

Prevalence, Patterns, and School-Based Responses to Cannabis Use among Learners in Public Junior Schools in Ngong Municipality, Kenya.

Agnes Denyo Odhiambo¹, Dr. Antony Chege², Dr. Maria Ntarangwe³

¹Department of Counselling Psychology the Catholic University of Eastern Africa, Kenya

^{2,3}Department of Counselling Psychology, Kenya

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ABSTRACT

Background: Cannabis use among adolescents is a growing public health concern globally, with potential negative effects on cognitive, psychosocial, and academic outcomes. In Kenya, despite its illegality, cannabis remains the most commonly abused substance among school-going youth, yet research on preventive strategies in junior schools is limited.

Objective: This study examined the prevalence, demographic correlates, coping strategies, and school-based preventive interventions related to cannabis use among junior school learners in Ngong Municipality, Kenya.

Methods: A cross-sectional embedded mixed-methods design was employed, integrating quantitative data from 369 learners using the Cannabis Abuse Screening Test (CAST) with qualitative interviews of school staff. Quantitative data were analyzed using descriptive and non-parametric statistics, while qualitative data were thematically analyzed to explore intervention strategies and challenges.

Results: Overall prevalence of problematic cannabis use was relatively low (7.6%), with higher risk observed among male learners and those in higher grades. Teachers and counseling services were identified as the primary sources of support, while parental and peer involvement was comparatively lower. Qualitative findings revealed multi-level interventions, including disciplinary measures, educational sessions, psychosocial support, and community engagement. However, gaps were noted in program coverage, staff training, and parental participation.

Conclusion: Cannabis use among junior school learners in Ngong Municipality remains low but concentrated among specific subgroups. Integrated, relationally-informed preventive strategies combining school-based education, counseling, peer engagement, and community involvement are recommended to mitigate risk and enhance adolescent resilience.

Keywords: Adolescent cannabis use, Junior schools, Prevention strategies, Attachment theory, Psychosocial support, Kenya

INTRODUCTION

Cannabis, one of the most widely used psychoactive substances globally, has seen a notable increase in consumption over recent years, particularly among adolescents and young adults. The United Nations Office on Drugs and Crime (UNODC, 2024) estimates that approximately 292 million people worldwide use illicit drugs, with cannabis accounting for the majority at around 228 million users. This trend has been partly fueled by the wave of decriminalization and legalization in several countries, including Canada, Uruguay, and multiple jurisdictions in the United States, where regulatory reforms have led to a marked rise in youth consumption. Beyond traditional smoking, the advent of edibles and concentrated cannabis products has broadened its appeal and, simultaneously, masked its potential health risks (UNODC, 2021). Such shifts in

consumption patterns pose significant public health challenges, particularly for adolescents whose neurological and psychosocial development renders them especially vulnerable to substance-related harm.

Global evidence underscores the complexity and heterogeneity of adolescent cannabis use. In the United States, Yang et al. (2024) analyzed data from 88,183 high school students between 2011 and 2021, revealing a decline in lifetime cannabis use from 39.9% to 27.8% and current use from 23.1% to 15.8%. Despite these promising trends, usage before age 13, although declining, remains a concern. Similarly, SAMHSA (2021) reports that nearly 1.9 million youths aged 12–17 used cannabis in the past month, with 3 million using it within the past year. However, regional, cultural, and legal differences limit the generalizability of these findings to other contexts, particularly sub-Saharan Africa. In Norway, Heradstveit et al. (2021) observed relatively stable cannabis use among 566,912 learners aged 13–19 over a decade, with significant gender differences: older male adolescents reported higher usage than their female peers. Globally, the World Health Organization (2024) reports that 12% of 15-year-olds across Europe, Central Asia, and Canada have tried cannabis at least once, with past-month use at 6%, highlighting consistent patterns of early experimentation with cannabis during adolescence. These studies collectively demonstrate the global public health relevance of adolescent cannabis use while underscoring the need for culturally and contextually sensitive research to understand localized patterns.

The African context presents additional challenges. Cannabis production and consumption are widespread, often thriving under weak regulatory frameworks. Belete et al. (2023) report lifetime cannabis use rates among learners in sub-Saharan Africa ranging from 5.9% to 14.2%, with the South African context showing prevalence as high as 16.7% in some localities. South African studies, such as Makunda et al. (2024), further identify psychosocial risk factors including peer pressure, familial neglect, personality traits, and adverse school environments. Sierra Leonean learners also face similar risks, with Osborne et al. (2024) reporting a 5.1% prevalence of cannabis use and strong associations with suicide attempts, risky sexual behavior, and poly-substance use. While these findings illuminate critical determinants of cannabis use, they largely overlook developmental and psychological mechanisms such as attachment styles, which play a central role in shaping adolescent behavior and coping strategies.

Kenya mirrors these concerning trends. Despite its illegality, cannabis is the most commonly abused narcotic among adolescents and young adults (NACADA, 2022). National data indicate that one in every ten males and one in every 333 females aged 15–65 years are active cannabis users. Among secondary school learners, Kamanderi et al. (2019b) report that cannabis constitutes 7.5% of all substance use, with emerging preferences for edibles reducing stigma and detection (Moltke & Hindocha, 2021). School-level observations in Kajiado County, particularly in Ngong Municipality, suggest that approximately two out of every ten learners may be engaging in substance use during school hours, contributing to absenteeism, poor academic performance, and juvenile delinquency. Olunga and Muga (2021) further highlight regional disparities in cannabis prevalence, with rates in Nyanza reaching 17% among learners aged 15–35, far exceeding national averages. Collectively, these statistics underscore the pressing need for evidence-based interventions targeted at younger learners, particularly within the junior school phase, where early intervention may prevent escalation.

Emerging psychological research emphasizes the role of attachment styles as determinants of adolescent substance use. Rooted in Bowlby's (1969) foundational theory and expanded by Ainsworth, attachment theory posits that early caregiver-child relationships shape emotional regulation, coping mechanisms, and interpersonal functioning. Insecure attachment styles, including anxious, avoidant, and fearful types, are associated with maladaptive coping strategies such as substance use (Schindler, 2019; Carapeto & V., 2023). Empirical studies corroborate this link: Nakhoul et al. (2020) found that attachment anxiety and avoidance predicted substance use among Lebanese learners, while Owino et al. (2021) demonstrated that emotional dysregulation rooted in poor attachment contributes to risky behaviors, including cannabis use. In Kenya, Ahmed et al. (2023) and Akambi (2024) show that adverse early environments foster insecure attachment, highlighting the relevance of attachment theory in understanding adolescent drug use within local contexts.

Addressing cannabis use among learners requires comprehensive and contextually appropriate intervention strategies. Globally, school- and community-based programs such as Motivational Interviewing, Cognitive Behavioral Therapy (CBT), and the Teen Cannabis Check-Up have demonstrated effectiveness in reducing cannabis use among adolescents (Tudor & L., 2024; SAMHSA, 2021). Skills-based interventions and

psychoeducational programs tailored to the middle school phase are particularly effective, aligning with the critical window for preventive strategies (Liu et al., 2023). Participatory models, including peer-led initiatives and photovoice projects in South Africa (Vuuren, 2021), empower learners as agents of change. Locally, Kenya has piloted programs such as keepin' it REAL (Margaret, 2019), peer counseling (Gesare, 2019), and school based brief interventions (Zhang, 2019). While promising, these interventions often focus on older learners, aggregate substances beyond cannabis, or lack contextual adaptation for junior schools in rapidly urbanizing areas like Ngong Municipality. Furthermore, the integration of psychological dimensions, particularly attachment-informed strategies, remains largely unexplored, representing a critical gap in both research and practice.

Given the rising prevalence of cannabis use among school-going adolescents, its deleterious effects on cognitive and psychosocial development, and the limited application of attachment-informed strategies in Kenyan junior schools, this study seeks to investigate the relationship between attachment styles and cannabis use among learners in Ngong Municipality. By focusing on this younger cohort, the research aims to inform the development of locally relevant, evidence-based interventions that integrate psychological, educational, and community-based approaches. Ultimately, the study aspires to contribute to early prevention efforts, enhance learners' wellbeing, and provide guidance for policymakers, educators, and mental health practitioners addressing adolescent substance use in Kenya.

METHODS

This study employed a mixed-methods approach to examine cannabis use among learners in public junior schools within Ngong Municipality, Kenya, with particular attention to prevalence, patterns, and strategies adopted by schools to address substance use. A cross-sectional embedded design was adopted, integrating quantitative and qualitative methods to provide a comprehensive understanding of the phenomena. The quantitative component focused on assessing cannabis use prevalence and patterns using standardized instruments, while the qualitative component provided contextual insights into school-based interventions. This design allowed for the collection of both numerical and narrative data, which were analyzed independently and integrated during interpretation to enrich and validate the findings.

Research Design

The study utilized an embedded mixed-methods design, where quantitative data formed the primary source of analysis, supplemented by qualitative insights from educators to provide contextual depth. Quantitative data were collected using structured questionnaires assessing cannabis use behaviors, while qualitative data were gathered through semi-structured interviews to explore school strategies and challenges in addressing substance use among learners. The cross-sectional design enabled the assessment of current behaviors and practices at a single point in time, providing a snapshot that informed targeted interventions in the school setting. By integrating numerical and narrative data, the study offered a holistic understanding of adolescent cannabis use and school-based preventive strategies.

Study Area

The research was conducted in Ngong Municipality, located within Kajiado North Sub-County of Kajiado County, Kenya. Ngong Municipality comprises a mixture of peri-urban and urban settlements, reflecting socioeconomic diversity, cultural dynamics, and social transitions linked to adolescent behaviors, including substance use. The municipality consists of five wards, with Ngong and Ongata Rongai wards selected for this study due to their high youth populations and documented vulnerability to drug use. The region's unique combination of rural and urban influences provided a rich context for investigating cannabis use patterns and the effectiveness of school-based interventions.

Study Population

The study population comprised learners aged 12 to 20 years enrolled in public junior schools across Ngong and Ongata Rongai wards. This age group was targeted due to its developmental significance, characterized by increased experimentation and risk-taking behaviors, including substance use. Public schools were chosen to provide a relatively homogeneous educational context while ensuring inclusion across diverse socio-economic backgrounds. Mixed-gender schools allowed for exploration of potential gender differences in cannabis use.

Sampling Procedure

A multi-stage sampling technique was employed to select participants. Initially, schools were stratified by ward, and a proportionate number of schools were randomly selected, resulting in five schools from Ngong Ward and three from Ongata Rongai Ward. Within each selected school, proportionate stratified random sampling determined the number of learners to be included, based on each school's contribution to the total population. Individual participants were then selected using a lottery method to minimize selection bias and ensure fairness. The final sample included 373 learners drawn from a total population of 3,660 learners across the eight selected schools.

Data Collection Instruments

Quantitative data on cannabis use were collected using the Cannabis Abuse Screening Test (CAST), a validated instrument for identifying problematic use behaviors over the preceding 12 months. Responses were provided on a 5-point Likert scale, with total scores indicating low, moderate, or high risk of cannabis dependence. Qualitative data were obtained through semi-structured interviews with educators, including teachers, school administrators, and counselors. Interviews explored school strategies for addressing cannabis use, challenges encountered, and recommendations for effective interventions. Pre-testing was conducted with a small group of learners to ensure clarity, cultural appropriateness, and reliability, and adjustments were made accordingly.

Data Analysis and Presentation

Quantitative data were analyzed using SPSS version 30. Descriptive statistics summarized demographic characteristics, prevalence, and patterns of cannabis use. Qualitative data were analyzed thematically following Braun and Clarke's framework, involving familiarization, coding, theme identification, and interpretation. Integrating quantitative and qualitative findings allowed for triangulation and a comprehensive understanding of both the prevalence of cannabis use and the effectiveness of school-based strategies to address it.

Ethical Considerations

Ethical approval was obtained from the Institutional Scientific and Ethics Review Committee of Africa International University and from NACOSTI. Informed consent was sought from school administrators acting as institutional guardians, while learner assent was also obtained. Confidentiality and anonymity were rigorously maintained, with numerical codes assigned to participants to protect identities. A licensed counselling psychologist was present during data collection to provide immediate support if any participant experienced distress. All participants were informed of their rights, including voluntary participation and freedom to withdraw without repercussions. Ethical safeguards ensured the study adhered to national and institutional standards, protecting the rights, welfare, and dignity of all participants.

RESULTS

A total of 369 learners participated in the study. The mean age of respondents was 14.4 years with a standard deviation of 2.37, and ages ranged from 11 to 20 years. In terms of gender distribution, 53.2% (n = 197) of the learners were female, 45.9% (n = 170) were male, and 0.5% (n = 2) identified as "other" or preferred not to disclose their gender.

Variable	Category / Range	Frequency	Percentage	Mean	SD	Min	Max
Age (years)	11 – 20	,	,	14.4	2.37	11	20
Gender	Male	170	45.9	,	,	,	,
	Female	197	53.2	,	,	,	,
	Other / Prefer not to say	2	0.5	,	,	,	,
Grade	Grade 7	142	38.4	,	,	,	,

	Grade 8	122	33.0	,	,	,	,	,
	Grade 9	105	28.4	,	,	,	,	,
Living arrangement	Both parents	213	57.6	,	,	,	,	,
	One parent	118	31.9	,	,	,	,	,
	Guardian	33	8.9	,	,	,	,	,
	Alone / other	5	1.4	,	,	,	,	,

Participants were drawn from three junior school levels. 38.4% (n = 142) were in Grade 7, 33.0% (n = 122) in Grade 8, and 28.4% (n = 105) in Grade 9. Regarding living arrangements, the majority of learners (57.6%, n = 213) reported living with both parents. Additionally, 31.9% (n = 118) lived with one parent, 8.9% (n = 33) lived with a guardian, and 1.4% (n = 5) reported living alone or under other arrangements.

Cannabis Use Prevalence and Risk Levels

Cannabis screening using the CAST showed that the majority of learners did not meet any criteria associated with cannabis-related risk. A smaller proportion fell into the low-risk category, while a notable minority met the threshold for problematic use. This pattern suggests that although cannabis use is not widespread in this population, there remains a subset of learners whose screening scores fall within a concerning range. The overall distribution of CAST categories is presented in Table 2, allowing visualization of the relative sizes of each risk group.

Table 2 Overall Distribution of Cannabis Use Categories among Learners (N = 370)

CAST Category	Frequency (n)	Percent (%)
No risk	319	86.2
Low risk	23	6.2
Problematic use	28	7.6
Total	370	100.0

Cannabis Risk Patterns by Gender

When CAST categories were examined by gender, differences emerged in the distribution of risk across groups. Male learners showed a higher proportion of problematic use compared to female learners, while the “other” gender category revealed noticeably small counts but relatively elevated percentages due to the low denominator.

These findings highlight variations in cannabis involvement that appear unevenly distributed across gender categories. The full breakdown of gender-specific CAST results is shown in Table 3, outlining both numerical and relative patterns.

Table 3 Distribution of Cannabis Abuse Screening Test (CAST) Risk Categories by Gender

Gender	No Risk (n)	Low Risk (n)	Problematic Use (n)	Total (n)	Problematic Use
Male (1)	141	10	19	170	11.2%
Female (2)	177	12	8	197	4.1%

Other (3)	0	1	1	2	50.0%
Total	318	23	28	369	7.6%

Note. Gender codes: 1 = Male, 2 = Female, 3 = Other. Percentages are calculated within each gender category to indicate relative prevalence of problematic use.

Associations between Cannabis Risk Scores and Demographic Characteristics

Non-parametric tests were performed to explore whether CAST scores varied meaningfully across demographic factors. Differences in cannabis risk were evident when comparing across gender and grade levels, indicating variability across these groups. In contrast, age and living arrangement did not show statistically significant associations with CAST scores, suggesting limited variability in cannabis risk when viewed through these particular demographic lenses. These statistical outcomes are summarized in Table 4, which provides a clear overview of the test outputs and their significance levels.

Table 4 Non-Parametric Tests of Association between CAST Total Scores and Demographic Variables

Variable	Test Type	Test Statistic	df	p / χ^2 (H)	p-value	Interpretation
Age	Spearman correlation	,	,	p = 0.085	0.101	Not significant
Gender	Kruskal–Wallis	$\chi^2 = 10.20$	2	,	0.006	Significant difference
Grade	Kruskal–Wallis	$\chi^2 = 11.50$	2	,	0.003	Significant difference
Living Arrangement	Kruskal–Wallis	$\chi^2 = 5.73$	3	,	0.126	Not significant

Strategies Used to Address Cannabis Use in Schools

Learners reported a range of coping responses that they rely on when managing emotional stress, which may have implications for substance-use behavior. The most frequently endorsed strategy was talking to someone trusted, reported by just over half of the learners (53%). A considerable proportion (23%) preferred isolating themselves when distressed, while a small minority (2%) indicated using cannabis as a coping mechanism. Qualitative data further reflected diverse coping modalities, including emotional expression, creative or recreational outlets, religious/spiritual practices, interpersonal support, and occasional use of maladaptive behaviors. These findings are summarized in Table 5.

Table 5 Emotional Coping Responses and Thematic Grouping

Response Type / Thematic Group	Count	Percent
Quantitative Responses		
Talk to someone I trust	196	53%
Be alone and keep to myself	84	23%
Use cannabis to feel better	7	2%
Qualitative/Thematic Groups		
Expressive / Emotional Release	6	–
Creative / Recreational Activities	15	–

Religious / Spiritual Coping	5	—
Social / Interpersonal Support	3	—
Risky / Maladaptive Behaviors	3	—

Learners were also asked whether their schools had formal programs in place to discourage drug use. Most learners (75.9%) reported the presence of such programs, indicating substantial institutional effort toward prevention. However, nearly one in four respondents (24.1%) stated that no such programs existed, suggesting variability in either implementation or awareness among students. The distribution of responses is presented in Figure 1.

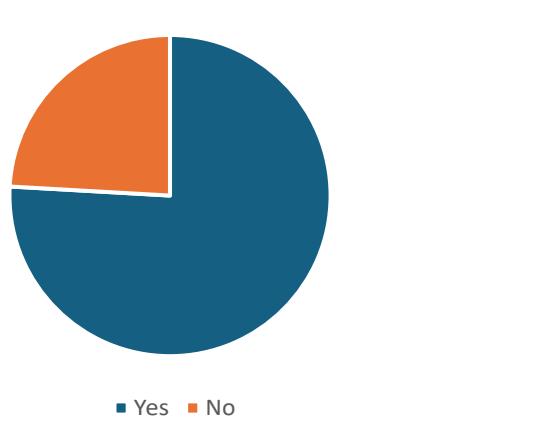


Figure 1: Availability of School-Based Programs to Discourage Drug Use

Attendance patterns were further explored by asking whether learners had personally participated in drug awareness or preventive education sessions. A large majority (70.7%) reported that they had attended such sessions, whereas 29.3% indicated that they had not. While attendance appears relatively high, the proportion of learners who have never participated highlights possible gaps in program reach. These findings are illustrated in Figure 2.

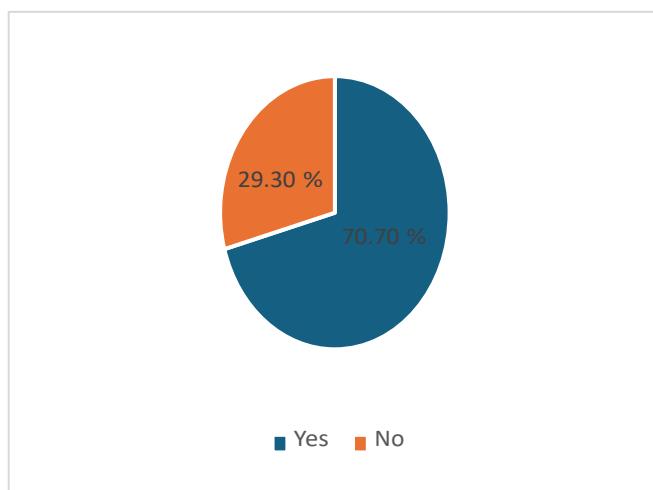


Figure 2: Attendance at Drug Education Sessions

Learners also identified sources of support they considered most helpful in preventing cannabis use. Teachers were the most frequently mentioned (52.4%), followed by parents (33.0%). Smaller proportions cited peers (10.2%) or other support sources (4.4%). These data emphasize the central role of school staff as perceived prevention agents, summarized in Table 6.

Table 6 Learners' Perceptions of Key Sources of Support in Preventing Cannabis Use

Prevention Support Source	n	Percent
Parents	97	33.0%
Teachers	154	52.4%
Peers	30	10.2%
Other	13	4.4%

In terms of specific supportive strategies, slightly more than half of the respondents (50.2%) indicated counselling as the primary mechanism that could help them avoid cannabis use. Parent guidance (20.9%), school based programs (11.7%), and peer support (9.5%) were also noted, with a small proportion identifying other sources of assistance. These trends are presented in **Table 7**.

Table 7 Support Strategies to Avoid Cannabis Use

Support to Avoid Cannabis	n	Percent
Counselling	137	50.2%
Peer support	26	9.5%
Parent guidance	57	20.9%
School programs	32	11.7%
Other	21	7.7%

Qualitative Insights on School Strategies

The qualitative interviews with school staff provided additional depth to the quantitative findings by illustrating how interventions are executed in practical school contexts. Participants described a range of structured approaches designed to prevent or address cannabis use among learners.

A prominent strategy was enforcement and disciplinary action, often used when a learner is found engaging in cannabis use. Interviewees highlighted the role of monitoring and sanctions as deterrents. One staff member from Ngong stated, *"If a student is caught using cannabis, we involve the police because it is a serious issue, and they may also face suspension"* (Interview1Ngong). Another respondent from Kiserian explained, *"We keep a close eye on students, especially those we suspect might be using drugs"* (Interview2Kiserian). Although these disciplinary measures are seen as necessary, staff emphasized that enforcement must operate alongside preventive efforts.

A second major approach involved educational and awareness initiatives. These programs focused on increasing learners' knowledge of cannabis-related risks while shaping attitudes and decision-making. A participant from Kiserian reported, *"We conduct regular awareness sessions to educate them on the dangers of cannabis; these sessions are taken seriously here"* (Interview3Kiserian). Another respondent from Rongai added, *"We organize workshops and sometimes even peer-led activities to pass the message across"* (Interview1Rongai). Such programs were described as recurring efforts rather than one-time campaigns, reflecting an ongoing commitment to prevention.

The third theme centered on counselling and psychosocial support. Several schools described having trained counsellors who work with learners on behavioral, emotional, and peer-pressure challenges. One staff member from Ngong noted, *"We have a counselor who talks to students one-on-one, especially when they are stressed"*

or showing warning signs" (Interview2Ngong). Another participant emphasized the developmental benefit of such support, commenting that counselling "helps them make better decisions and resist peer influence" (Interview3Kiserian).

The final theme identified was community and parental involvement, which staff viewed as central to sustaining prevention beyond the school environment. One respondent explained, "We call parents for meetings and discuss drug issues openly so they can support their children at home" (Interview1Ngong). Participants also reported drawing on community resources such as religious leaders, who are invited to guide learners during school programs.

Overall, the qualitative findings reveal that schools are not relying on one single approach, but instead integrating disciplinary measures, educational efforts, psychosocial support, and community engagement to reduce cannabis use. These interview narratives demonstrate how formal policies and relational strategies complement each other within real school environments, offering practical context that aligns closely with and elaborates upon the quantitative findings.

DISCUSSION

The present study sought to examine the prevalence, demographic correlates, and preventive strategies related to cannabis use among junior school learners in Ngong Municipality. The findings indicate that while the overall prevalence of problematic cannabis use is relatively low, meaningful subgroups, particularly male learners and those in higher grades, exhibit elevated risk. These patterns align with regional and global evidence on adolescent substance use. For instance, UNODC (2023) reports that cannabis remains the most commonly used illicit drug among adolescents worldwide, with prevalence highly variable across contexts. In sub-Saharan Africa, recent systematic reviews estimate adolescent cannabis use at 7–28%, with males consistently demonstrating higher rates than females (Ebrahim et al., 2024), a trend mirrored in the current sample. Similarly, national data from Kenya indicate that male students are more likely to experiment with cannabis during adolescence, highlighting persistent gender disparities in substance use (NACADA, 2022). These consistencies reinforce the importance of considering both biological and socio-cultural determinants, including peer norms, gender socialization, and risk-taking behaviors, when interpreting adolescent cannabis use.

Grade-level differences observed in this study also reflect developmental trajectories in substance-use behavior. Older learners demonstrated higher risk, consistent with the broader literature documenting that exposure, opportunity, and autonomy increase as adolescents progress through school (Cadet et al., 2024; Patton et al., 2016). This finding supports developmental models suggesting that substance use emerges in tandem with age related shifts in social networks, identity formation, and coping demands. Notably, age itself was not a significant predictor within the narrowly defined age range of the sample, suggesting that grade-level experiences, rather than chronological age per se, may better capture relevant developmental exposures to substance use.

In evaluating current strategies to prevent cannabis use, the study revealed that school-based programs and drug education sessions are widely implemented and utilized, yet gaps remain in coverage and perceived effectiveness. The quantitative evidence indicated that teachers are the primary source of support, followed by parents and peers, while counseling emerged as the most frequently cited mechanism for avoiding cannabis use. Complementary qualitative insights underscore the importance of multi-level interventions, including disciplinary enforcement, formal awareness campaigns, psychosocial support, and community and parental engagement. These findings echo prior research emphasizing that integrated, school-family-community approaches are most effective in reducing adolescent substance use (Catalano et al., 2012; Faggiano et al., 2014; Botvin & Griffin, 2014).

Despite the presence of structured programs, notable gaps remain. Approximately one-quarter of learners reported absence of school-based prevention initiatives, and nearly one-third had not attended drug education sessions. Qualitative accounts further highlighted limitations in staff training, program frequency, and parental engagement, suggesting that while interventions are in place, implementation fidelity and reach require

strengthening. These gaps have important implications for policy and practice, underscoring the need for comprehensive, systematic approaches that extend beyond sporadic sessions or punitive measures alone.

From a theoretical standpoint, these findings are consistent with Attachment Theory and the Transactional Model of Stress and Coping. Attachment insecurity and deficient relational support may predispose certain adolescents, particularly males or those in later grades, to adopt maladaptive coping strategies such as substance use (Brennan et al., 2021; Fairbairn et al., 2018). Concurrently, adolescents' appraisal of stressors and access to social or institutional support influences the likelihood of using cannabis as a coping mechanism (Lazarus & Folkman, 1984; Youth, 2021). The observed protective role of teachers, parents, and counseling aligns with these frameworks, suggesting that interventions enhancing relational security and adaptive coping can mitigate risk.

The implications for practice are multi-fold. At the school level, findings support the need for gender-sensitive and grade-targeted programs that combine preventive education, structured counseling, and consistent disciplinary policies. Enhancing teacher training and program reach, while actively involving parents and community stakeholders, can strengthen the ecological framework necessary for effective prevention. For counseling services, tailored interventions addressing both emotional regulation and peer-related pressures may be particularly beneficial. At the policy level, the Ministry of Education may consider formalizing guidelines for integrated prevention programs, ensuring minimum coverage across schools, and promoting monitoring mechanisms to evaluate effectiveness.

In conclusion, while cannabis use among junior school learners in Ngong Municipality remains relatively low, subgroups exhibit elevated risk that warrants targeted interventions. Both quantitative and qualitative evidence highlight the promise of school-based, relationally-informed strategies, yet also reveal persistent gaps in reach, fidelity, and parental engagement. Addressing these gaps through multi-level, theory-informed interventions offers the greatest potential to reduce adolescent cannabis use and foster healthier coping strategies within this population.

CONCLUSION

The study reveals that cannabis use among junior school learners in Ngong Municipality remains relatively low, yet a meaningful minority exhibit problematic use, particularly among male learners and those in higher grades. These findings underscore the significance of demographic factors, coping strategies, and relational contexts in shaping adolescent substance-use risk. The results also highlight the pivotal role of schools, parents, and community stakeholders in providing both preventive and supportive interventions.

Overall, the evidence emphasizes the need for multi-level, integrated approaches that combine educational programs, psychosocial support, and community engagement. Interventions grounded in developmental and relational theory can enhance resilience, promote adaptive coping, and mitigate risk among vulnerable adolescents. Ensuring sustained, evidence-based preventive strategies will be essential to protect learners and foster healthy adolescent development within the school context.

RECOMMENDATIONS

Based on the study findings, several evidence-based strategies are proposed to enhance cannabis-use prevention in junior schools. Schools should establish formal, standardized guidelines for substance-use prevention, incorporating regular drug education sessions, structured enforcement policies, and systematic monitoring of program effectiveness. Clear school policies can provide a consistent framework for preventive action and ensure that initiatives are both sustained and measurable.

Teacher training is another crucial component. Educators should receive specialized instruction on identifying early signs of substance use, implementing preventive strategies, and referring at-risk learners to counseling or psychosocial support services. Strengthening staff capacity in these areas improves both early detection and the effectiveness of interventions, ensuring that learners receive timely and appropriate support.

Peer-led prevention programs should also be prioritized. Initiatives that promote positive social norms, peer mentoring, and constructive coping strategies can leverage adolescents' natural social networks to reinforce healthy behaviors. Peer engagement enhances program acceptability, reduces stigma around help-seeking, and

supports learners in adopting adaptive coping mechanisms. Parental and community involvement is essential for creating a supportive ecological environment. Schools should actively engage parents, guardians, and local community actors, including spiritual and civic leaders, to complement school-based interventions. Coordinated efforts across home, school, and community contexts ensure consistent messaging and strengthen preventive outcomes.

Finally, expanding access to individualized counseling and psychosocial support can directly address learners' emotional regulation, coping skills, and decision-making capacities. Integrating life-skills training within school curricula further enhances resilience and reduces reliance on maladaptive behaviors such as substance use. Collectively, these recommendations provide a multi-level framework that aligns with adolescent developmental needs, evidence-based prevention practices, and the ecological realities of schools in Ngong Municipality.

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