

Exploring the Relationship Between Perceived Risk, Social Norms, and Harm Reduction Practices Among University Students Who Use Recreational Drugs

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Abstract

This study examined the relationship between perceived risks, social norms, and harm reduction practices among university students who use recreational drugs in selected universities in Lagos State, Nigeria. Specifically, it assessed students' perceived risks, examined prevailing social norms, determined the level of harm reduction practices, and investigated the relationships among the study variables. The study was guided by five research questions and three null hypotheses. A descriptive cross-sectional survey design was adopted. The target population comprised 95,494 undergraduate students at the University of Lagos and Lagos State University. Using purposive sampling, 240 students who self-reported recreational drug use were selected, while 168 valid questionnaires were retrieved and analysed. Data was collected using a researcher-designed 26-item structured questionnaire validated by three experts. A pilot study involving 30 respondents produced a Cronbach's Alpha coefficient of 0.86, confirming satisfactory reliability. Descriptive statistics (frequency, percentage, mean, and standard deviation) answered the research questions, while Pearson Product-Moment Correlation and Multiple Regression Analysis tested the hypotheses at the 0.05 level of significance. The findings showed that respondents generally had high perceptions of the risks associated with recreational drug use, while social norms moderately influenced drug-related behaviours. Harm reduction practices were moderately adopted. Perceived risks and social norms each had significant positive relationships with harm reduction practices and jointly predicted harm reduction behaviour, with perceived risk emerging as the stronger predictor. The study concluded that individual risk perception and the social environment jointly shape harm reduction practices. It recommended strengthening evidence-based drug education, expanding confidential counselling and harm reduction services, and promoting peer-led health education programmes.

Keywords: Harm Reduction Practices, Perceived Risks, Recreational Drug Use, Social Norms, University Students

I. Introduction

A. Background of the Study

The use of recreational drugs among young adults has become an important public health concern across many countries because of its implications for physical health, mental well-being, academic achievement, and social adjustment. Recreational drugs are psychoactive substances consumed primarily for pleasure, relaxation, or social experiences rather than for medical treatment. These substances include cannabis, cocaine, ecstasy, methamphetamine, ketamine, hallucinogens, inhalants, and the non-medical use of prescription medicines. University students are considered particularly vulnerable to experimenting with these substances because the transition to higher education is often accompanied by increased independence, reduced parental supervision, academic demands, emotional stress, and greater exposure to diverse peer groups. While some students experiment out of curiosity or for social acceptance, others use recreational drugs as a coping mechanism for stress, anxiety, or emotional difficulties. Recent reviews indicate that recreational drug use among emerging adults is increasingly occurring within social settings such as parties, music festivals, and university gatherings, where peer interactions strongly influence drug-related decisions. These changing patterns have intensified concerns among educators, healthcare professionals, and

policymakers regarding the health and safety of university students and the need for effective prevention and harm reduction strategies (Lojszczyk et al., 2023; Boden & Day, 2023).

Although considerable attention has been devoted to understanding why university students engage in recreational drug use, increasing evidence suggests that individual perceptions of risk remain one of the strongest determinants of drug-related behaviour. Perceived risk refers to an individual's judgment regarding the likelihood and severity of the negative consequences associated with engaging in a particular behaviour. Students who perceive recreational drug use as relatively harmless are generally more willing to experiment with psychoactive substances than those who believe such behaviours pose serious health, academic, legal, or social consequences. However, risk perception is not static; rather, it develops through personal experiences, observations of others, exposure to health information, media influence, and interactions within social networks. Recent studies have shown that many young adults possess only partial knowledge of the risks associated with recreational drug use, leading to an underestimation of potential harms and greater willingness to engage in risky behaviours. Researchers have therefore argued that improving students' understanding of both immediate and long-term consequences of drug use remains an essential component of effective health promotion and preventive interventions (McMahon et al., 2023; González-Ponce et al., 2022).

Beyond individual perceptions, social norms constitute another important factor influencing recreational drug use among university students. Social norms describe the beliefs, expectations, and perceived behaviours that individuals consider typical or acceptable within their social environment. University campuses provide opportunities for students to interact with diverse peer groups, many of whom exert considerable influence on lifestyle choices and health behaviours. Where students perceive that friends or classmates commonly use recreational drugs or regard such behaviour as socially acceptable, they may feel direct or indirect pressure to conform regardless of their personal beliefs about the risks involved. Conversely, supportive peer environments that discourage substance use and promote healthy lifestyles can strengthen protective behaviours and reduce engagement in risky activities. Contemporary research consistently identifies peer influence and perceived social acceptance as major contributors to recreational drug use among emerging adults, emphasizing that interventions focusing solely on individual knowledge without addressing the surrounding social environment may produce only limited success. Understanding prevailing social norms within university communities is therefore essential for developing comprehensive substance use prevention programmes that effectively address both personal and environmental influences on behaviour (Lojszczyk et al., 2023; González-Ponce et al., 2022).

The use of recreational drugs among university students has continued to attract global attention because of its implications for health, academic achievement, and psychosocial development. Recreational drugs are psychoactive substances consumed primarily for pleasure or social experiences rather than for medical purposes. According to Lojszczyk et al. (2023), recreational drug use has become increasingly normalized among emerging adults, particularly within social settings such as music festivals, parties, and university environments, where peer interaction often shapes behavioural choices. Similarly, Boden and Day (2023) observed that young adults frequently experiment with psychoactive substances in response to curiosity, sensation-seeking tendencies, and the desire to enhance social experiences. These patterns have heightened concerns among public health professionals because recreational drug use exposes students to numerous health, psychological, and academic risks while also increasing the likelihood of engaging in other risky behaviours. Consequently, universities across different countries have strengthened health promotion initiatives aimed at discouraging substance misuse while promoting healthier lifestyles among students (Lojszczyk et al., 2023).

Although many university students are aware that recreational drug use may be harmful, their decisions are often influenced by how they perceive the associated risks. Perceived risk refers to an individual's assessment of the likelihood and seriousness of the negative consequences that may result from engaging in a particular behaviour. McMahon et al. (2023) reported that students with higher perceptions of the health and social risks associated with cannabis consumption were more likely to

support safer consumption practices and avoid behaviours associated with increased harm. Likewise, Katz et al. (2023) found that exposure to evidence-based harm reduction messages positively influenced health risk attitudes and encouraged safer behavioural intentions among young adults. However, perceptions of risk are not developed in isolation. They are shaped by previous experiences, exposure to health information, family values, and interactions with peers. As a result, students who underestimate the dangers of recreational drug use may be more willing to experiment with psychoactive substances despite being aware of their potential adverse consequences.

B. Statement of the Problem

The use of recreational drugs among university students has become a significant public health and educational concern due to its adverse effects on students' health, academic performance, and overall well-being. Despite increasing awareness campaigns and preventive programmes within universities, many students continue to engage in recreational drug use, exposing themselves to various health and social risks. Consequently, harm reduction practices have gained attention as a practical approach to minimizing the negative consequences associated with drug use. However, the extent to which students adopt such practices and the factors that influence their adoption remain inadequately understood.

While previous studies have focused largely on the prevalence and consequences of recreational drug use, limited attention has been given to how perceived risk and social norms influence harm reduction practices among university students. Students who perceive greater risks may be more likely to adopt safer behaviours, whereas prevailing social norms may either encourage or discourage such practices. The scarcity of empirical evidence on these relationships within the Nigerian university setting creates a knowledge gap that may hinder the development of effective intervention strategies. Therefore, this study seeks to examine the relationship between perceived risk, social norms, and harm reduction practices among university students who use recreational drugs.

C. Purpose and Objectives of the Study

The purpose of this study is to examine the relationship between perceived risk, social norms, and harm reduction practices among university students who use recreational drugs. Specifically, the study seeks:

1. To determine the perceived risks associated with recreational drug use among university students.
2. To examine the social norms related to recreational drug use among university students.
3. To determine the level of harm reduction practices adopted by university students who use recreational drugs.
4. To examine the relationship between perceived risks associated with recreational drug use and the adoption of harm reduction practices among university students.
5. To examine the relationship between social norms surrounding recreational drug use and the adoption of harm reduction practices among university students.

D. Research Questions

1. What are the perceived risks associated with recreational drug use among university students?
2. What are the social norms related to recreational drug use among university students?
3. What is the level of harm reduction practices adopted by university students who use recreational drugs?
4. What relationship exists between perceived risks associated with recreational drug use and the adoption of harm reduction practices among university students?
5. What relationship exists between social norms surrounding recreational drug use and the adoption of harm reduction practices among university students?

E. Research Hypotheses

H₀₁: There is no significant relationship between perceived risks associated with recreational drug use and the adoption of harm reduction practices among university students.

H₀₂: There is no significant relationship between social norms surrounding recreational drug use and the adoption of harm reduction practices among university students.

H₀₃: Perceived risks and social norms do not jointly have a significant relationship with the adoption of harm reduction practices among university students.

II. Methodology

A. Research Design

This study adopted a cross-sectional survey research design. The design was considered appropriate because it enabled the researchers to collect data on perceived risk, social norms, and harm reduction practices among university students who use recreational drugs at a single point in time without manipulating any of the study variables. The design also facilitated the collection of self-reported data from respondents across the selected universities, thereby providing empirical evidence for examining the relationships among the variables under investigation. Furthermore, the cross-sectional survey design is suitable for studies that seek to describe existing conditions and examine relationships among variables within a defined population.

B. Population, Sample, And Sampling Technique

The target population comprised university students who use recreational drugs in two public universities in Lagos State, Nigeria, namely the University of Lagos, Akoka, and Lagos State University, Ojo. According to the official student enrolment records for the 2021/2022 academic session, the University of Lagos had a student population of 57,642, while Lagos State University had an enrolment of 37,852 students.

A sample size of 240 respondents was selected for the study, comprising 120 students from each university. Since the study specifically focused on students who use recreational drugs, a purposive sampling technique was employed to identify respondents who met the inclusion criteria. This sampling technique was considered appropriate because it enabled the researchers to deliberately select participants with the required characteristics relevant to the objectives of the study.

C. Instrument For Data Collection

Data for the study were collected using a structured questionnaire developed by the researchers after an extensive review of relevant literature. The questionnaire comprised 26 items divided into four sections. Section A elicited respondents' demographic information, including age, gender, level of study, faculty, place of residence, and history of recreational drug use. Section B consisted of five items that measured respondents' perceived risk associated with recreational drug use. Section C contained five items designed to assess social norms relating to recreational drug use among university students. Section D comprised five items that measured respondents' harm reduction practices. The questionnaire adopted a four-point Likert response format of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1).

D. Validity And Reliability of the Instrument

To ensure the validity of the instrument, the initial draft of the questionnaire was subjected to face and content validation by three experts in Health Education and Measurement and Evaluation. Their observations and recommendations regarding the clarity, relevance, appropriateness, and adequacy of the items were incorporated into the final version of the instrument.

The reliability of the questionnaire was established through a pilot study involving 30 university students who possessed characteristics similar to those of the study participants but were excluded from the main study. Data obtained from the pilot study were analysed using Cronbach's

Alpha to determine the internal consistency of the instrument. The reliability coefficient obtained was 0.80, indicating that the instrument possessed satisfactory reliability for data collection.

E. Method of Data Collection

The researchers personally administered copies of the questionnaire to the respondents with the assistance of trained research assistants. The purpose of the study was clearly explained to the participants, and informed consent was obtained before administering the instrument. Respondents were assured of confidentiality and anonymity, while participation was entirely voluntary. Out of the 240 copies of the questionnaire distributed, 168 copies were properly completed and returned, representing a 70.0% response rate, and these were used for the analysis.

F. Method of Data Analysis

Data collected from the completed questionnaires was coded, entered, cleaned, and analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics comprising frequency counts, percentages, mean scores, and standard deviations were used to answer the research questions. The formulated hypotheses were tested using the Pearson Product-Moment Correlation at the 0.05 level of significance to determine the relationships between perceived risk, social norms, and harm reduction practices among university students who use recreational drugs.

III. Results Presentation

Research Question 1

What are the perceived risks associated with recreational drug use among university students?

Table 1: Perceived Risks Associated with Recreational Drug Use among University Students (N = 168)

S/N	Questionnaire Items	N	f	%	$\bar{X}$	SD
1	I believe that recreational drug use can lead to serious physical health problems.	168	129	76.8	3.32	0.73
2	I believe that recreational drug use can negatively affect students' academic performance.	168	121	72.0	3.19	0.81
3	I believe that continuous recreational drug use can result in addiction and dependency.	168	138	82.1	3.41	0.68
4	I believe that recreational drug use increases the likelihood of engaging in unsafe or risky behaviours.	168	117	69.6	3.11	0.86
5	I believe that recreational drug use can expose students to disciplinary or legal consequences.	168	114	67.9	3.08	0.89
Grand Mean / Total		168	124	73.8	3.22	0.79

Table 1 presents the perceived risks associated with recreational drug use among university students. The findings indicate that respondents generally demonstrated a high perception of the risks associated with recreational drug use, as reflected by the grand mean of 3.22 (SD = 0.79), which is above the criterion mean of 2.50. The highest-rated item was "*I believe that continuous recreational drug use can result in addiction and dependency*" ($\bar{X}$ = 3.41, SD = 0.68), with 138 respondents (82.1%) expressing agreement. This was followed by the belief that recreational drug use can lead to serious physical health problems ($\bar{X}$ = 3.32, SD = 0.73). Respondents also acknowledged the adverse effects of recreational drug use on academic performance, involvement in risky behaviours, and possible disciplinary or legal consequences. Overall, the results suggest that although respondents recognized the considerable health, academic, and social risks associated with recreational drug use, this awareness does not necessarily preclude the need for effective harm reduction and behavioural intervention programmes within university communities.

Research Question 2

What are the social norms related to the use of recreational drugs among university students?

Table 2: Perceived Social Norms Related to Recreational Drug Use among University Students (N = 168)

S/N	Questionnaire Items	N	f	%	$\bar{X}$	SD
1	Some of my friends consider the use of recreational drugs to be a normal part of university life.	168	88	52.4	2.86	0.96
2	Students who use recreational drugs are generally accepted by their peers.	168	79	47.0	2.71	1.01
3	Peer influence contributes to the use of recreational drugs among university students.	168	126	75.0	3.27	0.74
4	Students are more likely to use recreational drugs when their close friends also use them.	168	118	70.2	3.15	0.82
5	Social gatherings and campus events encourage the use of recreational drugs among some students.	168	94	56.0	2.93	0.91
Grand Mean / Total		168	101	60.1	2.98	0.89

Table 2 presents respondents' perceptions of the social norms related to recreational drug use among university students. The findings reveal a moderately high influence of social norms on recreational drug use, as indicated by the grand mean of 2.98 (SD = 0.89), which is above the criterion mean of 2.50. The highest-rated item was "*Peer influence contributes to the use of recreational drugs among university students*" ($\bar{X} = 3.27$, SD = 0.74), with 126 respondents (75.0%) agreeing with the statement. Similarly, 118 respondents (70.2%) agreed that students are more likely to use recreational drugs when their close friends also engage in the behaviour ($\bar{X} = 3.15$, SD = 0.82). More than half of the respondents also believed that social gatherings and campus events could encourage recreational drug use. However, fewer respondents agreed that students who use recreational drugs are generally accepted by their peers, as reflected in the relatively lower mean score of 2.71. Overall, the findings suggest that peer influence and prevailing social environments play a significant role in shaping students' attitudes and behaviours toward recreational drug use, highlighting the importance of peer-focused interventions and positive social norm campaigns within university communities.

Research Question 3

What is the level of harm reduction practices adopted by university students who use recreational drugs?

Table 3: Level of Harm Reduction Practices Adopted by University Students Who Use Recreational Drugs (N = 168)

S/N	Questionnaire Items	N	f	%	$\bar{X}$	SD
1	I seek reliable information about the effects and risks of recreational drugs before using them.	168	97	57.7	2.96	0.88
2	I avoid mixing different recreational drugs or combining them with alcohol.	168	108	64.3	3.12	0.81
3	I ensure that I am in a safe environment whenever I use recreational drugs.	168	102	60.7	3.04	0.86
4	I seek medical attention or professional help whenever I experience adverse effects from recreational drug use.	168	84	50.0	2.79	0.95
5	I discourage friends from engaging in unsafe recreational drug use practices.	168	90	53.6	2.88	0.91
Grand Mean / Total		168	96	57.3	2.96	0.88

Table 3 presents the level of harm reduction practices adopted by university students who use recreational drugs. The findings indicate a moderately high level of harm reduction practices, as reflected by the grand mean of 2.96 (SD = 0.88), which exceeds the criterion mean of 2.50. The highest-

rated practice was avoiding the mixing of different recreational drugs or combining them with alcohol ($\bar{X} = 3.12$, $SD = 0.81$), with 108 respondents (64.3%) indicating agreement. This was followed by ensuring the use of recreational drugs in relatively safe environments ($\bar{X} = 3.04$, $SD = 0.86$) and seeking reliable information about the associated risks before use ($\bar{X} = 2.96$, $SD = 0.88$). However, only half of the respondents reported seeking medical attention or professional assistance after experiencing adverse drug effects, making it the least adopted harm reduction practice ($\bar{X} = 2.79$, $SD = 0.95$). Overall, the results suggest that although many respondents demonstrate some awareness and adoption of harm reduction behaviours, there remains considerable room for improvement, particularly in encouraging timely help-seeking behaviour and strengthening access to evidence-based harm reduction education and support services within university campuses.

Research Question 4

What relationship exists between perceived risks associated with recreational drug use and the adoption of harm reduction practices among university students?

Table 4: Pearson Product-Moment Correlation Showing the Relationship Between Perceived Risks Associated with Recreational Drug Use and the Adoption of Harm Reduction Practices Among University Students (N = 168)

Variables	N	Mean	SD	r	Sig. (2-tailed)	Remark
Perceived Risk	168	3.22	0.79			
Harm Reduction Practices	168	2.96	0.88	0.618	0.000	Significant Relationship

Table 4 presents the Pearson Product-Moment Correlation analysis of the relationship between perceived risks associated with recreational drug use and the adoption of harm reduction practices among university students. The analysis revealed a moderate positive relationship between the two variables ($r = 0.618$). The probability value of 0.000 is less than the 0.05 level of significance, indicating that the observed relationship is statistically significant. This finding suggests that students with higher perceptions of the risks associated with recreational drug use are more likely to engage in harm reduction practices. Therefore, perceived risk appears to be an important determinant of safer behavioural practices among university students who use recreational drugs.

Research Question 5

What relationship exists between social norms surrounding recreational drug use and the adoption of harm reduction practices among university students?

Table 5: Pearson Product-Moment Correlation Showing the Relationship Between Social Norms Surrounding Recreational Drug Use and the Adoption of Harm Reduction Practices Among University Students (N = 168)

Variables	N	Mean	SD	r	Sig. (2-tailed)	Remark
Social Norms	168	2.98	0.89			
Harm Reduction Practices	168	2.96	0.88	0.472	0.000	Significant Relationship

Table 5 shows the Pearson Product-Moment Correlation analysis of the relationship between social norms surrounding recreational drug use and the adoption of harm reduction practices among university students. The result indicates a moderate positive relationship between social norms and harm reduction practices ($r = 0.472$). The significance value of 0.000 is less than the 0.05 level of significance, showing that the relationship is statistically significant. This implies that the social environment, particularly peer influence and prevailing norms regarding recreational drug use, is significantly associated with students' adoption of harm reduction practices. The finding underscores

the importance of positive peer influence and supportive campus environments in promoting safer health behaviours among university students.

A. Hypotheses Testing

Hypothesis One

H₀₁: There is no significant relationship between perceived risks associated with recreational drug use and the adoption of harm reduction practices among university students.

Table 6: Pearson Product-Moment Correlation Analysis of the Relationship Between Perceived Risks Associated with Recreational Drug Use and the Adoption of Harm Reduction Practices Among University Students (N = 168)

Variables	N	Mean Score	SD	α -Level	Df	r-cal.	r-crit.	Remark/Decision
Perceived Risk	168	3.22	0.79					
Harm Reduction Practices	168	2.96	0.88	0.05	166	0.618	0.151	Reject H ₀₁
Overall	168	3.09	0.84					Significant Relationship

Table 6 presents the Pearson Product-Moment Correlation analysis of the relationship between perceived risks associated with recreational drug use and the adoption of harm reduction practices among university students. The analysis produced a calculated correlation coefficient ($r = 0.618$), which is greater than the critical value ($r = 0.151$) at 166 degrees of freedom and the 0.05 level of significance. This indicates a statistically significant positive relationship between the two variables. Consequently, the null hypothesis is rejected. The finding suggests that students who have a higher perception of the risks associated with recreational drug use are more likely to adopt behaviours that minimize drug-related harm.

Hypothesis Two

H₀₂: There is no significant relationship between social norms surrounding recreational drug use and the adoption of harm reduction practices among university students.

Table 7: Pearson Product-Moment Correlation Analysis of the Relationship Between Social Norms Surrounding Recreational Drug Use and the Adoption of Harm Reduction Practices Among University Students (N = 168)

Variables	N	Mean Score	SD	α -Level	Df	r-cal.	r-crit.	Remark/Decision
Social Norms	168	2.98	0.89					
Harm Reduction Practices	168	2.96	0.88	0.05	166	0.472	0.151	Reject H ₀₂
Overall	168	2.97	0.89					Significant Relationship

Table 7 presents the Pearson Product-Moment Correlation analysis of the relationship between social norms surrounding recreational drug use and harm reduction practices among university students. The analysis revealed a calculated correlation coefficient of 0.472, which exceeds the critical value of 0.151 at 166 degrees of freedom and the 0.05 level of significance. This indicates a statistically significant positive relationship between social norms and harm reduction practices. Therefore, the null hypothesis is rejected. The result implies that students' perceptions of prevailing social norms regarding recreational drug use significantly influence the extent to which they adopt harm reduction practices.

Hypothesis Three

H₀₃: Perceived risks and social norms do not jointly have a significant relationship with the adoption of harm reduction practices among university students.

Table 8: Multiple Regression Analysis of the Joint Relationship of Perceived Risks and Social Norms with the Adoption of Harm Reduction Practices Among University Students (N = 168)

Model Summary

R	R ²	Adjusted R ²	Std. Error of Estimate
0.689	0.475	0.468	0.576

Source of Variation	Sum of Squares	Df	Mean Square	F-cal.	Sig.
Regression	48.361	2	24.181	74.562	0.000
Residual	53.519	165	0.324		
Total	101.880	167			

Regression Coefficients

Predictor Variable	B	Std. Error	Beta (β)	t	Sig.	Decision
Constant	0.841	0.268	—	3.138	0.002	
Perceived Risk	0.463	0.062	0.521	7.468	0.000	Significant
Social Norms	0.284	0.057	0.347	4.982	0.000	Significant

Decision: Reject H_{03} .

Table 8 presents the multiple regression analysis examining the joint relationship of perceived risks and social norms with the adoption of harm reduction practices among university students. The model produced a multiple correlation coefficient ($R = 0.689$), indicating a moderately strong positive relationship between the combined independent variables and harm reduction practices. The coefficient of determination ($R^2 = 0.475$) shows that perceived risks and social norms jointly account for 47.5% of the variation in harm reduction practices among the respondents, while the remaining 52.5% may be attributed to other factors not examined in this study. The ANOVA result revealed a calculated F-value of 74.562, which was statistically significant ($p < 0.05$), indicating that the regression model adequately explains the relationship between the variables. Furthermore, both perceived risks ($\beta = 0.521$, $p < 0.05$) and social norms ($\beta = 0.347$, $p < 0.05$) made significant independent contributions to predicting harm reduction practices, with perceived risk emerging as the stronger predictor. Consequently, the null hypothesis was rejected, indicating that perceived risks and social norms jointly have a significant relationship with the adoption of harm reduction practices among university students.

B. Summary of the Findings

The major findings of the study are summarized as follows:

- 1. Perceived Risks Associated with Recreational Drug Use:** The study found that university students generally demonstrated a high level of awareness of the risks associated with recreational drug use. The respondents acknowledged that recreational drug use could lead to adverse health outcomes, poor academic performance, addiction, engagement in risky behaviours, and possible disciplinary or legal consequences. The overall mean score indicated that the respondents possessed a relatively high perception of the risks associated with recreational drug use.
- 2. Social Norms Related to Recreational Drug Use:** The findings revealed that social norms moderately influenced recreational drug use among university students. Peer influence, friendship networks, and social activities within the university environment were identified as important factors that shaped students' attitudes towards recreational drug use. The respondents generally agreed that the behaviours and expectations of peers could influence decisions regarding the use of recreational drugs.
- 3. Level of Harm Reduction Practices:** The study established that university students who use recreational drugs demonstrated a moderately high level of harm reduction practices. Many

respondents reported engaging in behaviours such as avoiding the simultaneous use of multiple substances, seeking information about drug-related risks, and taking precautionary measures to minimize potential harm. Nevertheless, some important harm reduction behaviours, particularly seeking professional medical assistance following adverse drug-related experiences, were less frequently adopted.

4. **Relationship Between Perceived Risks and Harm Reduction Practices:** The findings showed a statistically significant positive relationship between perceived risks associated with recreational drug use and the adoption of harm reduction practices among university students. Students with higher perceptions of the potential risks were more likely to adopt behaviours aimed at reducing the harmful consequences of recreational drug use.
5. **Relationship Between Social Norms and Harm Reduction Practices:** The study further found a statistically significant positive relationship between social norms and harm reduction practices. The prevailing social environment, particularly peer attitudes and behaviours, significantly influenced respondents' willingness to engage in safer drug-use practices.
6. **Joint Relationship of Perceived Risks and Social Norms with Harm Reduction Practices:** The findings of the multiple regression analysis revealed that perceived risks and social norms jointly had a significant relationship with the adoption of harm reduction practices among university students. The two variables together accounted for a substantial proportion of the variation in harm reduction practices, with perceived risk emerging as the stronger predictor.

C. Discussion of the Findings

The findings of this study revealed that university students generally possessed a high perception of the risks associated with recreational drug use. Respondents acknowledged that recreational drug use could result in adverse physical and mental health outcomes, poor academic performance, addiction, disciplinary sanctions, and legal consequences. The significant relationship established between perceived risk and harm reduction practices further demonstrates that students who recognize the dangers associated with recreational drug use are more inclined to adopt behaviours that minimize drug-related harm. This finding supports the assumptions of the Health Belief Model, which proposes that individuals are more likely to engage in preventive health behaviours when they perceive themselves to be vulnerable to serious health consequences. The present finding agrees with McMahon et al. (2023), who found that emerging adults with higher perceptions of cannabis-related risks were more willing to support and adopt lower-risk consumption behaviours. Similarly, Imbur et al. (2023) reported that perceived risk significantly influenced substance use decisions among students, with higher levels of risk awareness reducing the likelihood of engaging in unsafe drug-related behaviours. However, the finding also suggests that knowledge alone may not be sufficient to discourage recreational drug use because behavioural decisions are often influenced by emotional, psychological, and environmental factors beyond awareness. The implication is that university health education programmes should move beyond awareness campaigns to include behavioural change in communication, life-skills education, and counselling interventions capable of helping students translate knowledge into healthier behavioural choices.

The study further established that social norms moderately influenced recreational drug use among university students. The respondents generally agreed that peer relationships, friendship networks, and prevailing campus social environments shaped students' attitudes and behaviours towards recreational drug use. The significant relationship observed between social norms and harm reduction practices equally demonstrates that students' behavioural choices are influenced not only by their personal beliefs but also by the expectations and behaviours of people around them. This finding corroborates the Social Learning Theory, which emphasizes that behaviour is acquired and sustained through observation, interaction, and reinforcement within social environments. The finding is consistent with Lojczyk et al. (2023), whose integrative review concluded that peer influence, social acceptance, curiosity, and recreational settings remain important motivations for drug use among emerging adults. Likewise, Boden and Day (2023) observed that recreational drug use has become

increasingly normalized within some university communities, where peer approval and social interaction often encourage experimentation and continued substance use. These findings suggest that university students rarely make decisions about recreational drug use in isolation, as peer expectations and campus culture significantly shape their behavioural choices. The implication is that university administrators should strengthen peer-led health promotion initiatives, student mentorship programmes, and positive campus engagement activities capable of reshaping social norms and reducing the social acceptability of recreational drug use.

The findings showed that university students who use recreational drugs demonstrated a moderately high level of harm reduction practices. Many respondents indicated that they adopted behaviours such as avoiding the simultaneous use of multiple substances, seeking information on drug-related risks, and taking precautionary measures to reduce potential harm. Nevertheless, fewer respondents reported seeking professional healthcare services following adverse drug-related experiences, suggesting that formal harm reduction services remain underutilized. This finding indicates that although many students consciously attempt to reduce the risks associated with recreational drug use, their reliance on informal protective measures may limit the effectiveness of those efforts. The result supports the findings of Lojszczyk et al. (2023), who reported that many emerging adults possess basic knowledge of recreational drugs and often develop self-protective strategies; however, they frequently lack access to evidence-based harm reduction education and formal support services. Similarly, Boden and Day (2023) noted that university students often depend on peers rather than healthcare professionals for information about recreational drug use, thereby increasing the possibility of misinformation and unsafe practices. The implication of this finding is that universities should establish confidential, student-friendly health education and counselling services that provide accurate drug information, early intervention, and evidence-based harm reduction support without fear of stigmatization or disciplinary repercussions.

The study found a statistically significant positive relationship between perceived risks associated with recreational drug use and the adoption of harm reduction practices among university students. This suggests that students who possessed stronger perceptions of the health, academic, legal, and social consequences of recreational drug use were more likely to engage in behaviours intended to reduce drug-related harm. The finding indicates that risk perception serves as an important motivational factor influencing safer behavioural decisions. Students who clearly appreciate the dangers associated with recreational drug use are more likely to seek reliable information, avoid unsafe patterns of substance use, and adopt protective behaviours. This finding agrees with McMahon et al. (2023), who found that higher perceptions of cannabis-related risks significantly promoted lower-risk consumption practices among emerging adults. It also aligns with Giulini et al. (2023), whose review emphasized that effective harm reduction strategies are more readily adopted when individuals understand the risks associated with psychoactive substances and have access to credible health information. The implication is that universities should strengthen evidence-based drug education programmes that improve students' understanding of both immediate and long-term consequences of recreational drug use while promoting informed decision-making and safer health behaviours.

The findings further revealed that social norms had a statistically significant positive relationship with the adoption of harm reduction practices among university students. This indicates that students' willingness to engage in safer drug-related behaviours is shaped not only by their personal perceptions but also by the attitudes and behaviours of their peers and social networks. Where friendship groups encourage responsible behaviour and discourage unsafe drug use, students appear more willing to adopt protective practices. Conversely, environments where recreational drug use is perceived as socially acceptable may weaken students' motivation to practise harm reduction. This finding is consistent with Lojszczyk et al. (2023), who identified peer influence and recreational social settings as important determinants of both drug use and harm reduction decisions among emerging adults. Similarly, Boden and Day (2023) observed that the increasing normalization of recreational drug use within university communities highlights the need for interventions that address both individual behaviour and the broader social environment. The implication is that effective university-

based interventions should integrate peer education, student-led advocacy, and positive social norm campaigns capable of creating supportive campus environments where healthy behaviours are encouraged and sustained.

IV. Conclusion

This study investigated the relationship between perceived risks, social norms, and harm reduction practices among university students who use recreational drugs. The findings demonstrated that although many university students possess a relatively high awareness of the risks associated with recreational drug use, awareness alone does not completely prevent engagement in such behaviours. The study further established that social norms within the university environment significantly influence students' attitudes and behavioural decisions regarding recreational drug use. Peer relationships, friendship networks, and prevailing campus culture were found to shape students' willingness to either engage in or avoid risky behaviours.

The study also revealed that university students who use recreational drugs demonstrated a moderately high level of harm reduction practices. While many respondents reported adopting certain protective behaviours to minimize the adverse effects of recreational drug use, important evidence-based harm reduction practices, particularly seeking professional health services, when necessary, were less commonly utilized. This finding suggests that existing harm reduction behaviours remain inadequate to fully address the potential health risks associated with recreational drug use.

Furthermore, the study established that perceived risks and social norms each had a statistically significant positive relationship with the adoption of harm reduction practices. More importantly, both variables jointly made a significant contribution to predicting harm reduction practices among university students, with perceived risk emerging as the stronger predictor. These findings indicate that students' behavioural responses are influenced by both their personal understanding of drug-related risks and the social environments in which they interact.

Overall, the study concludes that promoting safer behaviours among university students requires more than increasing awareness of the dangers of recreational drug use. Effective interventions should integrate evidence-based health education, positive peer influence, supportive university policies, confidential counselling services, and accessible harm reduction programmes. Addressing both individual perceptions and social environmental factors simultaneously will provide a more sustainable approach to reducing drug-related harm and improving students' health, safety, and academic well-being.

V. Recommendations

Based on the findings of this study, the following recommendations are made:

1. **University management** should develop and sustain comprehensive drug education programmes that provide students with accurate, evidence-based information on the short-term and long-term health, psychological, academic, and legal consequences of recreational drug use.
2. **University counselling centres and health services** should strengthen confidential counselling, behavioural support, and early intervention programmes to assist students who engage in recreational drug use without exposing them to unnecessary stigma or discrimination.
3. **Peer education and mentorship programmes** should be established and strengthened to encourage positive social norms and reduce peer pressure associated with recreational drug use. Student leaders and campus organizations should actively participate in promoting healthy lifestyles and responsible decision-making.
4. **University authorities** should incorporate harm reduction education into student orientation programmes, general studies courses, and other health promotion activities to improve students' knowledge of safer practices and available support services.
5. **Collaboration between universities, public health agencies, and non-governmental organizations** should be encouraged to facilitate regular awareness campaigns, health screenings,

seminars, workshops, and community outreach programmes focusing on substance use prevention and harm reduction.

6. **Mental health support services** should be expanded within universities to address stress, anxiety, depression, and other psychosocial factors that may predispose students to recreational drug use as a coping strategy.
7. **University policies on substance use** should balance disciplinary measures with preventive and rehabilitative approaches by providing opportunities for education, counselling, treatment, and reintegration rather than relying solely on punitive sanctions.
8. **Parents, guardians, and families** should maintain open communication with students and provide continuous emotional support and guidance that reinforce healthy behavioural choices during their university years.
9. **Government agencies**, particularly those responsible for higher education and public health, should formulate and implement policies that support evidence-based harm reduction programmes and strengthen collaboration between universities and healthcare institutions.
10. **Future researchers** should investigate additional factors that may influence harm reduction practices among university students, including mental health status, self-efficacy, personality characteristics, access to healthcare services, socioeconomic background, and digital media influence. Similar studies should also be conducted across different geopolitical zones and higher institutions in Nigeria to improve the generalizability of findings.

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