

The Potential Impact of Recreational Cannabis Legalization on the Prevalence of Cannabis Use Disorder and Psychotic Disorders: A Retrospective Observational Study

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L'effet potentiel de la légalisation du cannabis récréatif sur la prévalence du trouble d'utilisation du cannabis et des troubles psychotiques : une étude observationnelle rétrospective

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Abstract

Objectives: The principal objective of our study was to document the short-term impact of the legalization of recreational cannabis on active cannabis use, cannabis use disorder, and various psychotic disorders.

Methods: We carried out a retrospective observational study of patients who were at least 12 years old and who had visited a psychiatrist in the emergency unit of the *Centre hospitalier universitaire de Sherbrooke* (CHUS). We included all the consultations of this type over a 5-month period, immediately following the legalization of recreational cannabis in Canada. We then divided our population into an adult (over 18) and teenager group (12 to 17) compared the data to the data from consultations made 2 years earlier, using a generalized linear mixed model.

Results: We examined consultations in patients over 18 years old in prelegalization ($n = 1,247$) and postlegalization ($n = 1,368$) groups. We observed a statistically significant increase in the use of cannabis (28.0% to 37.1%; odds ratio [OR] = 1.81 [1.34 to 2.44], $P = 0.0001$) as well as an increase in diagnoses of active cannabis use disorder (17.7% to 24.3%; OR = 1.53 [1.13 to 2.08], $P = 0.0064$). The increase in cannabis use disorder was more prominent among patients between 18 and 24 years old (17.3% to 25.9%; OR = 2.27 [1.17 to 4.40], $P = 0.015$). We observed no statistically significant difference in terms of psychotic disorder diagnoses (27.4% to 29.2%; OR = 1.17 [0.84 to 1.63], $P = 0.35$). Conversely, we identified a greater proportion of patients who had a personality disorder diagnosis in the postlegalization period (39.6% to 44.9%; OR = 1.35 [1.02 to 1.80], $P = 0.038$). Examination of pediatric (under 18 years old) consultations revealed no statistically significant differences.

Conclusion: Although an affirmative conclusion is tentative, the current findings suggest a first link between the legalization of cannabis in Canada and increased diagnoses of cannabis use disorder, as well as cannabis use in general among patients in a university hospital psychiatric emergency department.

Abrégé

Objectifs : Le principal objectif de la présente étude était de documenter l'effet à court terme de la légalisation du cannabis récréatif sur l'utilisation active du cannabis, le trouble d'utilisation du cannabis et divers troubles psychotiques.

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Méthode : Nous avons mené une étude observationnelle rétrospective de patients âgés d'au moins 12 ans et qui avaient visité un psychiatre au service d'urgence du *Centre hospitalier universitaire de Sherbrooke* (CHUS). Nous avons inclus toutes les consultations de ce type sur une période de 5 mois, suivant immédiatement la légalisation du cannabis récréatif au Canada. Nous avons ensuite comparé les données aux données des consultations menées deux ans auparavant, à l'aide d'un modèle mixte linéaire généralisé.

Résultats : Nous avons examiné les consultations de groupes de patients de plus de 18 ans lors de la pré-légalisation ($n = 1\,247$) et post-légalisation ($n = 1\,368$). Nous avons observé une augmentation statistiquement significative de l'usage du cannabis (28,0% à 37,1% (RC = 1,81 [1,34 à 2,44], $p = 0,00011$)), ainsi qu'une augmentation des diagnostics de trouble actif d'utilisation du cannabis (17,7% à 24,3% (RC = 1,53 [1,13 à 2,08], $p = 0,0064$)). L'augmentation du trouble d'utilisation du cannabis était plus proéminente chez les patients entre 18 et 24 ans (17,3% à 25,9% (RC = 2,27 [1,17 à 4,40], $p = 0,015$)). Nous n'avons observé aucune différence statistiquement significative en ce qui concerne les diagnostics de trouble psychotique (27,4% à 29,2% (RC = 1,17 [0,84 à 1,63], $p = 0,35$)). Par ailleurs, il y avait une plus grande proportion de patients qui avaient un trouble de la personnalité dans la période post-légalisation (39,6 à 44,9% (RC = 1,35 [1,02 à 1,80], $p = 0,038$)). Nous avons aussi examiné les consultations pédiatriques (moins de 18 ans) mais n'avons obtenu aucun résultat statistiquement significatif.

Conclusion : Bien qu'une conclusion affirmative soit trop hâtive, nous croyons qu'elle peut suggérer un premier lien entre la légalisation et des diagnostics accrus de trouble d'utilisation du cannabis ainsi que de l'utilisation du cannabis en général chez nos patients du service d'urgence psychiatrique.

Keywords

cannabis, legalization, psychosis, psychotic disorder, cannabis use disorder, mental health, emergency, psychiatry

Introduction

In 2015, cannabis was the most used illegal substance in Canada.¹ In 2012, the lifetime prevalence of cannabis use in the Canadian population was 42,5% and the prevalence of cannabis use disorder was 6,8%.^{2,3} In view of the ineffectiveness of existing criminal sanctions controlling access to cannabis, Canada legalized this substance on October 17, 2018, becoming the second country to do so after Uruguay. Several American states have also legalized the substance.⁴ In addition to reducing criminal activity associated with its sale, the legalization of recreational cannabis was intended to limit underage access, assure minimal quality control of cannabis consumed and improve consumers' awareness of associated health risks involved.⁵ However, the real impacts of the legalization of recreational cannabis in Canada on public health, especially mental health, remain uncertain.

Regular use of cannabis is associated with increased risk of psychotic disorders, substance use disorders (SUDs), and cognitive impairments.^{6,7} The literature also suggests that greater use of cannabis in the general population is directly linked to a higher incidence of psychotic disorders.⁸

The *Association des médecins psychiatres du Québec* (Québec Association of Psychiatrists) expressed concern that legalization could decrease the perception of the danger associated with its use, possibly thereby increasing utilisation.⁹ Some American studies related to the legalization of cannabis have in fact demonstrated an increase in its use after legalization.^{4,10-13} However, there is a paucity of data dealing with the impact of this legislation on mental health. To our knowledge, no study has yet examined the

association of the legalization of recreational cannabis with the prevalence of psychotic disorders.

Accordingly, we questioned the short-term impact of the legalization of recreational cannabis in Canada on the prevalence of patients visiting the psychiatric emergency unit of the *Centre hospitalier universitaire de Sherbrooke* (CHUS) showing an active use of cannabis, a diagnosis of active cannabis use disorder, and/or a diagnosis of psychotic disorder. We also observed the short-term impact of this legislative change on the prevalence of disorders involving the use of other substances, mood disorders, and personality disorders.

Methodology

Study Type, Population, and Sample Size

We carried out a retrospective observational study of patients charts for visits in the CHUS psychiatric emergency unit.

All psychiatric emergency consultations were reviewed for the 5-month period following the legalization of recreational cannabis in Canada that being from October 17, 2018, to March 16, 2019. We compared these data with those from consultations made during the same period two years earlier, (October 17, 2016, to March 16, 2017), when recreational cannabis use was still prohibited by Canadian criminal law. A total of 2,705 psychiatric visits were examined. In order to be able to detect a change of 5% in the prevalence of psychotic disorders, assuming a base prevalence of 25%, the size required for the samples was estimated in advance.

There were 2 criteria for inclusion: having visited a psychiatrist in one of 2 CHUS hospitals during the selected dates and being over 12 years old. There were no exclusion criteria.

Data Collection Method

The data was extracted from digitized hospital records. We examined the psychiatric consultation reports, clinical development notes, hospitalization summaries, and nursing triage notes in which drug use was systematically recorded.

The data were compiled by three psychiatric residents and three medical students, under the supervision of psychiatrists.

Epidemiological and Clinical Characteristics

The epidemiological characteristics tracked included age, sex, occupation, as well as marital, parental, and immigration status.

We also documented the psychiatric history of patients and selected aspects of their medical history that were identified as possible risk or explanatory factors, including the presence of chronic pain or active chemotherapy. The history of a psychotic disorder was reported according to its duration, that is, whether it was a psychotic disorder lasting less than 6 months (e.g., substance-induced psychotic disorder) or one that had lasted 6 months or longer (e.g., schizophrenia). SUD (substance use disorder) history was subdivided into active, early remission, or sustained by DSM-5 criteria. The entry “other psychiatric diagnosis” was used when the diagnoses did not fit any predetermined diagnostic category.

Primary and Secondary Issues

Hospital records showed the diagnoses of SUD and other psychotic disorders at the time of patient discharge. The type of SUD was specified as single-substance SUD – (cannabis, alcohol, stimulant, other) or mixed (with or without cannabis). The subtypes of psychotic disorders were also detailed: brief psychotic disorder, schizophreniform disorder, schizophrenia, schizoaffective disorder, induced psychotic disorder, delusional disorder, and mood disorder with psychotic features. We also noticed the active use of other substances, even where the criteria of a SUD were not satisfied. Patients were considered to have actively consumed a substance if they reported having used it during the past month, if the substance was noted as “positive” in drug biochemical screening report or if they had provided a positive urine sample for the substance. “Rare” use or use more than a month prior were coded as inactive. As secondary issues, mood disorders, personality disorders (PDs), and “other psychiatric diagnoses” were also diagnosed during the consultation.

Table 1. Epidemiological Characteristics of Adult Patients.

Characteristic	Subpopulation	Pre	Post	P
Median age (interquartile range)		37 (26 to 51)	36 (26 to 49)	0.337
Age (%)	18 to 24	20.3	21.7	0.299
	25 to 44	43.9	45.2	
	45 to 64	29	25.3	
	65 and +	6.8	7.8	
Sex (%)	Male	51.3	53.3	0.373
	Female	48.7	46.7	
Occupation (%)	Job	31.2	29.2	0.602
	Student	9.0	8.6	
	Job and student	3.1	3.2	
	Retired	4.4	5.3	
	None	37.9	37.7	0.598
Marital status (%)	Single	50.8	50.6	
	Married	30.4	29.4	0.462
Children (%)	Yes	40.0	38.4	
	No	35.9	36.4	0.837
Immigrant to Canada (%)	Yes	3.9	4.1	
	No/not known	96.0	95.6	

Psychiatric diagnoses noted above were based on the clinical assessment of the attending psychiatrist, using the DSM-5 diagnostic criteria.

Statistical Analysis Methods

Data analysis was performed using SPSS v. 24 (IBM Corporation, Armonk, New York) and R v. 3.6.1 software (R Core Team, Vienna, Austria) by a statistician. The category variables were presented according to frequencies and percentages. The continuous variables were presented by averages $\pm$ standard deviation or medians (interquartile range), depending on whether or not the distribution was normal.

For the comparison of the epidemiological variables of the 2 study cohorts, only the first patient visit was considered, in order to allow for a more realistic assessment of frequencies. In order to establish the differences between the cohorts, a chi-square test was used for the category variables or a Fisher exact test if the theoretical frequencies were less than 5. For continuous variables, a Student *t* test was used when the variables were normally distributed, and a Mann-Whitney test for non-gaussian distributions.

All psychiatric consultations were included in the examination of our principal objective. The impact magnitudes of the variables being studied were measured by odds ratios (ORs) and calculated by logistic regression, with a mixed generalized linear model. This model took into account repeated measurements caused by patients who visited the emergency unit repeatedly. For certain clinically and statistically significant variables, covariables were integrated in a multivariable model. We used a significance threshold of 5% and a bilateral approach for all the tests.

Some epidemiological characteristics or information about active substance use were not known *a priori*. The proportions indicated in our results therefore consider all the data, whether known or not. However, we treated unknown values as missing data in the statistical tests we made.

Ethical Considerations

The study was approved by the Research Ethics Committee of the CIUSSS (Integrated University Health and Social Services Centre) de l'Estrie-CHUS, the Scientific Evaluation Committee of the CIUSSS de l'Estrie-CHUS, and the University Mission Coordination Department of the CIUSSS de l'Estrie-CHUS. The project number is 2020-3230. The Professional Services Directorate also approved as access to information from patient records. Special attention was given to ensuring the confidentiality of the patients, and no personally identifiable information was disclosed. All information considered was obtained indirectly, from the patient record, with no direct patient interview by the investigators.

Results

Adult Population (18 and Over)

Epidemiological and clinical characteristics. We tallied a total of 1,247 psychiatric emergency unit consultations during the prelegalization period and 1,368 during the postlegalization period by patients 18 and over. No consultations were excluded. Certain patients had repeated psychiatric emergency unit visits during these 2 periods. There were 969 patients in the prelegalization period and 1,002 in the postlegalization period.

The 2 groups were comparable from an epidemiological point of view. Table 1 shows these characteristics.

There were no statistically significant differences between the 2 groups in terms of the history of cannabis use disorders and psychotic disorders (Table 2). However, in postlegalization, a greater proportion of consultations reported a diagnosis of PD or a psychiatric disorder classified as "other," while a lesser proportion of consultations reported a bipolar disorder or a mood disorder.

Primary and Secondary Issues. Active use of cannabis increased from 28.0% in prelegalization to 37.1% in postlegalization ($OR = 1.81$ [1.34 to 2.44], $P = 0.00011$) (Table 3). There was also a statistically significant increase in cannabis use among patients between 18 and 24 years old as well as those between 25 and 44 years old (Table 4). There was no statistically significant difference in terms of the use of other substances.

There was also a statistically significant increase in the prevalence of cannabis use disorder, from 17.7% to 24.3% ($OR = 1.53$ [1.13 to 2.08], $P = 0.0064$). Cannabis use disorders were significantly greater during the postlegalization period for the 18 to 24 age group.

There was no statistically significant difference for psychotic disorders (27.4% to 29.2%; $OR = 1.17$ [0.84 to 1.63], $P = 0.35$). The comparison between the various subtypes of psychotic disorders had similar results in both groups (Table 5). Approximately 3% of patients had an induced psychotic disorder, whereas approximately 10% had a psychotic disorder.

PDs and "other psychiatric diagnoses" were significantly more prevalent in the postlegalization group (Table 3). We performed a subanalysis to compare the presence of a cannabis use disorder diagnosis between the pre- and postlegalization groups in patients with a PD and those without a personality disorder. There was no statistically significant difference in patients with a PD between the prelegalization and postlegalization groups ($OR = 1.62$ [0.95 to 2.77], $P = 0.077$). In contrast, patients without PD showed a statistically significant increase in cannabis use disorder in postlegalization ($OR = 1.57$ [1.16, 2.12], $P = 0.0035$).

Underage Population (12 to 17 Years Old)

There were 42 and 47 consultations corresponding to 41 and 45 different underage patients in prelegalization and postlegalization, respectively. There was no statistically significant difference for this population. Nevertheless, it should be stated that in absolute numbers, there was a trend toward an increasing active use of cannabis from 17.9% to 25.5% ($P = 0.40$). The number of SUDs involving cannabis (mixed or not) increased from 4.8% to 12.8% ($p = 0.20$). Diagnoses of psychotic disorders increased from 2.4% to 6.4% ($p = 0.38$).

Discussion

Our study shows an increase in cannabis use in the population visiting the psychiatric emergency in the months following the legalization of recreational cannabis in Canada. This increase was particularly noticeable in patients between 18 and 24 years of age and slightly less so in those between 25 and 44 years of age. Although our methodology differs from that of *Statistics Canada*, for the record, we noticed that the prevalence of cannabis use during the last month postlegalization in our psychiatric population (37.1%) was clearly higher than that observed by *Statistics Canada* in the Québec general population during the same period (prevalence of users during the last 3 months at 13.6% in the fourth quarter of 2018 and 11.0% in the first quarter of 2019).¹⁴ In the United States, a number of studies examining the impact of the legalization of recreational cannabis showed an increase in the use of cannabis after its legalization.^{4,11-13} These results should, however, be interpreted cautiously, given that it is difficult to separate the effect of the legislative change from emerging trends already present before the legalization.^{11,12} Other studies have shown no change but none, to our knowledge, has shown a reduction in use after the legalization of recreational cannabis.¹² In Canada, only certain provinces allow

Table 2. Psychiatric and Medical History of Adult Patients.

Past Medical History		Pre (%)	Post (%)	OR (CI = 95%)	P
Psychotic disorder	Chronic	17.7	19.1	1.24 (0.88 to 1.75)	0.221
	Acute	9.8	9.6		
Cannabis use disorder	Active	13.3	18.2	1.37 (0.99 to 1.90)	0.061
	Early remission	1.5	2.1		
	Sustained remission	3.0	2.1		
Mood disorder	Bipolar disorder	16.8	14.2	0.74 (0.57 to 0.95)	0.020*
	Other mood disorder	22.2	17.7		
Personality disorder		31.6	40	1.76 (1.27 to 2.43)	0.001***
Other psychiatric disorder		51.6	58.4	1.30 (1.05 to 1.60)	0.015*
Chronic pain		8.3	7.5	0.88 (0.59 to 1.32)	0.549
Active chemotherapy		0.6	0.3	0.63 (0.07 to 5.60)	0.679

Note. CI = confidence interval; OR = odds ratio.

* $P \leq 0.05$. *** $P \leq 0.001$.

Table 3. Diagnoses Made at the Time of the Consultation in Adult Patients.

Clinical Impressions		Pre (%)	Post (%)	OR (CI = 95%)	P
Active cannabis use	Present	28.0	37.1	1.81 (1.34 to 2.44)	0.0001***
	Absent	65.5	56.9		
Active alcohol use	Present	54.9	50.9	0.87 (0.70 to 1.07)	0.187
	Absent	40.9	42.9		
Active use of stimulant		21.8	26.7	1.28 (0.96 to 1.72)	0.098
Active use of another drug		4.3	6.6	1.45 (0.96 to 2.17)	0.074
Cannabis use disorder (mixed or not)		17.7	24.3	1.53 (1.13 to 2.08)	0.006**
Psychotic disorder		27.4	29.2	1.17 (0.84 to 1.63)	0.348
Mood disorder		40.8	35.5	0.84 (0.66 to 1.08)	0.167
Personality disorder		39.6	44.9	1.35 (1.02 to 1.80)	0.038*
Other psychiatric disorder		27.8	36.5	1.43 (1.18 to 1.75)	0.0004***

Note. CI = confidence interval; OR = odds ratio.

* $P \leq 0.05$. ** $P \leq 0.01$. *** $P \leq 0.001$.

the sale of cannabis by individuals.¹⁶ Our study took place in the province of Québec, where the Société québécoise du cannabis (SQDC) has a monopoly on the sale of cannabis, which prevents the emergence of an open market. Therefore, there are no private stores. It should also be noted that in the province of Québec, access to medical cannabis was restricted before the legalization. Only patients with authorizations from a health-care practitioner could legally buy medical cannabis.¹⁷ In our local clinical experience, the vast majority of our patients bought their cannabis illegally before the legalization. Since the legalization of cannabis in Canada, the selling price of illegal cannabis has fallen and is now less than that of legal cannabis¹⁸. Product accessibility could therefore be greater. Furthermore, it is possible that the legalization of recreational cannabis, as well as the media coverage that ensued may have contributed to trivializing the adverse consequences of cannabis use, thus contributing to the increase in use. Other publications have in fact reported a reduction in the perception of risks associated with cannabis after its legalization in certain American states^{10,12,13}.

At the same time, we observed an increase in psychiatric visits resulting in a diagnosis of active cannabis use disorder.

This increase was more accentuated in patients between 18 and 24 years old. A study of the American population showing an increase in cannabis use from 2002 to 2014 did not show an increase in cannabis use disorders.¹⁰ The results of our study are different and raise the hypothesis that individuals suffering from mental health problems may be at greater risk of developing a cannabis use disorder if it is legalized than the general population. In addition, it is possible that patients with a cannabis use disorder are more likely to seek psychiatric emergency services since cannabis was legalized because of an increase in its use or a reduction in the stigmatization associated with it.

Although the association between cannabis use and psychosis is well established, our study did not demonstrate any change in the prevalence of psychotic disorders after legalization. Moreover, the prevalence of substance-induced psychotic disorders remained stable, representing about 10% of psychotic disorders. Although we did not explore this subject, it is possible that patients changed their habits in terms of the type of product used (variety, tetrahydrocannabinol and cannabidiol levels) since recreational cannabis has become readily available, and this could have influenced the

Table 4. Comparison of Variables Associated with Cannabis Use by Age Category.

Severity of Use	Age (years)	Pre (%)	Post (%)	OR (CI = 95%)	P
Active use of cannabis	18 to 24	37.9	52.3	2.32 (1.25 to 4.35)	0.008**
	25 to 44	38.9	49.2	1.72 (1.13 to 2.62)	0.012*
	45 to 64	15.7	19.0	1.50 (0.76 to 2.95)	0.240
	65 and +	1.5	5.0	3.47 (0.38 to 31.85)	0.270
Cannabis use disorder (mixed or not)	18 to 24	17.3	25.9	2.27 (1.17 to 4.40)	0.015*
	25 to 44	25.6	30.6	1.30 (0.88 to 1.94)	0.190
	45 to 64	9.6	9.6	1.66 (0.76 to 3.64)	0.204
	65 and +	0	1.1	1.64 (0.15 to 18.53)	0.686

Note. CI = confidence interval; OR = odds ratio.

* $P \leq 0.05$. ** $P \leq 0.01$.

Table 5. Types of Psychotic Disorders in Adult Patients at the Time of the Consultation.

Psychotic Disorder	Pre (%)	Post (%)
Schizophrenia	8.0	6.4
Schizoaffective disorder	7.5	9.2
Schizophreniform disorder	0.6	0.1
Delusional disorder	1.2	0.7
Induced psychotic disorder	3.3	3.1
Brief psychotic disorder	0.5	0.1
Unspecified psychotic disorder	3.2	5.6
Thymic episode with psychotic features	3.0	4.0
Absence	72.6	70.8

incidence of psychotic episodes postlegalization. Moreover, it may be too soon to detect an increase in the incidence of chronic psychotic disorders (such as schizophrenia). It should be stated that an increase in the availability of intensive psychiatric follow-ups services in the community, as well as the creation of a specialized first-episode (FEP) psychosis team occurred between our two study periods. This increase in community services could have masked an increase in visits for psychotic disorders. Finally, it is possible that the number of patients was insufficient to detect an increase in the prevalence of psychotic disorders. To our knowledge, no previous study has examined the association between the legalization of recreational cannabis and psychotic disorders.¹²

We did observe an increase in the number of patients with a PD history in the period after the legalization of cannabis, as well as an increase in PD diagnoses at the time of the consultation. The literature suggests an association between PDs and cannabis use.¹⁵ Our subanalyses have nevertheless revealed that the higher prevalence of PDs in the postlegalization group could not account for the increase in cannabis use disorders, since we found a statistically significant increase in cannabis use disorders in patients not presenting a PD.

We also noticed a reduction in the number of consultations by patients with a mood disorder diagnosis as well as an increase in those with “another psychiatric diagnosis” in the postlegalization group. We hypothesize that factors other

than the legalization of cannabis are probably involved here, such as a larger offering of services to patients with eating disorders and gender dysphoria.

In terms of child psychiatry, we did not obtain any statistically significant result, probably because of the small size of the sample in that age group. The absolute increase in active cannabis use and the prevalence of cannabis use disorder, even if not statistically significant, do raise the question of the impact of the legalization of recreational cannabis on this population. Certain American studies have shown an increase in cannabis use in underage populations.² Moreover, the results of our study show that in the adult population, it is the youngest (between 18 and 24 years old) who consume the most. It will therefore be important to follow-up on the impact of the legalization on larger samples of child psychiatry patients.

Strengths and Limitations

This is, to our knowledge, the first study examining the impact of the legalization of recreational cannabis on the prevalence of mental health diagnoses other than SUD. Moreover, to our knowledge, it is also the first study of a strictly psychiatric population. Furthermore, our large sample size allowed us to detect changes that have proven to be statistically significant. Our study therefore makes it possible to examine, albeit preliminarily, the possible short-term impact of legalization of recreational cannabis. We specifically selected time periods to examine in order to avoid the potential bias of trivializing the adverse consequences of cannabis use after the announcement of the bill, as well as seasonal biases that could potentially induce variability of emergency visit frequency.

Our study does not, however, enable us to conclude that there is a causal relation between the legalization of recreational cannabis in Canada and an increase in active cannabis use or cannabis use disorders because it was strictly based on observational data.

Although urine drug screening was considered, it was not carried out systematically. Therefore, in principle, our study documents the use reported by the patients themselves, and it is possible that the legalization of recreational cannabis has

encouraged them to report their use more openly. Furthermore, it is also possible that psychiatrists were more diligent in their assessments and documentation of cannabis use after legalization. The inherent time constraints in emergency room psychiatric assessment may also be a consideration in interpretation of our results. It must also be noted that the period we studied was immediately after the legalization, thus limiting the scope of our observations. Our period length (5 months) may also be too truncated to discern any long-term change in cannabis use and its associated clinical syndromes. Our study took place in only one city (Sherbrooke, Qc) and thus, the results might not be generalizable to the other cities in Canada. Also, since our study was retrospective, we did not have access to information regarding the exact pharmaceutical composition of THC/CBD products, nor the frequency of use.

It should be stated that the SQDC outlet in Sherbrooke was not open at the time the data was collected. It was possible to purchase cannabis in an outlet in another city or to order it online, but widespread shortages actually limited access to SQDC products in the whole province during the first months after legalization. It is therefore possible that our study underestimates the impacts of the legalization.

In the context of child psychiatry, the numbers were clearly inadequate to allow us to draw conclusions.

Conclusion

In conclusion, our study provided a preliminary evaluation of the possible short-term impact of the legalization of recreational cannabis, in particular in terms of the prevalence of various psychiatric diagnoses and the use of cannabis in a psychiatric population. It revealed a significant increase in the active use of cannabis in patients over 18 years old and an increase in the prevalence of cannabis use disorders. We also observed a statistically significant increase in the prevalence of SUDs involving cannabis in patients without PDs.

In view of these results, we suggest promoting psychological education among the young adult population and examining the regulations surrounding the use of recreational cannabis.

We also believe that it highlights the need for more effective strategies in the treatment of cannabis use disorder.

Finally, it would seem appropriate to pursue further study of psychiatric populations in order to refine the analysis of the impact of recreational cannabis legislation, as well as elucidate longer-term trends.

Declaration of Conflicting Interests

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