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Research Paper

Growing medicine: Small-scale cannabis cultivation for medical purposes in six different countries

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ABSTRACT

Background: The production and consumption of cannabis for the treatment of medical conditions is of increasing importance internationally; however, research on different aspects of the phenomenon is still scarce. In this article, we report findings from a cross-cultural study of small-scale cannabis cultivation for medical purposes. This kind of comparative study has not been done previously.
Methods: The data were gathered with a help of web surveys conducted by the Global Cannabis Cultivation Research Consortium (GCCRC) in Australia, Belgium, Denmark, Finland, Germany and the UK ($N = 5313$). In the analysis we compare reports of medical motives, for what conditions cannabis is used, whether users have diagnoses for these conditions and whether the use of cannabis been recommended as a treatment of those conditions by a medical doctor. Descriptive statistics are used to show the main commonalities and noteworthy disparities across different countries.
Results: Findings from countries were quite similar, even though several national differences in details were found. Growing cannabis for medical purposes was widespread. The majority of medical growers reported cultivating cannabis for serious conditions. Most of them did have a formal diagnosis. One fifth had got a recommendation from their doctor, but in most cases cannabis use was self-medication which was not discussed with their doctors.
Conclusion: There is a wider demand for licit access for medical cannabis than currently available in these countries. Ideologically, medical growers can be seen distancing themselves from both the legal and illicit drug markets. From a harm reduction perspective, it is worrying that, in the context of present health and control policies in these countries, many medical growers are using cannabis to treat serious medical conditions without proper medical advice and doctor's guidance.

Introduction

The interest in medical cannabis, i.e. use of cannabis for therapeutic purposes, has increased immensely since the early 1990s. Four factors have triggered this development. Firstly, a social movement has developed which has fought for legal access to medical cannabis. This movement has been most visible and powerful in the USA (Dyer, 2013; Geluardi, 2010) but also appeared in some other countries like Canada (Penn, 2014) and Germany (Grotenhermen, 2002). Secondly, the pressure created by the medical cannabis advocacy has led to changes in official policy. In California, USA, the passing of Proposition 215 legalized medical cannabis in 1996, and subsequently many other states have decided to follow the Californian example (Geluardi, 2010). Thirdly, the growing significance of medical cannabis has garnered interest from the pharmaceutical industry which has been developing alternative products to herbal cannabis: e.g. since the mid-1980s synthetic THC (dronabinol, marketed as Marinol®) has been available and since 2004;

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Sativex®, a plant-based extract has become a registered pharmaceutical product in a number of countries. Also, the state authorities are involved in many ways in the production of medical cannabis (e.g. Crawford, 2013). Fourthly, a growing body of research on the therapeutic value of cannabis has been published (e.g. AMA, 2009; Borgelt, Franson, Nussbaum, & Wang, 2013; CMCR, 2010; Grant, Atkinson, Gouaux, & Wilsey, 2012; Kalant & Porath-Waller, 2012). Even though the topic is controversial, support for the use of cannabis for medical purposes might be increasing among clinicians internationally as shown in the recent Clinical Decision of the New England Journal of Medicine (Adler & Colbert, 2013). In short, we are experiencing a formative period in policy and practice around medical cannabis.

The increased interest in medical cannabis can be seen as a revival of historic use of cannabis for medical purposes. Indeed, the use of cannabis and cannabis-based preparations for therapeutic purposes has a long history and has been known in many cultures all over the world (Aldrich, 1997; Grinspoon & Balakar, 1997; Russo, 2007). In the West, cannabis did not play any significant role until the 19th century when it became a popular ingredient in medicines and commercial preparations in Europe and the United States. However, by the end of the century, cannabis was already falling out of favour and it was replaced by new synthetic pharmaceuticals such as aspirin and barbiturates (Fankhauser, 2008). Furthermore, as cannabis was included under the international narcotics control system and classified in Schedule I of the Single Convention in 1961, it was described as having only a limited medical value, but a high potential for abuse. This scheduling frames discussion about medical cannabis even today.

In fact, the renewed interest in medical cannabis is hotly debated. Physicians, health authorities and politicians still ask for more evidence before recognizing cannabis as an approved treatment. At the same time, there is much resistance towards legalizing cannabis for medical purposes by state powers, since they are concerned that a creation of a category of licit (medicinal) cannabis use would blur the boundaries between illegal and legal drugs and thereby challenge the ideology of prohibition in drug policy. Consequently, with the exception of some US states, in most countries where medical cannabis has been made formally available, it has often been implemented under a strictly regulated system where a patient needs a recommendation from a specialized doctor and the variety of the available products is strongly limited. Moreover, in practice physicians in health care might be sceptical and reluctant to suggest medical cannabis for their patients (Dahl & Asmussen Frank, 2011; Grotenhermen, 2002; Pedersen & Sandberg, 2013). Further, there are also concerns about smoking as a mode of administration. Whilst delivery systems such as vaporization remain a possibility, it is extremely unlikely in many countries that a product that is smoked will be approved as a medicine.

Furthermore, our understanding of the characteristics and practices of those who use cannabis for medical purposes is limited. While there is a growing body of studies of authorized patient populations (e.g. Reinarman, Nunberg, Lanthier, & Heddleston, 2011; Walsh et al., 2013) in the countries where medical cannabis has become legal, little is known about self-medication and how and why individuals define their cannabis use as medical in the countries where access to medical cannabis is denied or strongly limited (Dahl & Asmussen Frank, 2011; Ogborne, Smart, Weber, & Birchmore-Timney, 2000; Pedersen & Sandberg, 2013; Ware, Adams, & Guy, 2005). Specifically, our understanding of how medical cannabis users cope with legal barriers and restricted access is limited.

One recognised way to deal with a lack of legal access is to turn to home-growing or to rely on home-grown cannabis supplies from others. For example, in surveys conducted in Belgium, Denmark and Finland on cannabis growing 2%, 24% and 59% of the respondents, respectively, gave 'medical use' as a reason for growing (Decorte, 2010; Hakkarainen, Asmussen Frank, Perälä, & Dahl, 2011a). However, in these studies no further details were available on the underlying medical conditions for which the cannabis was being used. This is important since the boundary between medical and recreational use of cannabis is contested (Dahl & Asmussen Frank, 2011; Hakkarainen, Perälä, & Metso, 2011b; Pedersen & Sandberg, 2013; Potter, 2010; Reinarman et al., 2011).

The present article takes up the challenge of investigating medical cannabis use from the perspective of those who grow cannabis to supply themselves or others with medicinal cannabis. In this contribution we use the terms 'medical growing' and 'medical growers' to refer to this phenomenon. We compare the appearance of medical motives in the samples of cannabis growers from six different countries, including the medical conditions for which cannabis is used,, whether users have a diagnosis for these conditions, and whether their use of cannabis has been recommended as a treatment of those conditions by a doctor. Samples of cannabis growers are included from Australia, Belgium, Denmark, Finland, Germany and the UK.

Medical cannabis policy in these six countries has been evolving since the mid-1990s. However, while there are differences in how these countries have dealt with medical cannabis, formal laws and policies in all six countries were still very similar at the time of writing this article. Some pharmaceutical cannabis products like Marinol® and Sativex® are available in all countries except Australia. Products of herbal cannabis (e.g. Bedrocan®) are accessible in Finland and Germany with a special authorization, and there are a few ongoing clinical trials in the UK. In general, access to cannabis treatment is strictly regulated and predominantly limited to certain specified medical conditions. Furthermore, authorised cannabis treatment seems to be relatively expensive for an individual user, especially when health insurance providers do not reimburse the costs (Grotenhermen, 2002). It is also apparent that many medical authorities and GPs are reluctant to widen access to medical cannabis, especially beyond these limited numbers of approved pharmaceutical products to the consumption of herbal cannabis. In the context of limited access, reserved attitudes and expensive costs of the official cannabis medication, the illicit market and a supply based on home growing are likely to appear as attractive alternatives (Grinspoon, 2001; Grotenhermen, 2002).

With the exception of industrial hemp and licenced growing for scientific purposes cannabis growing is illegal in all six countries. In Belgium, however, a joint guideline issued by the Minister of Justice and the College of Public Prosecutors in 2005 sets out that the lowest prosecution priority is to be given to the possession by adults of an amount of cannabis suitable for personal use, which is to say quantities not exceeding three grams or one cultivated plant (without aggravating circumstances or causing disturbance of the public order). In other words, in the case of growing not more than one plant, the person concerned will not receive a criminal record. Another exception was recently made by Germany: in December 2012 the Federal Administrative Court ruled that seriously ill patients may grow their own cannabis for medicinal uses (German medical marijuana patients allowed to grow their own, 2013). Patients who wish to take part can apply to the Federal Institute for Drugs and Medical Devices for permission to treat themselves with homegrown cannabis, with use monitored by a medical doctor.

Data for this study stems from national web surveys conducted by the Global Cannabis Cultivation Research Consortium (GCCRC). Surveys were designed to compare data on cannabis growers, including growing for medical purposes (Barratt et al., 2012). This created an opportunity to study and compare whether, and in what ways, growers cultivating cannabis for medical purposes are alike