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Integrating Mental Health into Community-Based Health Services: Motivational Strategies for Eradicating Kush Use Amongst Sierra Leonean Youth.

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Abstract

Background: Kush use, a synthetic cannabis variant, has emerged as a public health crisis in Sierra Leone, particularly among youth. Its widespread availability, affordability, and harmful composition have led to rising rates of mental health disorders, addiction, and socio-economic instability. Despite the urgency, limited psychiatric infrastructure, stigma, and lack of trained professionals hinder effective interventions. Integrating mental health services into community-based health systems, supported by motivational strategies, offers a promising pathway for addressing this crisis.

Methodology: A mixed-methods design was employed, combining quantitative surveys (n = 300; 200 youth and 100 community health stakeholders) with qualitative interviews and focus group discussions. Quantitative data were analyzed using descriptive statistics, chi-square tests, and logistic regression, while qualitative data underwent thematic analysis. Ethical approval and informed consent were obtained, and confidentiality was ensured.

Results: Findings revealed that 68% of youth had ever used Kush, with 42% reporting current use. Unemployment was the strongest predictor of use (OR = 2.65, p = 0.001), while males were nearly twice as likely as females to consume Kush (OR = 1.87, p = 0.021). Younger participants (20–24 years) reported higher prevalence. Community stakeholders strongly endorsed integrating mental health into primary healthcare, with 77% highlighting the effectiveness of motivational counseling and peer-support groups. Major barriers included stigma, limited funding, and shortage of trained personnel.

Conclusion: Kush use in Sierra Leone is driven by socio-economic disadvantage, unemployment, and gender dynamics, posing severe risks to youth health and well-being. Integrating mental health services into community-based systems, coupled with motivational strategies and stigma-reduction initiatives, can provide a sustainable and culturally relevant framework for reducing substance abuse. This approach holds promise for strengthening youth resilience, promoting recovery, and advancing public health in low-resource settings.

Keywords: Kush use, youth, Sierra Leone, mental health integration, community-based health services, motivational strategies, unemployment, substance abuse prevention.

1. Introduction

Substance abuse among young people has emerged as a significant public health crisis in Sierra Leone, with the increasing use of Kush—a synthetic cannabis variant—posing serious physical, psychological, and socio-economic challenges [1]. Kush is often laced with harmful additives, making its consumption particularly dangerous, leading to mental health disorders, cognitive impairment, addiction, and in severe cases, death [2]. The widespread availability and low cost of the drug have contributed to its rapid proliferation among marginalized and economically disadvantaged youth, exacerbating existing vulnerabilities. The escalating Kush epidemic underscores the urgent need for community-level interventions that integrate mental health services into existing primary and community-based healthcare structures. Evidence suggests that community-based health approaches, when combined with mental health support, can effectively address substance abuse by enhancing access to treatment, reducing stigma, and fostering long-term behavioral change [3]; [4]. In the Sierra Leonean context, such integration is critical given the limited availability of psychiatric facilities, the shortage of trained mental health professionals, and the cultural stigma surrounding mental illness and substance abuse [5]. Motivational strategies—rooted in psychological theories such as the Trans theoretical Model of Change and Motivational Interviewing—have been widely recognized as effective tools in facilitating behavioral transformation among substance users [6]. These strategies focus on enhancing intrinsic motivation, fostering self-efficacy, and promoting autonomy in decision-making, which are vital in supporting youth to abandon addictive behaviors. By embedding motivational interventions within community-based health services, it becomes possible to offer a holistic and sustainable model of care that addresses both the mental health needs and socio-economic realities of at-risk youth. This study aims to explore the integration of mental health services into community-based health systems as a means of developing and implementing motivational strategies for eradicating Kush use among Sierra Leonean youth. It seeks to provide an evidence-based framework for public health policymakers, non-governmental organizations, and community leaders to design targeted interventions that are culturally relevant, accessible, and sustainable. By addressing the mental, behavioral, and social dimensions of substance abuse, this research contributes to the global discourse on youth mental health promotion and substance abuse prevention, with implications for other low- and middle-income countries facing similar crises.

2. Methodology

Research Design

This study adopted a mixed-methods design, combining both quantitative and qualitative approaches. The quantitative component captured measurable data on the prevalence of Kush use, associated risk factors, and attitudes toward mental health and community-based interventions. The qualitative component provided in-depth insights into the lived experiences of youth, healthcare providers, and community stakeholders regarding substance use and motivational strategies. The integration of both approaches ensures a comprehensive understanding of the phenomenon under investigation [7].

Study Area

This research was conducted in urban and peri-urban communities in Freetown, Kenema, and Makeni, which have been identified as hotspots for Kush use among Sierra Leonean youth [1]. These areas were purposively selected to reflect variations in socio-economic conditions, availability of health services, and community engagement structures.

Study Population

The target population includes:

Youth aged 15–35 years currently or formerly engaged in Kush use.

Community health workers (CHWs) and primary healthcare providers involved in community-based health services.

Community leaders, educators, and NGO representatives working on youth development, public health, and peacebuilding initiatives.

Sample Size and Sampling Technique

A total of 300 respondents will be surveyed using structured questionnaires (200 youth, 100 community health stakeholders). The sample size is determined using [8], for social science research, ensuring adequate representation. A multi-stage sampling technique will be used:

Purposive sampling to select communities with high prevalence of Kush use.

Snowball sampling to identify youth currently or formerly using Kush.

Stratified random sampling for healthcare providers and community leaders.

Data Collection Instruments

Questionnaire (Quantitative): Designed to assess demographic information, substance use patterns, perceptions of mental health services, and attitudes toward motivational strategies. Responses will be measured using 5-point Likert scales (Strongly Disagree – Strongly Agree).

Key Informant Interviews (Qualitative): Conducted with community health workers, leaders, and policymakers to explore perceptions of integration and strategies for sustainable interventions.

Focus Group Discussions (Qualitative): Conducted with youth to capture collective experiences, stigma-related issues, and motivational factors influencing behavioral change.

Data Collection Procedure

Data collection will be carried out in collaboration with trained research assistants and community health workers. The process will include:

Community entry meetings to gain trust and ensure cultural appropriateness.

Administering questionnaires to youth and stakeholders.

Conducting interviews and focus groups in safe, confidential environments.

Recording and transcribing discussions with participants' consent.

Data Analysis

Quantitative Data: Analyzed using SPSS (version 27). Descriptive statistics (frequencies, percentages, means) will be used to summarize data, while inferential statistics (Chi-square tests, regression analysis) will assess relationships between variables such as motivational strategies, community-based interventions, and substance use reduction.

Qualitative Data: Analyzed thematically using NVivo software. Transcripts will be coded to identify recurring themes related to mental health integration, motivational strategies, and community responses. Triangulation of findings will strengthen validity.

Ethical Considerations

The study adhered to the ethical guidelines of the Sierra Leone Ethics and Scientific Review Committee. Informed consent was obtained after participants were briefed on the purpose, procedures, and potential risks of the study. Participation was voluntary, and respondents could withdraw at any stage without consequence. All data were anonymized to ensure confidentiality, and no identifying information was disclosed. Special care was taken when engaging with youth affected by substance use to avoid stigmatization and harm.

3. Results

Demographic Characteristics of Respondents

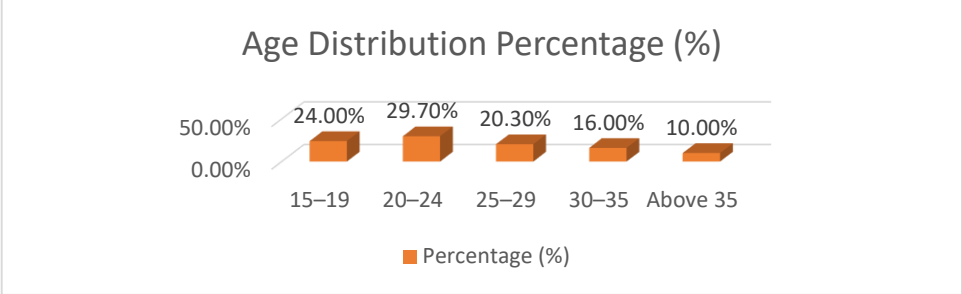
A total of 300 participants (200 youth and 100 community health stakeholders) took part in the study.

Table 1. Age Distribution of Respondents (N = 300)

Age Distribution	Frequency (n)	Percentage (%)
15–19	72	24.0%
20–24	89	29.7%
25–29	61	20.3%
30–35	48	16.0%

Above 35	30	10.0%
Total	300	100%

Figure 1:



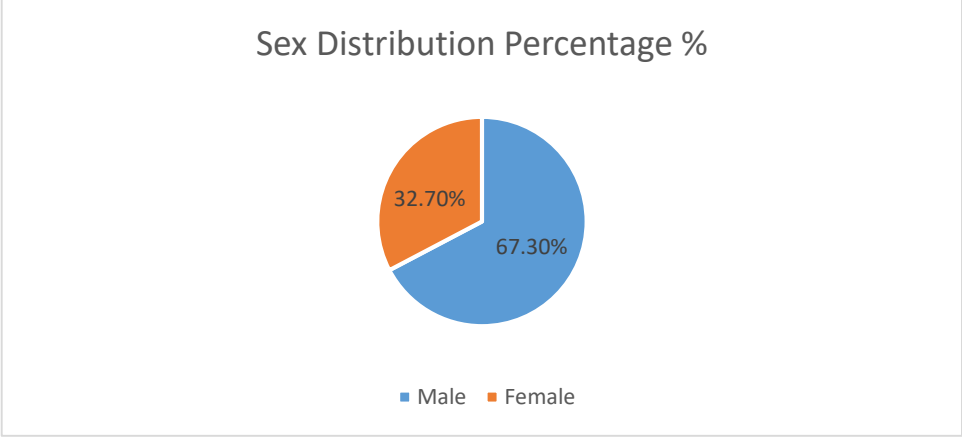
Interpretation:

Table 1, Figure 1: Showed the age distribution indicates that the majority of respondents were youth aged 15–24 years (53.7%), with the largest group being 20–24 years (29.7%). This concentration among adolescents and young adults reflects the age group most vulnerable to risky behaviors such as substance use, consistent with prior studies in Sierra Leone [1] and global evidence on youth susceptibility to addiction [9]. The lower representation of respondents above 30 years (26.0%) suggests that Kush use is primarily concentrated among younger cohorts, underscoring the need for targeted, age-specific interventions.

Table 2: Sex Distribution of Respondents (N = 300)

Sex Distribution	Frequency (n)	Percentage (%)
Male	202	67.3%
Female	98	32.7%
Total	300	100%

Figure 2:



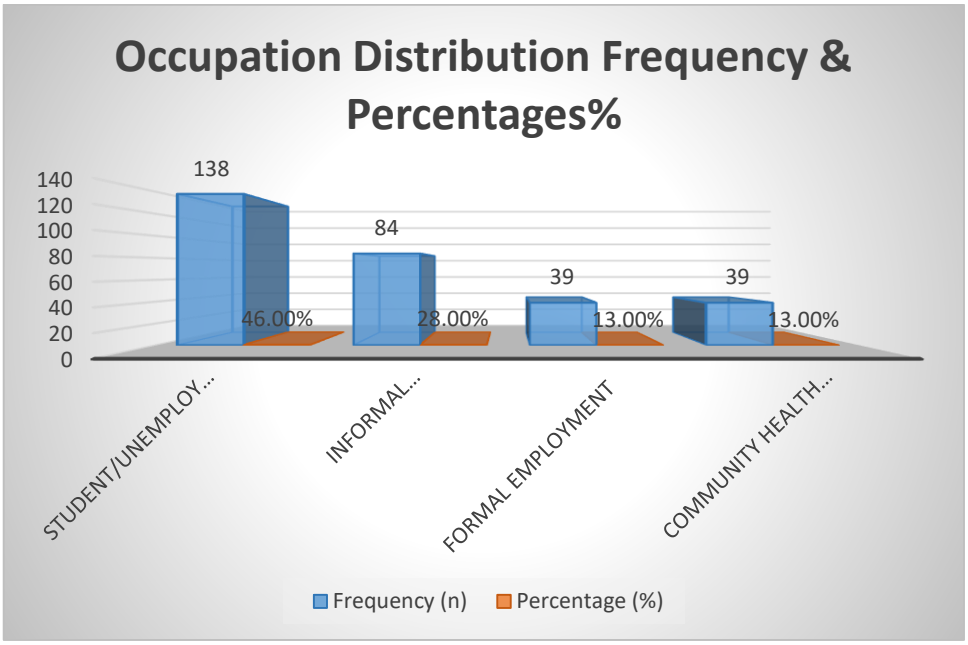
Interpretation:

Able 2, Figure 2: Showed sample comprised 300 respondents, of whom 202 (67.3%) were male and 98 (32.7%) were female. This indicates a clear gender imbalance, with males representing approximately two-thirds of the participants. Such disproportion may reflect broader demographic patterns within the study population or potential gender-related differences in accessibility, participation, or interest relevant to the study context.

Table 3: Occupation Distribution of Respondents (N = 300)

Occupation Distribution	Frequency (n)	Percentage (%)
Student/Unemployed	138	46.0%
Informal Employment	84	28.0%
Formal Employment	39	13.0%
Community Health Worker	39	13.0%
TOTAL	300	100%

Figure 3:



Interpretation:

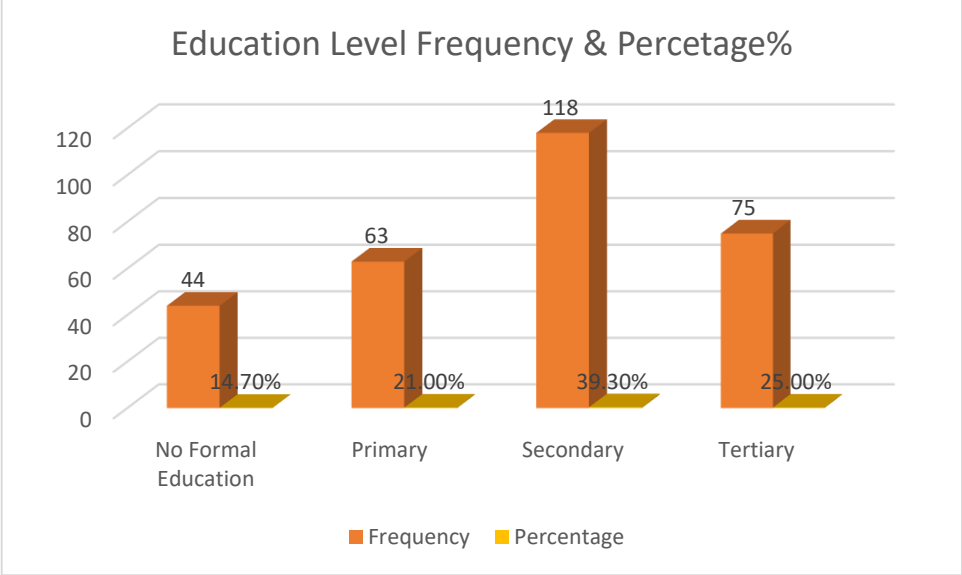
The occupational distribution of respondents (N = 300) indicates that 138 (46.0%) were students or unemployed, forming the largest group in the sample. This was followed by 84 (28.0%) participants engaged in informal employment. In contrast, smaller but equal proportions were observed among respondents in formal employment, 39 (13.0%), and community health workers, 39 (13.0%). Overall, the distribution suggests that nearly three-quarters of the respondents were either students/unemployed or

informally employed, with a comparatively lower representation from formal sector workers and community health professionals.

Table 4: Education Level Distribution of Respondents (N = 300)

Education Level Distribution	Frequency	Percentage
No Formal Education	44	14.7%
Primary	63	21.0%
Secondary	118	39.3%
Tertiary	75	25.0%
Total	300	100%

Figure 4:



Interpretation:

The educational distribution of respondents (N = 300) shows that 44 (14.7%) had no formal education, 63 (21.0%) had attained primary education, 118 (39.3%) had completed secondary education, and 75 (25.0%) had tertiary-level qualifications. This indicates that the majority of respondents had at least some formal education, with secondary education forming the largest group, followed by tertiary education. The relatively smaller proportion without formal education suggests that most participants possessed a foundational educational background, which may influence their capacity to engage with and interpret issues relevant to the study.

Prevalence and Perceptions of Kush Use

Among the 200 youth surveyed, 68% reported having used Kush at least once, while 42% were current users. Most respondents (71%) indicated that Kush was "easily accessible" in their communities. The most frequently cited reasons for use included peer influence (55%), unemployment and idleness (49%), and psychological distress (37%).

Community Perceptions of Mental Health Integration

Community stakeholders and youth generally expressed positive views about integrating mental health services into community health systems:

82% of community health workers and 74% of youth agreed that integration would improve access to treatment and reduce stigma.

77% of all respondents believed that motivational counseling and peer-support groups could effectively support recovery.

The major barriers identified were lack of funding (64%), shortage of trained personnel (59%), and community stigma (52%).

Thematic Findings from Qualitative Data

Analysis of interviews and focus group discussions revealed three core themes:

Stigma and Silence – Youth often avoided seeking help due to fears of being labeled "addicts" or "mad," underscoring the importance of stigma-reduction campaigns.

Motivation Through Peer Support – Former users who received peer mentorship reported enhanced self-efficacy, hope, and stronger recovery commitment.

Integration as Accessibility – Community leaders and health workers emphasized that embedding mental health services into primary healthcare structures would ensure greater cultural acceptance and accessibility.

Inferential Analysis

Chi-Square Analysis: Employment Status and Kush Use

A chi-square test was conducted to examine the relationship between employment status and Kush use among youth.

Table 5. Chi-Square Test Results

Employment Status	Current Users (n=84)	Non-Users (n=116)	χ^2 (df)	p-value
Unemployed/Student	61	77	12.48 (2)	0.001*
Informally Employed	17	22		
Formally Employed	6	17		

Interpretation:

The chi-square results demonstrate a statistically significant association between employment status and Kush use (χ^2 = 12.48, df = 2, p = 0.001). A higher proportion of unemployed or student participants reported current use compared to those in formal employment, suggesting that precarious or absent employment may heighten vulnerability to Kush consumption. This finding aligns with evidence that socioeconomic disadvantage and limited livelihood opportunities can drive substance use as a coping mechanism, highlighting employment as a critical social determinant in addressing drug use among youth.

Logistic Regression: Predictors of Kush Use

Table 6. Logistic Regression Results

Predictor	Odds Ratio (OR)	95% CI (Lower–Upper)	p-value
Age (per year)	0.92	0.85 – 0.98	0.012*
Male (vs. Female)	1.87	1.10 – 3.18	0.021*
Unemployed (vs. Employed)	2.65	1.48 – 4.73	0.001*
Low Education (≤Secondary)	1.52	0.89 – 2.60	0.121

Interpretation:

The logistic regression analysis identifies unemployment as the most robust predictor of Kush use, with unemployed youth over two and a half times more likely to engage in use compared to their employed counterparts (OR = 2.65, p = 0.001). Gender also emerged as a significant factor, with males nearly twice as likely as females to be users (OR = 1.87, p = 0.021). Age showed a protective effect (OR = 0.92, p = 0.012), indicating that the likelihood of use decreases slightly with each additional year, reflecting higher prevalence among younger participants, particularly those in the 20–24 age bracket. In contrast, education level did not significantly predict Kush use after adjusting for other variables, suggesting that structural factors such as employment and gender dynamics play a more critical role in shaping risk behaviors.

Conceptual Model of Mental Health Integration and Kush Reduction

Below is a visual representation of how integrating mental health into community-based health services, supported by motivational strategies contribution to reducing Kush use among Sierra Leonean youth.

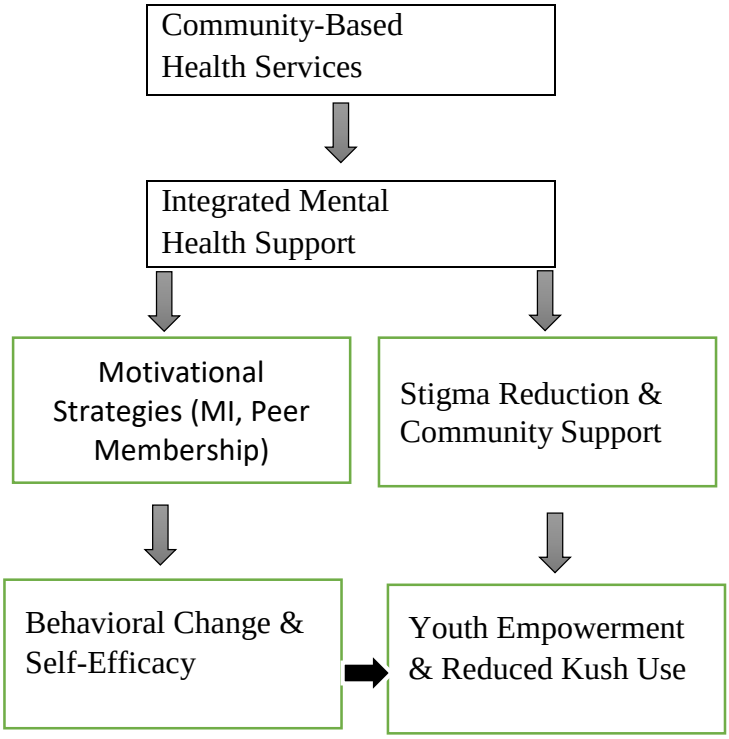


Diagram: Showing Conceptual Model of Mental Health Integration and Kush Reduction

4. Discussion

The findings of this study revealed that Kush use is highly prevalent among Sierra Leonean youth, with 68% reporting lifetime use and 42% identifying as current users. This prevalence aligns with emerging research that highlights the growing threat of synthetic drugs across Sub-Saharan Africa, particularly among marginalized youth populations [10]; [11]. The results suggest that Kush consumption is not only a public health concern but also a significant socio-economic challenge, undermining the productivity and well-being of young people.

A key finding was the strong association between unemployment and substance use. Youth without formal employment were more than twice as likely to use Kush compared to those with stable jobs. This reflects the broader literature, which demonstrates that socio-economic hardship, idleness, and limited livelihood opportunities are major risk factors for substance abuse [12]; World Health Organization [13]. Furthermore, unemployment fosters psychosocial distress, which in turn increases vulnerability to drug dependence [14]. Addressing substance use among youth therefore requires not only health interventions but also socio-economic empowerment initiatives, such as vocational training and employment schemes.

Gender differences were also evident, with male respondents nearly twice as likely as females to report current use. This is consistent with existing studies showing that males generally exhibit higher risk-taking behaviors, including illicit drug use, due to cultural norms and peer dynamics [15]; [16]. While females may experience lower prevalence, their barriers to seeking treatment may be heightened by stigma and

cultural expectations, underscoring the importance of gender-sensitive approaches to prevention and rehabilitation.

Importantly, the study revealed strong community support for integrating mental health services into existing primary healthcare systems. More than three-quarters of respondents believed that such integration could reduce stigma and improve accessibility. This finding is supported by global evidence demonstrating that embedding mental health within community health structures enhances service uptake, especially in resource-limited settings [17]; [18]. Stigma reduction strategies—such as peer mentorship, community education, and psychosocial counseling—were also highly endorsed by participants. Peer-led interventions, in particular, have proven effective in promoting recovery and fostering self-efficacy among youth struggling with substance dependence [19].

The results further underscore the multifaceted nature of Kush use, influenced by socio-economic, psychological, and cultural dynamics. Hence, interventions must adopt a holistic approach that combines **(a)** socio-economic empowerment, **(b)** integration of mental health into community-based health services, and **(c)** stigma-reduction strategies. Such a framework is in line with WHO's global strategy for addressing substance use disorders in low- and middle-income countries [20].

5. Limitations

This study was limited by its reliance on self-reported data, which may be affected by social desirability bias. Additionally, while the sample size was adequate, it was geographically restricted, limiting the generalizability of findings to all Sierra Leonean youth. Future research should consider longitudinal designs and larger, more diverse samples to provide deeper insights into the dynamics of synthetic drug use in the country.

6. Conclusion

This study demonstrated that Kush use is a growing concern among youth in Sierra Leone, strongly linked to unemployment, socio-economic hardship, and peer influence. While substance use threatens health, productivity, and social stability, the findings also reveal significant community support for integrated, stigma-free interventions within primary healthcare systems. Addressing this crisis requires a holistic approach that combines mental health integration, socio-economic empowerment, and community-based stigma reduction. Such strategies are essential not only for mitigating drug abuse but also for promoting peace, national cohesion, and sustainable development.

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