

Policy Response to Substance Abuse in Selected Higher and Tertiary Education Institutions: A Comparative Review

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ABSTRACT

Background: Substance abuse in Higher and Tertiary Education Institutions (HTEIs) poses a serious threat to students' academic achievement, mental well-being, and campus safety. Although various interventions have been introduced, the effectiveness of existing policies remains inconsistent. This study compared global literature on school-related substance abuse policies with policy responses in selected Copperbelt HTEIs in Zambia to inform the development of contextually appropriate strategies for substance abuse reduction.

Subjects and Method: The study applied the Protocol, Search, Appraisal, Synthesis, and Reporting (PSALAR) framework, guided by the Population, Interest, and Context (PICO) approach. Two colleges and one university in Zambia's Copperbelt Province were purposively selected, and an exhaustive online search was conducted to identify institutional policies addressing substance abuse. Peer-reviewed English articles (2013–2023) focusing on punitive and remedial school-based policies were reviewed. Inclusion criteria for HTEIs were adapted to align with the PSALAR framework.

Results: Three major themes emerged: (1) policy deficiencies and implementation gaps, (2) punitive versus remedial interventions, and (3) limited monitoring and evaluation mechanisms. The dominant issue was finding an effective balance between punitive and supportive policy approaches. The integration of substance abuse education within institutional frameworks was weak, and evidence on the relative effectiveness of punitive versus remedial measures remained inconclusive.

Conclusion: Substance abuse policies in Zambian HTEIs predominantly emphasize punitive responses, with insufficient attention to remedial or preventive efforts. Strengthening evidence-based, context-specific, and student-centered policies is essential to reduce substance abuse and advance Zambia's progress toward Sustainable Development Goal 3.5 by 2030.

Keywords: public policy, substance abuse, higher education

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BACKGROUND

Substance abuse presents a complex and persistent challenge in Higher and Tertiary Education Institutions (HTEIs), undermining student well-being, academic performance, and social stability (Oloo et al., 2021). The misuse of alcohol, cannabis, opioids, and other substances continues to concern educators, policymakers, and public health officials. The United Nations Office on Drugs and Crime (UNODC) emphasizes that substance abuse policies in HTEIs serve as vital tools for ensuring safety, wellness, and institutional integrity (UNODC, 2018). Yet, policy scope, clarity, and enforcement vary widely across institutions, leading to inconsistent outcomes.

Globally, student substance use continues to rise. In 2016, 275 million people used psychoactive substances, with alcohol, cannabis, and opioids most common among students (UNODC, 2022). African studies report prevalence rates between 27.5% and 62% (Njati, 2022), with cannabis often initiated by age 19 and growing misuse of prescription opioids like tramadol and codeine. These trends demand targeted institutional responses. Research from Kenya, South Africa, and Zambia urges HTEIs to take the lead in adopting effective prevention policies (Mbuthia et al., 2017; Mwanza and Mwale, 2023; Onofa, 2016; Tembo et al., 2022; UNODC, 2022).

Despite various interventions, policy effectiveness remains mixed. Programs like Texas's "CATCH My Breath" reduced e-cigarette use (Kelder et al., 2020), while Australia's universal resilience intervention showed no significant impact on tobacco, alcohol, or drug use (Hodder et al., 2017). Policy impact often depends on implementation strength, awareness, and student perception (Andersen et al., 2019; Epstein et al., 2019; Evans-Whipp et al., 2015).

The evolving nature of substance use necessitates regular policy review. Institutions

must adopt flexible, evidence-based responses to shifting trends (Njati, 2022). Two dominant policy approaches persist: punitive strategies relying on suspension or expulsion and remedial approaches emphasizing education, counselling, and support (Epstein et al., 2019; Oloo et al., 2021). Balancing both remains crucial for designing humane and effective interventions (Sznitman & Romer, 2014). As substance use threatens both mental and physical health (Mbuthia et al., 2017), HTEIs must respond with holistic, context-sensitive policies.

Significant gaps remain. Most studies focus on secondary schools or Western contexts, overlooking the regional and cultural dynamics within African HTEIs (Gohari et al., 2020; Kageni L et al., 2022; UNESCO, 2017). Few have explored how punitive and remedial approaches can be effectively integrated or assessed over time, and follow-up data on relapse, reintegration, and policy adaptability are scarce. Addressing these gaps is essential to strengthen institutional resilience and promote healthier learning environments.

This study, therefore, compares available published literature on school-based substance abuse policies with institutional policy responses in selected Higher and Tertiary Education Institutions in Zambia's Copperbelt Province. The goal is to provide a comprehensive foundation for developing effective, evidence-based, and context-specific approaches to reduce substance abuse in HTEIs, particularly through an analysis of existing policies, their punitive or remedial orientation, and insights drawn from methodologically reviewed literature.

SUBJECTS AND METHOD

1. Study Design

This study was conducted in two phases. Phase 1 involved a systematic literature review, while Phase 2 focused on a qualitative review of institutional policies from

selected Higher and Tertiary Education Institutions (HTEIs) in Zambia's Copperbelt Province.

2. Phase 1: Systematic Literature Review

The first phase of the study adopted a systematic literature review approach to examine school-based punitive and remedial substance abuse policies. This phase aimed to identify, organize, and analyze all relevant empirical evidence addressing the study objectives.

The review followed the PSALAR framework, which included the stages of Protocol, Search, Appraisal, Synthesis, Analysis, and Reporting. Using a PICO-based strategy, the search focused on students as the population, substance abuse policies as the main area of interest, and educational institutions as the context. Four databases; PubMed, Academia, the NACADA Resource Centre, and ResearchGate were searched for peer-reviewed English

language studies published between 2013 and 2023. Non-empirical works and irrelevant literature were excluded.

From an initial 157 articles identified, 16 met the inclusion criteria for further analysis. Key data such as author, publication year, study site, target population, intervention, comparison, outcomes, and main findings were extracted and organized systematically.

The extracted data were analyzed thematically using Atlas.ti software, guided by Saldana's coding approach. The analysis process included initial coding, pattern coding, and thematic categorization to identify recurring patterns, similarities, and contrasts in policy orientation and effectiveness. Both descriptive and interpretive analyses were conducted to develop themes that reflected the nature and impact of punitive and remedial strategies.

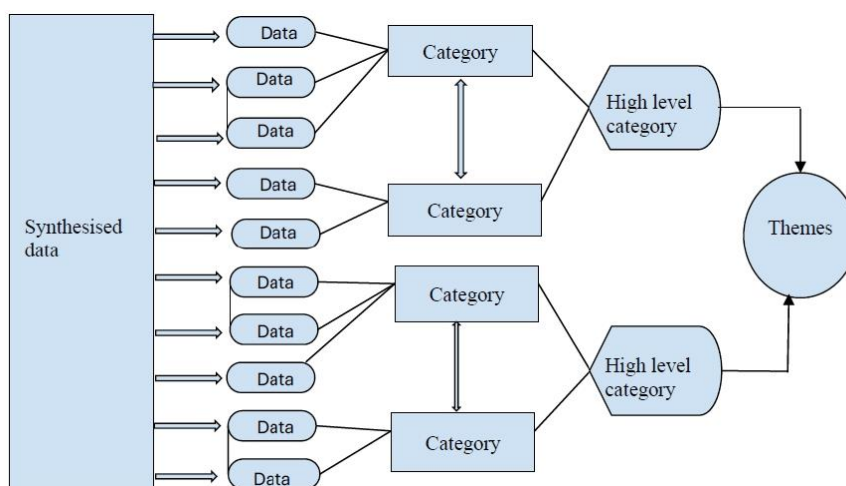


Figure 1. Saldana's Thematic Analysis Process

Finally, the reporting stage summarized the major findings, highlighting key policy gaps and trends that informed the qualitative exploration in Phase 2.

3. Phase 2: Institutional Policy Analysis

The second phase qualitatively examined substance abuse policies in three purposively selected Copperbelt HTEIs (two colleges and one university). Institutional websites and

publicly available documents were reviewed to assess policy orientation toward punitive or remedial approaches. Names of institutions were anonymized for confidentiality. The same inclusion and analysis criteria from Phase 1 were applied to ensure consistency. Thematic analysis was used to identify major policy trends and gaps, allowing comparison between published literature and institutional practices.

RESULTS

A total of 16 peer-reviewed articles were systematically analysed under phase one objectives (Table 1). Additionally, three student handbooks from HTEIs in Zambia's Copperbelt Province were reviewed under phase two, bringing the total to 19 documents. These were charted using seven criteria and reflected varied methodologies, with most being quantitative. Document distribution included Canada (2), Denmark, South Africa, and Kenya (1

each), Zambia (5 including the handbooks), and two studies each from Australia and the USA. Most phase one articles originated from African studies and were published between 2016 and 2021, while the handbooks were adopted in 2013, 2016, and 2019. Data coding using ATLAS.ti (online version) generated three main themes for phase one (with sub-themes shown in Table 2) and two main themes from phase two, each linked to sub-themes drawn from institutional policies.

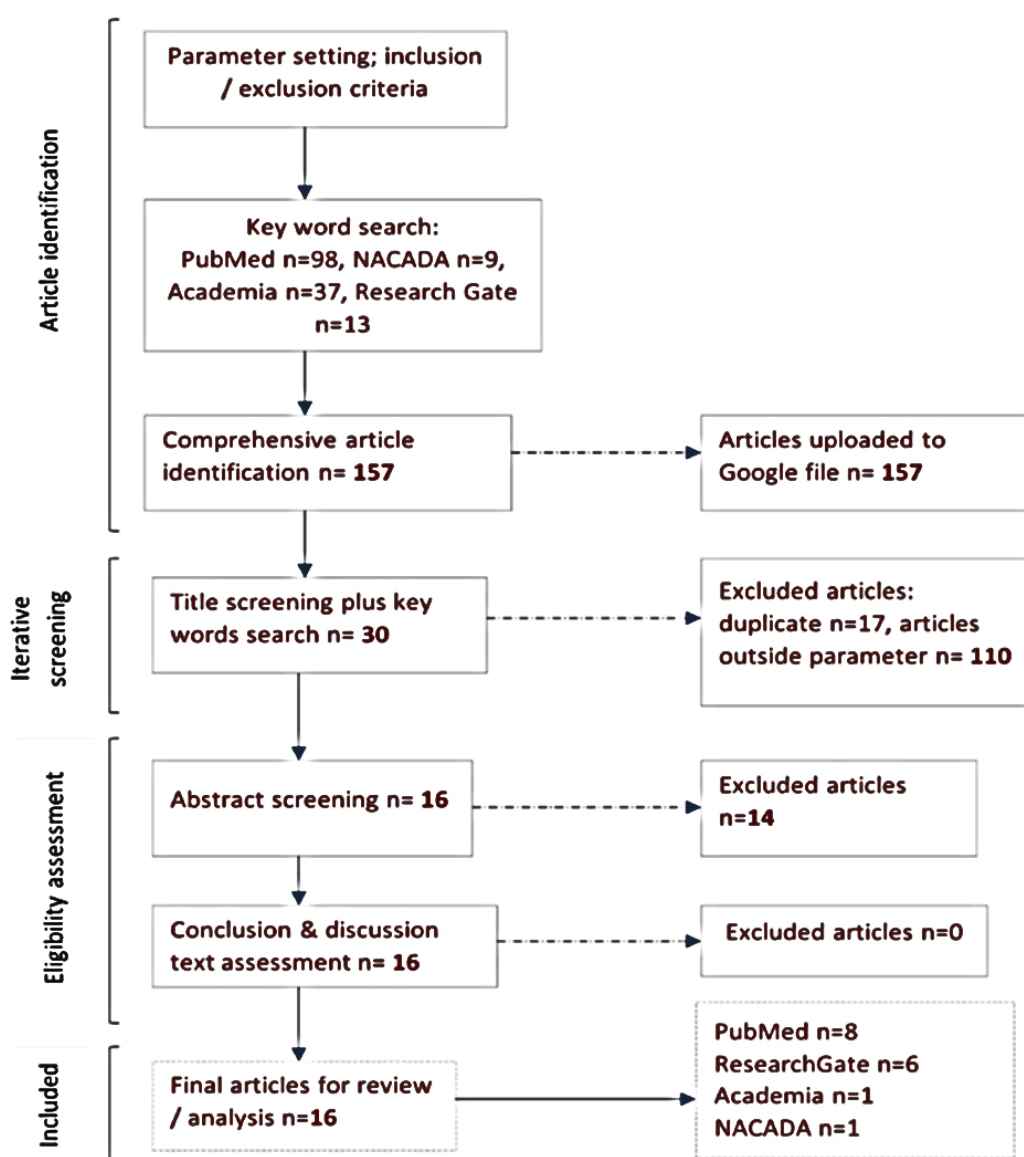


Figure 2. Flow Diagram for Article Search and Critical Appraisal Process

Table 1. Data Categorisation Output

Author (Year)	Country	Population	Intervention	Comparison	Outcomes	Findings
Hodder (2017)	Australia	Secondary school students	Universal school-based resilience program	Schools receiving standard curriculum	Changes in prevalence of tobacco, alcohol, and illicit drug use.	No significant effect on reducing substance use among students.
Bala & Kang'ethe (2021)	South Africa	Community members	Implementation of national substance abuse policy	Community perceptions and experiences	Community-level awareness, policy relevance, and enforcement impact.	Found gaps in enforcement; need continuous policy evaluation and contextualisation.
Evans-Whipp et al. (2015)	USA and Australia	Secondary school students	School drug policies (abstinence vs. harm minimization)	Cross-national policy models (Victoria vs. Washington)	Student marijuana use rates and perceptions of enforcement.	Harm minimization, counseling more effective than abstinence only approaches, outcomes varied by context.
Gohari et al. (2021)	Canada	Adolescents and youth	Provincial-level alcohol policy change	Pre-policy vs. post-policy alcohol use trends	Changes in alcohol use trajectories among youth over time.	Policy change influenced trajectories differently; some groups showed increased risk.
Umukoro et al. (2016)	Nigeria	University and college students	None (observational study)	Patterns across institutions and demographics	Prevalence and types of substances used; age of initiation	High prevalence of drug use; initiation common in adolescence; prevention and education policies.
Mbuthia et al. (2017)	Kenya	University students	Alcohol and drug abuse awareness campaigns	Students exposed vs. not exposed to campaign	Levels of drug and alcohol use post-intervention	Campaigns had limited impact; drug use increased in both control and intervention groups.
Kelder et al. (2020)	USA	Middle school students	"CATCH My Breath" e-cigarette	Intervention vs. control schools	E-cigarette use prevalence; knowledge and resistance intention	Lower increase in e-cigarette use and improved awareness in intervention group.

Author (Year)	Country	Population	Intervention	Comparison	Outcomes	Findings
Zulu (2018)	Zambia	College students	prevention pro- gram Policy and pro- gram-based drug abuse response	Reviewed insti- tutional practices	Institutional response effectiveness; student awareness	Weak enforcement and low awareness; recommended pol- icy review and stronger sup- port systems.
Tembo et al. (2022)	Zambia	University stu- dents	None (qualitative case study)	Student experi- ences and out- comes	Reasons for substance use; academic and so- cial consequences	Abuse linked to stress and peer pressure; need remedial poli- cies, counselling, and health education.
Research Ex- pert 1 (2023)	Zambia	Policy docu- ments from HTEI	Evaluation of insti- tutional substance abuse policies	Existing policy content and en- forcement prac- tices	Clarity, scope, and balance of punitive vs. remedial measures	Policies focused on punish- ment; lacked detailed remedial support and monitoring.
Oloo et al. (2021)	Kenya	University stu- dents	None (observa- tional study on risk factors)	Variations across demographic and emotional factors	Predisposing factors and student substance use behaviour	Weak institutional policy linked to higher abuse rates; recommended counselling and prevention programs.
Mwanza & Mwale (2023)	Zambia	University stu- dents	Review of institu- tional measures from student per- spective	Student percep- tions vs. existing practices	Student awareness, policy gaps, and effec- tiveness	Students noted weak enforce- ment, limited awareness, and lack of support systems; policy reform.
Research Ex- pert 2 (2023)	Zambia	University pol- icy documents	Evaluation of insti- tutional policy (Student Hand- book, 2016)	Policy provisions vs. best practices	Nature and scope of disciplinary measures for substance use	Policy emphasized punitive measures; lacked remedial support or rehabilitation.

Author (Year)	Country	Population	Intervention	Comparison	Outcomes	Findings
Andersen et al. (2019)	Denmark	Vocational high school students	School tobacco policies (STPs) and national legislation	Schools with varying policy strength and enforcement	Prevalence of smoking and student smoking behaviour	Stronger STPs and enforcement were associated with reduced smoking.
Research Expert 3 (2023)	Zambia	College policy documents	Evaluation of institutional policy (Student Handbook, 2019)	Disciplinary structure vs. comprehensive policy standards	Range and severity of responses to substance abuse violations	Policy included progressive punitive measures and some mention of counselling; lacked clear remedial frameworks.
Magier et al. (2020)	Canada	Secondary school students	Disciplinary consequences for substance use policy violations	Types of first-offense sanctions vs. student cannabis use	Student cannabis use and perceptions of policy enforcement	No strong association between disciplinary consequences and reduced cannabis use.
Kageni et al. (2022)	Kenya	University students	None (cross-sectional observational study)	Prevalence across demographics and institutions	Substance use patterns, risk factors, and prevalence	High levels of alcohol and drug use reported; recommended enhanced campus-based interventions.

Table 2. Emerging Themes from the Study Phase

Main themes	Themes	Codes
Policy Deficiencies and Implementation Gaps	Policy Deficiencies	Lack of Formal Policies Incomplete Coverage
	Implementation gaps	Implementation Gaps Insufficient Guidance
Punitive Measures vs. Remedial Support	Punitive Measures	Expulsion and Suspension Monetary Penalties Zero Tolerance Policies Strict Disciplinary Measures
	Remedial Support	Rehabilitation Programs Guidance and Counselling Restorative Approaches Education and Prevention Programs
Continuous Monitoring and Evaluation	Monitoring and Evaluation	Periodic Assessments Data-Driven Adaptations Adaptive Responses Feedback Mechanisms
	Institutional implementation	Training and Capacity Building Collaborative Initiatives

Table 3. Emerging Themes from Study Copperbelt Province HTEIs Policy Documents

Main themes	Themes	Codes
Diversity in Policy Clarity and Enforcement	Explicit Regulations with Graduated Discipline	Explicit Substance Offences Enforcement Actions
	Lack of Explicit Control Measures	Vague Control Measures
Stratified Punitive Measures	Stringent Consequences for Substance Offences	Stringent Enforcement Storage Violations Emphasis Varied Sanctions
	Graduated Disciplinary Framework	Hierarchical Charges Progressive disciplinary structure

The thematic analysis of phase one revealed three overarching themes: policy deficiencies and implementation gaps, punitive measures versus remedial support, and continuous monitoring and evaluation. The first theme, policy deficiencies and implementation gaps, highlighted the absence of formal substance abuse policies in some institutions and incomplete policy coverage in

others. These gaps extended to a lack of implementation mechanisms and insufficient guidance, revealing inconsistencies in how institutions operationalize policy intent.

The second theme, punitive measures versus remedial support, reflected contrasting institutional responses to substance abuse. Many policies focused on punitive measures, including expulsion, suspension, monetary

penalties, zero tolerance, and strict disciplinary frameworks. Conversely, some institutions integrated remedial support through rehabilitation programs, guidance and counselling, restorative approaches, and education-focused prevention strategies, suggesting an emerging shift toward more supportive interventions.

The third theme, continuous monitoring and evaluation, emphasized the importance of periodic assessments, feedback mechanisms, and adaptive policy responses to strengthen effectiveness. It also underscored the need for training and capacity building and collaborative implementation efforts among stakeholders to improve institutional readiness and sustainability of interventions.

The analysis of policy documents from selected HTEIs in Zambia's Copperbelt Province revealed three key themes: diversity in policy clarity and enforcement, stratified punitive measures, and the presence of graduated disciplinary frameworks. Under the first theme, diversity in policy clarity and enforcement, some institutions outlined explicit substance-related offences paired with clear enforcement actions, demonstrating a well-defined approach. In contrast, others exhibited vague control measures, lacking specific guidance on handling violations. This inconsistency reflects significant variation in how institution's structure and communicate substance abuse regulations.

The second theme, stratified punitive measures, emerged from policies that imposed stringent consequences for substance offences, including strong emphasis on drug storage violations and a range of sanctions such as suspension, expulsion, and restricted campus access. These measures suggest a heavy reliance on punitive deterrents. The third theme, graduated disciplinary frameworks, captured policies that employed hierarchical charges and progressive disciplinary structures, where penalties escalated based on the frequency or severity of offences. This

approach indicates attempts to balance discipline with fairness and consistency in enforcement.

DISCUSSION

The literature highlights regional disparities in the effectiveness of substance abuse policies, despite similar approaches across contexts (Evans-Whipp et al., 2015). This underscores the need for tailored strategies and a balance between harm minimization and abstinence messaging. Policies that combine counselling with abstinence measures have shown greater impact than punitive-only approaches (Evans-Whipp et al., 2015; Gohari et al., 2020). Targeted prevention, especially among adolescents, also improves outcomes (Hodder et al., 2017; Onofa, 2016).

In line with this variation, reviewing institutional policies revealed inconsistencies in clarity and enforcement. One policy outlines specific offences and escalating penalties (Institution 1, 2019), while another prohibits substance use but lacks clear control measures (Institution 2, 2014). A third enforces immediate expulsion or suspension for violations (Institution 3, 2016), highlighting stark contrasts in policy strength and structure.

The findings also emphasize the importance of student perceptions in shaping effective policies. Policies perceived as fair and consistently enforced tend to be more effective (Evans-Whipp et al., 2015). A nuanced approach—accounting for regional context, student attitudes, and enforcement rigor—is essential for effective substance use prevention. Policymakers must prioritize not only policy creation but also robust enforcement, which plays a critical role in reducing substance abuse in HTEIs.

Beyond policy enforcement, the study also examined how institutions balance punitive and remedial approaches in addressing substance abuse. The study findings established that there existed a regional disparity

in the way policies incorporated punitive and remedial sections when handling substance abuse. The literature showed conflicting evidence regarding the best approach to handle substance abuse in the HTEI settings. The emerging theme from the second objective was preventive and remedial support in controlling substance abuse.

The literature reveals differing approaches to substance abuse in HTEIs. Some institutions favour punitive measures like expulsion or suspension to deter violations (Andersen et al., 2019; Institution 3, 2016; Kageni L et al., 2022; Mwanza & Mwale, 2023), while others promote remedial strategies such as counselling and rehabilitation (Evans-Whipp et al., 2015; Institution 1, 2019; Kelder et al., 2020; Tembo et al., 2022). Punitive measures may deter initial use but show limited long-term effectiveness (Andersen et al., 2019; Kageni L et al., 2022). Remedial support addresses root causes and fosters recovery but may lack immediate deterrent impact (Andersen et al., 2019; Gohari et al., 2020; Hodder et al., 2017; Kelder et al., 2020). A combined approach applying strict consequences while offering rehabilitation may yield more sustainable outcomes. Integrating prevention, deterrence, and support reflects the complex nature of substance abuse and promotes safer, more inclusive learning environments.

While policy content and approaches are critical, their effectiveness largely depends on contextual implementation and continuous monitoring. The findings highlighted the need for contextualisation of substance abuse policies taking into consideration the socio-cultural and economical context of the HTEIs. To achieve this the findings pointed to continuous monitoring and evaluation as the last emerging theme.

Findings highlighted continuous monitoring and evaluation as critical for effective substance abuse policy implementation in

HTEIs (Institution 3, 2016; Kageni L et al., 2022; Oloo et al., 2021; Zulu, 2018). However, this process must be contextualised to reflect institutional diversity shaped by cultural, social, and economic factors (Institution 1, 2019; Onofa, 2016). Policies must align with specific institutional realities, as strategies effective in urban settings may not apply in rural or culturally distinct institutions. Mbuthia et al., (2017) observed increased drug use in both intervention and control groups, underscoring the need to contextualise interventions. Monitoring should include student input to reflect lived experiences and improve policy relevance (Evans-Whipp et al., 2015). Such engagement can support tailored responses to drug and alcohol abuse in HTEIs and contribute to SDG Target 3.5 on strengthening prevention and treatment of substance abuse.

In summary, the review of peer-reviewed studies and policies across Higher and Tertiary Education Institutions (HTEIs) in the Copperbelt Province in Zambia revealed diverse approaches in addressing substance abuse. Variability in policy clarity, enforcement stringency, and regional disparities underscored significant deficiencies in substance abuse policies. The systematic review highlighted the significance of tailoring strategies to HTEIs' needs, emphasising the need for approaches that blend harm minimization with abstinence promotion. Furthermore, the contrast between punitive measures and remedial support illustrated the merits of a balanced approach, integrating deterrents with rehabilitation programs. Contextualisation emphasising continuous monitoring and evaluation, emerged as pivotal, stressing the importance of policies shaped to suit specific institutional needs while considering socio-cultural factors. Ultimately, this synthesis underscores the imperative for multifaceted, tailored substance abuse policies in HTEIs,

combining preventive, punitive, and remedial measures within a contextualised framework.

Nevertheless, it is important to acknowledge certain limitations of this review. Despite the study not identifying all suitable articles due to strict study timelines, its strength lies in the use of a standardised and internationally accepted tool for systematic review and the inclusion of studies from diverse origins. Additionally, a few articles that were included to increase the article pool may have affected data quality. Similarly, although most reviewed articles were African-affiliated, which is commendable for enhancing contextual relevance, the findings of the study can only be generalised to HTEIs in Zambia's Copperbelt Province

AUTHOR CONTRIBUTION

All authors have made significant contributions to the data analysis as well as preparing the final manuscript.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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