

A Multidimensional Criminological Analysis of the Drug–Violence Nexus



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Abstract: *The issues of drug abuse and violent crime continue to be social, criminological and public-health problems. But a causal assumption, that drug consumption directly results in violent behavior, cannot entirely explain the relationship between drug use and violence. This study focuses on the drug–violence relationship and employ inductive qualitative analysis of secondary evidence with special emphasis upon Pakistan. The study is based on a range of peer-reviewed literature, international reports, official documents and criminological research. An interpretivism philosophy was used and an inductive qualitative documentary design to identify recurrent explanations and mechanisms in the evidence. Theories applied as lenses were classical criminological theories (Goldstein's tripartite theory, social learning theory, strain theory, social disorganization theory and routine activity theory) and not causal theories. Four dimensions are outlined pharmacological, economic, social and structural all of which are interrelated. Recent findings suggest that substance use is associated with violence, which can be positive or negative depending on the type of substance, individual characteristics, social context and illicit market conditions (Curtis et al., 2024; World Health Organization, 2024). The prevalence of drug use is also increasing globally, with an estimated 316 million drug users in 2023 (United Nations Office on Drugs and Crime, 2025). The four-dimensional drug violence nexus model has been introduced, which views violence as the product of individual, economic, social and structural mechanisms, all of which interact and act as sources of violence. These findings justify the development of a comprehensive strategy based on prevention, treatment, rehabilitation, socio-economic measures, local actions and measures taken to systematically combat drug markets.*

Keywords: Drug Use, Violent Crime, Drug-related Violence, Crime, Illegal Drug Market, Substance Use, Four-dimensional Drug–violence Nexus Model

Introduction

Drug use and violent crime are major societal problems. Although drug use and violence frequently co-occur, their relationship is complex and varies according to the type of drug, characteristics of the individual, social context, and structure of the criminal marketplace. Goldstein (1985) identified three broad mechanisms linking drugs and violence: psychopharmacological effects, economically compulsive crime, and systemic violence associated with illicit drug markets. This framework remains relevant because it demonstrates that drug-related violence cannot be attributed solely to the effects of intoxication. International evidence further emphasizes the need to explore this relationship in a variety of ways. WHO (2024) reported that substance use is a key driver of injury, violence, health issues and social harms, and that effective prevention and treatment systems are crucial. In contrast, recent studies show that people with substance-use disorders can also have a history of interpersonal, community, criminal and structural violence and that there is a bidirectional connection between substance use and violence (Curtis et al., 2024).

UNODC (2023) estimated that around 316 million people, which means 6 percent of the global population aged 15 to 64, used drugs. Cannabis continued to be the most widely used controlled substance, followed by opioids, amphetamines, cocaine, and ecstasy-type substances (UNODC, 2025). The ongoing diversification of drug markets, with the appearance of new drugs such as novel psychoactive substances and

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synthetic opioids, poses new challenges for public health and criminal-justice bodies. Expert reports confirm that novel psychoactive substances continue to appear on the scene and need to be scientifically and regulatory evaluated (WHO, 2025).

Specific attention needs to be given to the context of Pakistan. The national assessment of drug use, carried out by the Government of Pakistan and UNODC, found that around 6.7 million people aged 15-64 years had used a substance under the control in the last year, with the most popular being cannabis. Opioid use and emerging methamphetamine use were also identified as part of the assessment (UNODC, 2013). It is important to note that these figures are based on the 2013 assessment and not necessarily current prevalence figures. This is a limitation that shows the need for newer evidence in Pakistan that is nationally representative.

Hence, in the present study, drug abuse and violent crime are studied as a multidimensional social phenomenon. The study does not take the link between drug use and violence for granted, but instead examines the potential interaction of pharmacological effects, economic and financial pressures, peer relationships, criminal socialization, poverty, unemployment, institutional weakness, and illicit drug markets that may contribute to an increase in risk of violence.

Objectives of the Study

1. To look at the link between violent crime and drug abuse.
2. To determine the key links between substance use and violent behavior.
3. To discuss social, economic, pharmacological, and structural aspects of drug-related violence.
4. To analyze the relevance of criminological theories to the drug–violence relationship.
5. To discuss international and National issues related to drug use and illegal drug markets.
6. To create an integrated Four-Dimensional Drug–Violence Nexus Model.
7. To suggest evidence-based strategies to reduce drug-related violence

Research Questions

1. How is drug abuse associated with violent crime?
2. What are the pharmacological, economic, social, and structural factors that underlie drug-related violence?
3. What is the relationship between peer relationships, criminal socialization and illicit drug markets and violence?
4. What are the links between poverty, unemployment, institutional weaknesses and the drug-violence connection?
5. What is the relevance of existing criminological theories to drug-related violence?
6. What policy measures are likely to be effective in curbing drug-related violence?

Research Methodology

The research philosophy used by the study is interpretivism. Interpretivism is fitting since drug abuse and violent crime are social phenomena that can only be understood through the social relationships, institutions, culture, and context in which they are embedded (Creswell & Poth, 2018). This study used an inductive approach in research. This is a key fix to the previous version.

The analysis is not conducted based on certain predetermined hypotheses that are based on pre-existing theories. Rather, from the literature reviewed and documentary evidence, recurring patterns, explanations, and relationships are detected. The patterns are then grouped into larger themes and applied to the construction of the Four-Dimensional Drug–Violence Nexus Model. Existing theories (Goldstein's framework, social learning theory, strain theory, social disorganization theory and routine activity theory) are therefore being employed as interpretive or sensitizing frameworks instead of as a set of propositions to be statistically tested by the study.

A qualitative documentary research design was used. The design enables the researcher to systematically analyze the existing academic studies, official reports, policy documents, and the criminological literature. It is exploratory as it attempts to identify patterns and emerging issues, and it is interpretive since it tries to explain how different social mechanisms can interact.

Sources of Data

- The study is conducted based on secondary data only from:
- Peer-reviewed journal articles
- Scopus/ Web of Science-indexed publications
- UNODC reports
- World Health Organization reports
- Government of Pakistan publications
- Documents of Anti-Narcotics Force/Ministry of Narcotics Control
- Relevant legislation and policy documents
- Criminological books and theoretical literature.

In emphasizing recent evidence, and where classic sources are foundational to the theoretical discussion, they are retained.

Inclusion and Exclusion Criteria

Studies were included if they concerned drug use, drug-related crime, violence, drug markets, criminological explanations and/or social and structural mechanisms. Only credible sources that had been peer-reviewed, traceable, and methodologically transparent were used. Studies that were duplicated, studies from sources that were not of high scholarly or institutional quality, and studies that did not address issues related to drug-related crime or violence were excluded.

Data Analysis

Inductive thematic analysis is used for the study. In line with the analysis of Braun and Clarke (2006), this included the following:

1. Understanding the reading material
2. Recognition of important statements and ideas
3. Initial coding;
4. Forming repetitive patterns
5. Themes review and improvement
6. Themes – definition and interpretation

The analysis resulted in four key themes

Pharmacological → Economic → Social → Structural

These themes were then incorporated into the Four-Dimensional Drug–Violence Nexus Model.

Validity / Reliability and Trustworthiness

Credibility was checked by triangulating sources, comparing international and national evidence, referring to peer-reviewed research, referring to authoritative institutional reports, and critically considering contradictory findings.

Ethical Considerations

Since the study is only using secondary sources, there were no human participants involved. Ethical considerations were strictly adhered to with proper referencing and crediting of others' work, avoidance of plagiarism, and correct representation of material from published evidence.

Limitations

However, limitations of this research are reliance on secondary evidence, lack of recent national data on Pakistan, potential underreporting of drug-related crime, variation in international reporting systems, and the inability of qualitative documentary research to make direct cause and effect conclusions.

Four-Dimensional Drug–Violence Nexus Model

The inductive analysis resulted in four interconnected dimensions.

Dimension 1: Pharmacological Pathway

Drug Use → Cognitive/Behavioral Changes → Impulsivity /Aggression → Potential Violence
Some chemicals can impact thinking, judgment, emotions, or behavior. But drug use doesn't necessarily lead to violence.

Dimension 2: Economic Pathway

Drug Dependence → Financial Pressure → Illegal Economic Activity → Potential Violence
Drug dependency can create financial pressure, which can lead to acquisitive crime or engaging in illegal economic activity. Violence can then be directed at victims during robbery, disagreements, debt collection, or as part of drug deals.

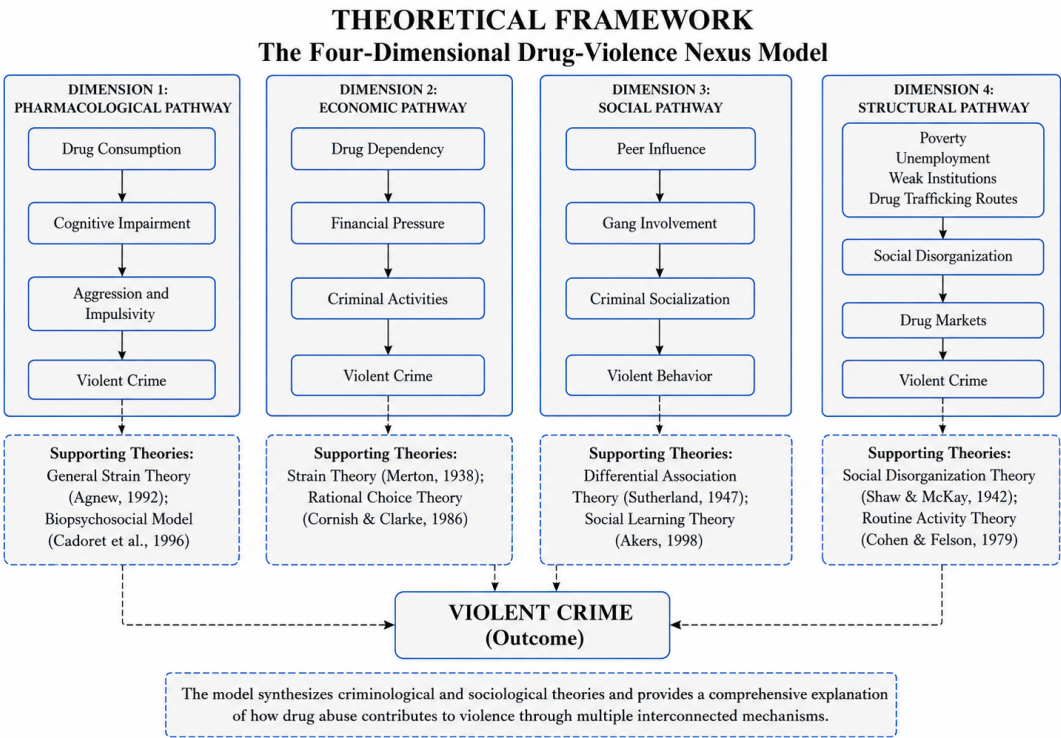
Dimension 3: Social Pathway

Peer Influence - Criminal Association - Criminal Socialization - Violent Behavior
Offending and drug use could grow in a social environment where criminal activity is accepted. Substance use and violent behavior can thus be reinforced by peer relations and group involvement.

Dimension 4: Structural Pathway

Poverty/Unemployment/Institutional Weakness leads to Illicit Markets, which leads to Organized Crime, which leads to Violence. Environment can create conditions for the development of illicit markets through structural disadvantage. Then violence can break out from the competition over territory, profits, trafficking routes, or control of the market.

Theoretical Framework



Findings and Discussion

Drug use and violence frequently co-occur, but this association does not necessarily indicate a direct causal relationship. Recent research among individuals seeking treatment for substance use disorders has shown that substance use disorders commonly co-exist with different forms of violence and trauma (Curtis et al., 2024). This evidence supports the present study's argument that drug-related violence cannot be explained solely by pharmacological effects. Instead, violence may emerge through the interaction of multiple pharmacological, economic, social, and structural pathways.

Pharmacological Mechanisms

The pharmacological pathway indicates that some chemicals may affect the thinking process, emotional responses, judgment, and control of behavior. Individual differences and contextual circumstances, however, are important. WHO (2024) lists drug use as a risk factor for injury and violence and identifies drug use as a broader risk factor, including poverty, unemployment, social inequality, limited social protection and weak justice systems.

Therefore, the pharmacological explanation must be considered as one dimension instead of being a complete explanation.

Economic Mechanisms

The analysis suggests that financial problems and heightened exposure to illicit economic activities can be adverse outcomes of drug dependency. But it must not be assumed that economic-compulsive offending is occurring among every drug user.

The results indicate a difference between drug users, drug-dependent users, low-level sellers, traffickers, and organized drug criminals. This difference is relevant as UNODC's recent activities focus on the evolving nature of illicit drug markets and organized crime groups' involvement in drug demand and supply (UNODC, 2025).

Social Mechanisms

The social dimension reveals that drug use and violence can be enmeshed in relationships and communities. Peer pressure, criminal involvement, gang membership, and violence can contribute to problematic substance abuse and criminal activity. Specifically relevant evidence is provided by Curtis et al. (2024), who have shown that people in substance use treatment can have a history of interpersonal, community, criminal, and structural violence. Prevention cannot be thought of simply in terms of how to target individuals; it must involve families, peer networks, communities and social environments.

Structural Conditions

Poverty, unemployment, inequality, institutional weakness, and the illicit market are important contextual conditions identified in the study. Economic inequality, unemployment, Poverty, inadequate social protection, and vulnerable criminal-justice systems are other determinants linked to injuries and violence. (World Health Organization, 2024).

Illicit Drug Markets and Organized Crime

Among the most solid findings has been that violence can come from the functioning of illicit markets themselves, not from drug use. Crime groups may have conflict over areas to control, lines of communication, customers, profits, and control of the market. The findings by UNODC underscore the ongoing evolution and diversification of global drug markets and their connections to organized crime. (UNODC, 2025). This discovery reinforces Goldstein's systemic pathway and indicates the reason that modern drug-related violence should be analyzed in terms of drug markets.

Emerging Synthetic Drugs

The contemporary drug market is becoming increasingly diverse as new psychoactive substances continue to appear and evolve. Evidence from the World Health Organization (2025) shows that emerging substances include novel synthetic opioids, synthetic cannabinoids, dissociative substances and stimulant-type compounds. In its 2025 *Forty-Seventh Report*, the WHO Expert Committee on Drug Dependence reviewed several newly identified substances and highlighted concerns regarding their potential for dependence, toxicity and serious public-health harm (World Health Organization, 2025).

Pakistan Context

The most widely quoted national estimate of drug use in Pakistan is that of the UNODC (2013) national assessment, which is estimated to be about 6.7 million, not a recent national survey. Cannabis was the most frequently used illicit substance, and there was emerging use of methamphetamine, according to the assessment. Thus, one of the key findings of the study is that there are significant data gaps in Pakistan. Using the prevalence estimate in 2013 as a baseline for current policy is not accurate with regard to the situation in 2026. Current national research is needed to assess current levels of drug use, synthetic drugs, need for treatment, trafficking, and drug-related violence

Conclusion

Based on this study, it may be concluded that drug abuse and violent crime are multidimensional phenomena, dynamic and dependent on context. Such a naive view of drug use leading to violent behavior is not supported by the evidence. Rather, violence may manifest itself as a result of the interplay of pharmacological, economic, social, criminal socialization, illicit drug markets, poverty, unemployment, and institutional weaknesses. The international situation with drug use is continuing to change, with recent evidence showing that illicit drug consumption is widespread globally and it is often alongside, or in combination with, experiences of interpersonal, community, criminal and structural disadvantage (Curtis et al., 2024; UNODC, 2025).

The key takeaway from this study is its Four-Dimensional Drug–Violence Nexus Model, which combines pharmacological, economic, social and structural mechanisms in a single criminological model. As for Pakistan, the study emphasizes the need for updated national figures, as the figure of 6.7 million users is based on the national assessment of 2013. Effective policy should therefore be a mix of evidence-based prevention, accessible treatment and rehabilitation, youth and community interventions, employment and socioeconomic support, proportionate criminal-justice responses, and targeted disruption of organized drug-trafficking networks. Future studies should involve empirical testing of the proposed model using quantitative, qualitative or mixed-method designs and identify if the relative influence of the four pathways differs by substance, age group, place and type of violence.

Recommendations

- Strengthen evidence-based drug-prevention initiatives that address the specific social, educational and socio-economic vulnerabilities of youth and at-risk populations
- Expand access to comprehensive treatment, rehabilitation and long-term aftercare services for individuals affected by drug dependence.
- Focus on the big players in trafficking, not unduly target dependent users.
- Increase intelligence-led policing and inter-agency cooperation.
- Enhance digital monitoring and surveillance mechanisms to identify and disrupt drug-trafficking routes and illicit drug-market activities.
- Government should tackle poverty, unemployment and socio-economic vulnerability.
- Enhance community and family-based prevention programmes
- Create youth initiatives that target peer influence and socialization toward crime.

- Conduct a new, broad-scale national representative survey on drug use in Pakistan.
- Develop uniform national statistics on drug-related crime and violence.
- Improve cooperation with UNODC and related international organizations.
- Evaluate drug-control policies using measurable outcomes.
- Link public-health and criminal-justice efforts.
- Empirically test the Four-Dimensional Drug–Violence Nexus Model.
- Do longitudinal and mixed-method investigations that explore causal pathways.

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