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Drug and substance abuse management approaches and students' academic performance in public secondary schools in Kenya

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Abstract

Drug and substance abuse among secondary school students remains a concern for education systems because of its association with students' behaviour, engagement, and academic outcomes. This study examined the relationship between drug and substance abuse management (DSAM) approaches and students' academic performance in secondary schools in Embu and Tharaka Nithi Counties, Kenya. A descriptive correlational survey design was employed within a convergent parallel mixed-methods approach. Quantitative data were collected using questionnaires, while qualitative data were obtained through interviews, document analysis, and observations. The study examined three broad DSAM approaches: guidance and counselling, school climate, and discipline management. Multiple linear regression was used to determine the combined relationship between these approaches and students' academic performance. The results showed a very strong relationship between the combined DSAM approaches and academic performance ($R = .926$). The model explained 85.8% of the variance in students' academic performance ($R^2 = .858$; adjusted $R^2 = .857$). The overall regression model was statistically significant, $F(3, 369) = 742.278$, $p < .001$. School climate made the strongest relative contribution to the model ($\beta = .635$), followed by discipline management ($\beta = .340$) and guidance and counselling ($\beta = .082$), with all three predictors statistically significant. The findings suggest that DSAM is best understood as an integrated school-wide approach in which the learning environment, discipline management, and psychosocial support operate as complementary components. Schools should therefore strengthen these approaches in a coordinated manner when addressing drug and substance abuse and supporting students' academic engagement.

Key terms: drug and substance abuse management, academic performance, school climate, guidance and counselling, discipline management, secondary schools, Kenya

Introduction

Drug and substance abuse (DSA) among adolescents remain an important public health, educational and social concern. Adolescence is a critical developmental period during which exposure to psychoactive substances may be associated with behavioural, psychosocial and educational difficulties. Recent evidence indicates that substance use among young people continues to present significant challenges globally, with alcohol, cannabis, nicotine products and other psychoactive substances featuring prominently in adolescent substance-use patterns. The World Health Organisation (WHO, 2024) identifies substance use as an important component of the global burden of disease and emphasises the need for stronger prevention and treatment responses. Similarly, the United Nations Office on Drugs and Crime (UNODC, 2025) reports that global drug use has continued to increase, with an estimated 316 million people aged 15–64 having used a drug in 2023. The expansion of synthetic drug markets presents an additional challenge because the increasing availability and diversity of psychoactive substances complicate prevention and control efforts.

The implications of adolescent substance use extend beyond health to educational participation and attainment. Early initiation of substance use has been associated with a greater risk of subsequent substance-use problems and adverse developmental outcomes. Evidence from the WHO Health Behaviour in School-aged Children survey further demonstrates that substance use remains prevalent among school-aged adolescents, with alcohol and electronic cigarette use particularly prominent in several settings (WHO Regional Office for Europe, 2024). Such patterns are concerning for education systems because substance use may coexist with absenteeism, reduced concentration, behavioural difficulties, disengagement from school and other circumstances that can compromise students' educational experiences. Consequently, schools represent an important setting for prevention, early identification and management of DSA among adolescents.

The challenge is particularly important in Africa, where changing patterns of drug availability and use occur within diverse social, economic and educational contexts. Young people may encounter multiple risk factors, including peer influence, family-related challenges, socioeconomic disadvantage and increasing exposure to drug-related information and markets. The school environment therefore provides an important institutional context for addressing DSA, as it brings together learners, teachers, administrators, parents, and other stakeholders. School-based responses can combine preventive education, counselling, behavioural management, student support and the development of safe and supportive learning environments. A comprehensive response is consequently more appropriate than reliance on a single intervention.

In Kenya, DSA among learners has remained a significant concern despite continuing prevention and control efforts. National evidence indicates that secondary schools are not entirely free from alcohol and other substances, with the transition into adolescence representing an important period for initiation. A national study by the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) identified alcohol, khat/miraa, prescription drugs, tobacco and cannabis among substances used by secondary school students and highlighted the need for stronger school-based prevention, life-skills education, positive role modelling and strengthened guidance and counselling services (Muteti & Kamenderi, 2020). More recent national evidence also indicates continued substance-use challenges among young people in Kenya. The 2022 National Survey on the Status of Drugs and Substance Use in Kenya reported substance use among young people aged 15–24 and identified alcohol, tobacco, cannabis, prescription drugs and multiple-drug use among the substances of concern (NACADA, 2022).

The persistence of DSA within learning institutions underscores the importance of examining not only the prevalence of substance use but also the school-based mechanisms used to manage it. In this regard, guidance and counselling, school climate and discipline management represent complementary dimensions of DSA management. Guidance and counselling can provide learners with information, psychosocial support, decision-making skills and strategies for resisting risky behaviours (World Health Organization et al., 2021). School climate encompasses the quality of relationships, students' sense of safety and belonging, school rules, administrative practices and the general social and learning environment. A supportive school climate can provide protective conditions that encourage positive behaviour and student engagement (Organisation for Economic Co-operation and Development [OECD], 2023). Discipline management, on the other hand, concerns the way schools establish behavioural expectations, implement rules, respond to indiscipline and involve relevant stakeholders in addressing student behaviour. These dimensions suggest that DSA management is not solely a matter of controlling substance availability but also involves creating institutional conditions that support responsible behaviour and sustained participation in learning (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2025).

Importantly, existing literature has tended to examine individual aspects of substance-use prevention or specific risk factors rather than the combined relationship between multiple school-based DSA management approaches and students' academic performance. For example, the Kenyan national secondary-school survey recommended strengthening life skills, parenting skills, positive role modelling and the capacity of guidance and counselling personnel as part of the response to student substance use (Muteti & Kamenderi, 2020). However, there remains limited empirical evidence on how a combination of guidance and counselling, school climate and discipline management relates to academic performance among secondary school students, particularly within specific county contexts in Kenya.

This gap is important in Embu and Tharaka Nithi Counties where drug and substance abuse (DSA) among secondary school learners has been identified as an educational concern (Giochi et al., 2025). Although schools employ various strategies to prevent and manage substance use, there is insufficient empirical evidence demonstrating the extent to which these approaches, considered collectively, are statistically related to students' academic performance. Examining the approaches simultaneously is important because school-based interventions rarely operate in isolation. Guidance and counselling may be implemented alongside school rules, disciplinary procedures, parental involvement and efforts to create supportive school environments. Assessing their combined relationship with academic performance can therefore provide a more comprehensive understanding of school-level DSA management.

Accordingly, this study examined the relationship between guidance and counselling, school climate and discipline management as DSA management approaches and students' academic performance in secondary schools in Embu and Tharaka Nithi Counties, Kenya. Specifically, the study sought to determine whether the combined DSA management approaches were statistically associated with students' academic performance. By examining these approaches within a single analytical model, the study provides evidence on the relative contribution of different school-based management dimensions and their collective relationship with academic performance. The findings are intended to inform school administrators, teachers, education policymakers and other stakeholders in strengthening coordinated and evidence-informed approaches to DSA management in secondary schools.

Statement of the Problem

Drug and substance abuse (DSA) remains a major educational, social, and public health challenge among secondary school students in Kenya despite continued interventions by the government, schools, parents, and community stakeholders. National surveys indicate that alcohol, tobacco, cannabis, miraa,

prescription drugs, and other psychoactive substances continue to be accessed and used by adolescents, exposing them to adverse health, behavioural, and educational outcomes (NACADA, 2022). DSA has been associated with absenteeism, indiscipline, poor concentration, reduced academic engagement, low academic achievement, and increased likelihood of school dropout (Chelot et al., 2022; WHO, 2024).

In response to this challenge, schools have implemented various drug and substance abuse management approaches, including guidance and counselling programmes, school climate enhancement initiatives, and discipline management strategies designed to promote positive behaviour and improve learning outcomes (NACADA, 2021; Ministry of Education, Kenya, 2023). However, the continued occurrence of DSA cases among secondary school students suggests that the effectiveness of these approaches remains uncertain and may vary across schools depending on contextual and implementation factors.

Although previous studies have examined the prevalence, causes, and consequences of drug and substance abuse, most have focused on individual interventions rather than examining the combined influence of school-based management approaches on students' academic performance. Furthermore, limited empirical evidence exists regarding how guidance and counselling, school climate, and discipline management collectively contribute to academic performance among students in Embu and Tharaka Nithi Counties. This gap limits the ability of school administrators, teachers, and policymakers to develop evidence-based interventions that simultaneously address substance abuse and improve academic achievement. Therefore, this study sought to establish the relationship between drug and substance abuse management approaches and students' academic performance in public secondary schools in Embu and Tharaka Nithi Counties, Kenya.

Theoretical Framework

This study was anchored on the Effective Schools Theory developed by Lezotte and Snyder (2011). The theory postulates that students' academic achievement is influenced by the effectiveness of school processes and the quality of the learning environment. Effective schools are characterised by safe and orderly environments, positive school climates, strong leadership, clear behavioural expectations, and supportive student services, all of which contribute to improved learner outcomes. (Lezotte & Snyder, 2011).

The theory is relevant to this study because the management of drug and substance abuse in schools involves the creation of institutional conditions that support positive behaviour and academic engagement. Guidance and counselling programmes provide psychosocial support and behavioural guidance, school climate promotes positive relationships and a sense of belonging, while discipline management establishes behavioural expectations and accountability. These practices collectively contribute to a supportive learning environment that enhances academic performance. (Lezotte & Snyder, 2011; Lee & Henry, 2022).

The Effective Schools Theory therefore provides an appropriate lens for understanding how guidance and counselling, school climate and discipline management interact as drug and substance abuse management approaches to influence students' academic performance in secondary schools

Conceptual Framework

The study conceptualised drug and substance abuse management approaches as school-based interventions consisting of guidance and counselling, school climate, and discipline management. These interventions were treated as independent variables that influence students' academic performance, the dependent variable. Previous studies indicate that supportive school environments, counselling services, and effective discipline structures contribute to reduced substance abuse, improved learner engagement,

and enhanced academic achievement (Allen et al., 2025; Lee & Henry, 2022).

Independent Variables

Guidance and counselling

School climate

Discipline management

Dependent Variable

Students' academic performance

The study assumed that effective implementation of these interventions would reduce behaviours associated with drug and substance abuse and contribute to improved academic performance among secondary school students.

Objective of the Study

The study sought to establish the relationship between drug and substance abuse management approaches and students' academic performance in secondary schools in Embu and Tharaka Nithi Counties, Kenya.

Hypotheses

H0: There is no relationship between DSA management approaches and students' academic performance in secondary schools in Embu and Tharaka Nithi Counties.

H1: There is a relationship between DSA management approaches and students' academic performance in secondary schools in Embu and Tharaka Nithi Counties.

Literature Review

Drug and substance abuse management approaches are the strategies assumed by the school to help secondary school students abusing drugs and substances to modify their behaviour for better academic performance (Minishi et al., 2020). Various interventions, such as peer counselling and awareness programmes on drug and substance abuse, have been introduced to curb substance use among secondary school students. Despite these efforts, the problem remains prevalent affecting students' academic achievement negatively (Kute, 2021). It has been established that drug and substance abuse management ensures students cover the syllabus effectively, hence improving their academic performance (Muthoka & Mwenje, 2020).

NACADA (2021) observed that management of drug and substance abuse would increase the performance of learners by 6.4%. Marygoretty and Adhiambo (2021) noted that academic performance would be improved if drug and substance abuse could be well managed among students in Teso South Constituency. Comparable results were reported in Turkana County, where Okumu (2024) documented notable improvements in academic outcomes within the region. These studies showed a connection between students' academic achievement and DSA management. The goal of the current study was to ascertain how guidance and counselling, school climate and discipline management, as drug and substance abuse management approaches, relate to secondary school students' academic achievement in Kenya's Embu County and Tharaka-Nithi County.

Guidance is the process of helping a student find direction by providing relevant information to resolve difficult challenges. Counselling, on the other hand, involves assisting a student in interpreting facts and

making informed decisions, often related to personal and academic choices. These roles are essential in promoting student well-being and development within educational settings (Billington et al., 2022).

All the school stakeholders should support guidance and counselling programs, incorporate peer counselling, involve trained professionals, and provide life skills education to effectively address Drug and Substance Abuse (DSA) among students, hence, improving the academic performance of the learners.

Recent studies have shown that peer-led interventions, when professionally supported and integrated with mobile health tools and life skills training, are effective in reducing substance use and enhancing discipline and academic outcomes (Mureithi, 2021; Kariithi et al., 2022; Kenya Psychiatric Association, 2023; Musyoka et al., 2023). Failure of guidance and counselling in schools has been blamed for the failure in DSA mitigation, hence poor academic performance, especially among secondary school students (Nyang'ara, 2025).

Nkarichia (2023) noted that strengthening guidance and counselling is one of the major interventions for DSA and improved academic performance among students. The reviewed studies indicate that guidance and counselling play a role in managing drug and substance abuse (DSA) and influencing students' academic performance. However, there is a scarcity of empirical research clearly demonstrating this link. This study therefore adopted a descriptive correlational research design to examine how guidance and counselling practices used in managing DSA affect students' academic performance in secondary schools in Embu and Tharaka Nithi Counties.

The nature of the school environment plays a critical role in shaping students' involvement in drug and substance abuse, which in turn influences their academic outcomes (NACADA, 2021). Creating a supportive and inclusive atmosphere can foster a sense of belonging among learners, thereby discouraging engagement in substance use and promoting improved academic achievement (Lee & Henry, 2022). Enhancing the school environment further requires involving students in developing rules and regulations, as this encourages ownership and adherence to expected standards of behaviour (Mitra et al., 2023). Allen et al. (2025) observed that drug and substance abuse are mostly caused by laxity in school administration in providing a favourable school climate, resulting in poor academic performance among students.

Drug and substance abuse is widespread in areas surrounding schools, leading to easy access to drugs and other substances among students, which in turn contributes to poor academic performance (Muwonge et al., 2023). It was also noted that punitive methods are being practiced curbing indiscipline among students, causing tension among them, hence resorting to DSA, which negatively affects their academic performance (Smith & Jones, 2022). The studies that have been evaluated indicate that there is probably a connection between students' academic performance, drug and substance abuse management techniques, and the school environment. Given this, the current study sought to determine how students' academic performance in secondary schools in Embu and Tharaka Nithi Counties is impacted by school environment as an approach for addressing drug and substance misuse.

Student discipline remains a central concern in the global education landscape, influencing not only school climate but also student academic achievement. Effective discipline management approaches are critical in promoting order, fostering learner engagement and preventing disruptive behaviours that hinder academic progress (United Nations Educational, Scientific, and Cultural Organisation [UNESCO], 2023). Across the globe, there has been a paradigm shift from punitive disciplinary practices—such as corporal punishment and exclusion—to more restorative and developmental approaches that emphasize positive reinforcement, student accountability, and behavioural support systems (Gregory et al., 2021).

In sub-Saharan Africa, the challenge of maintaining discipline in schools is compounded by social, economic, and institutional factors, including poverty, understaffing, and limited training in non-punitive

behavioural management. While corporal punishment has been outlawed in several countries, it continues to be practiced informally, often with adverse effects on student wellbeing and academic performance (Heekes et al., 2022). Moreover, the region faces rising concerns over Drug and Substance Abuse (DSA) among adolescents, which further strains school discipline systems and compromises educational outcomes (Kumba et al., 2023).

Like many countries across Africa, Kenya is confronted with the dual challenge of rising student indiscipline and the growing prevalence of drug and substance abuse in secondary schools. Despite policy guidelines discouraging corporal punishment, many schools still rely on punitive methods such as caning, suspension and public shaming as the default response to student misbehaviour (Kibiru et al., 2021). Yet, evidence suggests that such approaches have limited long-term effectiveness and may even exacerbate student disengagement, low morale, and poor academic performance (Mwangi & Gitonga, 2023).

In response, the Ministry of Education has advocated for more holistic and student-centred discipline frameworks that integrate life skills education, positive behaviour reinforcement, and stakeholder involvement (Ministry of Education [MoE], 2022). At the county level, Embu and Tharaka Nithi face unique socio-educational challenges that affect discipline management and academic performance. Located in Kenya's Eastern region, these counties report growing concerns over student drug use, poor discipline, and underperformance in national examinations (Igandu et al., 2023; Njagi, 2020). School administrators and teachers often adopt a wide range of disciplinary approaches from routine enforcement and individualized punishment to frisking and moral modelling by teachers, though with mixed results.

However, empirical data on the effectiveness of these approaches, particularly in relation to student academic outcomes, remain limited in these regions. Therefore, this study aims to close that gap by assessing how school discipline management techniques affect academic achievement in secondary schools in the counties of Embu and Tharaka Nithi. By integrating both quantitative and qualitative methods, the study provides contextually grounded insights into which approaches foster academic success and which may require re-evaluation. Ultimately, the results are intended to guide school policies and procedures that support academic performance, holistic student development, and discipline.

Materials and Methods

Study design

The study adopted a convergent parallel mixed-methods design within a descriptive correlational survey framework. The design enabled the researcher to collect quantitative and qualitative data concurrently, analyse the two datasets independently, and integrate the findings during interpretation. Quantitative data were used to establish statistical relationships between drug and substance abuse management approaches and students' academic performance, while qualitative data provided contextual explanations regarding the implementation and effectiveness of these approaches in schools. The integration of both strands of evidence enhanced the comprehensiveness and validity of the findings by facilitating a deeper understanding of school-based DSA management practices. (Creswell & Creswell, 2018).

Study setting and population

The study was conducted in Embu and Tharaka Nithi Counties in eastern Kenya. The study population comprised 320 public secondary schools, 320 principals, 320 deputy principals, 320 heads of guidance and counselling departments, and approximately 84,400 students. The study focused on secondary schools because they provide an important institutional context for the prevention and management of drug and substance abuse among adolescents through disciplinary, counselling, and other school-based

interventions.

Sampling and sample size

Schools were stratified according to school type: boys' boarding, girls' boarding, mixed day, and mixed day and boarding. Stratification was used to ensure representation of different school contexts and gender compositions. Sixty-four schools (20%) were subsequently selected from each stratum through random sampling from the study population. A sample of 20% of the population was considered sufficient, as it aligns with recommendations for studies involving populations of up to 1,000 subjects (Andrade,2020). The student sample size was determined using Cochran's formula, which yielded a minimum sample of 384 students. The student sample was distributed across the selected schools in the two counties. In Embu County, five Form Two students were selected from each of 42 schools, yielding 210 students, while nine students were selected from each of 22 schools in Tharaka Nithi County, yielding 198 students. Thus, 408 students were targeted for participation. The final sample exceeded the minimum calculated sample size and was retained to provide adequate observations for statistical analysis. This is shown in Table 1.

Table 1: Sampling Matrix of Students

County	Total No. of Students	Total No. of Schools	Students per School
Embu	210	42	5
Tharaka Nithi	198	22	9

Form Two students were selected because they had sufficient exposure to the secondary school environment to provide information on drug and substance abuse management. School administrators, comprising principals, deputy principals, and heads of guidance and counselling, were purposively selected because of their direct responsibilities and experience in managing students and responding to drug and substance-related concerns within their schools. The sampling strategy therefore incorporated perspectives from both students and school personnel, allowing the study to examine school-based responses to DSA from complementary perspectives.

Data Collection

Quantitative data were collected using structured questionnaires administered to students and school administrators. The instruments measured the three broad DSAM approaches: guidance and counselling, school climate, and discipline management. Qualitative data were obtained through interviews with administrators and the heads of guidance and counselling departments, observations, and document analysis to provide contextual information concerning the implementation of DSAM practices.

The research instruments were subjected to expert review to establish content validity. A pilot study was conducted in schools outside the study area, and items requiring modification were revised accordingly. The overall instrument reliability was established using Cronbach's alpha, yielding a coefficient of 0.798.

Measurement of Academic Performance

Students' academic performance was measured using their mean scores from three end-of-term examinations conducted during one academic year. Students reported academic results were cross-checked against available school records. The students' mean scores were converted into percentages by dividing each mean score by the maximum possible score and multiplying by 100, thereby providing a common scale for comparing academic performance among students who sat different examinations.

Data Analysis

Quantitative data were analysed using SPSS. Descriptive statistics were used to summarise the study variables, while multiple linear regression analysis was used to examine the combined relationship between guidance and counselling, school climate, discipline management, and students' academic performance.

Before regression analysis, the assumptions of normality, linearity, homoscedasticity, multicollinearity, and independence of errors were assessed. Normality was examined using a histogram of standardised residuals and a Normal P–P plot. The standardised residuals had a mean approximating zero (2.82×10^{-15}) and a standard deviation of 0.996, while the P–P plot indicated that the observed cumulative probabilities closely followed the expected probabilities.

Linearity and homoscedasticity were assessed using a scatterplot of standardised residuals against standardised predicted values. The residuals were randomly distributed around the horizontal axis without a systematic or funnel-shaped pattern, indicating no substantial violation of these assumptions. Multicollinearity was assessed using tolerance and variance inflation factor (VIF) statistics. Tolerance values ranged from 0.544 to 0.808 and VIF values from 1.238 to 1.838, indicating no substantial multicollinearity among the predictors. Independence of errors was assessed using the Durbin–Watson statistic, which was approximately 1.21. This value was reported as part of the diagnostic assessment and did not indicate severe residual dependence warranting exclusion of the regression model.

The coefficient of determination (R^2) was used to determine the proportion of variance in academic performance statistically explained by the combined DSAM approaches. The ANOVA F-test was used to assess the statistical significance of the overall regression model. Statistical significance was evaluated at the 0.05 level. Qualitative data were analysed thematically and used to complement and contextualise the quantitative findings.

Results

Model Summary

Multiple linear regression was conducted to establish the combined relationship between guidance and counselling, school climate, discipline management, and students' academic performance. The results are presented in Table 1.

Table 1: Model Summary for DSAM Approaches and Students' Academic Performance

Model	R	R^2	Adjusted R^2	Std. Error	Durbin-Watson
1	926	858	.857	.707	1.209

Predictors: Guidance and counselling, school climate, and discipline management. Dependent variable: Students' academic performance.

Regression Model

The relationship between drug and substance abuse management approaches and students' academic performance was examined using the following multiple linear regression model:

Where:

Y = Students' Academic Performance

X_1 = Guidance and Counselling

X_2 = School Climate

X_3 = Discipline Management

β_0 = Constant

β_1, β_2, β_3 = Regression Coefficients

ε = Error Term

Based on the study findings, the estimated regression equation was:

The model indicates that school climate contributed most strongly to students' academic performance, followed by discipline management and guidance and counselling, respectively.

The results indicate a very strong positive relationship between the combined DSAM approaches and students' academic performance (R = .926). The coefficient of determination (R^2 = .858) indicates that the three approaches jointly explained 85.8% of the variance in students' academic performance. The adjusted R^2 of .857 shows that the explanatory strength of the model remained substantially unchanged after adjustment for the number of predictors.

Significance of the Regression Model

The ANOVA results used to test the statistical significance of the regression model are presented in Table 2.

Table 2: ANOVA for DSAM Approaches and Students' Academic Performance

Source	Sum of Squares	df	Mean Square	F	p-value
Regression	1113.432	3	371.144	742.278	< .001
Residual	184.503	369	0.500	—	—
Total	1297.934	372	—	—	—

The ANOVA results show that the overall regression model was statistically significant, F (3, 369) = 742.278, p < .001. The null hypothesis was therefore rejected. This indicates that the combination of guidance and counselling, school climate, and discipline management was statistically significantly related to students' academic performance. The regression sum of squares was 1113.432 compared with a residual sum of squares of 184.503. This indicates that a substantial proportion of the total variation in academic performance was accounted for by the predictors included in the model.

Relative Contribution of the DSAM Approaches

The three DSAM approaches were statistically significant predictors of students' academic performance when entered simultaneously into the regression model. School climate made the strongest relative contribution (β = .635, p < .001), followed by discipline management (β = .340, p < .001) and guidance and counselling (β = .082, p < .001). The regression coefficients were School climate (B = 1.672, β = .635, t = 23.879, p < .001), Guidance and counselling (B = .189, β = .082, t = 3.766, p < .001) and Discipline management (B = .887, β = .340, t = 13.524, p < .001). The results show that school climate had the largest standardised coefficient, indicating the strongest relative statistical contribution to the model. Discipline management made the second-largest contribution, while guidance and counselling

made the smallest, although statistically significant contribution. Therefore, the null hypothesis was rejected and the alternative hypothesis accepted, that there is a statistically significant relationship between DSA management approaches and students' academic performance in secondary schools in Embu and Tharaka Nithi Counties.

Discussion

The study established a strong and statistically significant relationship between drug and substance abuse management approaches and students' academic performance. The combined influence of guidance and counselling, school climate, and discipline management explained 85.8% of the variation in students' academic performance. These findings suggest that effective implementation of school-based drug and substance abuse management approaches contributes significantly to improved academic outcomes among secondary school students.

The findings support the propositions of the Effective Schools Theory, which emphasises the role of supportive learning environments, effective leadership, and orderly school systems in enhancing academic performance (Lezotte & Snyder, 2011). Schools that effectively manage behavioural challenges associated with drug and substance abuse are more likely to create environments that foster learning, student engagement, and academic success.

Among the three approaches, school climate emerged as the strongest predictor of students' academic performance. This finding suggests that the quality of relationships, feelings of safety, student participation, and overall school environment play a critical role in promoting academic success. The finding agrees with Allen et al. (2025), who reported that positive school belonging reduces behavioural risks and promotes educational attainment, and Lee and Henry (2022), who found that school engagement contributes significantly to positive educational outcomes.

Discipline management was the second strongest predictor of academic performance. Effective discipline management promotes order, reinforces behavioural expectations, and minimises disruptions that interfere with learning. The finding supports the observations of UNESCO (2023) that positive discipline approaches foster learner engagement and contribute to improved academic outcomes. It also reinforces arguments by Gregory et al. (2021) that discipline systems should focus on behavioural support and learner development rather than punitive control.

Guidance and counselling also demonstrated a positive and statistically significant influence on students' academic performance. Although its relative contribution was smaller than those of school climate and discipline management, guidance and counselling remains a critical component of school-based drug and substance abuse management. Through counselling services, students develop coping skills, decision-making abilities, self-awareness, and resilience, all of which support positive behaviour and academic engagement (Nkarichia, 2023; Nyang'ara, 2025).

Overall, the findings demonstrate that drug and substance abuse management should be viewed as an integrated school-wide system rather than a collection of isolated interventions. Effective guidance and counselling services, positive school climates, and supportive discipline management approaches complement one another and jointly contribute to improved academic performance. Schools should therefore strengthen these approaches simultaneously to achieve optimal educational outcomes.

Conclusion

The study concludes that overall DSAM approaches are strongly associated with students' academic performance in secondary schools in Embu and Tharaka Nithi Counties. The combined model of guidance and counselling, school climate, and discipline management produced a very strong relationship with

academic performance (R = .926), explained 85.8% of the variance, and was statistically significant, F (3, 369) = 742.278, p < .001.

Among the three approaches, school climate demonstrated the strongest relative contribution, followed by discipline management and guidance and counselling. These findings support the conceptualisation of DSAM as an integrated school-wide approach that combines a supportive learning environment, appropriate behavioural management, and psychosocial support. However, given the correlational design, the findings indicate statistical associations rather than causal effects.

Recommendations

Secondary schools should integrate positive school climate practices, appropriate discipline management and guidance and counselling within coordinated DSAM programmes. Attention should be given to strengthening supportive teacher-student relationships, clear behavioural expectations, psychosocial support, and proactive engagement of parents and other relevant stakeholders. Education policymakers and school administrators should also promote school-wide monitoring and evidence-based planning of DSAM interventions. Further research should examine the mechanisms through which the individual DSAM approaches, and other contextual factors are associated with students' academic performance.

Contribution to Knowledge

This study contributes to educational research by providing empirical evidence that drug and substance abuse management is a multidimensional construct comprising guidance and counselling, school climate, and discipline management. The findings demonstrate that these approaches collectively have a strong and statistically significant relationship with students' academic performance in secondary schools.

The study further shows that school climate contributes more strongly to academic performance than guidance and counselling and discipline management. This finding extends existing literature by highlighting the importance of supportive learning environments in managing drug and substance abuse and enhancing educational outcomes.

Additionally, the study contributes context-specific evidence from Embu and Tharaka Nithi Counties, thereby addressing a gap in the Kenyan literature on school-based drug and substance abuse management. The findings provide information that may assist educational policymakers, school administrators, and teachers in designing integrated interventions aimed at reducing substance abuse and improving students' academic achievement.

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