

Cannabis, Mental Disorders and the Precautionary Principle: A Reason to Sustain Prohibition?

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Introduction

We are lately witnessing an increasing awareness that the War on Drugs has failed, exemplified among others by the work of the Global Commission on Drug Policy [1-3] and of recent position statements of the United Nations Office on Drugs and Crime [4].

As a result, an increasing number of countries and states/regions are abandoning their prohibitionist legislation and jurisprudence to pass over to various types of regulated cannabis markets. For example, several Swiss cities have e.g. launched a working group to consider pilot projects of regulated cannabis access. In the light of these recent developments, the issue of harmfulness of cannabis, and particularly its potential effects on mental health, has once again become a passionately debated issue.

While the existence of multiple correlations between mental disorders and cannabis consumption is undisputed, it still remains open to question whether these correlations imply causation [5]. Although it is true that the limited ability to identify or to quantify causal relationships may occasionally be misinterpreted as evidence of safety, failure to take precautionary action can possibly have catastrophic social and economic costs. For example, the history regarding tobacco and its effects on public health may provide abundant evidence of avoidable costs due to waiting for convincing proof of harm.

The Precautionary Principle

Faced with arguments questioning the causal role of cannabis in the development, triggering and/or aggravating of different mental disorders, supporters of prohibition may sometimes invoke the so-called precautionary principle [6,7].

This principle states that, in the case of serious or irreversible threats to human health, acknowledged scientific uncertainty should not be used as a reason to postpone preventive measures. Until more complete and conclusive evidence is available, it may be critical to make decisions based on the best existing evidence, while admitting the remaining uncertainties [8,9]. One of the central components of the precautionary principle consists thus in shifting the burden of proof to the proponents of an activity: in the present case on potential defendants of a regulated cannabis market.

While thus preventive public health interventions are supposed to focus on neutralizing already identified and scientifically corroborated hazards, the precautionary principle addresses uncertain risks and indicates a strategic shift from reaction to precaution.

Application of the precautionary principle is considered particularly appropriate for the protection of children and adolescent's health. Among other arguments, the possibility of serious harm may be larger than for adults, because of the increased vulnerability in these stages of biological and psychological development. In addition, any potential harm will have a more durable personal and societal impact if it first occurs in childhood or adolescence than in adulthood [9].

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Why is the Precautionary Principle Irrelevant Regarding Cannabis and Mental Disorder

There are at least two categories of uncertainty that can be involved into the debate about cannabis being a risk factor for mental illness or not and its consequences: (a) Uncertainty about the causal relationship, and (b) Uncertainty about the risk of consequences. The precautionary principle actually concerns mainly the second category.

However, regarding cannabis and mental disorders, the uncertainty almost exclusively concerns the first category. In fact, it has repeatedly been calculated how many cases of psychotic disorder could be prevented by discouraging cannabis use among vulnerable youths. For example, Arseneault et al. calculated that, at the population level, elimination of cannabis use would reduce the incidence of schizophrenia by approximately 8% ... assuming a causal relationship [7]. Thus, the second category of uncertainty, concerning the magnitude of undesirable consequences, is not relevant in this case.

Precautionary actions ultimately aim at continuously reducing and if possible removing exposures to the potential risk [9]. A second reason why the precautionary principle cannot be applied is the fact, that the exposure to the risk is already high. For example, in Switzerland almost 50% of the 20-40 year old men had consumed at least once before 2012, despite prohibition at the time [10]. Furthermore, the steep rise in the prevalence of cannabis use over the last decennia in many countries and a corresponding decrease in the age of initiation have not been accompanied by a corresponding increase in the incidence of schizophrenia [11]. Thus, it appears that, even if one accepts the hypothesis of cannabis causing schizophrenia, the potentially harmful effect had no measurable public health consequences, despite prohibition.

One could now argue that prohibition allowed limiting further spreading of cannabis use. Recent epidemiological data on cannabis use prevalence following the state marijuana legalizations in the US, however, clearly do not support this hypothesis [12].

Why Would Prohibition as a Precautionary Measure Be Inappropriate?

Even if one would accept the precautionary principle to be applicable in the case of cannabis and mental disorders, legal prohibition would remain inappropriate. In a seminal publication, the World Health Organization (WHO) has proposed some relevant measures to consider when applying the precautionary principle [9]: (a) To replace dangerous substances and activities with less dangerous substances and practices where suitable alternatives are available; (b) To reconsider production processes, products

and human activities so as to minimize significant adverse effects on health and the environment; (c) To establish public health goals; (d) To provide information and education to the public to promote empowerment and accountability; and (e) To minimize, so far as possible, unintended adverse consequences that may be caused by precautionary actions.

It is evident that the logic of legal prohibition contravenes this doctrine, renders the realization of these measures difficult if not simply impossible. A government cannot enforce quality control (composition, concentrations, preparation, etc.) on products sold and manufactured illegally neither can it regulate access to these products (sales points, opening hours, legal age to purchase and/or to consume etc.) or the modalities of use (in public spaces, when driving etc.). That prohibition, as a mean to regulate all these aspects of cannabis use, failed is among others revealed by the high prevalence of cannabis use despite prohibition [10]. A regulated market is thus more suitable in the context of the measures recommended by the WHO. It allows among others defining less risky cannabis products (e.g. specifying maximal THC-concentrations), to provide specific harm-reduction information and education to consumers.

Conclusion

Do the above considerations in any case plead against upholding prohibition? They do if one adopts the so-called harm principle, which holds that the actions of individuals should only be limited to prevent harm to other individuals or to the society. Be it for preventive or for precautionary reasons, prohibition appears not to be justified. Another principle, legal paternalism, justifies state coercion to protect individuals from self-inflicted harm [13]. Here again, regulation appears to be the more suitable approach compared to prohibition. Thus, the legal principles founded on the purpose of avoiding harm are better served by a regulated market.

Another legal principle has thus to apply in order to maintain prohibition [14]. The offense principle states that governments are justified in limiting individual liberty in order to prevent offense to others. Offenses may be, among others, affront to senses (e.g. the odor of cannabis smoke), disgust and revulsion (e.g. in seeing cannabis giggling without apparent reason), or shock to moral, religious, or patriotic sensibilities (e.g. because it is written that cannabis consumption is blamable).

The causal relationship between cannabis use and mental disorders, and especially schizophrenia, could have thus been of relevance if prohibition was based on a legal principle aimed to offset harm. As we have tried to discuss above, a regulated market is in this case, however, the best solution. The potential effects of cannabis on mental health will, nonetheless, be inconsequential if prohibition is founded on the offense principle. In conclusion, prohibition can be up-held for non-health related reasons ... but this is not an affair of health professionals.

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