

CORRESPONDENCE

Risks Associated With the Non-Medicinal Use of Cannabis

by Dr. rer. nat. Eva Hoch, Prof. Dr. med. Udo Bonnet, Prof. Dr. med. Rainer Thomasius, Dr. med. Florian Ganzer, Prof. Dr. med. Ursula Havemann-Reinecke and Prof. Dr. med. Ulrich W. Preuss in issue 16/2015

Epidemiological Data are Lacking

The authors describe the symptoms of somatic, mental, and psychosocial impacts in a detailed and evidence-based manner (1). However, I miss epidemiological data on the distribution of quantitative use.

According to our epidemiological understanding, consumers with excessive cannabis use are in the minority, the majority of users are occasional consumers. The article leaves an aftertaste, especially when taking into account the current sociopolitical discussion, as it provides opponents of liberalization with a point of attack in additional (pseudo-) arguments in support of their known theories.

A differentiation between medical effects in users whose consumption is high and those whose consumption is low would have benefited the article; for this reason, I think that the authors did a disservice to the fair sociopolitical discussion of the entire topic.

The fact that by retaining the 40 year old German narcotics law (*Betäubungsmittelgesetz*, BtmG), cannabis users continue to be criminalized and may therefore lose their social or economic/financial status in society, although their consumption does not result in appreciable deviations regarding good social conduct, is the real scandal in society.

Independently of the indication, the case should be made for a sober, medical discourse on the risks of non-medicinal cannabis use; in my view, the inclusion of epidemiological data in this is mandatory.

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The author declares that no conflict of interest exists.

Largest Epidemiological Study not Mentioned

Unfortunately, the authors did not wholly succeed in explaining the risks of cannabis in a differentiated manner (1). With regard to the selection of studies of possible tumor disorders subsequent to cannabis consumption, it is of note that the largest and most elaborate epidemiological study was not mentioned (2).

As in other studies that were not included, this study did not find any risk increase owing to cannabis smoking for any of the cancers under investigation—including cancers of the respiratory tract. Tetrahydrocannabinol (THC) itself inhibits cancer.

With regard to the association between early cannabis consumption and premature dropping out of school, studies that investigate the causality are lacking. One study of 3337 adult twins found that the relation between cannabis consumption at a young age and dropping out of school early is based on common environmental risk factors that affect the risk for cannabis consumption at a young age as well as dropping out of school prematurely (3).

The authors concede that studies of suicidality have yielded heterogeneous results, but they documented only studies reporting increased risks for suicidal ideation. Other studies that, for example, investigated the association between legislation concerning the medicinal use of cannabis in the US and suicide rates did not find any significant association with completed suicides (4).

Increasingly, there are indications that some cannabis effects, such as an anti-inflammatory effect and neuroprotection, may have beneficial effects in the long term. A 2015 meta-analysis of eight studies from the US, on the basis of the National Health and Nutrition Examination Surveys and the National Surveys on Drug Use and Health, confirmed that cannabis consumption might have a protective effect against the development of diabetes. Cannabis consumption was associated with a 30% reduction in the risk of diabetes (odds ratio 0.7; 95% confidence interval 0.6 to 0.8).

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The author is the chair of the working group Cannabis as Medicine reg. assoc. (Arbeitsgemeinschaft Cannabis als Medizin e V [ACM]), chair of the Medical Cannabis Declaration reg assoc (MCD), and managing director of the International Association for Cannabinoid Medicines reg assoc (IACM).

In Reply:

We thank Ulrich Braune and Dr Grotenhermen for their valuable suggestions and critical comments.

In our review article we aimed to summarize what is currently known about the potential risks of intensive leisure-time cannabis consumption (1). The European Monitoring Centre for Drugs and Drug Addiction refers to “intensive” consumers as persons who use cannabis on a daily or almost daily basis. This includes about 3 million persons in the European Union (2), not 12 million, as we incorrectly cited in our article. Only a few studies have investigated more specific cannabis use patterns in association with potential health-related or social problems. Distinguishing between “high” and “low” consumption, as suggested by Ulrich Braune, is, however, not enough to draw any conclusions about causation. First of all, these categories would have to be clearly defined and then consistently used in research. To this end, it would be necessary for experts internationally to agree on data collection standards. But even then the question of causality would remain unanswered. The retrospective twin study cited by Dr Grotenhermen (3) can ultimately neither rule out nor confirm whether psychological, somatic, or social problems are due to cannabis consumption or to other (genetic, environmental) factors. Prospective studies are needed to clarify this. So far, very few studies have comprehensively investigated persons from early childhood into adult age and have methodically controlled for a multitude of associated variables at the same time. One of the highest-quality studies is by Meier and colleagues (4). The authors conclude that starting to consume cannabis regularly early in life (before the 18th year of life) in particular has a detrimental effect in later cognitive performance.

When assessing the somatic sequelae of cannabis consumption, the influence of cannabis and its ingredients as well as the effects of associated variables have to be monitored closely. We therefore thank Dr Grotenhermen for mentioning a relevant study by Hashibe et

al (5). It shows that, as in the studies we included in our article, tobacco consumption has to be considered in analyzing the effect of inhaled cannabis products. While THC by itself does not have a confirmed carcinogenic effect, cannabis smoke does contain a whole range of chemical compounds for which harmful effects can currently not be ruled out, as the author of the letter himself confirms with his own publications.

In conclusion, we would make a case for studying the risks of consumption of non-medical cannabis separately to the clinical data on medical cannabis consumption. The respective

target groups, expectations, consumption patterns, dosages, and settings are extremely different, and this has to be borne in mind.

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