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Knowledge and perceptions of mental health care users on decriminalisation of cannabis at Weskoppies, a tertiary psychiatric hospital in Gauteng, South Africa

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Background: The decriminalisation of cannabis is gaining support in many countries, including South Africa. Decriminalisation does not make cannabis entirely legal but reduces the severity of punishment for possession and use. This study aimed to explore perceptions and knowledge of cannabis decriminalisation among mental health care users (MHCUs) at a tertiary psychiatric hospital (Weskoppies hospital) in Gauteng, South Africa.

Methods: This was a cross-sectional, quantitative study. Mental health care users with positive cannabis urine tests completed a structured questionnaire. Participation was voluntary and anonymous. Using the cannabis use disorder identification tool (CUDIT-R), participants were categorised into two groups: those with hazardous cannabis use and those with a cannabis use disorder. Both bivariate analyses (*t*-tests) and logistic regression models were performed to assess associations between knowledge or perceptions and sociodemographic variables ($p \leq 0.05$).

Results: The study included 90 participants, mostly single male (81%, $n = 73$), with Grade 12 education. The findings revealed that 6% of participants had accurate knowledge of cannabis, 56% had good knowledge and 38% had poor knowledge. Participants with good knowledge of cannabis had 3.3 (95% confidence interval [CI] 1.54–15.44) greater odds of poor perceptions on decriminalisation of cannabis and a 4.9 (95% CI 1.12–8.23) decreased odds of cannabis use disorders. Additionally, older age (OR: 8.15; 95% CI 0.98–68.52) was statistically significant with increased odds of cannabis use disorders.

Conclusion: This study highlights the varied levels of knowledge about cannabis among MHCUs and underscores the need for targeted education and rehabilitation services to address cannabis use issues.

Contribution: The study provides insight into MHCUs' cannabis perceptions, guiding targeted interventions to reduce harm.

Keywords: decriminalisation; legalisation; cannabis; MHCU; medicinal cannabis; recreational cannabis.

Introduction

Cannabis is widely used for recreational and medicinal purposes. An estimated 147 million people, or 2.5% of the world's population, consume cannabis compared to 0.2% of the world's population who consume cocaine and opiates (see Appendix 1 for definitions).[1] Cannabis is widely used in West and Central Africa, with a prevalence of nearly 10% (28.5 million people), which primarily reflects the high prevalence of cannabis use in Nigeria.[2] Consequently, Africa, along with South and Central America, has the greatest burden of people undergoing treatment for substance use disorders, primarily cannabis use disorder.[3] Cannabis is the most widely used substance in South Africa and is often reported as the primary or secondary substance of choice for mental health care users (MHCUs) in specialised treatment centres, particularly in Gauteng (Appendix 1).[4,5]

Decriminalisation of cannabis is complex because it encompasses health considerations, criminal justice implications and social development factors. Although several countries in Africa, including Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon and the Central African Republic, use cannabis for health and recreational purposes, South Africa is the

first and currently the only country to legalise private cannabis consumption for recreational use (Appendix 1).[6] This decision was influenced by economic factors, including growing evidence of its therapeutic potential for medical conditions.[7] As seen in Canada,[8] the legalisation of cannabis may lead to more hospital emergencies for cannabis-related reasons among young adults. The legalisation of cannabis in some countries has led to increased consumption and its associated health effects, resulting in higher tax revenues and a general decline in arrest rates for cannabis possession (Appendix 1).[8,9] The legalisation in North America has led to increased daily cannabis use, especially of potent cannabis products and particularly among young adults.[2]

Increased cannabis use can be detrimental, leading to health risks, potential dependency, mental illness, impaired driving, risks to youth and development and increased public health expenditures.[10] Dependency can perpetuate a cycle of theft and criminal behaviour among drug users, often leading to negative consequences, such as strained relationships, social isolation and imprisonment because of legal repercussions.[6,11] In addition, cannabis usage might be a gateway to the consumption of more potent and harmful substances (the gateway hypothesis), although this theory remains contentious.[12]

The perception of cannabis use and its benefits among cannabis users, especially among MHCUs, is an important issue that needs to be explored. While no study has explicitly examined the perceptions of MHCUs on the decriminalisation of cannabis use, some have investigated the potential benefits and risks of cannabis use for mental health and the importance of understanding the legal and social implications of the cannabis policy.[13,14]

This study aimed to explore the knowledge and perceptions of MHCUs about the decriminalisation of cannabis. This study captured their views and provided insights into how decriminalisation affects people directly affected by mental health problems and those who may be vulnerable to the consequences of cannabis use. The study's findings aim to inform mental health policy, public education campaigns and clinical practice. These findings will also ensure that MHCUs' voices are considered in the ongoing discussions on cannabis decriminalisation. Given both the therapeutic benefits and risks associated with cannabis use, such as dependence and worsening of mental illness, understanding the perception of this population is vital for developing targeted education and harm reduction strategies.

Research methods and design

Study design

This study utilised a cross-sectional design. A self-administered questionnaire was used to assess the knowledge and perceptions of MHCUs on the decriminalisation of cannabis. To determine the risk levels and severity of cannabis use disorder, we used the cannabis use disorder identification tool (CUDIT-R), which is validated for self-administration and has been applied in South African research on substance use. Specifically, a validation study employing multigroup psychometric analysis, which included samples of South African college students, demonstrated that the CUDIT-R exhibits satisfactory reliability (α/ω = 0.72–0.85) and robust convergent validity, as evidenced by its strong associations with measures of cannabis consumption and related motivational factors.[15]

The scale is widely used to identify individuals with problematic cannabis consumption patterns to assess the likelihood of dependency and to measure potential adverse effects related to cannabis use.[16,17] The investigator used an adapted version of the HIV-KQ9 scale, which is a validated concise version of the HIV-KQ, a tool designed to assess individuals' knowledge about human immunodeficiency virus (HIV) transmission, prevention and consequences. Originally developed as a 45-item instrument, it has been shortened to enhance practicality and applicability across various populations.[18] The HIV-KQ is widely used internationally as a brief, low-literacy screening tool employing true or false questions to assess health knowledge.[19] Although its validation has been confined to HIV or acquired immunodeficiency syndrome (AIDS) content, the instrument's methodological strengths include its straightforward response format, strong psychometric properties and demonstrated applicability across diverse populations with varying literacy levels. Given the absence of a gold-standard tool for assessing cannabis-related knowledge in South Africa, this study adopted the HIV-KQ framework to develop a cannabis-specific knowledge questionnaire.[20] Items were constructed to address key domains including health effects, mental health implications, patterns of use and relevant legislation while preserving the binary true or false response format to reduce respondent burden and enhance clarity. This approach leveraged the established validity and usability of the HIV-KQ instrument, adapting it to reliably assess knowledge in the area of cannabis use. A recent study by Matodzi et al. utilised the 18-item HIV Knowledge Questionnaire (HIV-KQ-18) among psychiatric patients in Johannesburg, reporting a mean score of 12.6 out of 18 (approximately 69.7%), with significant associations observed between knowledge scores and factors such as educational attainment, age and other demographics.[21]

Setting

This study was conducted at a tertiary psychiatric hospital in Pretoria, Gauteng province. The hospital caters to the communities in Tshwane and nearby regions, providing treatment for a wide range of psychiatric disorders, both primary and those related to substance use. Many of the MHCUs seeking treatment at this hospital are offered substance rehabilitation services, in which MHCUs with dual diagnoses can participate in a 4-week inpatient rehabilitation programme.

Study population and sampling strategy

The study included admitted MHCUs who had previously tested positive for cannabis on a laboratory urine drug screen. The study's total number of users was 176, which determined the minimum sample size of 90 participants, using G-Power statistical software, with an effect size of 0.3, and 80% power at the 0.05 (two tailed) significance level.

Mental health care users who had previously tested positive for cannabis use (no urine tests were performed for this study) were identified with the assistance of patient administration staff. We used the database to trace all MHCUs admitted with cannabis use disorder or a dual diagnosis. Mental health care users were identified through the hospital system by searching for international classification of disease (ICD)-10 codes related to cannabis use disorders, such as cannabis use disorder, mild (F12.10), moderate and severe (F12.20) or cannabis-induced psychotic disorder, with moderate to severe use disorder (F12.259). The results were verified using the National Health Laboratory Service database to confirm positive urine results.

Inclusion criteria involved: (1) adult MHCUs (18 years and older), (2) willingness to participate in the study, and (3) ability to give informed consent.

Exclusion criteria included: (1) MHCUs unwilling to participate and (2) those unable to give informed consent.

Data collection

The primary investigator collected data from all qualifying MHCUs. Each questionnaire, written in English, had an informed consent form that had to be completed to ensure willingness to participate in the study. The MHCUs were handed the questionnaire and allowed time to fill it in. The primary investigator collected the forms and questionnaires upon completion.

Outcomes of interest

The primary outcomes of interest for this study were the knowledge and perceptions of patients on the decriminalisation of cannabis. These were measured using a structured, self-administered questionnaire.

Knowledge was measured using an adapted version of the HIV-KQ9 scale. Participants were classified into three categories based on their scores:

- Accurate knowledge: All questions answered correctly.
- Good knowledge: 5 to 6 correct answers.
- Poor knowledge: Scores below 5.

The questionnaire also assessed participants' perceptions of cannabis and its decriminalisation, including their understanding of legal restrictions, age restrictions and the perceived safety and addictiveness of the substance.

Exposures and covariates

The study also included variables that were used to categorise and compare the participants. These exposures and covariates were measured as follows:

- Cannabis use patterns: Participants were categorised into two groups based on the CUDIT-R: those with hazardous cannabis use and those with a cannabis use disorder.
- Age: The age of the participants was recorded. Knowledge was compared across different age groups, specifically youths and adults.
- Educational level: The highest level of education completed by participants was recorded. Knowledge was compared between those who had not completed Grade 12 and those who had.
- Demographics: Other demographic characteristics such as gender, marital status and employment status were also recorded.

Data management and analysis

Data were captured using CSPro and exported to SPSS (version 28) and Excel spreadsheets. Descriptive analysis and hypothesis testing were conducted to investigate differences of knowledge of cannabis between male and female participants. Knowledge was classified as accurate, good or poor. Mental health care users who answered all questions correctly were classified as having accurate knowledge. In order to meet the standards of the statistical tests, the scores for perception and knowledge were then classified into poor and good, with good consisting of both good and accurate scores. Those who scored between 5 and 6 correct answers were categorised as having good knowledge. Those participants with scores below 5 were classified as having poor knowledge. Cannabis use patterns were determined using a cut-off point of 12, which classified participants with scores higher than 12 as having a cannabis use disorder and those with scores lower than 12 as hazardous cannabis users. Unpaired student *t*-tests were used to determine the associations between socio-demographic variables and the perception, knowledge and cannabis use patterns ($p \leq 0.05$). Binary logistic regression was used at a multivariate level to determine factors that would remain significant ($p \leq 0.05$) (Table 4a, Table 4b, and Table 4c).

Perceptions measured included the following:

- Beliefs about addictiveness of cannabis.
- Opinions on cannabis as a drug.
- Views on medical use of cannabis.
- Opinions on cannabis use in mental health.
- Attitudes towards safety and legal restrictions.

Ethical considerations

This study was approved by the Faculty of Health Sciences Research Ethics Committee of the University of Pretoria (No. 625/2023). Weskoppies Hospital Research Committee (WHRC) permitted the study to include MHCUs (No. GP_202312_028). Informed consent was obtained from

each MHCU before completing the questionnaire, and the MHCUs were informed that they could withdraw from the study at any point.

Results

Patient characteristics

Most participants were male (81%, *n* = 73), while female participants accounted for 17% (*n* = 15). Two individuals (1%) preferred not to disclose their gender. Out of 90 participants, only 83 reported their age. Participants had a median age of 41 years, with an interquartile range of 15.5 (Q1:31 to Q3:46.5 years) indicating that the middle 50% of the sample fell within this age bracket. The youngest participant was 20 years old, and the oldest was 66 years old. The most frequently reported age was 45 years, indicating that the study population consisted primarily of adult MHCUs (Table 1).

Most participants were single (76.7%, *n* = 69), followed by married individuals (8.9%, *n* = 8). A further 5.6% (*n* = 5) were divorced, and an equal percentage were separated. These findings show that most of the study population had never been married.

Participants demonstrated a diverse range of educational backgrounds. The most commonly reported level of education was Grade 12 (33%). This was followed by participants who had partially completed secondary school but had not attained Grade 12 (30%). An additional 18% had completed primary school only, and 10% reported some form of tertiary education. A further 10% of participants did not disclose their educational background, possibly because of privacy concerns or uncertainty (Table 2).

Knowledge and perceptions of cannabis and decriminalisation

Understanding of cannabis as a drug

In the first knowledge subscale, 84% of participants correctly identified cannabis as a drug. However, 10% expressed uncertainty, while 5% incorrectly believed cannabis is not a drug (Figure 1).

Awareness of legal restrictions

When asked about the legal restrictions associated with cannabis decriminalisation, 52% believed that possession, sale and use were restricted. However, 31% believed there were no restrictions, and 16% were unsure. This suggests a mixed understanding of the legal framework following decriminalisation (Figure 1).

Perceptions of age restrictions

Opinions on age restrictions for cannabis use varied notably. Almost half (43%) of the participants believed there was no age restriction, while 40% believed there was an age restriction, and 16% were unsure. These results reflect a lack of consensus on whether age-related legal protections apply under current cannabis laws (Figure 1).

Perceived safety of decriminalisation

Participants had conflicting opinions on the safety implications of cannabis decriminalisation. Almost a quarter (24%) of participants agreed that decriminalisation was associated with reduced risk, particularly for medicinal use, while 64% disagreed with this assertion, and 11% were undecided. This highlights that most MHCUs do not automatically perceive decriminalisation as making cannabis safer.

Perceptions on addictiveness and medical use

Perceived addictiveness of cannabis

Most of the participants (80.0%) believed that cannabis is addictive. Only 15% disagreed with this notion, while 4% were unsure. This shows a high level of recognition of cannabis' potential for dependency.

Views on medical utility

Participants had mixed opinions regarding cannabis' usefulness for medical conditions. Sixty per cent of participants believed cannabis has medical benefits, 30% disagreed and 10% were unsure.

TABLE 1: Median and interquartile range.

Variable	Median	Q1	Q3	IQR
Gender	1	1	1.0	0.0
Age	39	31	46.5	15.5
Marital status	3	3	3.0	0.0
Level of education	3	1	3.0	2.0

IQR, interquartile range; Q1, lower quantile; Q3, higher quantile.

TABLE 2: Descriptive statistics.

Variable	Categories	Demographic characteristics of the population				
		n	%	Mean	Median age	s.d.
Age	All	90	100	38.95	39	10.853
	Under 25	10	11	-	-	-
	25 and older	73	81	-	-	-
	Missing or preferred not to say	7	8	-	-	-
Gender	All	90	100	-	-	-
	Male	73	81	-	-	-
	Female	15	17	-	-	-
	Missing or preferred not to say	2	2	-	-	-
Marital status	Single	68	77	-	-	-
	Married	8	9	-	-	-
	Divorced	5	6	-	-	-
	Relationship	5	6	-	-	-
	Homosexual	1	1	-	-	-
	Missing or preferred not to say	2	2	-	-	-
Level of education	Primary school	16	18	-	-	-
	High school but no Matric	27	30	-	-	-
	Matric	30	33	-	-	-
	Tertiary	9	10	-	-	-
	Missing or preferred not to say	8	9	-	-	-

s.d., standard deviation.

Views on use in mental health conditions

Only 22% of participants believed that cannabis was helpful in treating mental health conditions. A much larger portion (74%) disagreed, and 3% were unsure. This indicates significant scepticism among MHCUs regarding the use of cannabis in psychiatric care contexts.

The results also indicate a notable disparity in knowledge regarding cannabis use and decriminalisation. While half of the respondents (52%) demonstrated good knowledge about cannabis use, their understanding of decriminalisation was considerably lower (Figure 2). Only 36% of respondents exhibited good knowledge on this topic, and an even smaller percentage (17%) achieved accurate knowledge.

The findings revealed that 6% of participants demonstrated accurate knowledge of cannabis. Encouragingly, 56% exhibited good knowledge. However, 38% of participants scored within the poor knowledge range (Figure 2).

A comparative analysis of knowledge levels was conducted among youths and adults and between individuals without a Grade 12 qualification and those who completed Grade 12. The *t*-test results revealed no significant differences between the groups, suggesting that knowledge levels were comparable across age and educational attainment categories (Table 3).

Factor analysis and logistical regression

Factor analyses for perception scores, knowledge levels and cannabis use patterns were separately performed using student *t*-tests ($p < -0.05$). The first *t*-tests explored factors associated with perception scores. Perception scores were statistically different by marital status, with unmarried participants displaying the poorest perception about decriminalisation of cannabis ($p = 0.04$). The second *t*-tests explored factors associated with knowledge levels. The student *t*-tests performed for knowledge levels also found statistical differences between groups for cannabis use patterns ($p = 0.00$) and perception scores ($p = 0.04$). The group classified as having cannabis use disorders had statistically higher scores for poor knowledge in comparison to the hazardous cannabis use group. Additionally, poor perceptions were statistically higher for those who had good knowledge levels. The final tests determined factors associated with cannabis use patterns. The final bivariate factor analysis was conducted for cannabis use patterns and significant associations between age ($p = 0.01$) and knowledge scores ($p = 0.00$), with cannabis use disorders statistically higher for adults as well as participants with poor knowledge scores (Table 3, Table 4a, Table 4b, and Table 4c).

After adjusting for confounding factors, three logistic regression models were built to see which factors would remain significant ($p \leq 0.05$) using binary logistic regression.

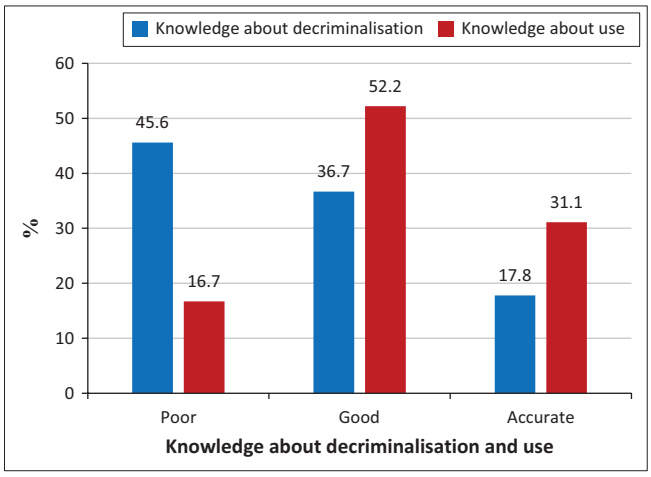

FIGURE 2: Mental health care user's knowledge of cannabis decriminalisation and use.

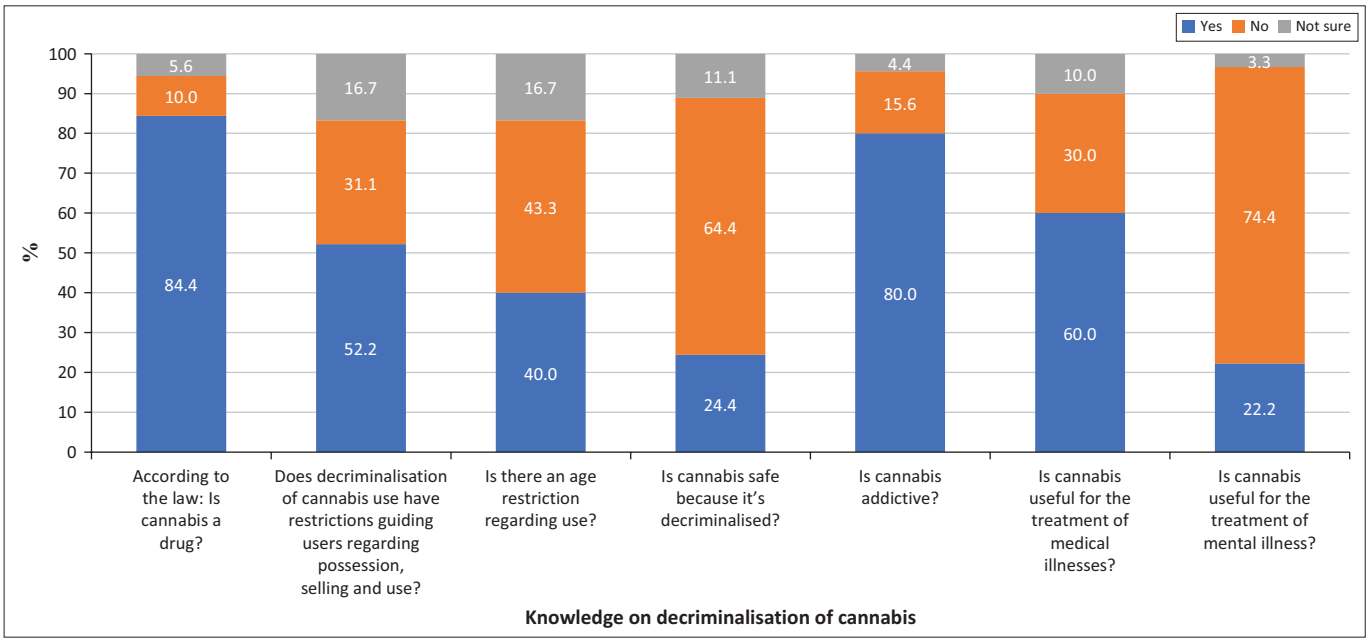

FIGURE 1: Knowledge on decriminalisation of cannabis ($N = 90$).

Regression was performed separately for perception scores, knowledge levels and cannabis use patterns. None of the factors for perception scores remained significant during multivariate analysis. However, both of the other factors (cannabis use patterns and perception scores) remained significant for knowledge levels. There was a 4.9 (95% confidence interval [CI] 1.12–8.23) greater odds of poor knowledge among those classified as having a cannabis use disorder. Additionally, MHCUs with good perceptions about decriminalisation had a 3.3 (95% CI 1.54–15.44) greater odds of poor knowledge about cannabis. Lastly, the regression model for cannabis use patterns also showed significant correlations for age and knowledge, with 8.15 (95% CI 0.98–68.52) greater odds of cannabis use disorders among adults and 4.1 greater odds for those with poor knowledge about cannabis (1.34–12.31) (Table 5).

Discussion

This study explored the complex issue of cannabis decriminalisation from the perspectives of MHCUs at a tertiary psychiatric facility. The findings shed light on factors such as awareness of legal frameworks, perceived risks and benefits of cannabis use and its implications for mental health services. By foregrounding the voices of MHCUs, the study provides evidence that can guide policymakers, including regulatory bodies such as the South African Health Products Regulatory Authority, and mental health professionals in shaping responsive education programmes, policies and treatment interventions.[22] Such efforts are essential for correcting misconceptions, promoting informed decision-making and mitigating the potential harms of cannabis use within this vulnerable population.[22,23]

Most of the participants were unmarried adult men, with Grade 12 being the most common level of educational attainment. This pattern mirrors previous studies suggesting that being unmarried may correlate with higher cannabis use, potentially because of challenges in relationship formation. Educational limitations may also hinder participants' ability to comprehend the nuanced legal and health-related implications of decriminalisation, underscoring the need for targeted public health literacy interventions. A related study conducted at the University of the Free State revealed that even medical students demonstrated significant gaps in cannabis-related knowledge: 19.5% were unaware of side effects, and 45.4% could not identify medicinal uses. Similarly, the present study found that over one-third of MHCUs had a poor understanding of cannabis decriminalisation. Such knowledge deficits may contribute to unintentional illegal use, emphasising the need for public education that is accessible and context sensitive.

Cannabis is widely used in South Africa, particularly by men and urban dwellers. A 2007 review estimated that 5% – 10% of adolescents used cannabis while 2% of adults reported

TABLE 3: Independent *t*-tests.

Item	*n*	Mean	s.d.	*df*	Sig.
CUDIT					
Gender	-	-	-	-	0.037
Male	46	16.65	9.073	*T*(58)	-
Female	14	11.29	5.850	2.079	-
Age group	-	-	-	-	0.760
Youths	9	19.22	8.743	*t*(56)	-
Adults	49	14.98	8.548	1.364	-
Knowledge of cannabis	-	-	-	88	0.612
Hazardous cannabis use	28	4.70	1.320	-	-
Cannabis use disorder	34	4.62	1.415	-	-

CUDIT, cannabis use disorder identification tool; s.d., standard deviation; *df*, degrees of freedom; Sig., significance level.

TABLE 4a: Factor analysis for perception, knowledge and cannabis use patterns.

Factors	Frequency	%	Perceptions				Mean	s.d.	Dif.	*p*-value
			Poor		Good					
			n	%	*n*	%				
Age group	-	-	-	-	-	-	-	-	-0.04	0.26
Youth	10	11.11	6	9.84	4	18.18	0.85	0.36	-	-
Adult	73	88.89	55	90.16	18	81.82	0.89	0.31	-	-
Gender	-	-	-		-	-	-	-	0.01	0.86
Male	73	82.02	32	80.00	41	83.67	1.2	0.06	-	-
Female	15	17.98	7	20.00	8	16.33	1.18	0.06	-	-
Marital status	-	-	-	-	-	-	-	-	-0.21	0.04*
Unmarried	80	90.91	34	85.00	46	95.83	2.7	0.72	-	-
Married	8	9.09	6	15.00	2	4.17	2.92	0.40	-	-
Level of education	-	-	-	-	-	-	-	-	0.10	0.35
Below Grade 12	43	47.56	21	58.33	22	47.83	0.61	0.49	-	-
Grade 12 and above	39	47.56	15	41.67	24	52.17	0.51	0.51	-	-
Knowledge scores	-	-	-	-	-	-	-	-	-0.19	0.04*
Poor knowledge	27	30.00	16	39.02	11	22.45	0.41	0.50	-	-
Good knowledge	63	70.00	25	60.98	38	77.55	0.60	0.49	-	-
Cannabis use patterns	-	-	-	-	-	-	-	-	0.16	0.06
Hazardous cannabis use	34	37.78	19	46.34	15	30.61	0.44	0.50	-	-
Cannabis use disorder	56	62.22	22	53.66	34	69.39	0.61	0.49	-	-

Note: Unmarried: Single or divorced.

OR, odds ratio; s.d., standard deviation; Dif., difference; CI, confidence interval.

*, *p*-value < 0.05.

TABLE 4b: Factor analysis for perception, knowledge and cannabis use patterns.

Factors	Frequency	%	Knowledge scores				Mean	s.d.	Dif.	*p*-value
			Poor		Good					
			n	%	*n*	%				
Age group	-	-	-	-	-	-	-	-	0.03	0.83
Youth	10	11.11	5	12.82	5	11.36	0.72	0.46	-	-
Adult	73	88.89	34	87.18	39	88.64	0.69	0.46	-	-
Gender	-	-	-	-	-	-	-	-	0.02	0.84
Male	73	82.02	21	80.77	52	82.54	0.71	0.46	-	-
Female	15	17.98	5	19.23	10	17.46	0.69	0.47	-	-
Marital status	-	-	-	-	-	-	-	-	-0.21	0.10
Unmarried	80	90.91	23	85.19	57	93.44	0.5	0.53	-	-
Married	8	9.09	4	14.81	4	6.56	0.71	0.45	-	-
Level of education	-	-	-	-	-	-	-	-	0.07	0.47
Below Grade 12	43	47.56	13	59.09	30	50.50	0.76	0.42	-	-
Grade 12 and above	39	47.56	9	40.91	30	50.50	0.69	0.46	-	-
Perceptions scores	-	-	-	-	-	-	-	-	-0.16	0.04*
Poor perceptions	41	45.56	16	59.26	25	39.68	0.60	0.49	-	-
Good perceptions	49	54.44	11	40.74	38	60.32	0.77	0.42	-	-
Cannabis use patterns	-	-	-	-	-	-	-	-	-0.24	0.00*
Hazardous cannabis use	34	37.78	5	18.52	29	46.03	0.85	0.06	-	-
Cannabis use disorder	56	62.22	22	81.48	34	53.97	0.60	0.06	-	-

Note: Unmarried: Single or divorced.
OR, odds ratio; s.d., standard deviation; Dif., difference; CI, confidence interval.
*, *p*-value < 0.05.

TABLE 4c: Factor analysis for perception, knowledge and cannabis use patterns.

Factors	Frequency	%	Cannabis use patterns				Mean	s.d.	Dif.	*p*-value
			Hazardous cannabis use		Cannabis use disorder					
			n	%	*n*	%				
Age group	-	-	-	-	-	-	-	-	-0.33	0.01*
Youth	10	11.11	1	2.24	9	17.89	0.09	0.30	-	-
Adult	73	88.89	28	97.06	45	82.14	0.42	0.50	-	-
Gender	-	-	-	-	-	-	-	-	0.16	0.11
Male	73	82.02	43	78.18	30	88.24	0.41	0.49	-	-
Female	15	17.98	12	21.82	3	11.76	0.25	0.45	-	-
Marital status	-	-	-	-	-	-	-	-	-0.15	0.20
Unmarried	80	90.91	48	88.89	32	94.12	0.25	0.46	-	-
Married	8	9.09	6	11.11	2	5.88	0.4	0.49	-	-
Level of education	-	-	-	-	-	-	-	-	-0.15	0.07
Below Grade 12	43	47.56	22	45.83	21	61.76	0.48	0.50	-	-
Grade 12 and above	39	47.56	26	54.17	13	38.24	0.33	0.47	-	-
Perceptions scores	-	-	-	-	-	-	-	-	0.15	0.06
Poor perception	41	45.56	22	39.29	19	55.88	0.46	0.50	-	-
Good perception	49	54.44	34	60.71	15	44.12	0.31	0.46	-	-
Knowledge scores	-	-	-	-	-	-	-	-	-0.27	0.00*
Poor knowledge	27	30.00	22	39.29	5	14.71	0.18	0.39	-	-
Good knowledge	63	70.00	34	60.71	29	85.29	0.46	0.50	-	-

Note: Unmarried: Single or divorced.
OR, odds ratio; s.d., standard deviation; Dif., difference; CI, confidence interval.
*, *p*-value < 0.05.

use. National surveys in subsequent years indicated a steady trend: in 2012, 4.0% of individuals aged 15 and older had used cannabis in the preceding 3 months, and in 2017, 21 (3.65%) reported annual use, with 43.3% of treatment admissions related to cannabis.[24] This study aligns with these trends, with 38% of MHCUs diagnosed with a cannabis use disorder. Men had higher CUDIT scores than women, and younger users scored higher than adults although this age-based difference was not significant. Routine drug screening and structured interventions should be urgently integrated into mental health services.

In our study, a significant proportion (31%) of respondents believed that there were no legal restrictions regarding cannabis possession, sale or use. Furthermore, there was uncertainty around age restrictions. In South Africa, the possession and consumption of cannabis is regulated, even though private cannabis use has been decriminalised. Legally, individuals may possess up to 100 g in public and 600 g per person (or 1200 grams per household) in private settings.[25] Cannabis remains a schedule 4 substance under the *Medicines and Related Substances Act*, limiting its lawful accessibility.[25] Such legal ambiguities indicate the need for

TABLE 5: Logistic regression tables for perceptions, knowledge and cannabis patterns.

Factors	Odds ratio	s.e.	*p*-value	95% Conf. Interval
Perceptions on decriminalisation of cannabis				
Marital status	1.91	0.82	0.14	0.82–4.41
Knowledge	2.08	0.99	0.13	0.81–5.33
Knowledge about cannabis				
Perceptions	3.03	1.54	0.03*	1.12–8.23
Cannabis use patterns	4.87	2.87	0.00*	1.54–15.44
Cannabis use patterns				
Age	8.15	8.85	0.05*	0.96–68.52
Knowledge about Cannabis	4.06	2.29	0.01*	1.34–12.31

OR, odds ratio; s.e., standard error; CI, confidence interval.
*, *p*-value < 0.05.

clearly communicated and well-disseminated guidelines, particularly aimed at MHCUs who may not have access to formal legal education or reliable sources of information. A lack of clarity around legal thresholds and rights can expose vulnerable populations to criminal liability and further marginalisation.

Most MHCUs (80%) recognised cannabis as an addictive substance, and 60% acknowledged its medical benefits. However, only 22% believed cannabis could be beneficial for mental health conditions, while 74% disagreed. This scepticism may stem from prevailing stigma, limited therapeutic education and conflicting public narratives around cannabis in psychiatric contexts. A related study by the University of Cape Town found that although 70.5% of medical practitioners perceived cannabis as beneficial, only half recommended it for conditions such as palliative care or chronic pain.[26] Concerns about side effects and potential for harm were cited by 60% and 20% of respondents, respectively.

The factor analysis and regression analyses findings revealed that poor knowledge about cannabis was significantly associated with cannabis use disorders, while participants who held positive perceptions towards decriminalisation paradoxically demonstrated poorer knowledge. Older participants also had increased odds of cannabis use disorders, suggesting age-related vulnerability within this cohort. These findings are consistent with local evidence showing that decriminalisation may lead to increased cannabis exposure without a corresponding rise in accurate knowledge or risk awareness. A study at Chris Hani Baragwanath Academic Hospital reported a rise in cannabis use post-decriminalisation among psychiatric inpatients,[27] while another study found variable knowledge and permissive attitudes among university students.[28] The current study extends these insights to psychiatric populations, where cognitive and psychosocial vulnerabilities may exacerbate misinformation and misuse. These findings reinforce the need for evidence-based clinical education and robust regulatory guidance for practitioners and service users.

This study has several limitations. Firstly, the relatively small sample size and demographic variability restrict the generalisability of the findings. Secondly, the primary investigator developed the questionnaire, and the knowledge assessment was adapted from the HIV-KQ9 scale, which has not been validated for assessing cannabis-related knowledge. This may have affected the accuracy of our findings. Thirdly, self-reported data on cannabis use and perceptions may also be subject to social desirability bias. Fourthly, most participants of this study were long-term psychiatric MHCUs who had been hospitalised for over 6 months, which could have impacted their categorisation as either hazardous or non-hazardous cannabis users. Extended hospitalisation may have limited their access to cannabis, thereby affecting their risk behaviours. Many participants may not have used cannabis in the past 6 months, leading to potential misclassification. Additionally, as the CUDIT tool assesses cannabis use within the preceding 6 months, recall bias may have influenced participants' responses regarding the effects of cannabis consumption.

Future research should incorporate larger and more diverse samples and employ mixed methods to comprehensively understand the topic.

Conclusion

This study highlights the significant knowledge gap and misconceptions regarding cannabis decriminalisation among MHCUs in South Africa. The findings underscore the need for targeted public education campaigns, clear policy guidelines and integrated policymakers, healthcare providers and stakeholders who can work towards promoting informed decision-making, reducing cannabis-related harm and improving the overall well-being of MHCUs. Ultimately, this study contributes to the ongoing discourse on decriminalisation and its implications for mental health, emphasising the importance of evidence-based policies and practices that prioritise the needs of vulnerable populations.

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Competing interests

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CRediT authorship contribution

Botshelo P. Montoedi: Writing – original draft. Amanda U. Sibanyoni: Supervision. Tshepiso D. Moeketsi: Supervision. Cheryl Tosh: Writing – review & editing.

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Data availability

The data that support the findings of this study are openly available from the corresponding author, Botshelo P. Montoedi, upon reasonable request.

Disclaimer

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Appendix 1 starts on next page →

Appendix 1

Glossary

Mental health care user

A mental health care user refers to an individual who receives, has received or is eligible to receive mental health services within the framework of a health system. In the South African context, the *Mental Health Care Act 17 of 2002* formally defines MHCUs as persons receiving care, treatment and rehabilitation for a mental illness or related condition, whether as inpatients, outpatients or through community-based services. The term emphasises patient-centred, rights-based language that replaces earlier institutional terms such as 'patients' or 'clients', aligning with contemporary frameworks of dignity, autonomy and recovery-oriented care.[29]

Decriminalisation

Decriminalisation refers to the policy or legal reform process by which criminal penalties for certain behaviours such as the possession or use of cannabis are removed or reduced, typically replacing them with civil or administrative sanctions, health-oriented interventions or no penalties at all. Decriminalisation does not equate to the endorsement or full legality of the activity; rather, it reflects a harm reduction and public health-oriented approach aimed at reducing the burden of criminalisation on individuals and the justice system while mitigating the adverse social and health consequences associated with punitive policies.[30]

Legalisation

Legalisation refers to the process by which a previously prohibited substance or behaviour, such as the production, distribution and consumption of cannabis, is made lawful under specified regulatory frameworks. Legalisation involves not only the removal of criminal penalties but also the establishment of legal structures governing cultivation, sale, taxation, quality control and use. Unlike decriminalisation, which limits itself to removing criminal penalties, legalisation creates a regulated market and is often justified on grounds of public health, economic benefit, social justice and the dismantling of illicit markets.[31]

Cannabis

Cannabis is a psychoactive plant belonging to the Cannabaceae family, encompassing species such as *Cannabis sativa, Cannabis indica and Cannabis ruderalis*. The plant contains a variety of cannabinoids, the most prominent being Δ9-tetrahydrocannabinol (THC), responsible for its psychoactive effects and cannabidiol (CBD), which is non-intoxicating but has potential therapeutic applications. Cannabis is used recreationally, medicinally and industrially (hemp), and its regulation varies significantly across jurisdictions. In psychiatric and public health contexts, cannabis is of particular interest due to its complex associations with mental health outcomes, including potential therapeutic benefits and risks of exacerbating or precipitating psychiatric disorders.[32]