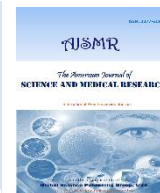




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Research Article

Study of Ganja (Cannabis) Supply, Victim Impact, and Police Response in Telangana-Andhra Pradesh-Odisha Border: A Data-Driven Analysis



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ABSTRACT

The illegal cultivation, trafficking, and consumption of ganja (cannabis) have emerged as critical socio-economic and law enforcement challenges in the tri-border regions of Telangana, Andhra Pradesh, and Odisha. This study presents a data-driven analysis of cannabis supply chains, victim impact, and police response mechanisms. Primary data were collected through structured questionnaires, interviews, and case studies, while secondary data were obtained from police records and government reports. Findings reveal that organized trafficking networks, socio-economic vulnerabilities, and geographical challenges facilitate the persistence of cannabis trade. The study also highlights the adverse psychological, social, and economic impacts on individuals and families, alongside gaps in law enforcement coordination. The Bhadrachalam check post plays a crucial role in controlling inter-state trafficking. The research recommends policy interventions, awareness programs, and technology-driven policing strategies to mitigate the problem effectively.

1. Introduction

The cultivation, distribution, and use of ganja (cannabis) have become significant challenges in the border regions of Telangana, Andhra Pradesh, and Odisha. These areas have witnessed increased cannabis cultivation due to favorable climatic conditions, socio-economic vulnerabilities, and limited enforcement in remote locations.

This illegal activity contributes to organized crime, adverse health effects among users, and victimization of vulnerable communities. Despite efforts by law enforcement agencies, challenges such as corruption, lack of resources, and inadequate data-driven approaches hinder effective control.

There is a pressing need for a comprehensive, data-driven analysis to understand the socio-economic impact and improve policing strategies in these regions.

individuals with underlying cardiovascular conditions. Cannabis also impairs memory, concentration, and coordination, which can affect judgment, learning ability, and motor performance. In addition, some users experience anxiety, panic reactions, or feelings of paranoia, particularly when cannabis is consumed in large amounts or for the first time (Figure-1).

2.1 Long-term Effects

Prolonged and repeated cannabis use may lead to significant long-term health complications. Regular smoking of cannabis can contribute to respiratory problems such as chronic cough, bronchitis, and reduced lung function. Long-term use has also been linked with mental health disorders, including depression, anxiety disorders, and in some cases psychosis among vulnerable individuals. Another serious concern is dependency and addiction, as continuous cannabis consumption can create psychological reliance and make it difficult for users to stop without support.

2.1.2 Risk Mitigation

To reduce the harmful effects of cannabis use, effective risk mitigation strategies are necessary. Awareness programs should be conducted at schools, colleges, and community levels

2. Health Issues Associated with Cannabis Use

Short-term Effects

Cannabis use is associated with several short-term health effects that can immediately influence an individual's physical and psychological condition. One of the most common effects is an increased heart rate, which may pose risks especially for

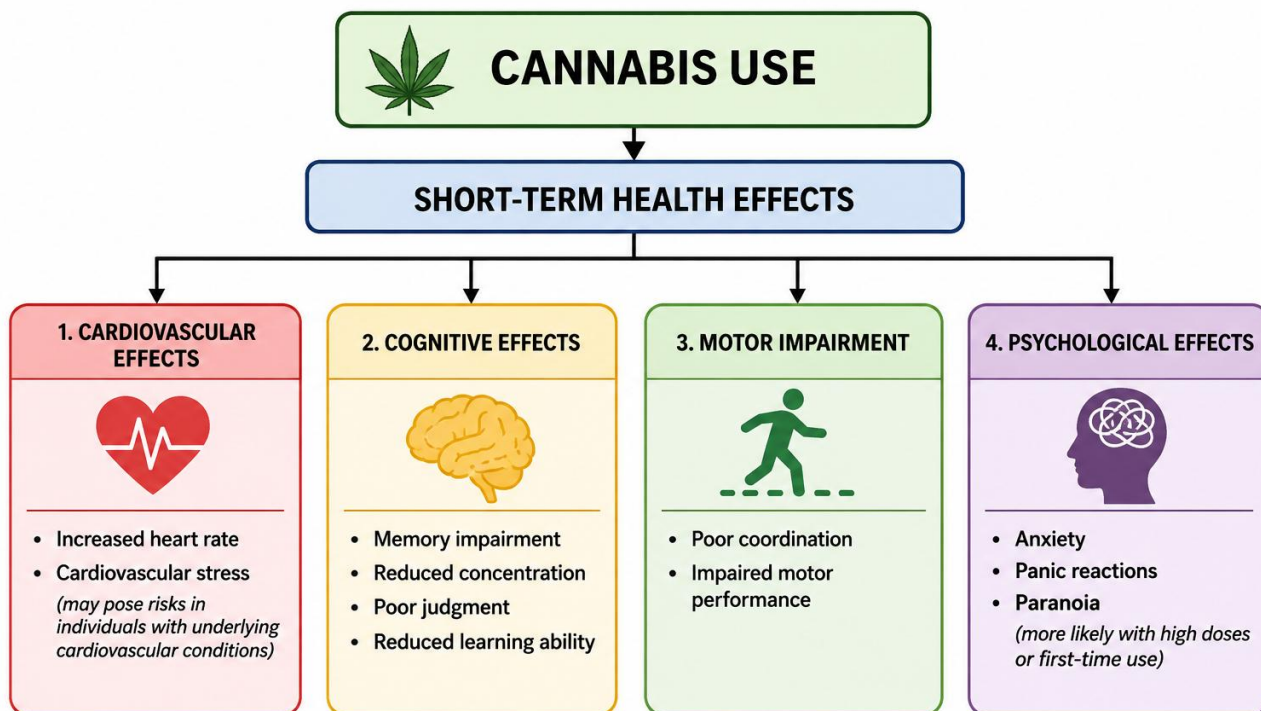


Figure-1. Schematic Representation of the Immediate Health Effects of Cannabis Consumption

to educate people, especially youth, about the dangers of substance abuse. Counseling and rehabilitation services must be strengthened so that individuals struggling with cannabis addiction can access treatment and recovery support (Gujjeti et al., 2014). Community intervention strategies, including the involvement of families, local leaders, health professionals, and law enforcement agencies, are also important in preventing abuse and supporting rehabilitation.

3. Research Methodology and Materials

3.1 Data Collection

The present study is based on both primary and secondary sources of data in order to provide a comprehensive understanding of ganja trafficking, usage patterns, and its social and health impacts.

3.1.1 Primary Data

Primary data were collected through interviews and surveys conducted among police officers, victims, and local residents in the study area. These respondents provided direct insights into ganja consumption, trafficking patterns, law enforcement challenges, and community experiences. In addition to surveys, case studies of ganja-related criminal cases were analyzed to understand the operational patterns of trafficking and the legal consequences faced by offenders. Focus group discussions were also conducted with community members and social activists to gather collective views on addiction, its causes, and possible intervention measures.

3.1.2 Secondary Data

Secondary data were obtained from a variety of documentary sources. Police reports and crime records were used to collect statistics on ganja trafficking, seizure patterns, and accused persons. Government reports and NGO publications were referred to in order to understand broader trends in drug

trafficking, prevention measures, and rehabilitation initiatives. Medical data and health reports were also used to examine the health effects of cannabis use and the treatment options available for addiction and dependency.

4. Analysis of Data and Research Findings

4.1 Ganja Supply Networks

The study reveals that the ganja supply network in and around Bhadrachalam is strongly connected to nearby high-risk regions such as Malkangiri, Chitrakonda, Kalimela, Sileru, and Mothugudem. These regions act as important source and transit zones for illegal ganja cultivation and transport. Among the various control points, the Bhadrachalam check post plays a major gateway role in intercepting the movement of ganja. It serves as a strategic route linking the supply chain to distant states such as Bihar, Uttar Pradesh, and West Bengal. The network is not limited to a single group but involves multiple actors, including cultivators or farmers, middlemen, transporters, and local distributors who together sustain the illegal trade.

4.2 Ganja Addiction Survey Findings

The survey findings indicate that ganja use is highly prevalent among males, with 99% of respondents being male, while females accounted for 0% and others for 1%. In terms of occupation, students formed the majority of users at 60%, followed by school dropouts at 25% and coolie workers at 10%. Most of the respondents belonged to urban areas (80%), while only 20% were from rural areas, indicating a stronger concentration of usage in urban settings.

The pattern of cannabis use showed that 40% of respondents had been using ganja for a period of 6 months to 1 year, while another 40% reported usage for 1 to 5 years. Weekly or occasional use was found to be the most common pattern among the majority of respondents. With regard to age of

initiation, 70% of users reported starting cannabis use between 18 and 25 years of age, while 25% began between 16 and 18 years, indicating that late adolescence and early adulthood are the most vulnerable periods for initiation.

The survey also examined the reasons behind ganja use. Peer pressure emerged as the most significant factor, reported by 60% of respondents, while 20% stated stress relief as the reason for consumption. This suggests that social influence and emotional coping are major drivers of cannabis use. In terms of health effects, users commonly reported sleep disturbances, weakness, fatigue, and appetite changes. These health problems were often accompanied by mental health difficulties, with 65% of respondents stating that cannabis use had a negative impact on their mental well-being.

The social consequences of ganja addiction were also significant. Around 75% of respondents reported family conflicts, while 60% experienced relationship problems. In addition, 80% stated that cannabis use negatively affected their academic performance or work life. Financially, the burden of addiction was severe, with 90% of users reporting financial strain due to their spending on cannabis and related lifestyle consequences.

Legal and treatment-related findings further highlight the seriousness of the issue. About 10% of respondents reported having been arrested, while 40% stated that they had faced legal problems connected to cannabis use or possession. Despite these consequences, 70% of respondents had not sought any form of treatment. However, when asked about preferred support systems, 80% expressed a preference for medical treatment, indicating a need for accessible and affordable healthcare-based rehabilitation services.

4.3 Police Department Data (Bhadrachalam Police Station)

The police records from Bhadrachalam Police Station provide important evidence regarding the extent of ganja-related crime in the region. In the year 2023, a total of 74 cases were registered, with 4907.152 kg of ganja seized and 222 accused persons involved. In 2024, the number of cases slightly decreased to 62, and the quantity of ganja seized was 3902 kg. However, the number of accused persons increased to 251. These figures suggest that while the number of recorded cases may have reduced, the trafficking network remains active and continues to involve a substantial number of individuals.

4.4 Role of Bhadrachalam Check Post

The Bhadrachalam check post plays a critical role in controlling the illegal transport of ganja across the region. Its strategic location makes it a vital point for intercepting smuggling routes connecting Telangana with neighboring states. The check post also contributes to inter-state coordination by enabling communication and enforcement efforts across state boundaries. However, the findings indicate that the effectiveness of the check post can be further improved through better surveillance technology, increased manpower, stronger intelligence sharing, and more systematic monitoring of suspicious transport activities. Strengthening these aspects would enhance its capacity to curb trafficking and reduce the flow of ganja through the region.

Table 1. Police Department Data (Bhadrachalam PS)

Year	Cases	Ganja Seized	Accused
2023	74	4907.152 kg	222
2024	62	3902 kg	251

5. Conclusion

The present study highlights the complex and multidimensional nature of ganja trafficking and consumption in the Andhra Pradesh–Odisha border region, with particular reference to the Bhadrachalam area. The findings reveal that ganja trafficking is not merely a law-and-order issue but a broader socio-economic and public health concern. The illegal supply chain is sustained by organized networks involving cultivators, middlemen, transporters, and local distributors, while socio-economic vulnerabilities such as poverty, unemployment, lack of awareness, and peer influence further contribute to the persistence of the problem. The study also shows that cannabis use has significant health, psychological, social, financial, and legal consequences for users, particularly among youth and students. The analysis of police records and field-level observations demonstrates that law enforcement agencies, especially the police department and the Bhadrachalam check post, play a crucial role in controlling the movement of ganja and intercepting illegal transportation routes. However, the increasing scale and inter-state nature of trafficking indicate that the existing response mechanisms require further strengthening. Improved inter-state coordination, specialized training for enforcement personnel, better surveillance systems, advanced technology, and stronger intelligence-sharing mechanisms are essential for more effective monitoring and prevention of ganja trafficking.

At the same time, the study makes it clear that enforcement alone cannot fully address the issue. A holistic and integrated approach is necessary, combining strict law enforcement with healthcare support, de-addiction services, rehabilitation programs, and community-based awareness initiatives. Preventive strategies should focus particularly on young people, who appear to be the most vulnerable group for cannabis initiation and continued use. Educational institutions, families, healthcare professionals, local organizations, and government agencies must work together to create awareness, reduce stigma around treatment, and ensure timely intervention for affected individuals.

In conclusion, ganja trafficking and addiction in the study region represent a serious challenge that affects public health, social stability, and law enforcement systems. Addressing this issue requires not only stronger policing and border surveillance but also long-term social and institutional measures aimed at prevention, rehabilitation, and community empowerment. Only through a coordinated, multi-sectoral approach can the problem of ganja trafficking and cannabis abuse be effectively reduced and sustainable solutions be achieved.

Competing interests:

The authors declare that they have no competing interests

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