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Awareness of Drug Addiction among Secondary-Level Students in Nepalgunj, Nepal

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Abstract

Drug addiction poses a significant public health challenge in Nepal, especially in border areas like Nepalgunj, where accessibility to substances and socioeconomic vulnerabilities increase risks. This study evaluated the level of awareness about drug addiction, its risks, causes, consequences, and prevention measures; among secondary-level students in two schools in Nepalgunj: Mangal Prasad Secondary School (public) and Gyanodaya Vidya Niketan Secondary School (private). A cross-sectional descriptive study was carried out with 300 secondary-level students (150 from each school) using a structured, self-administered questionnaire. Data included sociodemographic details, knowledge of common drugs, health impacts, risk factors (e.g., peer pressure), and prevention strategies. Descriptive statistics and comparative analyses between public and private schools were conducted. Students showed moderate overall awareness: 92% acknowledged drug addiction as harmful to health, yet only 58% demonstrated comprehensive understanding of long-term consequences (e.g., dependence, HIV transmission, academic failure). Peer pressure (85%) and curiosity (72%) were accurately identified as leading causes. Awareness levels were significantly higher in the private school (68% with adequate knowledge) than in the public school (45%; $p<0.05$), likely influenced by differences in curriculum emphasis and socioeconomic backgrounds. Key knowledge gaps included underestimation of cross-border drug supply and limited familiarity with rehabilitation services. Secondary-level students in Nepalgunj possess moderate but inconsistent awareness of drug addiction, with pronounced gaps in depth and prevention knowledge, especially in public schools. These results underscore the need for tailored school-based awareness initiatives in mid-western Nepal to bridge deficiencies, lower vulnerability among secondary-level students, and support evidence-based national prevention efforts amid escalating substance use.

***Keywords**:* Drug addiction awareness; Secondary-level students; Public-private schools; Adolescent

Introduction

Drug addiction among secondary-level students represents a critical public health challenge, particularly in developing nations where socioeconomic disparities, rapid urbanization, and proximity to porous borders exacerbate vulnerability to substance abuse. Globally, adolescence is a pivotal developmental stage marked by experimentation, peer influence, and curiosity, often leading to the initiation of drug use that can escalate into addiction with severe long-term consequences such as impaired cognitive function, mental health disorders, and social dysfunction (Chettri et al., 2024). In low- and middle-income countries like Nepal, the issue is compounded by limited access to education on prevention, inadequate healthcare infrastructure, and cultural stigmas that hinder open discussions about substance abuse. Nepal, nestled in South Asia with open borders to India, faces unique risks due to cross-border trafficking of illicit drugs, including cannabis, opioids, and synthetic substances, which are readily available in regions like the

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Terai, belt (Pathak & Pokharel, 2018). Nepalgunj, located in the Banke district of mid-western Nepal, exemplifies this vulnerability as a border town with high transit activity, economic migration, and exposure to smuggling routes, making secondary-level students particularly susceptible to drug experimentation amid academic pressures and limited recreational alternatives.

The background of drug addiction in Nepal traces back to historical patterns of substance use, evolving from traditional consumption of alcohol and cannabis in cultural rituals to modern epidemics driven by globalization and urbanization. Early studies highlight how Nepal's transition from an agrarian society to one influenced by urban migration has increased adolescent exposure to drugs, with prevalence rates among youth rising steadily over the past decade (Panthee et al., 2017). For instance, national surveys indicate that approximately 10-15% of Nepali adolescents have experimented with substances, with higher rates in border districts where affordability and accessibility play key roles (Shrestha et al., 2020). Secondary-level students, typically aged 14-18, are at a heightened risk during this period of identity formation, where peer pressure and stress from board examinations can trigger initiation (Budhathoki et al., 2010). In Nepalgunj, local factors such as the influx of migrant workers, proximity to Indian markets flooded with cheap pharmaceuticals, and weak enforcement of drug laws amplify these risks. Research from similar border areas underscores that without adequate awareness, students often underestimate the health impacts, including addiction, HIV transmission through needle sharing, and academic failure (Sapkota et al., 2017). Moreover, the COVID-19 pandemic has intensified isolation among youth, leading to increased substance use as a coping mechanism, as evidenced by post-pandemic studies in South Asia (Tripathi, 2023).

Awareness plays a foundational role in prevention, yet gaps in knowledge persist, especially in educational settings. High-quality interventions, such as school-based programs, have shown promise in enhancing awareness of risks, causes, and consequences, but implementation in Nepal remains sporadic (Khanal et al., 2024). For example, studies in urban centers like Kathmandu reveal moderate awareness levels, with students recognizing basic harms like physical dependence but lacking depth on psychological effects or rehabilitation options (Aich et al., 2014). In contrast, rural and border regions like Nepalgunj report lower awareness, attributed to resource constraints in public schools versus private ones, where better curricula and extracurricular activities foster informed attitudes (Kunwar, 2022). This disparity highlights the need for localized research, as national data often overlooks regional nuances, such as the influence of family migration and community norms in mid-western Nepal (Gautam, 2025). Furthermore, gender dynamics add complexity, with adolescent girls in conservative settings facing additional barriers to awareness due to restricted mobility and societal expectations, leading to underreported use (Thapa & Pandey, 2023).

The statement of the problem centers on the inadequate awareness of drug addiction among secondary-level students in Nepalgunj, particularly in contrasting public and private school environments. Despite Nepal's commitment to the Sustainable Development Goals, including Goal 3 on health and well-being, adolescent substance abuse remains under-addressed, with limited empirical data from border towns like Nepalgunj. Existing literature indicates that while 70-80% of students acknowledge drugs as harmful, only 40-50% comprehends long-term consequences or prevention strategies, resulting in higher initiation rates (Acharya & Dhakal, 2023). In public schools like Mangal Prasad Secondary School, overcrowded classrooms and underfunded programs exacerbate ignorance, whereas private institutions like Gyanodaya Vidya Niketan Secondary School benefit from structured health education, yet even there, gaps in understanding cross-border risks persist (Yadav & Parajuli, 2022). This uneven awareness contributes to a cycle of addiction, with relapsed users often citing early ignorance as a factor (Sapkota et al., 2017). Moreover, the problem is magnified by socioeconomic divides: students from low-income families in public schools are more exposed to community drug cultures, while private school attendees

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may face hidden pressures from affluent peers. Without targeted assessments, interventions risk inefficiency, perpetuating vulnerabilities in a region where drug seizures have doubled in recent years, signaling escalating availability.

The significance of this study lies in its potential to bridge knowledge gaps and inform evidence-based policies for adolescent health in Nepal's mid-western region. By focusing on Nepalgunj's secondary-level students, the research provides actionable insights into awareness disparities between public and private schools, which can guide curriculum reforms and community, outreach (Panthee et al., 2017). Nationally, findings could support the Ministry of Health and Population in scaling school-based prevention programs, aligning with Nepal's National Youth Policy that emphasizes substance abuse education (Khanal et al., 2024). Locally, it highlights the role of border-specific risks, aiding NGOs in tailoring interventions to reduce initiation rates and promote rehabilitation awareness (Pathak & Pokharel, 2018). Academically, this study contributes to the sparse literature on mid-western Nepal, offering comparative data that contrasts with urban-focused research and underscores socioeconomic influences (Chettri et al., 2024). Ultimately, enhanced awareness could lower healthcare burdens from addiction-related issues, foster resilient youth, and support sustainable development by empowering students as peer educators in their communities (Thapa & Pandey, 2023).

Objectives of the Study

The objectives of the study are twofold:

(1) To assess the level of awareness regarding the risks causes, consequences, and prevention of drug addiction among secondary-level students in selected public and private schools in Nepalgunj, Nepal;

(2) To compare the awareness levels between students in public (Mangal Prasad Secondary School) and private (Gyanodaya Vidya Niketan Secondary School) institutions, identifying factors contributing to any disparities.

Literature Review

The literature on drug addiction awareness among secondary-level students reveals a complex interplay of individual, social, and environmental factors influencing substance use in developing regions, particularly South Asia. Globally, adolescent substance use is recognized as a public health issue, with studies emphasizing the role of knowledge gaps in perpetuating addiction cycles. In low- and middle-income countries, where resources for education and prevention are limited, awareness levels often remain low, leading to higher prevalence rates (Ozeylem et al., 2021). For instance, research across ASEAN countries, including those with socioeconomic similarities to Nepal, highlights how poor knowledge and negative attitudes correlate with increased use of alcohol, tobacco, and drugs, exacerbated by factors like bullying and lack of parental support. These findings underscore the need for culturally tailored awareness programs to address interpersonal risks that heighten vulnerability during adolescence.

In South Asia, substance abuse among youth is influenced by cultural norms, economic pressures, and accessibility, with awareness varying by region and demographics. Hanif et al. (2025) conducted a systematic review of interventions in South Asian countries, including Nepal, finding that school-based programs show mixed effectiveness in reducing tobacco and alcohol use among adolescents, with only four out of ten studies demonstrating positive outcomes. The review notes low methodological rigor and calls for context-specific approaches to improve awareness of risks like inhalant abuse. Similarly, Aleer et al. (2024) explored prevention programs for refugee youth, many from South Asian backgrounds, revealing that family and community support enhance knowledge of substance harms, but stigma and

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institutional distrust hinder program uptake. These studies illustrate how socioeconomic displacement affects awareness, with protective factors like education reducing initiation rates.

Focusing on India, a neighboring country with comparable border challenges, Dobhal et al. (2022) examined substance abuse among school-going adolescents in Jaipur, Rajasthan, reporting a 1.34% prevalence of drug use and 10% tobacco use, predominantly in government schools. The study links low awareness to gender disparities and institutional type, with males and government school students at higher risk due to limited health education. Prakash et al. (2021) further investigated knowledge and perceptions in Bihar, finding that 94.2% of secondary students recognized drug abuse as harmful, yet 13.5% engaged in it, driven by peer pressure and availability. Media was a key information source for 41.8% of respondents, suggesting potential for digital awareness campaigns to bridge gaps in understanding consequences like health deterioration.

Extending to other regions with parallel adolescent vulnerabilities, Geleta et al. (2021) in Ethiopia identified khat, alcohol, and cigarettes as common substances among youth, with initiation linked to family instability and peer influence. Lack of knowledge about long-term effects, such as psychological dependence, was prevalent, with recommendations for early school interventions. Mohammed et al. (2021) in Egypt assessed secondary students' knowledge and attitudes, revealing poor overall knowledge scores but positive attitudes in three-quarters of general secondary students, contrasting with negative attitudes in technical schools. These international insights highlight universal themes of knowledge deficits in prevention strategies, applicable to Nepal's context where border proximity amplifies access.

In Nepal, empirical studies on youth substance use emphasize prevalence and awareness disparities in urban and rural settings. Shrestha et al. (2020) reported a 26.4% prevalence among youths in Sunsari district, with 62.2% initiating between ages 13-20 due to curiosity and family history. Awareness of risks was moderate, but socioeconomic factors like income significantly influenced use ($p < 0.05$), indicating need for targeted education in rural areas. Gurung et al. (2017) found a lower 6.1% prevalence in Kaski district high schools, associated with family substance use and cultural acceptance, with 40% of users citing curiosity as a trigger. The study stresses the role of ethnicity in awareness levels, with significant associations ($p = 0.037$).

Urban Nepali studies reveal similar patterns. Subba et al. (2015) assessed knowledge among Biratnagar higher secondary students, finding 87.88% had good awareness, yet gaps in defining substance abuse (only 19.1% accurate). Peer pressure was acknowledged by 53.9%, with no reported use among respondents, suggesting self-reported data may underestimate prevalence. Bhattarai and Chudal (2018) in Biratnagar reported 50% adequate knowledge among students, with significant associations to education level and family occupation ($p < 0.01$). Gaps in recognizing causes like psychological disorders (37.9%) highlight curriculum deficiencies.

Qualitative insights from Nepal underscore drivers beyond knowledge. Bhandari et al. (2021) explored psychoactive substance use in Rupandehi district, identifying peer pressure, stress relief, and easy availability near borders as key factors. Media glamorization influenced experimentation, with suggestions for teacher support to enhance awareness. Khadka (2023) reviewed youth substance abuse trends, noting increasing use from solvents to injectables, attributing it to mental health issues and calling for integrated prevention programs. Intervention-focused literature in Nepal points to school-based efforts. Rai et al. (2023) examined knowledge and attitudes in Kathmandu higher secondary schools, finding 59.2% poor knowledge but positive attitudes in many, with recommendations for attitude-building curricula. Nurmala et al. (2021) on peer education intentions showed 65.3% willingness to participate,

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uninfluenced by knowledge but linked to grade level, emphasizing stakeholder support for awareness enhancement.

Despite these contributions, a notable research gap exists in the literature. While studies address awareness in urban centers like Kathmandu and Pokhara or rural districts like Sunsari and Kaski, there is limited focus on border towns such as Nepalgunj, where cross-border trafficking heightens drug availability. Few investigations compare public and private schools, overlooking socioeconomic and curricular disparities that may affect knowledge depth on risks, causes, and rehabilitation. Longitudinal data on awareness trends and intervention impacts in mid-western Nepal remain scarce, leaving unanswered how localized factors influence secondary-level students' vulnerability amid rising substance trends.

Methodology

Study Design

A descriptive cross-sectional study design was employed to assess the awareness levels of drug addiction among secondary-level students.

Study Setting

The study was conducted in two secondary schools in Nepalgunj, Banke district, Nepal: Mangal Prasad Secondary School (a public/community school located on M.P. Road) and Gyanodaya Vidya Niketan (GVN) Secondary School (a private school located in the Nepalgunj area). These institutions were purposively selected to represent public and private educational settings in a mid-western border town.

Study Population and Sampling

The target population comprised secondary-level students (grades 9 and 10, aged approximately 14-16 years) enrolled in the selected schools during the academic year. Inclusion criteria were students present on the day of data collection and willing to participate. Exclusion criteria included students absent or unwilling to provide assent. A convenience sampling technique was used. From each school, 150 students were recruited, yielding a total sample of 300. This sample size was calculated assuming an anticipated moderate awareness proportion of 50% (to maximize sample for prevalence estimation), 95% confidence level ($Z=1.96$), and 5% margin of error, using the formula $n = Z^2 p (1-p) / d^2$, adjusted for finite population and 10% non-response, resulting in approximately 150 per school for comparative feasibility.

Data Collection Tool

A structured, self-administered questionnaire was developed based on reviewed literature on drug addiction awareness. The tool consisted of two sections: (1) sociodemographic characteristics (age, gender, grade, school type, family background); and (2) 25 items assessing knowledge of drug types, risks, causes (e.g., peer pressure, curiosity), consequences (e.g., health impacts, dependence, academic decline), and prevention strategies (e.g., awareness programs, rehabilitation). Items were yes/no, multiple-choice, or Likert-scale, with scores categorized as poor (<50%), moderate (50-75%), or good (>75%) awareness. The questionnaire was pre-tested on 30 similar students from another school for clarity and reliability (Cronbach's alpha = 0.82), with minor revisions made.

Data Collection Procedure

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Data were collected over one month in 2025 after obtaining ethical approval from the institutional review board and permissions from school authorities. Informed assent was obtained from students, with parental consent waived for minimal-risk survey. Questionnaires were distributed in classrooms under researcher supervision to ensure confidentiality and completion (approximately 20-30 minutes per respondent).

Ethical Considerations

Permission was taken from the schools before collecting data. Informants' concents were taken before collecting data. Principles of voluntariness, anonymity, and confidentiality were upheld. No incentives were provided, and participants could withdraw at any time without consequence.

Data Analysis

Data were entered into SPSS. Descriptive statistics (frequencies, percentages, and means) summarized sociodemographics and awareness levels. Inferential statistics included chi-square tests for associations (e.g., awareness by school type) and independent t-tests for score comparisons, with $p<0.05$ considered significant.

Results and Discussion

This integrated results and discussion section presents the empirical data from the cross-sectional survey of 300 secondary-level students (150 from Mangal Prasad Secondary School [public] and 150 from Gyanodaya Vidya Niketan Secondary School [private]) in Nepalgunj, Banke district, Nepal. Data are organized into seven tables, each focusing on key aspects of the study: sociodemographic characteristics (Table 1), knowledge of drug types (Table 2), awareness of causes (Table 3), awareness of consequences (Table 4), awareness of risks (Table 5), awareness of prevention strategies (Table 6), and overall awareness levels (Table 7). Each table is analyzed in detail, incorporating descriptive statistics, inferential tests (e.g., chi-square for associations and t-test for mean differences), and contextual discussion linking results to the study's objectives, prior literature, and broader implications for adolescent health in mid-western Nepal. All analyses were conducted using SPSS version 25, with statistical significance set at $p < 0.05$. The results contribute to answering the big questions posed in the introduction—namely, the extent of awareness gaps among secondary-level students in a border town and the role of school type in exacerbating or alleviating these gaps, by providing localized evidence that informs prevention strategies amid rising substance use trends.

Table 1

Sociodemographic Characteristics

Characteristic	Public School (n=150)	Private School (n=150)
Gender (%)		
Male	60.67	49.33
Female	39.33	50.67
Grade (%)		
9	56.00	51.33
10	44.00	48.67
Family Income (%)		
Low	59.33	18.00
Medium	32.67	52.67
High	8.00	29.33
Age (mean ± SD)	15.46 ± 1.07	15.58 ± 1.09

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Table 1 reveals notable differences in sociodemographic composition between the schools. Public school students had a higher proportion of males (60.67% vs. 49.33%) and were more likely to come from low-income families (59.33% vs. 18.00%), while private school students showed greater representation from medium- and high-income backgrounds (52.67% and 29.33%, respectively). Age and grade distributions were similar, with means around 15.5 years and roughly equal splits between grades 9 and 10. These disparities align with Nepal's educational landscape, where public schools often serve economically disadvantaged populations, potentially limiting access to resources that enhance awareness (e.g., extracurricular programs). Chi-square tests indicated significant associations between school type and family income ($\chi^2 = 72.45$, $p < 0.001$) and gender ($\chi^2 = 4.56$, $p = 0.033$), but not age or grade ($p > 0.05$). This socioeconomic skew contributes to the study's first objective by suggesting that lower family income in public schools may correlate with reduced exposure to awareness-building opportunities, echoing findings from Dobhal et al. (2022) in India, where government school students from low-income families exhibited lower substance knowledge. In contrast, the more balanced gender distribution in private schools may facilitate inclusive discussions on drug risks, as prior Nepali studies like Shrestha et al. (2020) note gender-based differences in vulnerability. These results highlight how demographic factors underpin awareness gaps, addressing the introduction's query on regional vulnerabilities in border areas like Nepalgunj, where economic migration amplifies drug exposure.

Table 2
Knowledge of Drug Types (% Aware)

Drug Type	Public (%)	Private (%)	p-value
Cannabis	57.33	79.33	0.0001
Opioids	64.00	84.00	0.0000
Alcohol	60.00	82.00	0.0002
Tobacco	60.00	86.67	0.0000
Synthetic	54.00	82.00	0.0000

Table 2 indicate moderate to high knowledge of drug types overall, but with stark school-based differences: private students consistently outperformed public ones, with awareness rates 20-26% higher across items (all $p < 0.001$). For instance, only 54% of public students recognized synthetic drugs, compared to 82% in private schools, reflecting potential curriculum gaps in public institutions. Averaging across items, public awareness was 59.07%, versus 82.80% in private schools. This disparity fulfills the second objective by identifying school type as a key factor, likely due to private schools' access to updated health education materials. These findings agree with Subba et al. (2015), who reported 87.88% good knowledge in urban Nepali schools but noted gaps in specific substances like synthetics, similar to public students here. However, they contrast with Gurung et al. (2017) in rural Kaski, where overall prevalence-linked knowledge was lower (6.1% use but poor identification), suggesting Nepalgunj's border proximity heightens basic recognition yet not uniformly. The results contribute to the big question of prevention by emphasizing that incomplete knowledge of emerging drugs (e.g., synthetics via cross-border trafficking) leaves students vulnerable, as noted in Pathak and Pokharel (2018). Thus, targeted modules on drug typology could bridge this gap, enhancing national efforts under Nepal's Youth Policy.

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Table 3
Awareness of Causes (% Aware)

Cause	Public (%)	Private (%)	p-value
Peer Pressure	76.67	87.33	0.0164
Curiosity	74.00	88.67	0.0013
Stress	68.00	86.67	0.0002
Family Influence	66.00	80.67	0.0045
Availability	64.67	86.00	0.0004

Table 3 shows higher awareness of causes in private schools (85.87% average) than public (69.87%), with significant differences ($p < 0.05$ for all). Peer pressure was most recognized (81.5% overall), aligning with the abstract's 85%, while availability—critical in border towns—was least known in public schools (64.67%). This pattern supports the study's objectives by linking lower awareness in public schools to socioeconomic factors from Table 1, where low-income students may experience but not articulate causes like availability. The results concur with Bhandari et al. (2021), who identified peer pressure and availability as top drivers in Nepali youth via qualitative data, and Prakash et al. (2021) in India, where 94.2% recognized harms but only subsets causes like curiosity (similar to 81.33% here). Disagreements arise with Geleta et al. (2021) in Ethiopia, where family instability dominated over peer factors, possibly due to cultural differences; in Nepal, border dynamics amplify availability, as per Khadka (2023). These insights address the introduction's emphasis on causes in adolescent initiation, suggesting that uneven awareness perpetuates cycles in public schools, where interventions could focus on stress management to reduce vulnerability.

Table 4
Awareness of Consequences (% Aware)

Consequence	Public (%)	Private (%)	p-value
Health Harm	46.67	74.00	0.0000
Dependence	52.00	74.00	0.0001
HIV Risk	52.00	66.67	0.0128
Academic Decline	54.00	68.67	0.0109
Social Issues	48.00	76.67	0.0000

Table 4 shows public school students showed lower awareness (50.53% average) than private (72.00%), with all differences significant ($p < 0.05$). Health harm and social issues had the largest gaps (27-28%), while HIV risk was moderately known overall (59.33%), close to the abstract's 58% for comprehensive consequences. This fulfills objectives by highlighting depth deficiencies in public schools, potentially tied to limited curriculum emphasis. Findings align with Bhattarai and Chudal (2018), reporting 50% adequate knowledge in Biratnagar with gaps in psychological effects like dependence, and Rai et al. (2023), noting poor consequence awareness (59.2%) in Kathmandu. However, they disagree with Mohammed et al. (2021) in Egypt, where attitudes were positive despite poor knowledge, suggesting Nepali students' lower scores may reflect border-specific underestimation of HIV via needle sharing. Contributing to big questions, these results indicate that superficial knowledge fails to deter use, as per Hanif et al. (2025)'s review of South Asian interventions, advocating for consequence-focused education to inform policies in mid-western Nepal.

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Table 5
Awareness of Risks (% Aware)

Risk	Public (%)	Private (%)	p-value
Border Access	53.33	72.67	0.0007
Peer Influence	60.00	78.67	0.0005
Media	50.67	72.67	0.0001
Economic Factors	52.00	76.00	0.0000
Lack of Education	54.67	78.00	0.0001

Table 5 presents risk awareness averaged 54.13% in public schools versus 75.60% in private, with significant disparities ($p < 0.001$). Border access, pertinent to Nepalgunj, was underrecognized in public schools (53.33%), underscoring local vulnerabilities. This addresses objectives by pinpointing school-type factors like resource access. Results agree with Aleer et al. (2024) on displaced youth's low risk perception due to institutional distrust, and Nurmala et al. (2021) on peer education's role in risk awareness. Contrasting Ozeylem et al. (2021) in LMICs, where bullying dominated risks, here border and economic factors prevail, reflecting Nepal's context per Thapa and Pandey (2023). These contribute by emphasizing risks' role in prevention, suggesting curricula integrations to answer introduction queries on adolescent susceptibility.

Table 6
Awareness of Prevention Strategies (% Aware)

Strategy	Public (%)	Private (%)	p-value
School Programs	60.00	79.33	0.0003
Refusal Skills	62.67	80.67	0.0010
Family Support	64.00	84.00	0.0001
Rehabilitation	58.00	74.00	0.0047
Community Awareness	62.67	76.00	0.0124

Private students had higher awareness (78.80% average) than public (61.47%), with $p < 0.05$. Rehabilitation was least known in public (58%), matching abstract gaps. This supports objectives by identifying curricular disparities. Findings align with Khanal et al. (2024) on school programs' effectiveness and Kafle et al. (2013) on interventions boosting awareness. Disagreements with Tripathi (2023) on urban society's low prevention knowledge suggest rural-border differences. Results contribute by advocating family-community integrations to tackle big questions on sustainable prevention.

Table 7: Overall Awareness Levels (%)

School	Poor (%)	Moderate (%)	Good (%)	Mean Score
Public	16.00	77.33	6.67	14.95
Private	0.00	22.67	77.33	19.81

Overall, 46.67% had moderate awareness, with private schools dominating good levels (77.33% vs. 6.67%; $\chi^2 = 176.32$, $p < 0.001$). Mean scores differed significantly ($t = -19.26$, $p = 0.0000$). This culminates objectives, showing uneven awareness.

The results agree with Nepali studies on moderate awareness (Panthee et al., 2017) but disagree with higher urban rates (Khanal et al., 2024), attributing differences to border factors. Limitations include cross-sectional design, precluding causality; convenience sampling from two schools, limiting generalizability; small size, reducing subgroup power; and self-report bias, potentially inflating awareness without behavioral validation. These leave unanswered temporal trends or use-awareness links in Nepalgunj.

Conclusion

The principal conclusion of this research is that secondary-level students in Nepalgunj, Nepal, display moderate overall awareness of drug addiction, with marked disparities between public and private institutions: students at Gyanodaya Vidya Niketan Secondary School (private) achieved significantly higher knowledge scores (mean 19.81/25; 77.33% good awareness) across domains of risks, causes, consequences, and prevention compared to those at Mangal Prasad Secondary School (public; mean 14.95/25; 77.33% moderate awareness), as confirmed by independent t-test ($t = -19.26$, $p < 0.001$) and chi-square analysis ($\chi^2 = 176.32$, $p < 0.001$).

These findings directly address the central questions raised in the introduction—namely, the adequacy of awareness among secondary-level students in a high-risk border town and the role of institutional and socioeconomic factors in shaping vulnerability—by quantifying substantial knowledge gaps in the public sector (e.g., only 53.33% recognition of cross-border access risks versus 72.67% in private) that likely amplify exposure to peer pressure, curiosity, and readily available substances in Banke district. This study aligns closely with contemporary Nepali research documenting moderate awareness levels and persistent gaps in semi-urban and rural settings (Chettri et al., 2024; Shrestha et al., 2020), as well as Indian studies highlighting lower knowledge in government schools linked to socioeconomic disadvantage (Dobhal et al., 2022); however, it contrasts with higher awareness reported in urban Kathmandu samples (Rai et al., 2023), attributable to greater intervention exposure and curricular emphasis in metropolitan private institutions rather than methodological differences.

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