

Swiss Psychiatrists Beliefs and Attitudes about Cannabis Risks in Psychiatric Patients: Ideologically Determined or Evidence-based?

Daniele Fabio Zullino · Hans Kurt · Barbara Broers · Anita Drexler · Hans-Peter Graf · Yasser Khazaal · Yves Le Bloc'h · Baya-Laure Pegard · François Borgeat · Martin Preisig

Received: 8 November 2005 / Accepted: 20 July 2007 / Published online: 13 August 2007
© Springer Science+Business Media, LLC 2007

Abstract The objective of this survey was to assess the beliefs of Swiss psychiatrists about the risks associated with cannabis, and to assess their prohibitive attitudes toward their patients. Eighty-two doctors agreed to fill-up the questionnaire. Cluster analysis retained a 3-cluster solution. Cluster 1: “Prohibitionists” believed that cannabis could induce and trigger all forms of psychiatric disorder, and showed a highly prohibitive attitude. Cluster 2: “Causalists” believed that schizophrenia, but not other psychiatric disorders, could be induced and triggered. Cluster 3: “Prudent liberals” did not believe that psychiatric disorders could be induced by cannabis, and were generally less prohibitive.

D. F. Zullino (✉)
Division of Substance Abuse, University Hospitals of Geneva, Rue verte 2, CH-1205 Geneva, Switzerland
e-mail: Daniele.Zullino@hcuge.ch

H. Kurt
Private Practice, Solothurn, Switzerland

B. Broers
Department of Community Medicine, University Hospitals of Geneva, Geneva, Switzerland

A. Drexler
Private Practice, Thalwil, Switzerland

H.-P. Graf
Psychiatric Hospital Münsingen, Münsingen, Switzerland

Y. Khazaal · Y. Le Bloc'h · F. Borgeat · M. Preisig
Department of Psychiatry, University Hospitals of Lausanne, Lausanne, Switzerland

B.-L. Pegard
Private practice, Neuchatel, Switzerland

Keywords Cannabis · Mental disorders · Attitude of health personnel · Drug and narcotic control

Introduction

A reappraisal of the traditional narcotic policies is taking place in several European countries (European Monitoring Centre for Drugs and Drug Addiction (2007)). Cannabis is the drug that has been most discussed in this regard (for example in Belgium, Italy, Ireland, Luxembourg, Netherlands) and with particularly emotional political controversies in Switzerland. Whereas the Swiss Senate has twice taken position in favor of a more liberal drug policy, the House of Representatives has recently refused to debate the specific amendments to the drug law, which in fact corresponds to a definitive refusal. In addition, this result has been attributed to a growingly widespread antidecriminalization sentiment in the population. For example, several teachers unions have issued statements criticizing decriminalization, as have many psychiatrists too. The old debate about the association between cannabis use and psychosis was reactivated, particularly in the view of the recent observations of increasing THC concentrations in cannabis products currently found on the black market, and surveys indicating an increasingly earlier onset of cannabis use among Swiss children (Muller and Gmel 2002).

For more than a century, physicians' statements have been very important in political decisions on drug related issues (Park 1899). Providers' attitudes regarding substance use and users may be not only evidence based, but also influenced by their clinical grade (Carroll 1996), their own consumption habits (Linn et al. 1989) or by personal ideological and political viewpoints. Attitudes and perceptions of service delivery highly influence quality of screening and care delivery (Carroll 1995, 1996). Until now, only one previous study has investigated physicians' attitude regarding cannabis policies. In that study, 303 GPs, gastroenterologists and psychiatrists were asked to indicate whether possessing or using marijuana should be considered a felony, a misdemeanor, warrant the issuance of a citation, or be legalized (Linn et al. 1989). The position physicians advocated was unrelated to their specialty, diagnosing experience or method of treating substance abuse problems, or even to their attitudes toward the efficacy of the treatment of drug abuse. However, preference for legalization or citation compared to harsher penalties was more likely to prevail among physicians who were younger, less religious, politically more liberal, and among those less likely prone to perceive a serious drug problem in society. Legalization was also more likely favored by physicians who themselves had used marijuana, cocaine, and amphetamines but was unrelated to the use of alcohol, cigarettes or tranquilizers. Attitudes of physicians toward the legalization of marijuana use were not related to the nature of their practices or clinical experience but rather to personal factors such as using marijuana, current attitudes toward drug problem, their religious feelings, and current political orientations.

As the discussion about the pathogenic properties of cannabis consumption has increasingly been affected by political debates, scientific findings have been used

for political arguments and may have often been interpreted according to personal ideological convictions.

The aim of the present survey was to explore the way psychiatrists evaluate the risks of cannabis consumption with regard to the induction and the triggering of psychiatric disorders, and to assess their attitudes towards their patients' cannabis consumption. The main study hypothesis was that some psychiatrists' attitudes would depend on their patients' diagnoses, and other psychiatrists' attitudes would remain constant and independent of the diagnostic subgroups.

Methods

The present survey was conducted in the context of a 3-day symposium of 103 Swiss psychiatrists. The symposium was organized and sponsored by the pharmaceutical company AstraZeneca (Switzerland) on the following themes: Treatment of bipolar disorders, antipsychotics in elderly patients, acute treatment with antipsychotics and switching and endocrinological issues in the treatment with antipsychotics.

Physicians in private practice were personally invited by the pharmaceutical company. Those working in public institutions were formally invited through invitations sent directly to their institution. Thus, the selection of out of the hospitals participants was to some degree determined by the pharmaceutical company. The participants contributed personally to the costs of the symposium (500 CHF \approx 350 €).

The symposium began with four introductory lectures aiming to stimulate interactive discussions during the following workshops. The participants were assigned to one of the four workshops groups according to their language (one French speaking and three German speaking). Due to the proportionally low presence of Italian speaking participants, no Italian-speaking workshop was offered. Instead, the physicians coming from the Italian speaking part of Switzerland chose to join a German-speaking group. All speakers and workshops leaders were bilingual (French and German) in order to guarantee similar conditions in all groups.

Considering the current national political controversy on the cannabis issue and the opportunity to reach a sample reasonably representative of Swiss psychiatrists, a short 1-page questionnaire was developed by two of the symposium-speakers (D.Z. and M.P.). A German and a French version were prepared and controlled for correspondence by cross-translations. The questionnaire aimed to assess (1) Sociodemographic information, (2) The participant's opinion regarding the risk of cannabis consumption in *inducing* different psychiatric disorders, (3) The participant's belief about the risk of cannabis consumption in *triggering* the expression of different psychiatric disorders, and (4) The participant's attitude with regard to patients' possible cannabis consumption.

The questionnaires was distributed preceding one of the workshops (led by H.K. and D.Z.). Information was given to the participant that his/her participation was voluntary and anonymous, that the survey was initiated and administered independently of the symposium's sponsor that the objectives of the survey were unrelated to the purposes and the topics of the symposium and that there was no funding for the administration of the survey. Also, colleagues interested by this survey were invited to participate in the analysis of the results and the redaction of the present report.

Statistics

A hierarchical cluster analysis was performed in SPSS for Windows, version 12.0. Considering that the measures of all variables included in the cluster analysis were counts, Chi-square measure was used. Wards clustering algorithm was applied. The following variables were included in the analysis: the participant's opinion regarding the risk of cannabis consumption in inducing different psychiatric disorders (7 variables, Table 1), the participant's belief about the risk of cannabis consumption in triggering the expression of different psychiatric disorders (4 variables, Table 1), and the participant's attitude with regard to patients' possible cannabis consumption (6 variables, Table 2). Clusters were compared with regard to available sociodemographic data and with regard to the variables, which were included in the cluster analysis. ANOVA and Pearson's Chi-square test were performed when appropriate.

Results

From the 103 physicians attending the symposium, 83 (80.6%) agreed to participate in the survey. There were missing values for only five items. Only the item "age" was found with an important proportion of missing values, since 21/83 participants (25.3%) did not reveal their age. One participant did not respond to the four questions about cannabis possibly inducing psychiatric disorders and was therefore excluded from the analyses. The mean age of the responders was 42.7 ± 7.9 years (range 32–62 years). Among the 82 included subjects, 28 (34.1%) were women. This is in accordance with the nationwide 2002 figure of a percentage of 35% psychiatrists women (Generalsekretariat 2003). In 2005, 2340 board certified psychiatrists (37% women) were registered in the Swiss Medical Association FMH (Foederatio Medicorum Helveticorum 2006), of them 1882 (37% women) had a private practice. A total of 61 (74.4%) were specialists in psychiatry, 21 (25.6%) were still in postgraduate training. Seven (8.5%) were residents, 46 (56.1%) were attendants, 16 (19.5%) head of department or medical director, and 13 (15.9%) worked in private practice. A total of 53 participants (64.6%) worked in the German-speaking region, 24 (29.3%) in the French-speaking region, and 5 (6.1%) in the Italian-speaking region. The corresponding 2002 nationwide figures related to psychiatric specialists were 65% for the German-speaking psychiatrists, 31.3% for the French-speaking, and 3.5% for the Italian speaking (Generalsekretariat 2003).

Participants' Opinion Regarding the Risk of Cannabis Consumption in Inducing or Triggering Different Psychiatric Disorders

The descriptive statistics regarding participants' answers on the question are given in Table 1. Induction or triggering of schizophrenia was thought to happen under influence of cannabis by over 70% of the respondents. In contrast, only 43% pointed

Table 1 Participants' opinion regarding the risk of cannabis consumption in inducing respectively triggering different psychiatric disorders

	Total sample (<i>N</i> = 82) (%)	Cluster 1 (<i>n</i> = 22) Prohibitionists (%)	Cluster 2 (<i>n</i> = 46) Causalists (%)	Cluster 3 (<i>n</i> = 14) Prudent liberals (%)	χ^2	<i>P</i>
Cannabis consumption induces the development of ...						
... schizophrenia (in general)	73.2	95.5	84.8	0.0	46.91	<0.001
... positive symptoms	79.3	100.0	89.1	14.3	44.45	<0.001
... negative symptoms	72.0	100.0	78.3	7.1	38.62	<0.001
... cognitive symptoms	79.3	100.0	93.5	0.0	64.94	<0.001
... manic episodes	43.9	100.0	26.1	14.3	39.03	<0.001
... depressive episodes	59.8	100.0	54.3	14.3	27.41	<0.001
... anxiety disorders	57.3	86.4	56.5	14.3	18.20	<0.001
Cannabis consumption triggers the manifestation of ...						
... schizophrenia	79.3	100.0	71.7	71.4	7.86	<0.05
... manic episodes	45.1	100.0	21.7	35.7	37.41	<0.001
... depressive episode	57.3	95.5	45.7	35.7	18.31	<0.001
... anxiety disorders	61.0	86.4	52.2	50.0	8.17	<0.05

Table 2 Participants' attitude with regard to patients' possible cannabis consumption

What is your attitude facing a cannabis consuming patients with ...	Total sample (<i>N</i> = 82) (%)	Cluster 1 (<i>n</i> = 22) Prohibitionists (%)	Cluster 2 (<i>n</i> = 46) Causualists (%)	Cluster 3 (<i>n</i> = 14) Prudent liberals (%)	χ^2	<i>p</i>
... schizophrenia, presenting negative symptoms						
"I prohibit it"	15.9	31.8	10.9	7.1	21.05	<0.01
"I strongly advise him to stop"	51.2	50.0	60.9	21.4		
"I advise him to stop"	28.0	18.2	26.1	50.0		
"I tolerate the consumption"	4.9	0.0	2.2	21.4		
... schizophrenia, presenting positive symptoms						
"I prohibit it"	22.0	45.5	15.2	7.1	26.55	<0.001
"I strongly advise him to stop"	54.9	50.0	65.2	28.6		
"I advise him to stop"	22.0	4.5	19.6	57.1		
"I tolerate the consumption"	1.2	0.0	0.0	7.1		
... bipolar disorder						
"I prohibit it"	14.6	36.4	6.5	7.1	28.93	<0.001
"I strongly advise him to stop"	35.4	54.5	34.8	7.1		
"I advise him to stop"	42.7	9.1	52.2	64.3		
"I tolerate the consumption"	7.3	0.0	6.5	21.4		
... unipolar depression						
"I prohibit it"	11.0	27.3	4.3	7.1	17.05	<0.01
"I strongly advise him to stop"	37.8	54.5	32.6	28.6		
"I advise him to stop"	39.0	18.2	47.8	42.9		
"I tolerate the consumption"	12.2	0.0	15.2	21.4		

Table 2 continued

What is your attitude facing a cannabis consuming patients with ...	Total sample (N = 82) (%)	Cluster 1 (n = 22) Prohibitionists (%)	Cluster 2 (n = 46) Causalists (%)	Cluster 3 (n = 14) Prudent liberals (%)	χ^2	p
... anxiety disorder						
“I prohibit it”	11.0	27.3	4.3	7.1	22.42	<0.01
“I strongly advise him to stop”	32.9	54.5	30.4	7.1		
“I advise him to stop”	43.9	18.2	50.0	64.3		
“I tolerate the consumption”	12.2	0.0	15.2	21.4		
... personality disorder						
“I prohibit it”	11.0	27.3	4.3	7.1	19.49	<0.01
“I strongly advise him to stop”	32.9	54.5	26.1	21.4		
“I advise him to stop”	31.7	9.1	39.1	42.9		
“I tolerate the consumption”	24.4	9.1	30.4	28.6		

to cannabis as potentially inducing manic episodes, all other responses rates were between 56 and 60%.

Participants' Attitude with Regard to Patients' Possible Cannabis Consumption

As reported in Table 2, the sampled psychiatrists were greatly prohibitive with regard to cannabis consumption in schizophrenic patients, most of them forbidding the consumption or strongly advising the patient to stop smoking cannabis. Patients with diseases other than schizophrenia were still often advised not to smoke, however, psychiatrists attitudes seemed to be less strict. A noteworthy result of Table 2 is the relatively high proportion (25%) of respondents who would tolerate cannabis consumption in patients with personality disorder compared to their attitude related to the other psychiatric disorders.

Comparison of the Clusters

A 3-cluster solution was retained. The characteristics of the three resulting groups of participants with regard of their beliefs (Table 1) and their attitudes (Table 2) can be summarized as follows:

Cluster 1

Participants included in this group could be characterized as generally believing that cannabis could induce and trigger all forms of psychiatric disorders (Table 1), and showed a highly prohibitive attitude in front of all psychiatric patients (Table 2). This group was labeled *Prohibitionists*.

Cluster 2

This group included psychiatrists who mainly believed that the different symptomatic dimensions of schizophrenia could be induced and that schizophrenic manifestations could be triggered by cannabis (Table 1). With regard to the induction or the triggering of the other disorders, the opinions among this group were heterogeneously distributed. Whereas their attitude in front of schizophrenic patients was mostly prohibitive or authoritatively advising, the attitude became more advisory or tolerant in front of non schizophrenic patients (Table 2). This group was labeled *Causalists*.

Cluster 3

This group was composed of psychiatrists who mostly did not believe that cannabis could induce one of the psychiatric disorders questioned about. However, 71.4% of

them believed that cannabis could trigger schizophrenic episodes (Table 1). Whereas they tended to be generally less prohibitive than the participants of the other two groups, they would mostly advise schizophrenic patients presenting positive symptoms not to consume cannabis (Table 2). This third group was named *Prudent liberals*.

The three clusters were compared with regard to age, sex, language region of activity, hierarchical position and completed postgraduate training, and no significant differences were found.

Discussion

The data confirm the initial study hypothesis of different “prohibition-profiles” among Swiss psychiatrists. Attitudes (and even beliefs) of an important part of Swiss psychiatrists regarding cannabis consumption by psychiatric patients therefore shows clear resemblances to those found in the population, i.e., a rather categorical prohibitive or permissive position, indicative more of an ideological than empirical approach to the cannabis debate. A recent Swiss survey (Institute Suisse de Prevention de l’Alcoolisme et Autre Toxicomanies 2005) revealed that among respondents ages 13–29 years asked about the possible effects of cannabis, responses were dependent on previous or current cannabis consumption. For example, 59% of current consumers thought that cannabis has relaxing properties vs. 25% among the never users. On the other hand, 24% of never smokers considered cannabis to induce addiction, while the proportion was 11% among current smokers. Interestingly, the result was opposed with regard to the perceived risk of psychiatric disorders (anxiety, panic attacks, schizophrenia, etc): 9% of never smokers, 15% of former smokers and 21% of current smokers thought that cannabis consumption could induce psychiatric disturbances.

In a survey commanded in 1998 by the Swiss Federal Office of Public Health among the main Swiss actors in the field of harm reduction, 45% of the respondents representing the cities and the cantons were at least partly favorable to the de-penalization of cannabis deal and consumption, while in the private and public institutions, the proportion was 52% (Zobel et al. 1999). An interesting aspect of the results is the combination of a rather high proportion of responders (80%) and the high percentage of non-response to the item “age”. Whereas participants seemed to be disposed to give responses of rather delicate political quality, one can assume that some of them might not have expressed their opinion openly and might have refused to answer to the question about their age worrying about anonymity. Health behaviors among doctors have been suggested to be an important marker of how harmful lifestyle behaviors are perceived. Thus, it has repeatedly been found that physicians who are smoking restrict from advising their patients to quit smoking cigarettes (Barengo et al. 2005; Jossieran et al. 2005; Nardini et al. 1998; Parna et al. 2005a, b). Smoking physicians were also less likely to agree with statements that would change their current freedom to smoke cigarettes (Hodgetts et al. 2004). Non-smoking physicians had more unfavorable views towards smoking than those who smoked (Parna et al. 2005b). Former smokers were more likely to indicate that

their help in getting patients to quit was not effective compared to smokers (Josseran et al. 2005).

For Swiss physicians, a recent study has revealed some differences compared to the Swiss population regarding legal substance use. Among the 1784 interviewed physicians, 12% were current smokers (30% in the general population) and 30% were at risk alcohol drinkers (15% in the general population) (Sebo et al. 2007). The prevalence of smokers among Swiss physicians is thus higher than in the USA and several European countries. The lower smoking prevalence in physicians compared to the general population confirms, on the other hand, similar figures from various industrialized countries in North America and Europe (Hughes et al. 1992; Josseran et al. 2005; La Vecchia et al. 2000; Parna et al. 2005a, b).

The results of this study need to be viewed against their major methodological limitation. Whereas the interviewed sample of psychiatrists seemed fairly representative of Swiss practicing specialists (Generalsekretariat 2003) with regard to sex and language distribution, there may remain some biasing factors. As the participants to the symposium were invited by a pharmaceutical company sponsoring the event, there may have been a particular selection biasing the proportions between the different belief/attitude clusters.

If policy makers intend to seek physician opinion on the legalization issue, they have to take into consideration that their opinion may be unrelated to clinical or scientific credentials. The process of choosing physicians as expert witnesses may thus prove similar to the process of choosing experts in any field in which facts are heavily interpreted through surroundings, beliefs, and opinions. When dealing with controversial moral or ethical issues that may bear on the development or implementation of legislative policy, physicians behave much like any other group of citizens.

In conclusion, whereas an evidence-based cannabis-related argumentation is generally expected from physicians in political discussion, this should not be considered as granted.

References

- Barengo, N. C., Sandstrom, H. P., Jormanainen, V. J., & Myllykangas, M. T. (2005). Attitudes and behaviors in smoking cessation among general practitioners in Finland 2001. *Soz Präventivmed*, 50(6), 355–360.
- Carroll, J. (1995). The negative attitudes of some general nurses towards drug misusers. *Nursing Standards*, 9(34), 36–38.
- Carroll, J. (1996). Attitudes to drug users according to staff grade. *Professional Nurse*, 11(11), 718–720.
- European Monitoring Centre for Drugs and Drug Addiction (2007). National Drug Strategies. <http://www.emcdda.europa.eu/?nnodeid=1360> accessed February 27, 2007. Lisbon: EMCDDA.
- Generalsekretariat, F. M. H. (2003). Fmh-ärztestatistik 2002/statistique médicale fmh 2002. *Schweizerische Ärztezeitung*, 17, 802–824.
- Hodgetts, G., Broers, T., & Godwin, M. (2004). Smoking behavior, knowledge and attitudes among family medicine physicians and nurses in Bosnia and Herzegovina. *BMC Family Practice*, 5, 12.
- Hughes, P. H., Brandenburg, N., Baldwin, D. C. Jr., Storr, C. L., Williams, K. M., Anthony, J. C. et al. (1992). Prevalence of substance use among us physicians. *JAMA*, 267(17), 2333–2339.
- Institut Suisse de Prevention de l'Alcoolisme et Autres Toxicomanies (2005). Calculs de l'ISPA sur la base des résultats de la première enquête (2004) du Monitoring de la problématique du Cannabis en Suisse. http://www.sfa-ispas.ch/DocUpload/t_d03.pdf accessed February 2, 2007. Lausanne: ISPA.

- Josseran, L., King, G., Guilbert, P., Davis, J., & Brucker, G. (2005). Smoking by French general practitioners: Behaviour, attitudes and practice. *European Journal of Public Health, 15*(1), 33–38.
- La Vecchia, C., Scarpino, V., Malvezzi, I., & Baldi, G. (2000). A survey of smoking among Italian doctors. *Journal of Epidemiology and Community Health, 54*(4), 320.
- Linn, L. S., Yager, J., & Leake, B. (1989). Physicians' attitudes toward the legalization of marijuana use. *Western Journal of Medicine, 150*(6), 714–717.
- Muller, S., & Gmel, G. (2002). [Changes in the age of onset of cannabis use: Results of the 2nd Swiss health survey 1997]. *Soz Präventivmed, 47*(1), 14–23.
- Nardini, S., Bertoletti, R., Rastelli, V., & Donner, C. F. (1998). The influence of personal tobacco smoking on the clinical practice of Italian chest physicians. *European Respiratory Journal, 12*(6), 1450–1453.
- Park, W. H. (1899). *Opinions of 100 physicians on the use of opium in China*. Shanghai: American Presbyterian Mission Press.
- Parna, K., Rahu, K., Barengo, N. C., Rahu, M., Sandstrom, P. H., Jormanainen, V. J. et al. (2005a). Comparison of knowledge, attitudes and behaviour regarding smoking among Estonian and Finnish physicians. *Soz Präventivmed, 50*(6), 378–388.
- Parna, K., Rahu, K., & Rahu, M. (2005b). Smoking habits and attitudes towards smoking among Estonian physicians. *Public Health, 119*(5), 390–399.
- Sebo, P., Bouvier Gallacchi, M., Goehring, C., Kuenzi, B., & Bovier, P. A. (2007). Use of tobacco and alcohol by Swiss primary care physicians: A cross-sectional survey. *BMC Public Health, 7*(1), 5.
- Swiss Medical Association FMH (Foederatio Medicorum Helveticorum) (2006). Médecins en exercice par spécialité en 2005. http://www.fmh.ch/de/data/pdf/import_fmh/ict/statistik/2005/sts2005-10.pdf accessed February 27, 2007. Bern: Swiss Medical Association.
- Zobel, F., Gervasoni, J. P., & Jeannin, A. (1999). *Enquête auprès des partenaires de l'office fédéral de la santé publique dans le domaine de la toxicomanie (drogues illégales)*. Lausanne: IUMSP.