken non-therapeutically as part of the expanding global issue of opioid use disorder (OUD) or as part of a clinically prescribed pain regimen [5]. High-income nations have been the primary locations of opioid consumption, with low-income nations accounting for just 6% of the world's opioid use [6]. Drug and substance misuse is widespread throughout

Nigeria's six geopolitical zones. The South-West region, including Ekiti, Lagos, Ogun, Ondo, Osun, and Oyo States, has the highest rate of drug and substance use at 22.4% or 4,382,000 users, particularly in Lagos and Oyo State, as indicated in a 2018 report by the United Nations Office on Drug and Crime [7]. According to media reports, opioid drug misuse is on the rise in Nigeria, particularly among youth. Codeine and tramadol seem to be the most popular opioids. Young individuals are more likely to use prescription opioids and cough syrup for non-medical purposes, according to a recent Nigerian drug use survey report. The disturbing pattern of young people abusing codeine in Nigeria was highlighted in the BBC Africa documentary "Sweet Codeine," which influenced the Federal Government of Nigeria's decision to outlaw the importation, sale, and promotion of codeine-containing products. The issue remained despite all the efforts to stop the illegal importation and distribution of opioids through unapproved channels [8]. Tramadol is a synthetic opioid analgesic used to treat moderate to severe pain. According to NAFDAC, Nigeria is among the nations with the highest tramadol usage rates compared to population size. Studies have shown that opioid usage is becoming more common in Nigeria, particularly in the South West. Researchers discovered a high prevalence of substance misuse, especially opioids, among pupils in selected secondary schools in Oyo State's metropolitan neighborhoods, South West Nigeria [9]. The availability of pharmaceutical opioids without a prescription has been noted as a major issue, with users obtaining them from retail drug stores, wholesale dealers, and social supply networks. The reported prevalence of substance abuse was 69.3% among secondary school students in a rural community in Oyo State, Nigeria. Rural residents have easier access to numerous natural psychoactive substances, such as kola nut, which formed the majority of the substances misused in the study. Drug abuse is an enormous health concern throughout the world (UNODC, 2005). Drug use and abuse among young people has become one of the most concerning health-related issues in Nigeria and around the world. Several school-aged youths participate in mental health programs, either temporarily or permanently [10]. Some become psychotic, maladjusted in educational environments, and eventually drop out. The word "opioids" refers to compounds that come from the poppy plant (*Papaver somniferum*) as well as semisynthetic and synthetic counterparts with similar properties that can bind to opioid receptors in the brain. Opioids, which include drugs like morphine, fentanyl, and tramadol, are widely used in pain treatment. This literature review aims to provide an overview of the opioid crisis in South West, Nigeria, contributing factors, socio-cultural, and public health, with the ultimate goal of guiding efforts to promote safe and effective pain management methods in the country.

### **Socioeconomic Determinants of Opioid Misuse: Exploring the Influence of Poverty, Unemployment, and Access to Healthcare**

The unemployed had double the rate of addiction as those who were employed, and drug abuse was on the high side of unemployment. Poverty can lead to relaxation and instant satisfaction. Following poverty, many become addicted to other substances, such as drugs [11]. Finally, they established that poverty and joblessness were significant components of addiction, and there is a link between poverty and addiction, and they may affect each other. Factors that have been recognized to be responsible for drug usage among young people include experimental curiosity, peer pressure, poor socio-economic conditions in families, and the desire for extra energy for daily tasks among others. Also, various hypotheses have been propounded to explain why people abuse drugs. Such ideas include; personality theory which suggests that those with low self-image and poor impulse control are at higher risk of drug usage [9]. However, the learning theory suggests that drug abuse happens as a result of conditioning, and social or instrumental learning. Nigeria is one of the nations that consumes the most dangerous psychoactive substances, including cocaine, benzodiazepines, alcohol, tobacco, and cannabis, when compared to the other developing nations. In other words, it can be inferred that, in comparison to the majority of other developing countries, drug misuse is a more significant issue in Nigeria [12]. Young adults between the ages of 18 and 25 make up the group most shockingly incapable of abusing psychoactive drugs; young people between the ages of 11 and 17 make up the second most shocking group of people susceptible to drug abuse [13]. Numerous studies have addressed various factors associated with the opioid crisis, such as experimentation and curiosity [14]. Peer influence, low self-esteem, unpleasant emotions [15], and the desire for intoxication and improved sexual performance [16]. Particularly among Nigerian youths. However, many of these investigations are survey-based, targeting the general population, which may lack specificity and depth. In response to this gap, the present study adopts a hospital-based qualitative approach to explore the factors influencing drug abuse among young individuals undergoing treatment for substance use disorder at a tertiary hospital in Ogbomosho, Nigeria. Additionally [17]. Have identified five factors influencing drug usage, offering valuable perspectives on the subject, as outlined and discussed below.

### **Contributory Factors of Drug Abuse and Substance Disorder**

#### **✓ Biological Factors in Drug Use**

The human brain has an inherent pleasure pathway that regulates reward perception, allowing individuals to experience enjoyable sensations. Ingestion of illegal substances triggers this pathway, resulting in a delightful sensation. Although the exact location of this pathway in the brain remains unknown, it is likely

present in all individuals, contributing to addiction and drug dependency. The likelihood of developing addiction varies among individuals due to biological variables and hereditary factors [18]. Despite similar mechanisms, the degree of pleasure path activation can lead to different predispositions to take drugs. Studies have compared individuals with and without a family history of substance abuse to understand the genetic components of drug abuse or addiction. Gordis, for instance, concluded that children of alcoholics may initially respond more favorably to alcohol when it is drunk, but over the hours afterward, they may become less receptive to its effects [19]. Alcohol use initially produces a favorable feeling, such as euphoria, but it also causes a bad sensation, such as depression and sadness, several hours later.

✓ **Advanced Technologies**

Advanced technology, particularly the Internet, has improved communication and engagement, but it has also made drug-selling transactions easier. Online sales expose drugs to non-users, making them more accessible. For example, 48% of herbal supplements marketed online are similar to illegal substances like ecstasy and marijuana [20]. Drugs can be delivered to users and abusers with just one click. The global internet allows individuals, particularly young people, to learn about drugs, but this can be harmful when drug addicts share their experiences on forums, websites, or blogs. They provide recommendations on where to buy a drug, various benefits, transient bliss, effects duration, and potential negative effects [21]. This can lead to a lack of trust and safety in the drug industry.

✓ **Financial Capability**

The financial capability of the younger generation, particularly those from middle-class and upper-class households, contributes to the accessibility of drugs on school grounds. In Kuala Lumpur, Selangor, and Negeri Sembilan, a significant proportion of students

aged 13-17 admit to using drugs, often with pocket money ranging from RM250 to RM1,500. This large amount of money makes it easier for teenagers to purchase illegal narcotics. The incorrect amount of money on hand has also contributed to the development of illicit drug accessibility. The rise in "club drugs" at nightclubs and dance parties is a significant issue [22]. A significant portion of youth substance use has been observed to occur in schools; students have a high incidence of substance use [23]. One significant psychological phenomenon during adolescence is experimentation [24]. This behavior has been found to lead to the trying out of new experiences, such as drugs and sex, sometimes with disastrous results for teenagers.

✓ **Environmental Factors**

Environment and addiction go hand in hand [25]. A person's environment includes many different influences, from family and friends to economic status and general quality of life. Factors such as peer pressure, physical and sexual abuse, early exposure to drugs, stress, and parental guidance can greatly affect a person's likelihood of drug use and addiction.

**Age and Drug Use**

In Nigeria, drug use is prevalent across all age groups; however, young individuals between the ages of 25 and 39 have the highest rates of past-year drug use across the board. This involves cannabis as well as prescription opioids (morphine, codeine, and tramadol) used for non-medical purposes and cough syrups containing dextromethorphan or codeine. Although younger people are more likely to take amphetamines and ecstasy than older people, older people hardly ever use these drugs. However, older adults between the ages of 45 and 64 utilize pharmaceutical opioids and cough syrup extensively for non-medical purposes [1]. The figure below shows the annual prevalence of drug use by age group and drug type.

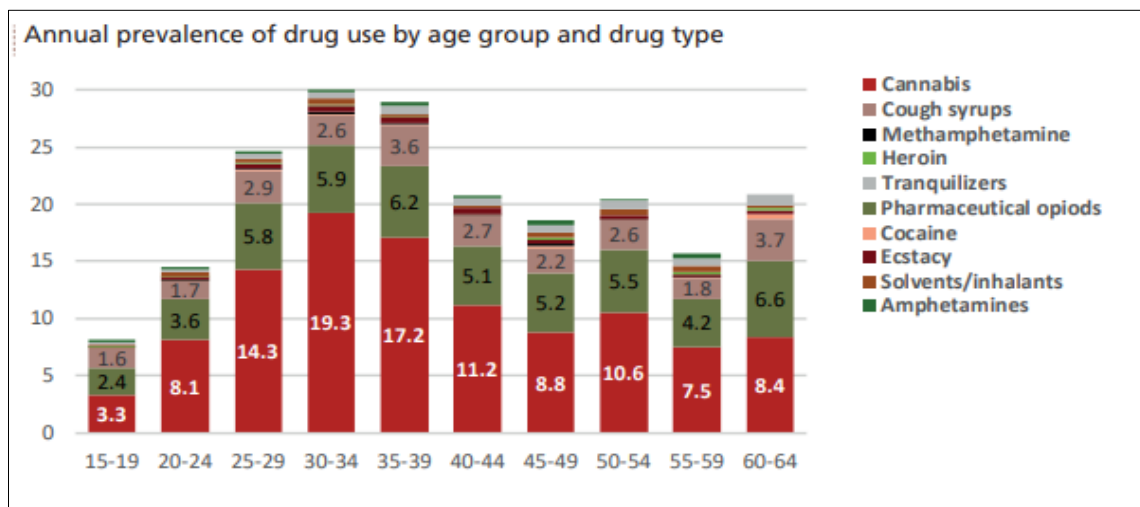


Fig. 1: The figure below shows the drug use by age group and drug type. (1)

### Medical Use of Opioid and Substances

Prescription drugs called opioids have euphoric and pain-relieving effects that aid in pain management. Even though users of opioids experience temporary relief. It is typical for people to use drugs to control their mood, manage their pain, and ease various physical and mental illnesses and symptoms. Substance abuse can also assist people manage more serious illnesses [26]. Nevertheless, there is a chance that some drugs that are beneficial for modifying mood as well as mental and physical states will be abused. Opioids are powerful drugs. Usually, they are only used for a few days for managing acute pain. Opioids include codeine, fentanyl, oxycodone, hydrocodone, morphine, and hydromorphone [27]. Opioids are sometimes called narcotics, pain relievers, or prohibited substances. Patients with cancer or those receiving end-of-life care may occasionally be prescribed opioids for prolonged durations of time.

### Classification of Opioid Use

Opiates can be synthesized in a lab or obtained from the opium poppy. Morphine, codeine, heroin, hydrocodone, hydromorphone, oxycodone, meperidine, fentanyl, cairfentanil, and pentazocine are examples of opiates. More information on the chemical types of opioids is given in Table 2. Prescription opioids and heroin will be the most commonly addressed opiates in this review. Prescription opioids that are most frequently used include fentanyl, hydrocodone, oxycodone, oxymorphone, morphine, and codeine. The effects of opioids typically include euphoria, slurred speech, analgesia, decreased breathing, drowsiness, and itching. Opioids have a high potential for misuse due to their strong addictive characteristics and the euphoric feeling they can elicit in certain users.

### Chemical Classification of Opioids

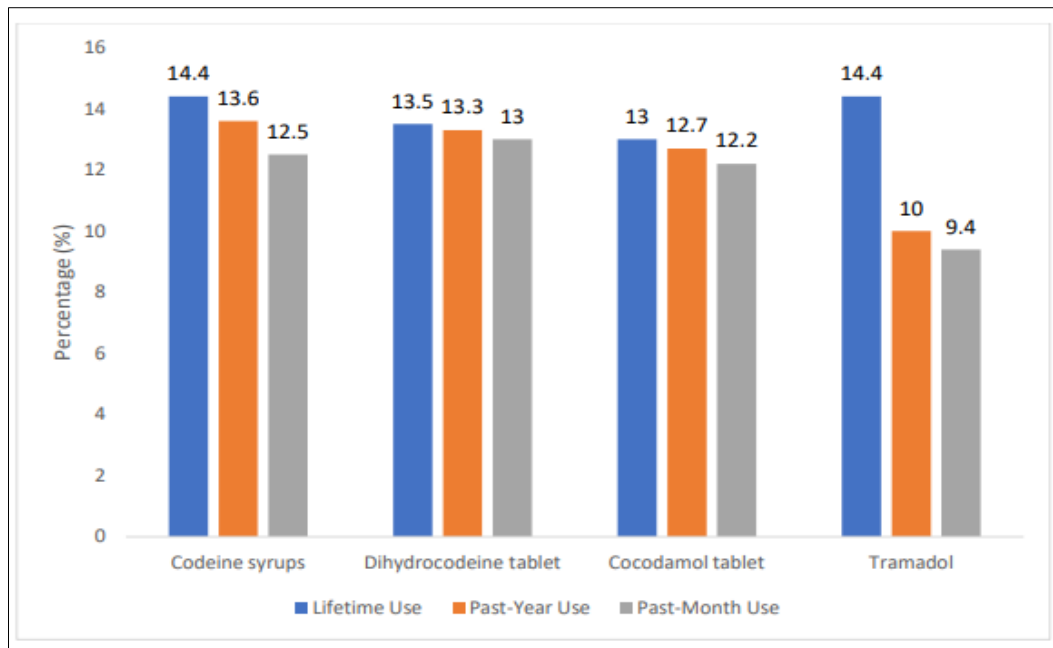
**Table 1: Chemical classification of opioids [26]**

Classification and definition	Names/Brand names
<b>Natural</b> - Alkaloids contained in the resin of the opium poppy	Morphine
	Codeine
	Thebaine
<b>Semi-synthetic</b> - Created from natural opiates	Hydrocodone—Vicodin
	Hydromorphone—Dilaudid
	Oxycodone—Oxycontin
	Oxymorphone—Opana
	Diacetylmorphine—Heroin
<b>Synthetic</b> - Man-made drugs that mimic the effect of opioids	Fentanyl—Duragesic
	Methadone—Methadose
	Meperidine—Demerol
	Pentazocine—Talwin

### Non-Medical Use of Opioids and Substances Disorder

The term "Non-Medical Use of Substances Disorder" describes a disorder marked by the excessive or improper use of substances like alcohol or drugs in ways that diverge from recommended or medically crucial uses. Psychoactive substance addiction or misuse, primarily for recreational objectives instead of valid medical grounds, is frequently linked to this illness. Some of these substances include Opioids (including fentanyl, morphine, and oxycodone), Alcohol, Tobacco, weeds, Inhalants, Hallucinogens, Cannabis, Caffeine, Antianxiety, Tramadol, Tufoli, Cough Syrups sedative drugs, and other anabolic steroids [28]. Most times these substances could be addictive to human beings and are

dangerous to human health. However, it is advisable not to take this substance without prescriptions from health practitioners. A growing public health concern is the nonmedical use of prescription drugs (NUPM), especially among young persons [29]. When it comes to opioid, stimulant, tranquilizer, and sedative medication use, young adults between the ages of 18 and 25 have the highest annual and monthly rates of NUPM of any age group. There was an investigation on the use of opioids by Nigerian youth [8]. Method: A self-administered questionnaire derived from the WHO student drug-use survey instrument was used in a cross-sectional design. Below are the results of the study.



**Fig. 2: Lifetime, past-year, and past-month nonmedical use of codeine syrups and dihydrocodeine, Co-codamol, and tramadol tablets among the respondents [8]**

### Consequences of Opioid Crisis in Nigeria

Opioid misuse in Nigeria, particularly in the Southwest region, is a significant public health concern. Studies show a rise in misuse, particularly of synthetic opioids like tramadol [30]. This leads to addiction, dependence, suppressed breathing, and potentially life-threatening situations. Chronic misuse can damage vital organs and increase the risk of contracting blood-borne diseases like HIV and Hepatitis C. Sharing needles among users increases the risk. Opioid misuse disrupts social life, causing isolation, work and school absences, and financial burdens for users and their families. It also leads to criminal activity in some cases, highlighting the need for better education and support systems to combat this issue [31]. The urban environment in Southwest Nigeria, particularly Lagos, may contribute to opioid misuse due to easy access to diverted prescription drugs and informal drug markets. Some users misuse opioids for non-medical purposes, highlighting socio-economic issues. This poses a significant threat to public health, causing individual health problems and social and economic disruption.

### Public Health Implication of Opioid Crisis in Nigeria

#### ✓ Side Effects of Opioids on Human Health

Approximately 600,000 deaths worldwide in 2019 were linked to drug use. About 25% of these deaths are the result of an opioid overdose, resulting in nearly 80 percent of all deaths linked to opioids. Opioids have pharmacological effects that can make breathing difficult and increase the risk of overdosing and death. Because opioids affect the area of the brain that controls respiration, using opioids can be fatal. Three telltale signs and symptoms—pinpoint pupils, unconsciousness, and breathing difficulties could indicate an opiate overdose [32]. Opioid overdose is related to several

dangers, such as opioid use disorder, injecting opioids, reducing respiratory function, and coexisting medical disorders like HIV, liver or lung diseases, mental illness, or other illnesses. A lot of opiate use can be sedating; heroin or crushed pill contamination can infect the heart lining; heroin injections can cause blood veins to collapse; constipation can slow down the digestive system, which can lead to respiratory depression and slowed breathing, which can be fatal for the lungs; sharing infected needles can cause hepatitis in the liver; chronic opiate abuse can increase the nervous system's sensitivity to pain; and opioid use can make the immune system vulnerable to infection [33].

#### ✓ The Strain of Opioids on Healthcare Systems

The healthcare system, which includes emergency rooms, addiction treatment centers, and mental health services, is strained by opioid addiction. The need for support and therapy for people who are addicted to opioids is overwhelming healthcare practitioners [34]. To effectively address substance misuse and its effects, it is imperative that prevention, treatment, and recovery services be integrated throughout healthcare systems. This is the most promising approach to enhance treatment quality and accessibility.

#### ✓ The Impact of Opioids/Substance Abuse on Society

Addiction to opioids can lead to several social consequences, such as damaged relationships with friends and family, job and housing loss, engagement in criminal behavior to fund addiction, and the stigma attached to substance misuse disorders. Due to the potential for long-term brain damage and the induction of negative behaviors, substance disorders/opioids have



a significant negative influence on society. Recovering from addiction can be more difficult if therapy is put off. Substance misuse has several negative effects on several aspects of society [35]. It exacerbates mental health issues, heightens the risk of violent crimes, contributes to early death, breaks up families, and makes it more difficult for people to lead fulfilling lives. Furthermore, the addict's friends, neighbors, family, and workplace are all impacted by their opioid misuse.

#### ✓ **The Impact of Opioids/Substance Abuse on Society**

There are tremendous costs linked to opiate addiction. These comprise medical fees for treating opioid abuse, expenses incurred by the legal system for reduced output at work as a result of addiction, and costs associated with child welfare services for kids impacted by opioid usage in the home [36]. For the benefit of clinical practice, research, and other decision-makers, it is critical to comprehend the scope and distribution of the economic cost of prescription opioid overdose, abuse, and dependency. To determine which strategies are the most cost-effective, decision-makers selecting how to combat this epidemic require access to cost data.

#### **Interventions and Policy Implications**

Addressing the opioid crisis in South West, Nigeria requires a comprehensive and multi-faceted approach that involves various stakeholders, including government agencies, healthcare providers, community organizations, and educational institutions.

#### **Beyond Interventions: Addressing the Root Causes**

Policymakers should also consider addressing the underlying socioeconomic factors that might contribute to opioid misuse:

#### ✓ **Poverty Reduction:**

Programs promoting economic empowerment and job creation, like those implemented by the National Directorate of Employment (NDE), can offer individuals alternative coping mechanisms for dealing with challenges.

#### ✓ **Improved Access to Mental Healthcare:**

Addressing mental health issues like depression and anxiety, which can sometimes lead to substance misuse, requires increased access to mental healthcare services. Efforts to expand mental health coverage, similar to those implemented by the National Health Insurance Scheme (NHIS), can be instrumental [26].

#### **Curbing the Problem through Interventions:**

#### ✓ **Prevention is Key:**

Educational programs targeted at adolescents and young adults, emphasizing the dangers of opioid misuse, can be a powerful preventative tool. The National Drug Law Enforcement Agency (NDLEA) has implemented some school-based awareness programs, but wider outreach efforts are necessary.

#### ✓ **Early Detection and Intervention:**

Integrating screening tools into primary healthcare, like those recommended by the World Health Organization (WHO), can help identify individuals at risk of dependence, allowing for early intervention and treatment.

#### ✓ **Medication-Assisted Treatment (MAT):**

Studies have shown the effectiveness of MAT programs, which combine medication with counseling, in managing opioid dependence and reducing relapse rates. Wider adoption of MAT programs, following models piloted by organizations like the Society for the Advancement of Family Medicine (SAFM), is crucial.

#### **Policy Shifts for Lasting Change**

#### ✓ **Regulation of Prescription Opioids:**

Strengthening regulations around prescribing practices can prevent diversion from legitimate medical channels. The National Agency for Food and Drug Administration and Control (NAFDAC) can play a critical role in implementing stricter prescribing guidelines and monitoring programs.

#### ✓ **Public Awareness Campaigns:**

Launching public health campaigns, similar to those undertaken by the National Institute on Drug Abuse (NIDA) in the United States, can raise awareness about the dangers of opioid misuse and available treatment options, encouraging help-seeking behavior.

## **CONCLUSION**

In conclusion, the opioid crisis in South West, Nigeria presents a significant public health challenge that requires urgent attention and concerted efforts from all stakeholders. By understanding the prevalence, contributing factors, consequences, and potential interventions related to opioid misuse in the region, policymakers, and healthcare providers can develop evidence-based strategies to mitigate the impact of the crisis and improve the health and well-being of individuals affected by opioid misuse.

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