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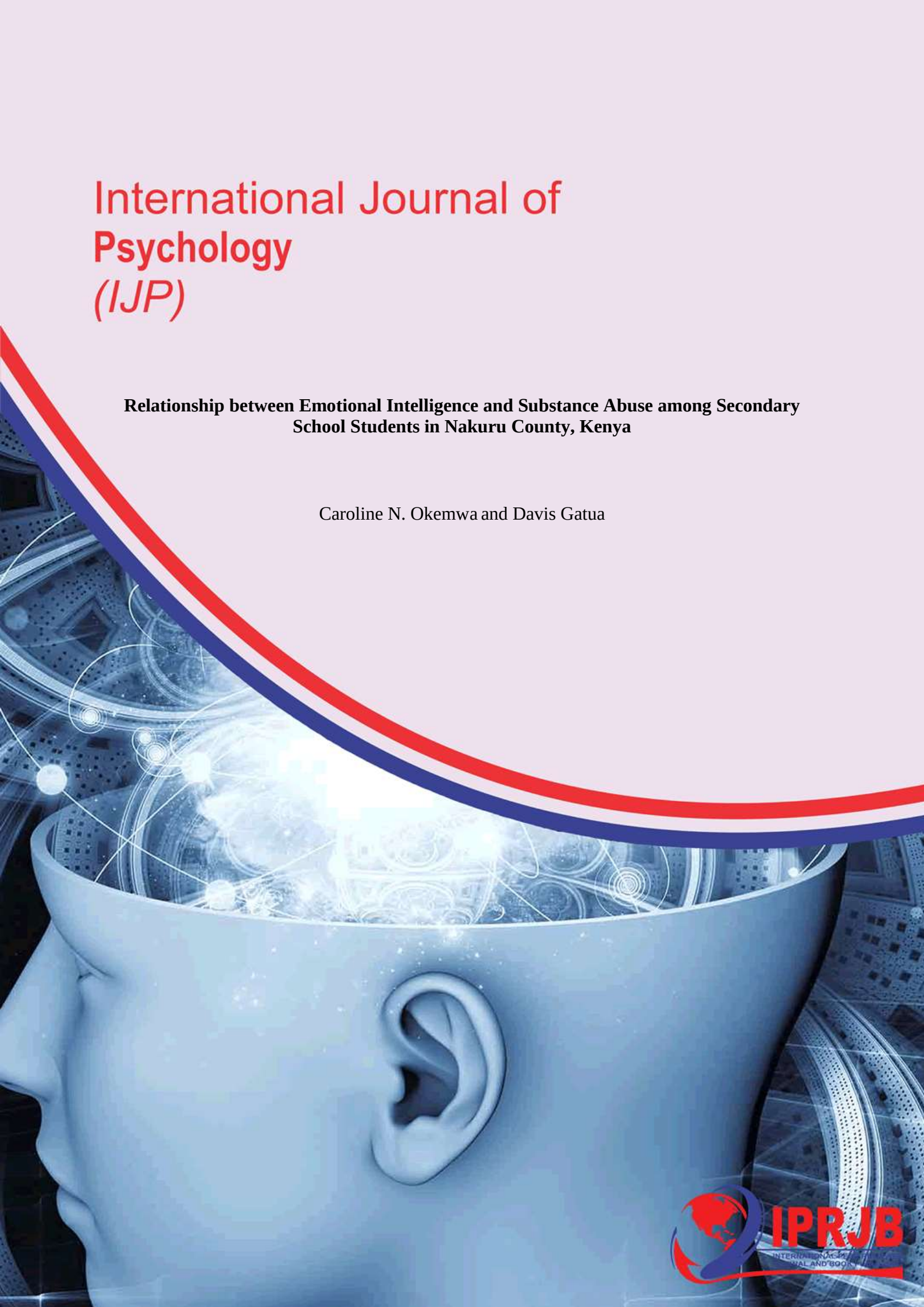

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Relationship between Emotional Intelligence and Substance Abuse among Secondary School Students in Nakuru County, Kenya

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Abstract

Purpose: The purpose of this study was to determine the relationship between trait emotional intelligence (trait EI), operationalized through self-regulation and social skills, and substance abuse among secondary school students in Nakuru County, Kenya, and to identify ways of promoting students' emotional intelligence and mitigating substance abuse.

Methodology: A descriptive cross-sectional correlational design was used in public secondary schools. Questionnaires were distributed to 384 students, of whom 361 responded (94.0%); 43 of 48 targeted deputy principals and teacher counsellors also participated (89.6%). Student questionnaires and staff interviews generated quantitative and qualitative data. Descriptive statistics and Pearson chi-square tests were used for quantitative analysis, and staff comments were summarized thematically.

Findings: A total of 57.9% of students reported that substance use occurred in their school. Alcohol (16.9%) and cannabis/bhang (12.2%) had the highest "always" response rates among the substances listed. Students commonly reported being able to resist drug-use temptation (83.7% "always") and peer pressure (72.9% "always"), although 24.7% reported never proactively seeking support to maintain a drug-free lifestyle. The study reported significant associations between substance-abuse indicators and self-regulation, $\chi^2(13, N = 361) = 46.460$, $p < .001$; social skills, $\chi^2(13, N = 361) = 34.208$, $p = .001$; and overall, EI, $\chi^2(19, N = 361) = 114.058$, $p < .001$.

Unique Contribution to Theory, Practice and Policy: Because all self-regulation items referred to substance-specific behaviour, these results are subject to criterion contamination, and the absence of cross-tabulations and effect sizes limits interpretation of direction and magnitude. Students and staff endorsed awareness, counselling, mentoring, family involvement, and extracurricular activities as prevention priorities. Schools should integrate practical self-regulation, communication, assertive refusal, and help-seeking activities into guidance and life-skills programmes and ensure confidential counselling. Future studies should use a validated trait EI instrument whose sub-scales exclude substance-specific items and should report complete contingency tables and effect sizes. The cross-sectional self-report design does not establish causation or population prevalence.

Keywords: *Trait Emotional Intelligence, Self-Regulation, Social Skills, Substance Abuse, Secondary School Students, Kenya*

JEL Classification: *I12, I18, I21, D91*

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INTRODUCTION

Adolescence is a period of rapid physical, social, cognitive, and emotional development. Young people form new peer relationships, negotiate greater independence, and encounter changing expectations at home and school. These developmental transitions can create opportunities for growth while also increasing exposure to risks, including alcohol and other psychoactive substances. Substance use during adolescence is associated with potential harm to health, educational engagement, social functioning, and later wellbeing. Substance use disorders are complex conditions shaped by neurobiological, psychological, social, and environmental factors; prevention therefore needs to address both individual capacities and the settings in which young people live and learn (Volkow & Blanco, 2023).

International research emphasizes that substance use among adolescents is not explained by a single cause. Individual dispositions interact with peer norms, family relationships, school climate, access to substances, stress, adversity, and community influences. Adolescent neurodevelopment also makes impulse control and reward sensitivity particularly relevant to decision-making, although developmental processes do not predetermine substance use (Hamidullah et al., 2020). The implication for prevention is that interventions should strengthen practical coping and refusal skills while creating accessible support around students. A narrow focus on punishment or information alone may not address the conditions that contribute to risk.

Emotional intelligence (EI) offers one framework for understanding emotional and interpersonal competencies that may be relevant to adolescent decision-making. EI is commonly discussed as the ability to perceive, understand, use, and regulate emotional information, although models differ in how they define and measure it. Some approaches treat EI as an ability, while mixed models include competencies such as self-management and relationship skills. The diversity of models and measurement instruments means that researchers need to specify the dimensions assessed rather than treat EI as a single, universally measured trait (Bru-Luna et al., 2021; Fiori & Vesely-Maillefer, 2018).

This study adopts Petrides' trait emotional intelligence framework. Trait EI is a constellation of emotion-related self-perceptions and dispositions located at the lower levels of personality hierarchies and assessed through self-report, in contrast to ability EI, which is assessed through performance tests (Petrides et al., 2007; Petrides, 2009). Two core clusters of trait EI are relevant here: self-perceived emotional self-regulation (emotion regulation, impulse control and stress management, grouped as self-control) and social competencies (assertiveness, social awareness and the management of emotions in relationships, grouped as sociability). The independent variable is therefore trait EI, operationalised in this study through students' self-reported self-regulation and social skills. Because trait EI is self-perceived, the study concerns how students perceive their own emotional and social capacities, not how well they perform emotional tasks. Trait EI has also been examined in relation to deviant behaviour at school (Petrides et al., 2004).

In the current study, two dimensions were emphasized: self-regulation and social skills. Self-regulation refers to managing impulses, emotions, and behaviour in pursuit of goals. In the context of substance use, it may support delaying experimentation, coping with distress, resisting immediate pressure, and avoiding situations that students themselves identify as risky. Emotional coping is relevant because adolescents may use substances in response to stress or

negative affect; however, the relationship can be reciprocal and influenced by other vulnerabilities (Fteiha & Awwad, 2020; Hamidullah et al., 2020).

Social skills include communication, assertiveness, conflict resolution, relationship building, and the ability to seek assistance. These competencies may help a student refuse an offer, manage disagreement, maintain supportive friendships, or disclose a concern to a trusted adult. Research has examined the relationship between adolescent social skills and substance use, including evidence from school-age samples in Estonia (Vorobjov et al., 2014). Life-skills interventions have also considered social self-efficacy and refusal as prevention targets among young adolescents (Sayed et al., 2019). Such findings provide a rationale for studying social skills, while leaving open how these associations operate in different school and cultural settings.

School environments are important settings for prevention because they bring together students, peers, teachers, counsellors, and families. Peer education and school support may influence students' awareness and access to guidance. In Kenya, school-based work has considered peer education and the prevalence of substance abuse in public secondary schools (Aguttu et al., 2019). Research in Nakuru County has also documented concern about the educational effects of substance abuse among girls in secondary schools (Odhiambo, 2020). These studies make a local focus relevant, but do not by themselves establish the association between students' EI-related competencies and their substance-use indicators.

At the national level, NACADA's survey of 3,908 students in 77 secondary schools across eight regions found that alcohol was the most commonly ever-used substance (23.4%), followed by khat/miraa (17.0%), prescription drugs (16.1%), tobacco (14.5%) and bhang/cannabis (7.5%). Current (last 30 days) use was highest for alcohol (3.8%), followed by prescription drugs (3.6%), miraa (2.6%), tobacco (2.5%) and bhang (1.8%), and the survey concluded that secondary schools are not drug-free environments (NACADA, 2016). This national baseline sits alongside the international developmental literature, which stresses that adolescence is a period of heightened vulnerability to substance use and substance use disorders (Volkow & Blanco, 2023). The Nakuru County data reported here are not directly comparable with the NACADA estimates, because they use frequency categories such as "always" for listed substances and perceived presence of substance use in the school, not time-bounded measures of personal use. The contrast nevertheless underlines the need for locally specific evidence.

The present study examined public secondary schools in Nakuru County. It considered student reports of substance use and the dimensions of self-regulation and social skills, alongside staff views and suggested mitigation approaches. The study is useful because prevention planning depends on an accurate distinction between students' own behaviour, their perceptions of what occurs in school, and staff observations. These measures are related but should not be treated as interchangeable. For example, a respondent reporting that substance use is present in a school does not establish that the respondent personally uses a substance.

The article uses the phrase "substance abuse" because it appears in the approved study title and source project. In the narrative, "substance use" is used where the data describe reported behaviours without establishing a clinical disorder or harmful-use threshold. This distinction is important because self-reported frequency categories such as "always" do not alone diagnose abuse or dependence. The study's results are therefore interpreted as reported substance-use indicators and school perceptions.

The purpose of the study was to determine the relationship between trait emotional intelligence (trait EI) and substance abuse among students in secondary schools in Nakuru County, Kenya. The objectives were to determine the most commonly abused substances; establish the relationship between self-regulation and substance abuse; examine the relationship between social skills and substance abuse; and identify possible ways of promoting students' EI and mitigating substance abuse. These objectives informed the problem statement, review, analysis, and interpretation below.

Problem Statement

The ideal: In an enabling school environment, prevention is grounded in evidence-based social-emotional learning (SEL) and trait EI frameworks that build students' resilience against risk behaviour. School-based SEL programmes have been shown in meta-analytic evidence to improve students' social and emotional skills, attitudes and behaviour (Durlak et al., 2011), and trait EI has been examined in relation to deviant behaviour at school (Petrides et al., 2004). In that ideal, students learn to regulate emotions and impulses, to communicate and be assertive, and to seek help from trusted adults, within schools that pair accurate information and counselling with fair, clearly communicated rules.

The problem: School responses in Nakuru County appear to rely primarily on punitive measures, general information dissemination or reactive discipline, a pattern that is plausible given the lack of localised empirical data on how self-regulation and social skills correlate with student substance use. This study did not itself audit school policies, so that reliance is an inference to be tested. Prior studies have addressed school substance use, peer education, educational consequences and adolescent life skills (Aguttu et al., 2019; Odhiambo, 2020; Sayed et al., 2019; Vorobjov et al., 2014), and national surveys document substance use among secondary school students (NACADA, 2016), but none establishes how trait EI-related competencies relate to substance-use indicators among students in the county. The study's own data indicate a school-level concern: 57.9% of student respondents said substance use was present in their school, and alcohol and bhang had the highest "always" response proportions, although this item measured perceptions of the school and is not an estimate of individual use.

The consequence: Without such evidence, counselling resources may remain misaligned with students' needs, and internal coping deficits, such as difficulty managing stress, urges and peer pressure, or reluctance to seek help, may go unaddressed, leaving students vulnerable to peer influence. This is consistent with the present finding that, although many students reported that they could resist temptation, 24.7% reported never proactively seeking support to maintain a drug-free lifestyle. The study therefore examined substance-use reports alongside self-regulation, social skills and stakeholders' proposed mitigation approaches; because the design was cross-sectional, it tested association and did not seek to establish causal effects.

Study Objectives

1. To determine the most commonly abused substances among students in secondary schools in Nakuru County, Kenya.
2. To establish the relationship between self-regulation and substance abuse among students in secondary schools in Nakuru County, Kenya.
3. To examine the relationship between social skills and substance abuse among students in secondary schools in Nakuru County, Kenya.
4. To identify possible ways of promoting students' emotional intelligence and mitigating substance abuse among students in secondary schools in Nakuru County, Kenya.

Theoretical Framework

Trait Emotional Intelligence Framework

This study was guided by Petrides' trait emotional intelligence framework, which conceptualises EI as a set of self-perceived emotional and social dispositions, including emotion regulation, impulse control, stress management, assertiveness and social awareness (Petrides et al., 2007; Petrides, 2009). Ability models conceptualize EI as a set of capacities for perceiving emotion, using emotion to support thought, understanding emotional change, and regulating emotion. Mixed or competency-based models extend the discussion to practical behaviours such as self-management and relationship skills. Although these perspectives differ, both offer a way to consider why emotional awareness and regulation may matter for decisions made under stress or social pressure (Fiori & Vesely-Maillefer, 2018; Bru-Luna et al., 2021). The present study adopts the trait perspective because its instrument relied on students' self-reports, not performance tests.

The framework is relevant to this study because students' reported self-regulation captures aspects of managing impulses and coping with cravings or peer pressure, while social-skills items capture communication, assertiveness, conflict resolution, and prosocial engagement. These competencies may be associated with the ability to decline substance offers or seek help. The theory does not imply that students with higher EI cannot use substances, nor does it demonstrate that EI alone determines behaviour. Substance use is affected by multiple levels of influence; EI provides a focused explanation for the personal and interpersonal capacities examined in this study.

A limitation of applying EI theory to the present data is that the instrument appears to measure selected behaviours rather than a validated global EI construct. Some items, such as drug refusal and awareness of consequences, overlap directly with prevention behaviour and may not capture emotional ability alone. Accordingly, the theoretical framework informs interpretation of self-regulation and social skills as EI-related dimensions, while the results are reported as measured dimensions rather than as a complete EI score unless the original scoring documentation verifies such a composite.

Social Learning and Peer Influence

The study also draws on social learning principles to interpret the role of peer relations and school context. Young people learn behaviours through observation, interaction, reinforcement, and perceived social norms. Peer networks may normalize substance use or, alternatively, support refusal and prosocial activities. School staff in the source project described peer pressure and the value of positive friendships, while students endorsed mentoring and supportive environments. This perspective complements EI theory by locating choices within relationships and settings instead of attributing them only to individual traits.

The theoretical perspectives jointly suggest that substance-use prevention can be strengthened when students have opportunities to practise emotional regulation, communication, refusal, and help-seeking in supportive school environments. In this study, they guide the interpretation of associations and qualitative themes; they are not tested as causal mechanisms by the cross-sectional design.

Social Cognitive Theory and Triadic Reciprocal Determinism

Social learning principles are extended here through Bandura's social cognitive theory and its model of triadic reciprocal determinism, in which personal factors, behaviour and the

environment influence one another bidirectionally (Bandura, 1986, 1989). Substance choices are therefore modelled as the joint product of three interacting components, not as the outcome of individual traits alone.

Personal (internal cognitive) factor: trait EI. Trait EI, represented in this study by self-regulation (emotion regulation, impulse control and stress management), is treated as the student's internal personal and cognitive factor, shaping how pressure, urges and distress are appraised and handled (Petrides et al., 2007).

Behaviour: social skills. Social skills, including communication, assertiveness, conflict resolution and help-seeking, are treated as interpersonal behavioural capabilities that turn internal dispositions into action, such as declining an offer or approaching a counsellor.

Environment: school and peer context. Peer norms, teacher and counsellor support, school rules and family involvement form the external environment, which supplies models, reinforcement and opportunities that can normalize or discourage substance use.

Joint influence. The three components are reciprocal. Trait EI supports the development and use of social skills; social skills shape the peer interactions a student has and the support received; supportive or risky environments in turn reinforce or erode self-perceived emotional competence; and substance choices both result from and feed back into each component (Figure 1). In this study, trait EI and social skills were measured by student self-report and the environment was captured through student and staff perceptions, so the cross-sectional design cannot test the reciprocal paths.

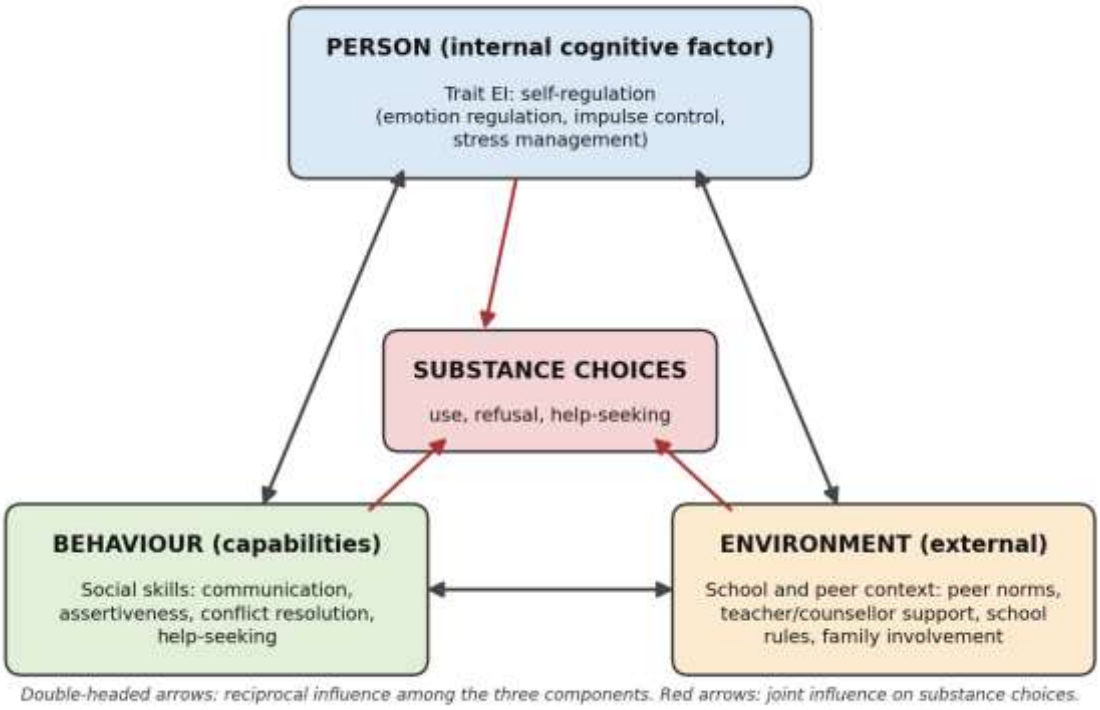

Figure 1: Triadic Reciprocal Determinism Applied to Trait EI, Social Skills, School and Peer Environment, and Substance Choices

Empirical Review

Research on adolescent substance use has examined patterns of alcohol, cannabis, tobacco, and other drugs, as well as the developmental and contextual factors associated with initiation and continued use. The public health literature emphasizes that substance-use disorders involve biological, behavioural, and environmental processes and that patterns vary across populations and contexts (Volkow & Blanco, 2023). Adolescent development adds particular concern because early exposure may coincide with periods of ongoing cognitive and social maturation (Hamidullah et al., 2020). These broad findings underline the need to specify whether a study measures personal use, perceived school presence, frequency, or a clinical disorder.

In the Kenyan school context, Aguttu et al. (2019) examined principal support for peer education and substance-abuse prevalence in public secondary schools in Busia County. Their focus on peer education illustrates the relevance of school structures and peer-led prevention. In Nakuru County, Odhiambo (2020) examined the effects of drug and substance abuse on girls' academic performance in secondary schools, drawing attention to educational consequences. These studies provide contextual grounding, but their outcomes differ from the present study's focus on EI-related competencies and reported substance-use indicators.

The current project found that 57.9% of respondents perceived substance use to be present in their school. Students' substance-frequency responses placed alcohol and bhang highest on the "always" category. Staff respondents also frequently identified bhang and alcohol as substances used by students. These findings broadly align around the visibility of alcohol and cannabis in school settings, but the measurement limitations mean they should not be interpreted as exact student-level prevalence or directly compared with studies using defined time periods and validated substance-use measures.

Self-regulation is relevant to substance use because it involves the management of impulses, emotions, and actions when immediate rewards or social pressure compete with longer-term goals. Adolescents may encounter situations where substance use is framed as experimentation, coping, or a means of belonging. Emotional regulation can support alternative responses to stress, while the ability to delay action may help students avoid decisions with adverse consequences. Research reviews on young people exposed to adversity also identify multiple intervention targets that can reduce risk, reinforcing that personal skills need to be considered alongside the conditions that shape vulnerability (Grummitt et al., 2021).

Fteiha and Awwad (2020) examined EI in relation to stress-coping style, supporting the relevance of emotional competencies to how individuals respond to stress. In the present project, students commonly reported that they could always resist temptation and peer pressure, but a smaller proportion reported proactively seeking support. This distinction matters: self-control may assist in an immediate refusal, while help-seeking provides access to adults and services when a student faces persistent pressure or distress. School prevention can therefore address both personal regulation strategies and routes to assistance.

The chi-square output reported by the project indicated a statistically significant association between self-regulation and substance-abuse indicators. The source summary does not provide cross-tabulations or effect sizes, so it cannot establish whether stronger self-regulation was associated with lower use or quantify how substantial the association was. The association is consistent with the possibility that regulation and substance-use indicators covary, but further analysis of the respondent-level data is needed before claiming a protective effect.

Social skills may influence substance-related choices through assertiveness, communication, conflict management, and the ability to form supportive relationships. Students who can communicate boundaries or seek help may be better equipped to respond to offers and peer pressure. Conversely, difficulty managing conflict or fear of social exclusion may complicate refusal. The social context is not uniformly harmful: peers can also provide support for healthy choices and participation in activities that do not involve substances.

Vorobjov et al. (2014) studied social skills and their relationship to drug use among 15- to 16-year-old students in Estonia using ESPAD data. Their work offers empirical precedent for considering social competencies alongside adolescent substance use. Sayed et al. (2019) examined a life-skills intervention and social self-efficacy for drug-abuse prevention among young adolescent students in Benha City, drawing attention to skills that can be developed through structured programmes. Together these studies support studying social functioning in prevention, while differences in setting and design mean that their results should not be assumed to apply identically to Nakuru County.

In the current study, students reported high "always" responses for assertively saying no to drugs and participating in prosocial activities. Staff accounts also described positive communication and friendship as protective, while identifying peer pressure and conflict as challenges for some students. These reports provide useful contextual insight, though they do not replace the inferential analysis. The reported chi-square association between social skills and substance-abuse indicators was significant; without cell data, however, the direction and magnitude remain unverified.

School prevention may include accurate information, social-emotional learning, counselling, peer mentoring, family engagement, extracurricular participation, and fair, clearly communicated policies. The strength of a strategy depends on its design, implementation, acceptability, and evaluation. Life-skills programming can offer structured opportunities for students to practise refusal, decision-making, and self-efficacy (Sayed et al., 2019). Peer education may also be relevant when students trust peer facilitators and the programme is supported by trained adults (Aguttu et al., 2019).

Students in the source study strongly endorsed awareness activities, supportive environments, counselling, and mentoring. Teachers emphasized family engagement, former users sharing recovery experiences, counselling sessions, extracurricular activities, and consistent rules. These preferences are compatible with a comprehensive prevention approach. Nonetheless, the questionnaire records perceived desirability rather than effectiveness. For example, support for random testing does not demonstrate that testing improves outcomes; implementation would require careful attention to ethics, confidentiality, safeguarding, and applicable policy.

Synthesis and Research Gap

The literature establishes a rationale for studying self-regulation and social skills alongside adolescent substance use, and Kenyan school studies underscore the relevance of peer education and educational consequences. Yet the concepts, samples, and outcomes vary across research. The present study contributes locally situated data from public secondary schools in Nakuru County and includes both student responses and staff perspectives. Its contribution is descriptive and associational. The limitations in the available measurement and statistical documentation require restrained claims and point to a need for better specified instruments and complete inferential reporting in future studies.

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Conceptual Framework

The conceptual framework treats trait emotional intelligence (trait EI) as the independent construct and substance abuse indicators as the dependent construct. Self-regulation and social skills are the dimensions used to represent the independent construct in the study. The framework also recognizes that demographic characteristics, peer influence, school environment, and family context may be associated with substance-use indicators. The available analysis does not test these contextual factors as mediators or moderators; they are presented as relevant background influences rather than demonstrated pathways.

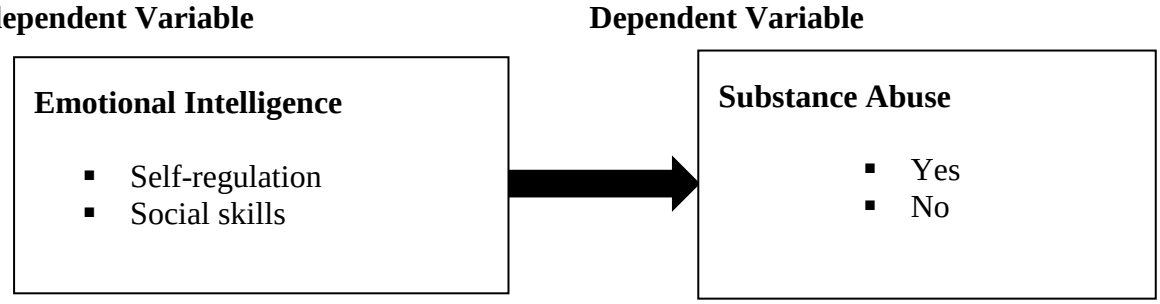

Figure 2: Conceptual Framework

METHODOLOGY

The study used a descriptive cross-sectional correlational design in public secondary schools in Nakuru County, Kenya. Data collection was reported to have taken place in May 2024. The target student population was stated as 121,800 across 235 public secondary schools. The report states that 384 students were selected using a multistage procedure: Nakuru County was purposively selected, schools were stratified by category, sample allocation was proportionate, and students were selected through simple random sampling. Of the 384 questionnaires distributed, 361 were returned, representing a 94.0% response rate. The project also targeted 48 deputy principals and teacher counsellors, and 43 participated (89.6%). The original report contains inconsistent school and population counts in different sections; the figures presented here follow the sampling and results tables and require verification against the sampling frame before submission. Students completed a semi-structured questionnaire with demographic questions, substance-use items, self-regulation items, social-skills items, and items on possible prevention strategies. Responses to the competency and prevention statements were recorded on a five-point scale from “never” to “always.” School staff provided information through semi-structured interviews. The source project reports a pilot study with 39 respondents in Kericho County. Reported reliability coefficients were .84 for self-regulation, .82 for social skills, .73 for substance-use items, .81 for mitigation items, and .80 overall. The coefficient type and exact calculation sample were not specified in the publication extract. Data were analyzed using SPSS version 26. Frequencies and percentages summarized responses; Pearson chi-square tests assessed associations; and interview comments were grouped into themes. The report did not provide the contingency tables, coding details, missing-data procedures, or effect sizes. Ethical procedures were described as voluntary and confidential; the ethics approval number, parental consent and student assent procedures, and safeguarding/referral arrangements should be reported from the study records because participants included minors.

Criterion contamination and item isolation. For a trait EI measure to predict substance use validly, its sub-scales must assess general emotional control, impulse control and social competence, and must not contain items that describe the outcome itself. Items that assess

substance-specific actions, such as refusing a joint or a drink, resisting an offer to use drugs, managing cravings or seeking support to remain drug-free, belong to the criterion domain and must be isolated from the trait EI sub-scales, or removed, before those sub-scales are related to substance-use indicators, so that self-regulation reflects general emotional and impulse control and not substance-specific behaviour. Applying this rule to the instrument used here exposes a limitation. All six self-regulation items in Table 2 refer to drugs, triggers for use, cravings or a drug-free lifestyle, and two of the six social-skills items in Table 3 (assertively refusing drugs and awareness of the consequences of substance abuse) are likewise substance-specific, whereas communicating effectively, interpersonal skills, resolving conflicts peacefully and participating in prosocial activities are general. This manuscript reports the original scale results as they stand; the self-regulation result is therefore interpreted as an association between substance-specific self-regulatory behaviours and substance-use indicators, not as evidence that general emotional or impulse control is related to substance use, and the social-skills result is most defensible for the four general items. The sub-scales should be re-scored using only items free of substance content, with the substance-specific items reported separately as drug-refusal self-efficacy, and future work should preferably use a validated trait EI instrument such as the Trait Emotional Intelligence Questionnaire – Adolescent Short Form (TEIQue-ASF) (Petrides, 2009).

RESULTS

Respondent Characteristics and Response Rates

A total of 361 students completed questionnaires, producing a 94.0% response rate. The sample included 195 female students (54.0%) and 166 male students (46.0%). Students aged 13–15 years represented 50.1% (n = 181), while 49.9% (n = 180) were aged 16–18 years. Participants were drawn from national (10.0%), extra-county (25.2%), county (26.3%), and sub-county schools (38.5%). Boys' boarding schools contributed 33.2% of participants, girls' boarding schools 36.3%, and mixed day schools 30.5%. Of 48 targeted school staff, 43 participated, yielding 89.6%. These characteristics describe the achieved sample and do not by themselves prove representativeness.

Most Commonly Reported Substances

When asked whether substance use occurred in their school, 57.9% of respondents answered yes. This item describes perceived school presence, not individual prevalence. In the substance-frequency table, alcohol and bhang had the highest "always" responses (16.9% and 12.2%, respectively). Most students selected "never" for opium, cocaine, and heroin. The source report does not state a recall period or clearly specify whether all participants or a subgroup answered the frequency items.

Table 1: Reported Frequency of Substance Use by Substance

Substance	Always (%)	Often (%)	Sometimes (%)	Rarely (%)	Never (%)
Miraa/khat	3.6	10.8	15.5	3.6	66.5
Bhang/cannabis	12.2	10.8	8.3	2.2	66.5
Alcohol	16.9	8.6	4.2	3.9	66.5
Tobacco	8.0	6.1	10.8	8.9	66.2
Opium	0.0	0.0	0.0	0.0	100.0
Cocaine	0.0	0.0	3.0	2.5	94.5
Heroin	0.0	0.0	0.0	2.8	97.2

Among school staff respondents, 36 of 43 (83.7%) identified bhang as commonly used, 29 (67.4%) identified alcohol, and 18 (41.9%) identified tobacco; multiple answers appear to have been allowed. Twenty staff (46.5%) characterized the extent of substance use as fair and 18 (41.9%) as high. These are staff perceptions.

Self-regulation and Social Skills

For self-regulation, 83.7% of students selected "always" for resisting temptation to use drugs, 72.9% for resisting peer pressure, and 80.6% for commitment to a drug-free future. In contrast, only 21.6% selected "always" for proactively seeking support, and 24.7% selected "never." For avoiding situations or people that might trigger use, 51.8% selected "always," while 18.8% selected "never." These responses suggest variation across the specific self-regulation behaviours assessed.

Table 2: Self-Regulation Responses among Student Respondents

Self-regulation statement	Always	Often	Sometimes	Rarely	Never
Resist temptation to use drugs	83.7	7.8	3.9	2.8	1.9
Avoid situations/people that may trigger use	51.8	7.2	18.3	3.9	18.8
Resist peer pressure to use drugs	72.9	8.3	5.5	11.4	1.9
Seek support to maintain a drug-free lifestyle	21.6	8.9	27.4	17.5	24.7
Committed to a drug-free future	80.6	12.7	4.2	1.7	0.8
Manage cravings or urges	55.1	27.7	15.5	0.0	1.7

For social skills, 54.8% selected "always" for effective communication, 64.5% for peaceful conflict resolution, 82.8% for assertively saying no to drugs, and 83.9% for participation in prosocial activities. A further 87.8% selected "always" for awareness of the potential consequences of drug abuse.

Table 3: Social-skills responses among student respondents

Social-skills statement	Always (%)	Often (%)	Sometimes (%)	Rarely (%)	Never (%)
Communicate effectively	54.8	28.3	9.1	5.8	1.9
Strong interpersonal skills	59.6	13.3	12.7	6.9	7.5
Resolve conflicts peacefully	64.5	22.7	5.8	3.6	3.3
Assertively refuse drugs	82.8	15.0	2.2	0.0	0.0
Participate in prosocial activities	83.9	7.5	4.2	4.4	0.0
Aware of consequences of substance abuse	87.8	6.6	4.4	0.0	1.1

Inferential Results

The source project reports four sets of inferential analyses. Each is presented separately below. For the demographic test, the chi-square values and p-values are reproduced as reported; some appear internally inconsistent and need confirmation from the original SPSS output. For all tests, the absence of contingency tables limits interpretation of the direction and size of associations.

Table 4: Association between Demographic Characteristics and Substance-Abuse Indicators

Demographic characteristic	χ^2	Df	p (reported)
Gender	10.300	1	.020
Age	0.938	1	.333
Years in school	0.030	1	.862
School category	1.508	3	.219
School type	18.241	2	.031

The project reported statistically significant results for gender and school type, and non-significant results for age, years in school, and school category. The p-values for gender and school type should be verified against the corresponding chi-square values and degrees of freedom before publication. Without cross-tabulations, group-specific differences cannot be described reliably.

Table 5: Association between Self-Regulation and Substance-Abuse Indicators

Test	χ^2	Df	N	p
Pearson chi-square	46.460	13	361	< .001
Likelihood ratio	54.945	13	361	< .001
Linear-by-linear association	0.884	1	361	.347

The Pearson chi-square was reported as statistically significant, $\chi^2(13, N = 361) = 46.460$, $p < .001$. The result indicates an association between the variables as coded in the source analysis. Since the contingency table and coding direction are not included, it is not possible to determine whether higher self-regulation corresponded to lower substance use.

Table 6: Association between Social Skills and Substance-Abuse Indicators

Test	χ^2	Df	N	p
Pearson chi-square	34.208	13	361	.001
Likelihood ratio	36.496	13	361	< .001
Linear-by-linear association	0.404	1	361	.525

The Pearson chi-square was reported as statistically significant, $\chi^2(13, N = 361) = 34.208$, $p = .001$. This supports an association between the coded social-skills and substance-abuse variables. The reported test alone does not show the direction or practical magnitude of the relationship.

Table 7: Association between Overall Emotional Intelligence and Substance-Abuse Indicators

Test	χ^2	Df	N	p
Pearson chi-square	114.058	19	361	< .001
Likelihood ratio	133.949	19	361	< .001
Linear-by-linear association	25.434	1	361	< .001

The overall EI test was reported as statistically significant, $\chi^2(19, N = 361) = 114.058$, $p < .001$. The project does not explain how the overall EI category was constructed or how it relates to the separate self-regulation and social-skills tests. These results should not be combined as if they measure identical constructs until the scoring and cross-tabulations have been confirmed.

Students expressed support for education and awareness programmes (79.8% "always"), supportive and non-judgmental environments (83.9%), confidential counselling (75.1%), peer mentoring (77.8%), and drug-free school policies (73.7%). Views on random drug testing were more mixed, with 43.8% "always," 21.1% "often," 18.3% "sometimes," 12.2% "rarely," and 4.7% "never." Staff interviews emphasized family involvement, guidance and counselling, extracurricular activities, peer influence, emotional coping, and clear school rules. These results reflect stated preferences and staff observations, not experimental evidence of intervention impact.

Discussion

The study examined emotional-intelligence-related competencies and substance-use indicators among students in public secondary schools in Nakuru County. A majority of respondents indicated that substance use occurred in their school, while alcohol and bhang recorded the highest "always" responses among substances listed. School staff also frequently identified these substances. The convergence between student perceptions and staff reports suggests that substance use was visible as a school concern in the participating settings. However, the school-presence item cannot be presented as an estimate of how many students personally used substances. This distinction is essential for comparison with other studies and for public-health claims.

The prominence of alcohol and bhang is broadly consistent with the Kenyan school focus in Aguttu et al. (2019) and the concern about educational impacts in Nakuru County discussed by Odhiambo (2020). The present data add information on students' perceptions and reported frequency categories, but they do not establish an exact prevalence or time-bounded pattern. Studies that use specified recall periods, validated measures, and consistent definitions will provide stronger comparisons across schools and counties. The source project's categories should therefore be interpreted as self-report indicators rather than diagnoses of substance abuse. The national NACADA survey likewise found alcohol and bhang among the substances used by secondary school students (NACADA, 2016), although its reference periods (lifetime, six-month and 30-day use) differ from the frequency categories used here, so the figures are not directly comparable.

Students often reported that they could resist temptation and peer pressure, and many reported commitment to a drug-free future. Yet help-seeking was less consistently endorsed, and students varied in their reported ability to avoid triggering situations. This pattern is compatible with the distinction in emotional intelligence research between managing an immediate emotional response and engaging effectively with others or seeking support (Bru-Luna et al., 2021; Fteiha & Awwad, 2020). It also suggests that prevention should help students know how and where to obtain confidential support, rather than assume that personal resolve alone will be sufficient. Grummitt et al. (2021) similarly emphasize the value of multiple intervention targets for young people facing adversity.

The significant chi-square result reported for self-regulation is consistent with the theoretical proposition that emotional management may be related to substance-use decisions. However, the data reported in the source do not provide the cross-tabulation, effect size, or coding needed to show whether self-regulation was positively or negatively associated with the outcome. Thus, the result supports the presence of a statistical association only. It cannot substantiate statements that self-regulation reduced, prevented, or caused lower substance use. This cautious interpretation preserves the empirical finding while avoiding causal language

unsupported by a cross-sectional design. Because every self-regulation item referred to substance-specific behaviour, the association may also partly reflect overlap between predictor and outcome content (criterion contamination) and should not be read as evidence about general emotional or impulse control.

The social-skills results show a similar pattern. Students commonly endorsed assertive refusal and prosocial participation, and staff described communication, positive friendships, and peer pressure as relevant to substance-use risk. These themes accord with research that connects adolescent social skills to drug-use indicators (Vorobjov et al., 2014) and with intervention research that targets social self-efficacy and life skills (Sayed et al., 2019). The present study's significant chi-square result is consistent with this literature at the level of association, but the missing cell data mean that the direction and magnitude cannot be independently evaluated. Future reporting should provide the table of observed counts, percentages within outcome categories, a measure such as Cramér's V, and diagnostics for expected cell counts.

Students and staff identified awareness, counselling, supportive adult relationships, mentoring, family engagement, and extracurricular activities as desirable prevention strategies. This combination reflects a multi-level approach in which information is paired with opportunities to practise skills and obtain support. Aguttu et al. (2019) focused on peer education in Kenyan public secondary schools, while Sayed et al. (2019) examined life-skills and social self-efficacy in prevention. The current findings reinforce the acceptability of these broad approaches to respondents; they do not prove programme effectiveness. Implementation should be evaluated with clear outcomes and safeguards, particularly for confidential counselling and any policy involving testing or discipline.

The theoretical framework helps interpret these findings by connecting emotion management and interpersonal competencies to decisions made in social settings. Social learning perspectives add that peer norms and school relationships shape behavioural choices. The qualitative reports of peer influence and the respondents' support for mentoring fit this contextual account. Nonetheless, the study does not test a pathway in which EI changes peer effects, nor does it measure the temporal sequence between competencies and substance use. Future longitudinal or intervention research could examine whether improvements in regulation and refusal skills precede changes in substance-use outcomes, and whether supportive school conditions strengthen these relationships.

The overall EI test requires particular caution. The source reports a significant chi-square result, but the operational definition and scoring procedure for the composite are not explained. Moreover, the self-regulation and social-skills variables appear to have separate tests. Measurement literature warns that EI instruments differ in constructs and psychometric properties (Bru-Luna et al., 2021). The manuscript therefore treats the overall EI finding as reported but calls for verification of the items and scoring before presenting it as a validated measure of EI. Future research should use a clearly identified instrument with evidence of validity and reliability in the target population.

Taken together, the results support the practical relevance of emotional and social competencies in school prevention planning, while also exposing limitations in the underlying measurement and reporting. The main contribution is local: it documents students' and staff members' perspectives from public secondary schools in Nakuru County and identifies a reported association between competency measures and substance-abuse indicators. The research does not estimate causal effects or confirm individual prevalence. Stronger statistical

reporting and precise operational definitions would improve the contribution of future analyses using this dataset.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The study examined substance-use indicators and EI-related competencies among students in public secondary schools in Nakuru County. Of 384 students sampled, 361 responded, alongside 43 school staff. Students reported that substance use occurred in their schools, with alcohol and bhang receiving the highest "always" responses among listed substances. Many students reported resistance to temptation and peer pressure, assertive refusal, and prosocial participation, while proactive help-seeking was less common. The project reported significant chi-square associations for self-regulation, social skills, and overall EI, although missing cross-tabulations and unclear scoring limit interpretation of direction and strength. Students and staff identified awareness, counselling, mentoring, family engagement, and extracurricular activities as potential prevention priorities.

The study concluded that substance use was perceived as a concern in participating secondary schools in Nakuru County and that the project's analyses showed statistically significant associations between substance-use indicators and self-regulation, social skills, and overall EI. These results are consistent with the view that emotional and interpersonal competencies are relevant to adolescent substance-use prevention. However, the evidence available in the extract does not establish causation, confirm the direction or magnitude of the associations, or provide a student-level prevalence estimate. The findings should be interpreted as context-specific, cross-sectional evidence that supports further, methodologically stronger investigation.

Schools should integrate practical self-regulation, communication, assertive refusal, and conflict-resolution activities into guidance and life-skills programmes, while ensuring that students can access confidential counselling and trusted adult support. School leaders and counsellors should work with parents and student peer mentors to strengthen supportive relationships and provide constructive extracurricular opportunities. The Ministry of Education and relevant school authorities should promote prevention responses that combine accurate information with psychosocial support and safeguarding. Future studies should use validated trait EI measures whose sub-scales exclude substance-specific items, validated substance-use measures, clearly define substance-use recall periods, report complete contingency tables and effect sizes, verify all inferential statistics, and consider longitudinal or intervention designs to determine whether changes in EI-related competencies precede changes in substance use.

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