Medicalizing cannabis—Science, medicine and policy, 1950–2004: An overview of a work in progress

Suzanne Taylor
Centre for History and Public Health, London School of Hygiene & Tropical Medicine, London, UK

Abstract
Cannabis has been the subject of much policy and media attention in the last few years and the 2004 legal changes under the Misuse of Drugs Act in the UK, were widely, although incorrectly, presented as liberalization or legalization of the drug. Current debates over the classification of cannabis as Class C or B serve to emphasize the controversies that surround the drug. This paper provides an overview of a Wellcome Trust three-year project that is currently in progress. Framed as a history of science and policy making, the project aims to study the process whereby boundaries shift between illicit ‘drug’ and licit ‘medicine’ and the issues and interests that are involved in that transaction. Specifically, the project aims to analyse the trajectory of research since the 1950s, the interests involved, in particular the role of scientific research and allied professions; industry; drug technology; and lay knowledge and user activism. It aims to analyse the interaction of science and medicine with policy through the examination of the policy role of expert committees and their membership. The impact of international agencies will also be considered. Lastly, it will assess the overall impact of medicalization on the policy environment. Standard historical methodology will be applied and a wide variety of published and archival source material, as well as semi-structured oral history interviews, will be utilized.

Introduction
Cannabis has been the subject of much policy and media attention in the last few years and the 2004 legal changes under the Misuse of Drugs Act in the UK, were widely, although incorrectly, presented as liberalization or legalization of the drug. (Daily Mail, 2003). Current debates over the classification of cannabis as
Class C or B serve to emphasize the controversies that surround the drug. Such debate, over the value of cannabis, both as a medicine and a threat as an illegal drug, reflect a long and often controversial history. Initially prized as a food, and fibre, and widely used in Ancient and Asian medicine, cannabis as a therapeutic was introduced to the UK from India in the nineteenth century. Hailed as a new wonder drug it was developed as a treatment for ailments ranging from muscle spasms caused by tetanus and rabies, to period pain, to vomiting associated with cholera. However, in the face of controversies, many of which continue today, cannabis use declined. Claims of a link to insanity, the lack of an isolated active principle, problems of supply, competition from the more readily utilized opium, combined with prohibitive international legislation that developed from the 1920s, meant that the drug fell into obscurity for much of the twentieth century. Interest in cannabis’ medical properties re-emerged in Europe in the 1950s, with Eastern European scientists investigating the antibacterial properties of the plant, and in the UK with the work of the pharmacologist William Paton on the pharmacology of cannabis in the 1960s and 1970s. By the 1990s, the discovery of the cannabinoid receptor system caused a snowballing of interest. Research expanded and broadened, expert committees delved into the benefits and risks of therapeutic cannabis, and sufferers of diseases lacking effective treatments such as AIDS and MS pressured for access to medicinal cannabis. After decades of ignoring cannabis, the pharmaceutical industry also began to show interest and in the UK one pharmaceutical company emerged, developing medicines derived from cannabis. On the other hand, debates intensified over the detrimental effects of cannabis in relation to mental health, and the possible stimulation of recreational use. This paper outlines a current three-year Wellcome Trust funded project to study this medicalization or rather re-medicalization of cannabis. As part of this project I am carrying out my PhD and it is from this perspective that this article is written. The article commences with a review of the historical literature on cannabis. It provides an overview of the main research themes and questions and concludes with a discussion of the methodology and indications for future work.

**Historiography**

Historical work on cannabis has been used to inform current debates though, surprisingly, there is limited historical work on the contemporary history of the therapeutic use of cannabis. Cannabis has long caught the public’s eye and there have been numerous popular accounts (Bloomquist, 1971; Goldman, 1974; Gudgeon, 1999; Solomon, 1969; Starks, 1981). Booth’s *Cannabis: A history*, though focused on the USA, offers some UK comparisons and provides a useful narrative chapter on the re-interest in therapeutic cannabis after 1960 (Booth, 2003). One of the few popular books dealing specifically with the medical use of cannabis is that by Alan Bock in which he provides a review of American politics surrounding medical marijuana and, in particular,
the implementation of Proposition 215, which allowed compassionate access to marijuana (Bock, 2000). These popular histories provide an interesting starting point but are primarily anecdotal, brief introductions to the field.

Academic interest in cannabis emerging in the late 1960s and 1970s sought to bring a historical perspective to growing contemporary drug problems (Kalant, 1972; Lewis, 1968). The spotlight fell on nineteenth-century European use of cannabis and especially on its literary or recreational uses (Glatt, 1969; Hindmarch, 1972; Kalant, 1971). Berridge provided an account of the introduction of cannabis to the UK, its applications, and the development of cannabis research. She illustrated how its use was limited, both recreationally and medically, during the nineteenth century, and offered reasons for its decline, namely problems with its uncertainty of action, irregular supply, and its inability to compete with opium products in terms of availability and mode of delivery (Berridge, 1981). However, during these decades historical analysis of the therapeutic use of cannabis tended to be confined to a brief description within more general histories of other drugs or within social histories of cannabis.

Another major prong of historical research developing in the 1970s and 1980s was history related to policy. This was primarily focused on events in the USA and centred on the 1930s when prohibitive policies were implemented. Historical debates revolved upon the reasons behind the establishment of the Marijuana Tax Act of 1937 with arguments over the relative importance of anti-Mexican sentiment, the link to crime, and insanity, or the pressure for prohibitive policies ensuing from Angslinger and the Federal Bureau of Narcotics (Armstrong & Parascandola, 1972; Bonnie & Whitebread, 1974; Grinspoon, 1971; Grinspoon & Bakalar, 1993; Himmelstein, 1983; Musto, 1972). Alternatively, Saper examined how American narcotic laws developed more through accident and the acceptance of drug myths, rather than through rational decision-making (Saper, 1974). An analysis of cannabis policy in the UK will provide a useful snapshot into the process of medicalization and in turn the impact of medicalization on policy. A largely overlooked dimension is the rise of international organizations and associated drug-control policies of which cannabis has been a part since the 1920s. Research on the development of international agencies in the twentieth century and subsequent international policy, specifically international drugs control legislation, exists while historical research since 2000 has expanded our knowledge of colonial production and the supply of cannabis, and the development of initial prohibitive international and subsequent domestic UK legislation (Berridge, 2001; Bruun et al., 1975; Kendall, 2003; Mills, 2003; Siddiqi, 1995; Weindling, 1995; World Health Organization, 1968).

It is since the late 1990s that there has been an expansion of historical work specifically on the medical use of cannabis and particularly on developments related to the medical use of cannabis in the latter part of the twentieth rather than the nineteenth century. Aldrich, a cannabis historian, contributes an account of the therapeutic use of cannabis from ancient times through to the 1990s with one section providing a helpful narrative and brief analysis of the re-interest in
medical marijuana in the USA since the 1970s (Aldrich, 1997). With a focus on scientific discoveries, and the role of user activists, namely AIDS patients, he concludes that science, in the case of cannabis, has not spoken to policy. Aldrich’s work raises interesting questions: who makes decisions over that which is considered to be a useful drug—politicians, lawyers or scientists? Does the type of disease potential treated by cannabis impact on attitudes towards its use? What aspects of attitudes towards cannabis are synonymous with currently perceived problems of using plant-based medicines rather than cannabis per se?

An additional point to consider is that since the 1990s industry has become an important location for research on cannabis products and, since 2000, those involved in industry have provided historical accounts of the medical use of cannabis and the industry’s role in developing cannabis-based drugs (Guy, Whittle, & Robson, 2004; Russo, 2004). Yet there remains limited independent historical discussion of the role of industry in this field. However, there is a range of historical literature that provides useful mechanisms for understanding the role of the pharmaceutical industry in the twentieth century, and the relationships between industry, science and government (Abraham, 1995; Lowy & Gaudilliere, 1998; Pickstone, 2000; Quirke, 2004; Slinn, 1995). Currently available historical literature introduces, but does not fully answer, questions over the trajectory of scientific research since the 1950s, the importance of supply, the controversy over synthetics vs. plant products, synergism vs. single active principles, delivery methods and the role of professional influence.

Current historical literature leaves many questions unasked and some only partially answered. Broader concepts raised in both the historical and social science literature, including the role of the pharmaceutical industry, science-policy transfer, the role of the international agencies, and user activism, can shed light on these questions and on the process of re-medicalization. The changing perceptions of cannabis as an illicit drug, a potential licit medicine, and a plant, provide a useful insight into not only the ‘boundary shifts’ of cannabis but also into the shifting dynamics between science, industry, the lay and professional spheres and national and international policy over the last fifty years.

**Research aims and objectives**

The study is framed as a history of science and policy-making. The overall hypothesis is that the medicalization of cannabis has been an important route for changes in the environment in which UK policy on cannabis has been made. Medicalization is defined as the introduction of medical uses and structures for the drug, as distinct from non-medical illicit usage. It recognizes that full medicalization has not been established and instead seeks to examine the intervening stages/process of the transition.
A main aim of the project is therefore to study the process whereby boundaries shift between illicit ‘drug’ and licit ‘medicine’. Writing exists on objects that lack a defined placement within our understanding such as the work on boundary objects or ‘peculiar’ or ‘borderline substances’, which can cross the line from being a widely consumed substance to a dangerous drug (Berridge, 2002; Epstein, 1996; Sherratt, 1995; Star & Griesemer, 1989). If cannabis may be deemed a ‘peculiar substance’, what is the process whereby boundaries shift between ‘drug’ and ‘medicine’ and what are the issues and interests involved in that transaction?

Specifically, the project aims to analyse the process of medicalization of cannabis since the 1950s and to study the interests involved in that process, in particular, the role of scientific research and allied professions; industry; international agencies and policy and user activism. In so doing, the project aims to analyse the interaction of science and medicine with policy at the national level through an examination of the policy role of expert committees and their membership; and attempts to assess the overall impact of medicalization on the policy environment.

Research themes and questions

The project has four overarching research themes: (1) the role of scientific research; (2) lay knowledge and activism; (3) science-policy transfer; and (4) the international dimension.

1. The process of medicalization: The role of scientific research

The trajectory of research. The project begins with a study of the trajectory of scientific research since the 1950s, looking specifically at how the scientific emphasis on the deleterious effects of cannabis gave place to a more positive view of the drug. In the nineteenth century, the medical utility of cannabis was limited in Western medicine because of the lack of discovery of an active principle, although its use in Asian medicine was important. Its use had declined to the extent that the World Health Organization (WHO) and the United Nations Economic and Social Council recommended it be discontinued for medical use in the 1950s, although it remained in the British Pharmacopoeia until 1971. (United Nations Economic and Social Council, 1954; World Health Organization, 1952). Tetrahydrocannabinol (THC), or the psychoactive element in cannabis, was isolated in 1964 (by Dr Raphael Mechoulam) and scientific research on the drug expanded after THC was first synthesized in 1967. A Pub Med survey shows an increase from 13 articles on cannabis in the period 1950–60 to nearly 3000 overall in the decade 1970–80. Work by Eastern European scientists in the 1950s demonstrated the antibacterial properties of cannabis, though little was made of this in the UK (Krejci, 1959). Early research in the 1950s and 1960s in the UK concentrated on the pharmacology of cannabis and the chemistry of addiction. In the 1960s, expanding recreational drug use led to
research, located in the newly established Addiction Research Unit at the Institute of Psychiatry, London, on the social uses of the drug (Kosviner & Hawks, 1976, 1977). A key researcher in the 1970s in the UK was Sir William Paton (1917–1993) Professor of Pharmacology at Oxford, who worked on the pharmacology of cannabis and its derivatives, its problems, and on the pharmacological and physiological aspects of drug dependence, and whose papers are used extensively in this project (Paton, 1970, 1973). Key themes raised by his papers include the dangers of cannabis, possible methods of drug control, the hindrances to research in terms of supply and permissions to research, and through his correspondence with Mechoulam, the debates over medical usage (Paton, 1969–1983). But despite the antipathy towards cannabis a change was also discernable in the 1970s. Research began to suggest that cannabis had medical uses, in particular in the treatment of glaucoma and nausea associated with cancer treatments. British pharmacologists started to write positively about the drug. Graham, both in his journal articles and with his work for the Cannabis Working Group, an advisory body to the Advisory Council on the Misuse of Drugs (ACMD), downplayed the dangers of cannabis and emphasized its potential benefits (Graham, 1976, 1980; Graham, Davies, & Seaton, 1976; Working Group on Cannabis, 1977). The next major developments came in the 1980s. The cannabinoid receptor system in the brain was discovered in 1988 and this development opened up further areas for investigation. In the 1990s, research into the utility of cannabis entered the mainstream. A number of Medical Research Council (MRC) funded trials took place into the therapeutic effect of cannabis on multiple sclerosis (MS) and on post-operative pain. In attempting to understand these developments in the trajectory of scientific knowledge the project considers the following key questions.

What was the role of different research communities—Pharmacologists, psychiatrists, sociologists?. In considering the role of scientific knowledge this project examines the location of differing views within different professional communities. As mentioned above some pharmacologists such as Graham began to take a more positive attitude towards the drug in the 1970s. In contrast, research by psychiatrists stressed the dangers of cannabis use, both to the individual and society, and gave prominence to the connections with mental health problems and concepts of dependence (Ghodse, 1986). The project examines these scientific networks and the different professional stances adopted in the context of the rise of psychopharmacology (Healy, 1996, 2002; Tansey, Christie, & Reynolds, 1998). Influential medical figures in UK drug policy were opposed to the medical route for cannabis (Edwards, 1982). Yet, over time, this influence seems to have waned. The project therefore considers what this indicates about the changing dynamics of professional influence.

Cannabis as a plant: What was the impact of the rise of phytopharmacy?. A particularly interesting dimension to the problem is the fact that cannabis, while often viewed only as an illicit drug, is also a plant and the re-interest in its use as
a therapeutic needs to be considered within the context of the revival of interest in
plant-based medicine. This revival has been important not only for the re-interest
in cannabis but also in the way in which cannabis has been investigated.
Historical studies exist on the role of plants in medicine, and the discovery and
development of specific plant-based drugs (Arber, 1986; Dobson, 1998;
Goodman & Walsh, 2001; Power, 1997). In particular, the development of
the disciplines of psychopharmacology and phytopharmacy/pharmacognosy
is relevant (Healy 1996, 2002; Schultes & von Reis, 1995; Shellard, 1982;
Tansey et al., 1998). These themes are barely touched upon in the historical
literature in relation to cannabis. Many of the questions raised in the literature
surrounding plant medicine and the related disciplines are transferable to an
investigation of cannabis and help towards understanding some of the arguments
raised by both scientists and user activists over the relative importance of isolated
principles versus compounds and the relative effectiveness of the commercially
produced nabilone versus herbal cannabis, as well as issues relating to industrial
production.

What role did industry and new drug technology play in the dynamics of the recent
scientific research?

In the 1990s industry became an important location for research into new
cannabis products and their potential medical utility. GW Pharmaceuticals was
set up in 1998 and licensed by the Home Office in the same year to cultivate and
supply cannabis for research purposes. Phase III Clinical Trials began in 2001
with studies related to multiple sclerosis, and neuropathic pain. The project also
aims to study changes in drug technology, considering such questions as whether
the ability to produce oral cannabis medicines was important as a delineator of
medical/non-medical boundaries? What role have synthetic products, such as
nabilone, played in the transition?

2. The process of medicalization: What role was played by lay knowledge of the medical
use of cannabis and subsequent activism?

In the 1960s in the UK, SOMA and key drug liberalization activists extolled the
medical benefits of the drug. Such advocacy was associated with a drug
liberalization agenda and had little policy impact. In the 1970s and early 1980s in
the USA, individuals such as Robert Randall, a glaucoma patient, began using
medical necessity as a defence in court. Pressure groups formed to campaign for
legal access to cannabis for specific medical problems resulting in changes to
locals laws in California (Randall, 1997). The project will study how this process
worked in relation to cannabis in the UK where fresh impetus was provided
through advocacy by sufferers of conditions such as MS. In the UK anecdotal
evidence of cannabis’ usefulness for MS, combined with the lack of effective,
long-term, side-effect-free orthodox medicines, in conjunction with prohibitive
legislation, coalesced to stimulate the growth of user activism that took root in
the 1990s. This period saw the development of activist groups set up specifically
to campaign for access to medical cannabis such as the Alliance for Cannabis Therapeutics and others including the MS Society pressuring for further research. The different groups involved, from drug user activists in the 1960s, to MS patients in the 1980s and 1990s, offer the opportunity to analyse the nature of ‘user activism’ and its impact. Such analysis takes into account the context of health activism in the post-war period (Crossley, 1998) and the rise of user activism (Mold & Berridge, 2006).

3. The science/policy transfer: What was the role of professional organizations and expert committees?

Writing on the science/policy exchange stresses variables such as the role of expert committees, but these have been relatively little studied historically (Barker & Peters, 1993; Jasanoff, 1990). In the UK an important role appears to have been played by the growing legitimacy accorded to the medical usage of cannabis by professional and expert bodies. The 1968 Wootton Committee placed some emphasis on the medical use of cannabis for ‘disturbed adolescents’ (comparable to Ritalin® later on). But the specific official focus on medical usage was a process that began in the late 1970s, expanding in the early 1980s. The Advisory Council on the Misuse of Drugs (ACMD) Cannabis Working Group set up in the early 1970s was an important early arena for such discussion and brought to the fore early divisions over the relative dangers and/or benefits of cannabis, and potential changes to the criminal law or maintenance of the status quo. The Department of Health commissioned a report in the 1980s, which was never published. From the 1990s, in particular, a series of reports emanated from expert bodies such as the British Medical Association (BMA) and, importantly, from the House of Lords Committee on Science and Technology (British Medical Association, 1997; House of Lords Select Committee on Science and Technology, 1998, 2001). The project considers such question as how were these enquiries set up and how did they relate to the changing views on cannabis and to the roles in health policy making of the organizations concerned? The BMA, for example, was reconstituting its public persona more generally in the 1980s to take on an image of ‘social concern’. How did medicalization fit into expert discussions of policy more generally?

4. The international dimension

(a) Countervailing forces: The role of international agencies. Illicit drugs are subject to long-established international regulatory regimes of which cannabis has been part since the 1920s (McAllister, 2000). The role of these international agencies, now part of the United Nations (UN), and the World Health Organization (WHO) has tended to be a countervailing force arguing against the medicalization of cannabis. The International Narcotics Control Board (INCB) has been hostile to any liberalization of cannabis controls and has published a number of influential reports that build a scientific case against both liberalization and any proposed medical use. It has stressed the long-standing view that cannabis use is...
connected with mental illness (International Narcotics Control Board, 2003). The WHO has published a number of reports on cannabis. In the 1950s, its view was that there was no justification for its use as a medicine (United Nations Economic and Social Council, 1954; World Health Organization, 1952). In the 1990s, there was a cautionary discussion of its therapeutic use and the need for more research, qualified with concern over the impact that medicalization might have upon broader cannabis policies (World Health Organization, 1991). Additionally, there has been controversy over which research has been included/excluded from its reports (World Health Organization, 1997). The project examines the impact of the policies of the international agencies on medicalization at the national level.

(b) International scientific/policy transfer. Separate to the PhD but part of the larger study is the analysis of the international science–policy transfer. The medicalization of cannabis has reflected the internationalization of science. There has been an international movement with research and policy interest in Australia, including the New South Wales Working Party into the Use of Cannabis for Medical Purposes; and legalization of cannabis for medical use in California and Canada (Health Canada, 2003; Working Party on the Use of Cannabis for Medical Purposes, 2000). Medicalization has been less important as a policy dynamic in Dutch drug policy, although that policy has been accorded a greater degree of public attention. The study will make a preliminary investigation through three ‘key informants’ of the means whereby the medical use of cannabis gained legitimacy and critical mass through interest in a number of different countries. It will examine the impact on the UK of this international science and policy transfer.

Methodology

The project utilizes a wide variety of written and unpublished sources including the papers of Sir William Paton at the Wellcome Trust Library and minutes of the Advisory Council on the Misuse of Drugs at the National Archives. Semi-structured oral history interviews are being carried out with key scientific, industry and policy participants at both the national and international levels. The bulk of the research is UK focused, but interviews are planned with ‘key informants’ based in Australia, the USA and Canada.

Conclusion

With debates continuing over the value and dangers of cannabis, a study of its recent history has contemporary relevance. Its position as a useful medicine and/or dangerous drug remains in flux and issues raised by scientists, policy makers and the media today over mental health, therapeutic potential, supply and mode of usage are recurrent throughout its history. The project is now in its third year.
and has so far included a review of the literature, and archival work at the Wellcome Trust, National Archives and WHO. The bulk of the interviews have been carried out and the project is now at the writing up stage.

Acknowledgements

This project is funded by the Wellcome Trust.

Declaration of interest: The author reports no conflicts of interest. The author alone is responsible for the content and writing of the paper.

References


Mold, A., & Berridge, V. (2006, November 22). The rise of the user? Voluntary organisations, the state and illegal drugs. Paper presented at NGOs, Voluntarism and Health: Historical and Contemporary Perspectives, a workshop held at London School of Hygiene and tropical Medicine.


Copyright of Drugs: Education, Prevention & Policy is the property of Taylor & Francis Ltd and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.