



# THE JOURNAL OF GLOBAL DRUG POLICY AND PRACTICE

**VOLUME 6, ISSUE 2 - Summer 2012**

## ***TRENDS IN SUBSTANCE ABUSE TREATMENT, PART II***

In this second part of a two-part exploration of the area of substance abuse treatment throughout the world, subject matter experts will examine specific problems and trends, as they relate to the treatment arena within the international community. Substance abuse, as a health, economic, and societal concern, is a serious global challenge. The subject of substance abuse is a complicated and controversial one, but few would question the assertion that the treatment of drug abuse must be considered when looking at the totality of this issue. The impact of drug abuse spreads from the individual to the community to the society; therefore it must be viewed in a context of how best to deal with its impact from all these perspectives. In this edition of the Journal, we will further focus on issues related to this topic.

Included in this issue, is a comparison of the use of naltrexone with methadone in Australia, as it relates to drug abuse. The author looks at these two substances in the context of drug abuse and treatment, and toward a broader understanding of the Harm Reduction vs. drug free approaches.

Also included is a commentary piece about marijuana use in the UK and the existing culture of denial about its dangers. The author examines the literature and discusses the idea that this culture of denial is leaving treatment needs hidden and unmet and that it is priming a public health time bomb.

The Journal of Global Drug Policy and Practice, a joint effort of the Institute on Global Drug Policy and the International Scientific and Medical Forum on Drug Abuse, is an international, open access, peer-reviewed, online journal with the goal of bridging the information gap on drug policy issues between the medical/scientific community, policymakers, and the concerned lay public.

Edited by Eric A. Voth, MD, FACP and David A. Gross, MD, DFAPA, our intended readership includes clinicians, clinical researchers, policymakers, prevention specialists, and the interested public.

### **IN THIS ISSUE**

**The Use of Methadone or Naltrexone for Treatment of Opiate Dependence:  
An Ethical Approach**

### **COMMENTARY**

**Cannabis in the UK**

## **The Use of Methadone or Naltrexone for Treatment of Opiate Dependence: An Ethical Approach**

**Dr Ross Colquhoun**, Doctor Health Science, Master Applied Science (Neuroscience), Bachelor Science Honors (Psych), Graduate Diploma Counselling and Psychotherapy  
Clinical Director, Addiction Treatment and Psychology Services, Australia

### **Abstract**

The policy of Harm Reduction was adapted and implemented by the Australian health establishment in response to a rising epidemic of opiate use, dependency and death from overdose and fears of the spread of AIDs and Hepatitis C throughout the intravenous drug-using population in the 1980s. The Harm Reduction movement provided funding for the methadone treatment program, needle exchanges, education about safe use of drugs, a harm reduction approach by police, a safe injecting room in Sydney and the call for drug trials of heroin for maintenance purposes. This is despite the lack of evidence that these measures result in disease prevention, reductions in drug use and/or criminality, or that health is significantly improved. On the other hand, naltrexone has been shown to be non-toxic, safe with no significant side-effects, highly effective in providing high rates of detoxification, and helpful in improving long term drug free status. Being drug free significantly reduces all risks associated with drug addiction. In Australia, since the year 2000, recent major reductions in the numbers of individuals using opiates and dying of overdose indicate that the enforcement of legal penalties and reduction in supply, has resulted in a reduction in demand and a greatly reduced rate of mortality. It seems these policies need to be part of a broad-based and coherent policy on preventing harm from drug use. This also applies to abstinence-based treatment approaches. Opiate dependent people have a right to the best form of treatment available and the right to choose to be drug-free and that includes naltrexone treatment incorporating those components which maximise effectiveness and safety..

## Introduction

In recent years, a philosophy and policy of Harm Reduction has been adopted and implemented by the Australian health establishment in response to a rising epidemic of opiate use, dependency, and death from overdose. This change follows the liberalisation of laws relating to contraception and abortion, and a shift in emphasis toward individual civil rights in opposition to concepts of for some people, social engineering and for others, community values and rights. In the early 1980's the spread of HIV/AIDS was primarily among the gay communities of inner city suburbs. In the face of a morally prejudicial call for homosexual men to forego sexual relationships to manage the spread of the disease, a program of harm minimisation was initiated, which recognised this group's right to freely express their sexuality. It was based on education and prevention measures and research into and implementation of treatment to minimise and prevent harm to this group. Overseas studies also indicated that the other major risk group for contracting the disease was that group of people who used drugs, particularly opiates and amphetamines intravenously, and who often shared needles (Drucker & Clear, 1999; Day, 2003). Harm minimisation was then applied to allay the fears of the spread of AIDS and Hepatitis C throughout the intravenous drug-using population and then among the general population they interacted with (Drucker & Clear, 1999).

In the 1980s, the Labor Government in Australia at the time adapted the Harm Reduction approach for this group and provided funding for the methadone treatment program, needle exchanges, education about safe use of drugs, and a harm reduction approach by police that minimised harassment of drug users on the streets and emphasised health interventions to save lives (Wodak & Lurie, 1996). More recently, the introduction of a safe injecting room in Sydney and the call for trials of heroin for addicts was initiated (Wodak & Lurie, 1996). The fundamental belief was that just as gay men had a right to form sexual relationships and to be free from harms associated with this activity, so intravenous drug-users had a similar right to practice drug use free from harms. (Hathaway, 2002). These harms included criminal charges and police harassment, contraction of communicable diseases (dealt with by providing clean needles and information on sterilisation of needles and safe injecting practices), and risk of overdose and death (Hathaway, 2002). The fact that there is a significant overlap between these

groups has given added impetus to this push toward harm minimisation. This emphasis on human rights was made clearly by the Chief Minister in the ACT, Mr Jon Stanhope. In response to a request that the Government consider supporting trials of naltrexone implants in the ACT, his argument was that such a measure would infringe on the rights of drug-users and that it would entail some form of “enforced abstinence”, which was unacceptable (Stanhope, 2002, personal correspondence). The fundamental right here was the prevention of harm, especially from HIV/AIDS and the obligation on society to protect people who chose to use drugs recreationally; the liberal provision of methadone was a major plank in this policy.

At the same time, traditional approaches to treatment, such as home or medicated detoxification, followed by rehabilitation programs such as therapeutic communities based on 12 step models, were falling out of favour among the advocates of harm minimisation (Drucker & Clear, 1999). These traditional treatment programs tended to see drug-use as problematic, often seemingly, from a moral perspective with condemnation of the drug user as a morally flawed person and with abstinence as the primary, or only, goal of treatment (Drucker & Clear, 1999). The new order saw this as an attack on the lifestyle choice of the drug user, an attack on their civil liberties and their right to be free of preventable harms associated with drug use. Instead of confronting the ‘denial’ or ‘rationalisation’ of the drug user for continuing the habit, some in the harm minimisation group adapted a counselling style, which sought to legitimise the drug users’ choice and to empower them as an oppressed group, to defend their right to freely use whatever drugs they chose, licit or illicit (Goodfellow, 2004; Madden, 2004). A post-modern position underpinned this movement with the belief that no one has any objective knowledge of the rights and wrongs of these issues, and that the risk associated with drug use is socially constructed and not a matter of correct or rational knowledge and are culturally created and political in essence (Southgate, Day, Kimber, Weatherall, MacDonald, Woolcock, McGuckin & Dolan, 2003). This was accompanied by the adaptation of Narrative Therapy to treat drug dependency (Campbell, 1999). In this paper, Campbell says: “Narrative Therapy is concerned with the repressive role of dominant discourses.... and potentially pathologising therapeutic discourses. In the drug and alcohol field, they may emerge as dependency stories or narratives” (p. 3). Moreover, this group advocated the idea that we were a ‘drug using society’ and that anything from coffee and aspro

to heroin and ecstasy, were all drugs, the only difference being that some were arbitrarily declared to be legal and some were not, leading to a loss of free choice and the persecution of those who chose one drug as opposed to another. People who held this view often failed to differentiate between the relative harm of different drugs and the social factors affecting the way different drugs are used.

The same group also declared that the “War on Drugs” had failed and that we, as a society, should reduce our efforts to interdict supply; minimise our focus on the prosecution of drug suppliers and the deterrence and/or punishment of those who seek to use drugs; and divert the funds into treatment approaches, most notably the Methadone Maintenance Program (Wodak, 1997, Dillon, 1999; Goodfellow, 2004). The success of this program’s major aim of preventing the spread of HIV/AIDS and Hepatitis C is not clear. While rates of HIV/AIDS transmission in the injecting drug user population is low in Australia, rates of Hep C infection among this group is very high, despite the harm minimisation policies of the last 25 years. It seems that harm minimization has a discordant effect on HIV and Hepatitis C, and therefore it is most likely that harm minimization strategies are not responsible for either effect: the effect on HIV seems to provide some evidence that harm minimization works well, whilst the effect on Hep C suggests that it is ineffectual. Hence, the most likely explanation is that it is not the prime mover of these disparate trends. (Caplehorn, McNeil & Kleinbaum, 1993; Southgate, Day, Kimber, Weatherall, MacDonald, Woolcock, Mc Guckin & Dolan, 2003; Wodak & Lurie, 1996).

### **Methadone v. Naltrexone**

Despite the lack of evidence to indicate that disease prevention has been affected by the implementation of methadone maintenance, or that the perceived benefits in drug use, criminality and health are significantly improved (Caplehorn, McNeil & Kleinbaum, 1993; Reno & Aiken 1993; Mattick, Been, Kimber & Davoli, 2009), this same group tends to advocate strongly for the use of methadone as the preferred or Golden Standard treatment for opiate dependence (Wodak, 1997; Byrne, 1995; Byrne, 2004). This form of treatment was developed in New York in the 1960’s as a substitute for more intensive and expensive interventions, especially among the city’s African-American and Hispanic populations: to curtail crime, to reduce health costs, and to control the addict by requiring

them to appear at a Government controlled dosing centre each day for treatment (Drucker & Clear, 1999). Despite this policy, the spread of HIV/AIDS among this injecting drug group in the United States is very high and the policy has failed to prevent the spread of this disease or Hepatitis C (Wodak & Lurie, 1996). The best evidence, following a Cochrane review of methadone compared to no treatment, shows that there is an increase in retention in treatment (which is not surprising given the addictive nature of methadone), but no significant improvement in criminality or mortality (Mattick, Been, Kimber & Davoli, 2009). Others would dispute this and claim that mortality is reduced significantly, by 20-40%, for those who cease injecting drug use, and remain in treatment on methadone (Drucker & Clear, 1999). They would claim that substitution treatment benefits users by reducing injection (Ward, Mattick & Hall, 1997). However, methadone is associated with continued injection of heroin and other drugs, as the overall median duration of injecting is longer for those who start methadone compared to those who don't. For those who do not start methadone treatment, the medium time of injecting is 5 years (with nearly 30% ceasing within a year) compared to a prolongation of opiate use, and injecting for 20 years for those who do start substitution treatment (Kimber, Copeland, Hickman, Macleod, McKensie, De Angelis & Robertson, 2010). This means that if the risk that applies for injecting drugs is 4 times as long, then there is an overall increase in mortality for methadone when considered over the longer term. Many of the papers justifying methadone are done over only 6-12 months and up to 5 years, often with small samples (Drucker & Clear, 1999; Davoli, Bargagli, Perucci, Schifano, Belleudi, Hickman, et al, 2007; Hubbard, Craddock & Anderson, 2003; Gossop, Marsden, Stewart & Kidd, 2003; Darke, Ross, Teesson, Ali, Cooke, Ritter, et al, 2005). This is neither relevant nor informative, as many people stay on methadone for 20 to 40 years. This group's major criticism of antagonist treatment (naltrexone) for opiate dependency was the short retention times in treatment, and overdose due to reduced tolerance (Wodak, 1997; Bartu, Freeman, Gawthorne, Allsop and Quigley, 2002).

Therein lies an ethical dilemma as advocates of naltrexone treatment and abstinence face the problem of the practical application of treatment and whether those who attain abstinence can maintain it, given the high incidence of co-morbidity. Research and clinical knowledge indicates that there is a group who have been dependent on opiate, who tend to relapse at very high rates and that relapse for

someone whose tolerance for the drug has been reduced, are prone to overdose and death (Fellows-Smith, 2011). This was the case for oral naltrexone as people often ceased using it prematurely and succumbed to early relapse. However, this problem is common to anyone whose tolerance has been reduced. For example, those leaving prison when tolerance is lowered, die at much higher rates from opiate overdose (2,6% within 28 days of leaving prison) than those who are using heroin regularly (Larney, 2010). Treatment approaches that involved a support person to administer the medication each day minimised the problem, however, it placed an often unwanted burden on caregivers and left vulnerable those who did not have a reliable support person. Slow release naltrexone implants were seen as a vast improvement on compliance rates. An editorial in the *Drug and Alcohol Review* (2001), confidently predicted that: "Implants are a logical method of attempting to ensure that the benefits of naltrexone are not undermined by poor compliance rates" (p. 349) and this has been borne out by recent research. Notwithstanding, some risk remains even after prolonged periods of abstinence.

One of the strongest arguments for methadone as a treatment is that the addict's tolerance is maintained at a high level by maintaining or increasing the daily dose to a level where the craving for other opiates is reduced or eliminated (Byrne, 1995; Byrne, 2004). Consequently, use of heroin, even after a period of being 'clean', is not as likely to result in an overdose. Notwithstanding, there are a number of people who die each year with methadone being implicated in their death. Recent estimates put this at 0.7% per annum, (Fellows-Smith, 2011), and for those leaving prison, rates of 1.6% have been found for those who are being dosed with methadone (Larney, 2010), often as a consequence of concurrent use of other CNS depressants and that those on methadone tend to stay on the drug for many years (Kimber et al. 2010; Caplehorn, Dalton, Haldar, Petranus and Nisbet, 1996).

However, naltrexone, a potent opiate antagonist, has been shown to have valuable properties for the treatment of addiction to opiates, such as heroin and methadone. The most important property is its ability to completely block the effects of heroin and methadone (Tennant, Rawson, Cohen, & Mann, 1984), making relapse to regular opiate use almost impossible while it is being taken or being released as an implant. Research has shown that a dose of 50-100mg of oral naltrexone provides effective protection against heroin for 2-3 days, and with chronic dosing, no accumulation of naltrexone or its

metabolites have been observed (Meyer, Straugn, Lo, Schary, & Whitney, 1984). Naltrexone implants have been shown to effectively block the effects of opiates for between 180 and 240 days, thus allowing an extended drug free period to deal with social and psychological problems that would otherwise lead to early relapse and risk of overdose (Hulse, et al., 2009; Colquhoun, Tan & Hull, 2005). Moreover, naltrexone is non-toxic (Volavka, Resnick, Kestenbaum, & Freedman, 1976; Meyer et al., 1984, Colquhoun, 2003a) and produces no clinically important side-effects (Volavka et al., 1976; Meyer et al., 1984; King, Volpicelli, Gunduz, O'Brien, & Kreek, 1997; Perez & Wall, 1980). Naltrexone use offers no (immediate) reinforcement and the discontinuation of naltrexone use produces no adverse effects or withdrawal symptoms. This contrasts with heroin and methadone use, which offers strong reinforcement immediately after use, and adverse effects, withdrawals, if use is discontinued (Comer, Collin, Kleber, Nuwayser, Kerrigan and Fischman, 2002). Naltrexone has been shown to be highly effective in providing high rates of detoxification (Colquhoun, 2010) and improving long term drug free status (Kunøe, et al., 2009, Hulse, et al., 2009; Colquhoun, Tan & Hull, 2005). Being drug free significantly reduces all risks associated with drug addiction (Kimber et al., 2010). Since around the year 2000 in Australia, the numbers of individuals using opiates indicate that the enforcement of legal penalties and reduction in supply has resulted in less demand and a substantial decrease in mortality due to overdose (O'Brien, et al., 2007).

### **The Argument for Harm Minimisation**

With the coming to power of the Liberal Government, there was a shift in policy direction from Harm Reduction to Harm Minimisation. This policy placed less emphasis on harm reduction, i.e., the rights of those who want to use illicit drugs, and more importance on minimising harm to those who are yet to experiment with drugs and the rights of the wider community who do not use illicit drugs. Hence greater emphasis has been given to supply reduction and interdiction, prevention, mainly through education and deterrence, diversion programs, and treatment, with abstinence as the ultimate goal (House of Representatives Inquiry, 2007; Road to Recovery, 2003).

Those who advocate for continuation of Harm Reduction policies fall into two broad and overlapping camps: those who argue for the rights of drug users to be able to choose to use illicit drugs because

they enjoy it (Madden, 2004; Hathaway, 2002) and those who argue that those who use illicit drugs are often the most marginalised groups who are alienated from the main stream and suffer mental health problems which they medicate using these drugs (Goodfellow, 2004). In both cases, they see the shift to Harm Minimisation, with an emphasis on deterrence and treatment, as persecution of these groups and as an infringement on their civil liberties. For Madden (2004) the recent report, “The Road to Recovery” (2003), spelt out the new, upcoming National Drug Strategy incorporating “harm prevention” to replace the harm minimisation approach. For her, Harm Prevention is seen as a two pronged approach including: prevention of all illicit drug use in the first place via supply and demand reduction strategies; and the promotion of drug treatment that sees abstinence from all drug use as the ultimate outcome.

Madden (2004) says that it carries the message that “people who use illicit drugs have “self-inflicted” problems and therefore do not deserve protection in terms of their health and human rights, do not deserve to be treated with dignity and respect, should at best be viewed as “sick” and as “victims” and should only be given two choices: don’t use drugs in the first place or stop using; or, if you can’t stop – “go into drug treatment but you must have life-long abstinence as your only goal.” (p.2)

Alternatively, the views of Goodfellow and colleagues that present drug addicts as victims, and suggest that the reasons why some people use and ultimately become dependent upon certain drugs are largely social and environmental and that genetic factors often predispose some people to addiction (Goodfellow, 2004). Some of the risk factors impacting upon young people that are associated with drug dependence in later life include:

- depression, suicidal behaviour, exposure to crime, risk of homelessness;
- extreme economic deprivation, family conflict, low literacy/limited education, social isolation, and;
- a lack of appropriate community education about drug use and harm reduction (Hawkins, Catalano & Miller, 2000).

Opiate dependency is seen as a 'chronic relapsing condition or disease', which entails changes to the person's nervous system, which may or may not be permanent. The harm minimisation position is that the addict is unable, for at least a short time (5 years) and sometimes never, to be cured, despite their best intentions and the help of well-intentioned help of others (Barnett, 1999). This mimics the Alcoholic Anonymous position of the chronic alcoholic who can never drink again, as it will inevitably lead to relapse to alcohol dependency. In this disease model of addiction, alcoholics are seen as different at a biological level compared to those who can drink socially and not become addicted. Or alcoholics had personality (or moral) flaws, which the rest of us were free of, which predisposed them to alcoholism and was incurable. In the present case though, advocates of harm minimisation suggest that the addict be maintained on their drug forever, either methadone, or preferably morphine or heroin (Barnett, 1999). Despite the arguments which stress the 'lifestyle choice' and human rights of the addict, this concept of difference, of being fatally flawed, persists. In this scenario, addicts are treated with disregard for their dignity, or their rights, often by health professionals, including those working in methadone clinics

Advocates of Harm Reduction suggest that a 'zero tolerance' policy, which the National Drug Strategy enshrines, tends to neglect the needs of those caught up in addiction, especially those with social or psychological problem, and deterrence can manifest as persecution of these vulnerable groups. This approach tends to neglect the need to protect young people from easy access to addictive drugs and the harms associated with them.

The cries that the "War on Drugs" is not winnable and we should abandon the fight (Wodak, 2002; Madden, 2004) is like suggesting that deterrence of drunk driving is not winnable and infringes on these people's rights; so we should give up and allow them to create death and mayhem on our roads. Or that seatbelt use in Australia should not be enforced as 'it harms no-one else'. Despite the suggestion that the 'War on Drugs' is not reducing drug use, recent reductions since around the year 2000 in Australia in the numbers using opiates and dying of overdose, indicate that the enforcement of legal penalties and reduction in supply has resulted in a reduction in demand. In the period from 1999 to 2003, it was estimated that \$5 billion in harm was avoided by Australia's adoption of a "Tough on

Drugs ‘ policy (House of Representatives Inquiry, 2007). Perhaps these policies need to be part of a broad-based and coherent policy on preventing harm from drug use. Just as a reduction in harm is associated with reduction in supply, there also seems to be benefits arising from abstinence-based treatments for those who want them. For this reason, methadone should be seen as a temporary harm minimisation approach for a small group of highly dependent and unmotivated addicts and not as a permanent or long-term treatment for the vast majority of this group. Methadone, when used in this way, removes the person’s opportunity to be drug-free and removes their capacity for choice.

### **The Right to Choose to be Drug Free**

The overwhelming evidence is that most people who become addicted to a drug, including opiates, at some point become drug-free and go onto live ‘normal’ lives. Most people do this spontaneously without or with minimal intervention. (Kaufman, 1994; Robins, Helzer & Davis, 1975; Robins, Helzer, Hesselbrock & Wish, 1980; Donath, 2004). People who experience spontaneous remission from substance misuse often do so because of one or more of the following factors: increasingly negative outcomes such as health, accident or legal problems; the gradual worsening of important aspects of life such as personal relationships, financial problems; or positive life events such as marriage, work and children. These are all responses of individuals to the problems posed by addiction. Perhaps the overriding factor in the rate of dependency, and similarly, spontaneous recovery, is the access and availability of the substance to those who are addicted to it (Hall, Ross, Lynskey, Law & Degenhardt, 2000). Clearly, policies which emphasise the potential harm associated with drug use and the role of deterrents will have a major impact on rates of addiction and the time frame for remission (Kaufman, 1994). However, in an environment where there is a tendency to minimize harm or the consequences of drug use, an acceptance of illicit drug use is viewed as a right, and where the drug is cheaply and readily available, then intervention is more likely to be needed to attain abstinence. While there still is a need to more fully explore the optimal techniques for the safe use of naltrexone, and how counselling can best help addicts and their families break free from heroin and methadone dependence, they have a right to choose to be drug-free. Naltrexone detoxification and

the use of slow-release naltrexone implants provide this opportunity. (Colquhoun,2010; Hulse, Morris, Arnold-Reed, & Tait, 2009; Kunoe, et al., 2009; Colquhoun, Tan & Hull, 2005; Comer, Collins, Kleber, Nuwayser, Kerrigan, & Fischman, 2002).

Opiate dependent people have a right to the best form of treatment available and that includes naltrexone treatment incorporating those components which maximise effectiveness and safety. (Kimber et al. 2010). Naltrexone has now been shown to be highly effective in providing high rates of detoxification (Loimer, Lenz, Schmid & Presslich, 1991; Mattick, Diguisto, Doran, O'Brien, Shanahan, Kimber, J. et al., 2001; Colquhoun, 2010) and with the use of slow release implants, retention in treatment is much higher and long-term abstinence is achievable. Moreover, there is a demonstrated reduction of mental health problems, overall improvements in physical health, dramatic reductions in crime, morbidity and mortality, and a chance to contribute to society in a meaningful way once more (Latt, Jurd, Houseman & Wutzke,2002; Comer, Collins, Kleber, Nuwayser, Kerrigan, & Fischman, 2002; Kunøe, et al., 2009, Hulse, et la., 2009, Colquhoun, Tan & Hull, 2005).

Therefore, the major argument in favour of naltrexone treatment is based on evidence of its safety and efficacy, but also on the ethical issue, and ultimately on the argument in favour of the human rights of the dependent person to be free from dependency.

### **Author Information:**

Dr Ross Colquhoun is a Clinical Health Psychologist working in private clinical practice since 1996. He specialises in the treatment of addictions and is a leader in the treatment of substance dependency, especially opioid dependency and in the neuroscience of addiction. He is principally responsible for the psychological assessment and treatment planning for substance dependent patients entering the program, which has a focus on concurrent treatment of co-morbid conditions. These include mental health problems, brain injury and chronic pain. He also has expertise in the prevention and treatment of psychological problems, especially burnout among health professionals, rehabilitation and couples and family counselling, and medico-legal reports. The practice employs two other psychologists/ psychotherapists and intern psychologists as well as nurses and doctors part-time.

Information can be found at [www.addictiontreatment.com.au](http://www.addictiontreatment.com.au)

Dr. Colquhoun developed the concept of Mindcheck Wellness Centres to provide diagnosis and treatment planning for people with dementia and to support their families. As there is a three year delay between onset and diagnosis of dementia, he developed an on-line screening test for people who are concerned about their cognitive performance, as early intervention can significantly impact the progress of the disease, quality of life and functioning, and allows people a say in their care before it is too late. This can be found at [www.mindcheck.com.au](http://www.mindcheck.com.au).

He has had two books published, “The Use of Naltrexone in the Treatment of Opiate Dependence”, (Lambert Academic, Germany), based on his doctoral thesis and “Is Dementia a Bigger Word than Cancer?” (Xlibris, USA). This book aims to encourage people to seek early assessment and to prepare people for dementia. It clearly explains what you might expect and what you can do in terms of prevention and treatment.

#### **Conflict of Interest Statement:**

I declare that I have no proprietary, financial, professional or other personal interest of any nature or kind in any product, service and/or company that could be construed as influencing the position presented in, or the review of, the manuscript entitled except for the following: I am the clinical director of Addiction Treatment and Psychology Services in Sydney, Australia which provides treatment services to people who are drug or alcohol dependent using naltrexone implants among other things.

#### **References:**

Barnett, P. G. (1999). “The cost effectiveness of methadone maintenance as a health care intervention”. Addiction, Vol 94 (4), pp. 479 – 488

Bartu, A., Freeman, N. C., Gawthorne, G. S., Allsop, S. J. and Quigley, A. J. (2002). “Characteristics, retention and re-admission of opioid-dependent clients treated with oral naltrexone”. Drug and Alcohol Review, Vol 21(4), pp. 335-340

Byrne, A (1995). Methadone in the Treatment of Narcotic Addiction. Sydney; Tosca Press.

- Byrne, A. (2004) ADCA News Update Web Site
- Caplehorn, J. R. M., McNeil, D. R. and Kleinbaum, D. G. (1993) "Clinic Policy and Retention in Methadone Maintenance." The International Journal of Addictions, Vol 28 (1), pp 73-89
- Caplehorn, J. R. M., Dalton, M. S. Y. N., Haldar, F., Petranus, A and Nisbet, J. G. "Methadone maintenance and addicts' risk of fatal heroin overdose". Substance Abuse and Misuse, Vol 31, No. 2, 1996, pp. 177 – 196
- Colquhoun, R. M. (2010). The Use of Naltrexone in the Treatment of Opiate Dependency. Lambert Academic; Saarbrucken, Germany
- Colquhoun, R. M., Tan, D. Y. K & Hull, S. (2005). Comparison of oral and implant naltrexone at 12 months. Journal of Opioid Management, 1(5), pp. 426-439.
- Comer, S.D., Collins, E.D., Kleber, H.D., Nuwayser, E.S., Kerrigan, J.H., & Fischman, M.W. (2002). Depot naltrexone: long-lasting antagonism of the effects of heroin in humans. Psychopharmacology, 159, pp. 351-360.
- Darke S, Ross J, Teesson M, Ali R, Cooke R, Ritter A, et al. Factors associated with 12 months continuous heroin abstinence: findings from the Australian Treatment Outcome Study (ATOS). J Subst Abuse Treat2005;28:255-63.
- Davoli M, Bargagli AM, Perucci CA, Schifano P, Belleudi V, Hickman M, et al. Risk of fatal overdose during and after specialist drug treatment: the VEdette study, a national multi-site prospective cohort study. Addiction, 2007;102:1954-9.
- Day, C (2003). "Epidemiology of Hepatitis C and HIV among Australian injecting drug users: A brief overview". In Soutgate, E, Day, C., Kimber, J., Weathrall, A. M., McDonald, M., Woolcock, G., McGluckin and Dolan, K., (Eds.) Dealing with Risk: A Multidisciplinary Study of Injecting Drug Use, Hepatitis C and other Blood-Borne Viruses in Australia.

Dillon, P., Drug and Alcohol Issues for GPs, Gloxo-Welcomme Workshop, Edgecliffe, June, 1999

Drucker, E. & Clear, A. (1999). "Harm Reduction in the home of the war on drugs: Methadone and needle exchange in the USA. Drug and Alcohol Review, Vol 18, pp. 103-112

Federal Parliamentary Committee on Health and Community Affairs, Road to Recovery, Aug., 2003

Fellows-Smith J. (2011). Opioid-dependent error processing. Journal of Opioid Management, 7(6):443-9.

Goodfellow, J. (2004). "Dispelling myths about drug use and drug dependence". Disability Discrimination Legal Service; Melbourne. Paper delivered to Discrimination against Drug Users: A Forum to Discuss Proposed Government Changes to Discrimination Laws, Jan. 2004

Gossop M, Marsden J, Stewart D, Kidd T. The National Treatment Outcome Research Study (NTORS): 4-5 year follow-up results. Addiction2003;98:291-303.

Hathaway, A. D. (2002). "From harm reduction to human rights: bringing liberalism into drug reform debates". Drug and Alcohol Review, Vol 21(4), pp. 397-404

Hawkins, JD, Catalano, RF & Miller, JY, (2000) "Risk and protective factors for alcohol and drug problems in adolescence and early childhood", Psychological Bulletin, Vol. 112, pp 64 – 105

House of Representatives Standing Committee on Family and Community Affairs [HRSCFCA], (2003). Road to recovery: Report on the inquiry into substance abuse in Australian communities. Canberra: Commonwealth Printing Press.

Hubbard RL, Craddock SG, Anderson J. Overview of 5-year follow-up outcomes in the drug abuse treatment outcome studies (DATOS). J Subst Abuse Treat2003;25:125-34.

Hulse, G. K., Morris, N., Arnold-Reed, D. and Tait, R. J. Improving Clinical Outcomes in Treating Heroin Dependence: Randomized, Controlled Trial of Oral or Implant Naltrexone. *Archive of General Psychiatry*. 2009, Vol 66 (10):1108-1115.

Kimber J, Copeland, L., Hickman, M., Macleod, J., McKensie, J., De Angelis, D. and Robertson, J. R. Survival and cessation in injecting drug users: prospective observational study of outcomes and effect of opiate substitution treatment. British Medical Journal, 2010, 341, c3172

King, A. C., Volpicelli, J. R., Gunduz, M., O'Brien, C. P. and Kreek, M. J. Naltrexone biotransformation and incidence of subjective side-effects: A preliminary study. *Alcoholism: Clinical and Experimental Research*, Vol 21 (5), Aug. 1997, pp. 906 – 909

Kunøe, N., Lobmaier, P., Kaare Vederhus, J., Hjerkin, B., Hegstad, S., Gossop, M., Kristensen O. and Waal, H. Naltrexone implants after in-patient treatment for opioid dependence: randomised controlled trial. *The British Journal of Psychiatry* (2009) 194, 541–546

Larney, S. (2010). Opioid substitution treatment in prison: Effects on criminal recidivism and mortality. Thesis, University of NSW: Sydney

Latt, N. C., Jurd, S., Houseman J., & Wutzke, S. E. (2002) "Naltrexone in Alcohol Dependence: a randomised controlled trial of effectiveness in a standard clinical setting". Medical Journal of Australia. Vol 176 (11), pp. 530-534

Loimer, N., Lenz, K., Schmid, R. & Presslich, O., "Technique for greatly shortening the transition from methadone to Naltrexone maintenance of patients addicted to opiates". American Journal of Psychiatry, Vol 38, 1991, pp. 933 -935

Madden, A. Discrimination Against Drug Users: A Forum to Discuss Proposed Government Changes to Discrimination Laws. Australian Injecting & Illicit Drug Users League; Melbourne, Victoria, Jan. 2004

Mattick, R. P. and Hall, W. (2001). Rapid opiate detoxification and naltrexone treatment. Paswt present and future. Drug and Alcohol Review, Vol 20, p.349-340

Mattick, R. P., Diguisto, E., Doran, C. M., O'Brien, S., Shanahan, M., Kimber, J. et al. (2001). National Evaluation of Pharmacotherapies for Opioid Dependence: Report of Results and Recommendations. Sydney: National Drug and Alcohol Research Centre.

Mattick, R. P., Been, C., Kimber, J. and Davoli, M. (2009). "Methadone Maintenance Therapy vs No Opioid Replacement Therapy for Opioid Dependence. Cochrane Data Base of Systematic Reviews, Issue 3: Wiley, New York

Meyer, M. C., Straugn, A. B., Lo, M., Schary, W. L. and Whitney, C. C. Bioequivalence, dose-proportionality and pharmacokinetics of naltrexone after oral administration. *Journal of Clinical Psychiatry* Vol 45 (9), Sept. 1984, pp. 15 – 19

O'Brien, S., Black, E., Degenhardt, L., Roxburgh, A., Campbell, G., de Graaff, B., Fetherston, J., Jenkinson, R., Kinner, S., Moon, C. and White, N. *Australian Drug Trends 2006: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney: National Drug and Alcohol Research Centre, 2007.

Perez, M. and Wall, M. E. A comparative study of oral, intravenous and subcutaneous administration of H-naltrexone to normal male volunteers. In R. E. Willette and G. Barnett (Eds.) *Naltrexone Research Monograph 28*, National Institute on Drug Abuse, 1980

Rawson, R. A., McCann, M. J., Shoptaw, S. J., Miotto, K. A., Frosch, D. L., Obert, J. L. and Ling, W. Naltrexone for opioid dependence: Evaluation of a manualised psychosocial protocol to enhance treatment response. *Drug and Alcohol Review, Vol 20*, 2001, pp. 67 –78

Reno, R. R. and Aiken, L. S. (1993). "Life Activities and Life Quality of Heroin Addicts In and Out of Methadone Treatment." The Intrenational Journal of Addictions, Vol 28 (3), pp. 211-232.

Southgate, E., Day, C., Kimber, J., Weatherall, A. M., MacDonald, M., Woolcock, G., McGuckin, S. & Dolan, K. (2003). Dealing with Risk: A Multidisciplinary Study of Injecting Drug Use, Hepatitis C and other Blood Bourne Virues in Australia. Canberra; Australian National Council on Drugs.

Stanhope, J. Chief Minister Act Government. Letter dated, 24June 2002

Tennant, F. S., Rawson, R.A., Cohen, A. J. and Mann, A. (1984). Clinical experience with naltrexone in suburban opiate addicts. *Journal of Clinical Psychiatry Vol 45*, pp42-45

Volavka, J., Resnick, R. B., Kestenbaum, R. S. and Freedman, A. M. Short-term effects of naltrexone in 155 heroin addicts. *Journal of Biological Psychiatry, Vol 11*, 1976, pp. 689-694.

Ward J, Mattick RP, Hall W. Methadone maintenance treatment and other opioid replacement therapies. Harwood Academic Press, 1997.

Wodak, A and Lurie, P. (1996). "A tale of two countries: attempts to control HIV among injecting drug users in Australia and the United States." The Journal of Drug Issues Vol 27, pp 117-134

Wodak, A (1997). "Public health and politics: the demise of the ACT heroin trial". Medical Journal of Australia, Vol 167, pp.348 - 39

Wodak, A., 2002, ABC Radio Commentary, Sydney

Dr Ross Colquhoun, D H Sc, M App Sc (Neuroscience), B Sc Hons (Psych), Grad Dip Counselling & Psychotherapy,



## **Cannabis in the UK: Is a persistent culture of denial leaving treatment needs hidden and priming a public health time bomb?**

**Kathy Gyngell**

*“There are few substances which are surrounded by more controversy, and which have at the same time such important and potentially far-reaching public health implications”<sup>1</sup>*

This comment, originally made in 2006, was never more apposite. Cannabis is still the most commonly used illicit substance in the UK and the one most widely used by adolescents. However, it continues to be exempt from the hazardous reputation held by other illicit drugs, drugs which are recognized by government as posing a serious public health risk.

Although its association with a range of health problems is established in the literature and is associated with double the risk of schizophrenia (from 0.7 in 1000 to 1.4 in 1000), a risk that starting young increases;<sup>2</sup> many view cannabis as non-problematic. This is in the face of evidence that shows that first episode psychosis is associated with the use of higher potency cannabis; and that its use is associated with increased relapse and problems with non-adherence to medication in patients with schizophrenia.<sup>3</sup> Although adolescent use significantly increases risks for dependence, other substance abuse problems, mental health problems and poor emotional, academic and social development,<sup>4</sup> symptoms that adolescent addiction psychiatrists routinely note; it is still viewed by many policy makers, advisors and commentators as a benign drug.

It is a drug around which, despite this ever growing corpus of scientific evidence, a culture of denial still persists. Of the mind altering drugs, it is the one with which demands for decriminalization or legalization are most associated.

Professor David Nutt, the former Chairman of the Advisory Council on the Misuse of Drugs, for example, in his recently invited oral evidence to the Home Affairs Select Committee, continued to reiterate his claim that cannabis smoking is less harmful than alcohol.<sup>5</sup> Indeed, he argues that regulated cannabis would be an antidote to the more harmful (in his view) alcohol consumption. If cannabis cafes were allowed on the Dutch model, he posits that alcohol consumption would drop by a quarter without incurring any increased cannabis harm because so many people use the drug already – in his view apparently harmlessly. He could be accused of burying his head in the sand.

It is true that United Kingdom already has one of the highest rates of cannabis use in the developed world,<sup>6</sup> that one third of all UK adults have tried it and that some 2.2 million people used it ‘last year’ – that is 6.8 per cent of the population.<sup>7</sup> But the evidence that this level of use is already damaging public health, though not conceded by Professor Nutt, is powerful.

Firstly, it is the drug of the young and the drug of initiation. 17.1 per cent of British 16 - 24 year olds reported using it in the last year and 9 per cent of them in the last month.<sup>8</sup> Early initiation into cannabis use turns out to be almost uniquely British. The typical starting age is much younger than in other European countries – a startling 9 per cent of British schoolchildren start using it by the age of 13. In Holland and Germany the number is 6% and in Sweden just 2%.<sup>9</sup>

Young adults are the most dependent on this drug too. As many as 13.3 per cent of users between the ages of 16 and 24 and 9.0 per cent between the ages 25 and 34 are judged to be dependent.<sup>10</sup> Men are nearly twice as likely to become dependent as women. While use has fallen considerably since 2003, dependency on cannabis has remained constant at 2.5 per cent since 2000. This compares with 0.9 per cent for all other drugs combined and is three times higher.<sup>11</sup>

But it is also true that the numbers of individuals in treatment with cannabis disorders are disproportionately low - both in comparison with heroin and crack cocaine - 7 per cent compared with 81 per cent citing opiate use<sup>12</sup> - and with respect to general population prevalence. (Amongst first time treatment referrals the proportion rises to 13 per cent.<sup>13</sup>)

However, it does not follow from this that cannabis is a relatively harmless drug or that no one needs treatment. To start with, the 'eligibility' principle for treatment of 'problem drug use' in the UK effectively precludes cannabis. Problem drug users, or PDUs, in Department of Health terminology, are heroin and crack cocaine users. The fourfold increase in the drug treatment budget in the last decade has and still is targeted at this population.

Low treatment numbers also reflect a lack of awareness of cannabis harms and their symptoms amongst users and medical professionals. Respiratory problems, mental health conditions, problems with concentration and memory impairment, may all be symptomatic of cannabis use. It is not clear, however, how many doctors in primary care would pick this up or indeed see conventional drug services as the appropriate treatment referral path.

It is particularly interesting in this context that Professor Nutt drew on The Netherlands to justify his call for licensing a regulated cannabis trade. For the relative number of people in treatment for cannabis related problems is very much higher in the Netherlands than it is in the UK. This is despite the fact that cannabis use (prevalence) is significantly lower in the Netherlands . At 3 per cent, it is half that of the UK.<sup>14</sup> Use by the young adult population is also comparatively lower; only 5.3 per cent of them are estimated to take the drug.<sup>15</sup> One possible explanation for this difference may be the local zero tolerance policy towards cannabis sales which some 76 per cent of the Dutch municipalities have adopted.<sup>16</sup>

Cannabis is the primary drug for which treatment is sought in the Netherlands - 38.4 per cent in 2009 were in treatment for cannabis, followed by 31.4 % for cocaine and 18.2 % for opioids. The proportion in treatment for the first time is even higher at 50.4 % (followed by 26.8 % for cocaine and 7.9 % for opioids).<sup>17</sup> Referrals have risen more than fourfold from 1,951 in 1994 to 8,410 in 2008. According to the writers of the Netherlands Drug Monitor 2009, this trend might point towards an increase in the number of problematic users of cannabis. It might also indicate the improvement of the professional care regarding cannabis problems, or an increase in the awareness of the addictive properties of cannabis, causing users to seek help at an earlier stage.

It is true that fewer opiate addicts, only 12 per cent of them, received treatment in the Netherlands by contrast with approximately 54 per cent of the heroin addict population in the UK.<sup>18</sup> But this still begs the question of why the difference between the two countries with respect to cannabis.

There is no evidence to suggest that cannabis is any less toxic (or less problematic) in the UK. In both countries, the THC content of cannabis (the main psychoactive constituent) has risen

dramatically since the 1990s. In the UK, by 2007/8, domestically produced high THC 'skunk' accounted for 81 per cent of the UK market.<sup>19</sup>

Furthermore, an analysis of hospital episode statistics reveals that there is indeed a growing cannabis problem in the UK, despite an overall fall in use. Between 1998 and 2011, mental and behavioural disorders, due to cannabis use, increased overall by 54 per cent – including an 108 per cent increase in harmful use episodes, a 51 per cent increase in dependence, a 61.8 per cent increase in psychotic disorders, and a 450 per cent increase in 'other mental and behavioural disorders.'<sup>20</sup>

Over this same period, the medical and scientific establishment in the UK, led by the Advisory Council on the Misuse of Drugs, appeared set on downplaying cannabis risks and harms and legitimising use.

Though the current Home Secretary, Theresa May, has tough views on drugs, a gap between rhetoric and practice from earlier years persists. The attitude of successive British governments to cannabis has been ambivalent, and remains so, with regard to the policing of its possession. In 2002, the Government effectively relaxed its policy on cannabis. The specific policy goals, in the form of targets, to reduce the number of young people using drugs and to delay the age of initiation into drugs, were quietly dropped. To this day, they have not been reinstated. Instead, the government defined the more limited goal of reducing young people's Class A drug use and any frequent drug use.<sup>21</sup> Even today there is continuing pressure on the government both to 'stop wasting police time' with regard to cannabis possession and to halt the so called criminalization of children.

The policy of the Association of Chief Police Officers has itself been to treat cannabis as a low policing priority.

In the pro liberal political climate of David Blunkett's accession to the Home Office in 2002, the Advisory Council on Misuse of Drugs' (ACMD) advocacy for downgrading cannabis's harm rating<sup>22</sup> “.. was all but a done deal, they were pushing at an open door ...”, the Labour MP Gwyn Prosser has argued.<sup>23</sup>

The review of the scientific evidence was nominal and cursory in the ACMD's 22 page report advocating cannabis's reclassification. Of the 24 references listed, only 4 referred to the scientific literature on the effects of cannabis. Yet at that time, no less than 44 pre 2002 scientific publications on the negative impact of cannabis, including evidence of psychosis in cannabis users, dating back to 1972, were in the public domain.<sup>24</sup>

The report also denied that cannabis was a contributory cause of schizophrenia. Though research on this link was published eight months after the publication of the ACMD's 2002 report, the ACMD continued to deny it for the next two years – and to mislead ministers.<sup>25</sup> So when, in 2005, the then Home Secretary Charles Clarke requested the ACMD to reexamine the evidence relating to mental health, directing them to the higher THC content and a dangerously altered THC/CBD ratio, ACMD members were quick to express their misgivings. Sir Michael Rawlins (then Chairman) had already closed his mind. He insisted in correspondence in the Times (23<sup>rd</sup> January 2004) that most of Professor Murray's research was known to the Council at the time of its first report. In fact this was not the case. His research on the link with psychosis was not published until afterwards, in the BMJ November 23<sup>rd</sup> 2002.

Then, at a conference in April of that year, Rawlins confirmed he would not be 'confused' by the new data. True to his word, only 5 pages of the new 36 page response dealt with the research on the effects of cannabis on mental health, which was described as a 'biologically fraught hypothesis'.<sup>26</sup>

Cannabis could lead to short lived panic attacks and worsen the symptoms of schizophrenia, the ACMD report conceded. But it could ameliorate them too. It was not a necessary, nor a sufficient, cause for the development of schizophrenia. The report also stated that evidence about *consumption* of more potent cannabis was lacking. That was the medicine doled out to the Home Secretary. He took it.

The impact of this apparently neutral and high profile scientific assessment cannot be underestimated. The question it begs is whether it has encouraged a culture of denial about cannabis use disorders and distracted from the treatment of these disorders?

The epidemiological evidence then in public domain, not only suggested that cannabis use was a risk factor for schizophrenia, but in individuals with a predisposition for schizophrenia, it resulted in an exacerbation of symptoms and worsening of the schizophrenic prognosis.<sup>27</sup>

Jacqui Smith, a later Home Secretary, proved less malleable than her predecessor. She asked the ACMD to address the evidence once more. Again the Council was visibly affronted. Sir Michael Rawlins made his discontent public, saying that he wished they had not been asked.<sup>28</sup>

This episode does not reflect on the ACMD well. Between 2002 and 2008, no less than eight cohort studies were published showing the risk of psychosis to be higher in those that smoke cannabis - a risk increased by 6 to 7 times for heavy smokers, with early users, starting by age

15, having the greatest problems, 4 times higher than starting at 18 – a data trend which suggests the risk multiplies for each year younger.<sup>29</sup>

Despite the growing evidence that the prevalence and frequency of cannabis consumption, and therefore resultant psychosis, in the UK was among the highest in Europe, the ACMD remained adamant that these studies did not meet their bar of ‘proof beyond reasonable doubt’ and that more research was required.

Fifty six pages long, the ACMD’s final report referred to more scientific papers than before.<sup>30</sup> But it ignored the key British longitudinal data on cannabis use, schizophrenia and psychosis. This showed that the operationally defined incidence of schizophrenia in South London had doubled between 1965 and 1999.<sup>31</sup> This study uniquely allowed for the examination of trends in cannabis use prior to first presentation with schizophrenia. It demonstrated a continuous and statistically significant rise in the incidence of schizophrenia between 1965 and 1997, a doubling over the last 3 decades, with the greatest increase in people under 35. It suggested that up to 20% of schizophrenia cases could be cannabis attributable.

Instead the ACMD relied on a GP data base survey, commissioned from one of their own members, which claimed a fall in the annual incidence of diagnosed schizophrenia and psychoses between 1996 and 2005.<sup>32</sup> But as Professor Murray since pointed out in *The Guardian* (29.10.2009) GP records on psychosis are far from accurate.

Although the Home Secretary erred on the side of caution and instructed cannabis be moved back to the more harmful Class B status, its reclassification did not end the culture of denial.

In full media glare, the ACMD's deputy chair, Professor Nutt, published an article in the Lancet setting out, through delphically derived but incomplete polling, a new classification of harms in which legal 'drugs', alcohol and tobacco, emerged more harmful than cannabis and ecstasy.<sup>33</sup>

By the time he was appointed to the chair of the ACMD, his views on the decriminalization of cannabis were well known. His sacking (for saying that ecstasy was less harmful than horse riding) precipitated complaints to the Government from him and other senior scientists – notably Professor Colin Blakemore, a former head of the Medical Research Council and Professor John Beddington<sup>34</sup>, Chief Scientific Advisor to the Government - that the government was refusing to heed proper scientific advice.

But was it? Or was Professor Nutt's own assessment of the scientific evidence with regard to cannabis wanting? He has since said that taking cannabis creates only a "relatively small risk" of psychotic illness".<sup>35</sup> He has also made known his emotive view that, "the obscenity of hunting down low-level cannabis users to protect them is beyond absurd." <sup>36</sup>

To this day, the British Government continues to exercise excessive and undue caution on this topic. James Brokenshire, recently Minister of State at the Home Office, acknowledged there was only, "a probable but weak causal link between psychotic illness, such as schizophrenia, and cannabis use. ....(and) whether this would become stronger with the wider use of higher potency cannabis (sinsemilla-sometimes referred to as 'skunk') was uncertain." He claimed there had been "no decisive new research since the 2008 ACMD report."<sup>37</sup>

But this was not true. Key research which confirmed that THC induces a transient, acute psychotic reaction in psychiatrically-well individuals was published in 2009.<sup>38</sup> A number of

other studies confirming and further elucidating the link and the risk factors had also been published:

One of them found an association between excessive cannabis use with an earlier onset bipolar disorder, whether or not it preceded or followed bipolar disorder onset, after adjusting for possible confounders, and that lifetime use of cannabis predicted an earlier onset.<sup>39</sup>

Another study found that the neuro developmental characteristic of adolescence creates a more vulnerable circumstance for cannabis to produce psychotic-like symptoms and possibly causes schizophrenia.<sup>40</sup>

Yet another study found that 42% of those having used cannabis daily had an acute mode of onset of psychosis, but only 20% of those without prior daily cannabis use had an acute onset. These findings suggest that cannabis use is associated with pre morbid social and academic functioning and mode of onset.<sup>41</sup>

More recent research adds to the large body of evidence relating cannabis use with psychosis, by demonstrating that cannabis use occurring earlier in development may also play a role in the development of sub threshold schizophrenia-like symptoms. This study found that cannabis use before the age of 14 years "strongly predicts" schizotypal symptoms in adulthood, independent of early adolescent schizotypy, major depression, anxiety, other drug use, and cigarette use.<sup>42</sup>

Cannabis legalization lobbies continue to ferociously rebut media comment on, or reportage of, any such studies or any reference to cannabis use doubling the chances of developing schizophrenia or that it can induce an irreversible illness. In face of the mounting evidence,

they continue to orchestrate rebuttals across government and medical websites and win newspaper retractions through complaints to the Press Complaints Commission.<sup>43</sup>

Yet the criteria applied by scientists to establish causality - dose, temporal relationship, no reverse causality, biological plausibility and specificity – have all been met with regard to the cannabis use/psychosis link.<sup>44</sup>

Cannabis use has nothing to recommend it. Recent studies now throw claims for medical efficacy into doubt.<sup>45</sup> Its negative impact on cognition, memory and academic outcome, explored by Thomas Lundquist in his study of the cognitive damage acquired by some 400 of the long-term cannabis abusers who had sought treatment at his outpatient clinic,<sup>46</sup> is regarded as seminal.

New research continues to reveal the multiple health consequences of smoking cannabis, yet there is still a dangerous lack of public awareness of how harmful this drug can be. The chief executive of the British Lung Foundation, Dame Helena Shovelton, said recently that:

"Young people in particular are smoking cannabis unaware that each cannabis cigarette they smoke increases their chances of developing lung cancer by as much as an entire packet of 20 tobacco cigarettes."

She has called for a public health campaign to "dispel the myth that smoking cannabis is somehow a safe pastime."<sup>47</sup>

But to date, the government has not taken this evidence and such advice seriously enough. In fact, the lack of coherence about the government's message on cannabis, its continued policy of harm reduction through questionable information services for adolescents instead of robust treatment, is playing Russian roulette with adolescent health and mental health.

The level of public understanding about cannabis risks is still inadequate. A culture of denial is fed by Professor's Nutt's continued public minimization of cannabis harms and risks. This has impacted on awareness of and need for treatment. Treatment needs remain hidden and unmet, as the many desperate and tragic cases brought to the attention of Charities, such as Cannabis Skunk Sense <http://www.cannabisskunksense.co.uk/>, and self help groups like Clearhead <http://www.clearhead.org.uk/> reveal.

Though our problem is worse, the UK response pales in comparison to other countries: like the Netherlands, where specialist teen rehabs (<http://www.rnw.nl/english/article/teenage-cannabis-addiction-rise>) offer robust abstinence treatment programmes running three to nine months ; and in Sweden, where the ground breaking MUMIN project with police and social workers working together, motivates thousands of young people into treatment.([www.mobiliser.nu](http://www.mobiliser.nu))

The Government in the UK has neither fulfilled its pledge to run a major public health education campaign, nor has it used the criminal justice system to encourage adolescents and young adults into robust cessation treatment. Whether denial or avoidance, it is costing the Government. Professor Murray's assessment is that at least 10 per cent of all people with schizophrenia in the UK would not have developed the illness if they had not smoked

cannabis; this means there are about 25,000 individuals whose lives have been ruined by cannabis.

It is one of the reasons for the crisis in our mental health services, whose mental health wards have been described by one addiction psychiatrist as cannabis dependency units. Professor Peter Jones of Cambridge University, one of Britain's leading psychiatrists and an expert in schizophrenia, addressing an Institute of Psychiatry (London) Conference on 28<sup>th</sup> November 2005 said, "Cannabis is a huge issue for psychiatric services at this moment. I work in a first-contact schizophrenia service and it might as well be a Cannabis Dependency Unit". The Government insists it is committed to educating young people on the harms of drugs and is providing adolescent treatment services. But this is not enough.

Given the scale of current use, the high potency of the drug, and the ever earlier age of initiation into cannabis, harm reduction services for adolescents, in most of which continued cannabis use is tolerated, are inadequate. Inaction in the UK is priming a public mental health and treatment time bomb.

#### **About the Author:**

**Kathy Gyngell** is a social policy analyst and research fellow at the Centre for Policy Studies think tank in London. She writes on drug policy, family and gender policy issues. She blogs regularly on the Daily Mail's online RightMinds comment page. She researched and chaired the Addictions reports in Breakdown and Breakthrough Britain, the Conservative Party's 2007 Social Justice Policy Review. Her particular interest in, and concern about, drug abuse stems from her research for two Centre for Policy Study reports – Shaun Bailey's *No Mans Land: How Britain's inner city young are being failed* (2006) and Ray Lewis's *From*

*Latchkey to Leadership – channeling the talents of inner city youth* (2007) which she co authored. Her reports, *The Phoney War on Drugs* (CPS, 2009) and *Breaking the Habit: why the state should stop dealing drugs and start doing rehab* (CPS, 2011) attracted widespread media coverage. She has a first class honours degree in social anthropology from Cambridge and an Oxford M.Phil in sociology.

### **Conflict of Interest:**

I declare that I have no proprietary, financial, professional or other personal interest of any nature or kind in any product, service and/or company that could be construed as influencing the position presented in, or the review of, the manuscript entitled.

### **References:**

- 
- <sup>1</sup> Henry J. Prof. Foreword. In Brett M. Cannabis A General Survey of its Harmful Effects Submission to The Social Justice Policy Group. 2012 Feb. Available from: <http://www.eurad.net/filestore/PDF/CannabiscombineddocumentFeb2012.pdf>
  - <sup>2</sup> Moore TH. Zammit S. Lingford-Hughes A. Barnes TR. Jones PB. Burke M. Lewis, G. Cannabis use and risk of psychotic or affective mental health outcomes: a systematic review. *Lancet*. 2007 Jul 28;370(9584):319-28.
  - <sup>3</sup> Zammit S. Moore TH. Lingford-Hughes A. Barnes TR. Jones, PB. Burke M. Lewis, G. Effects of cannabis use on outcomes of psychotic disorders: systematic review. *Br J Psychiatry*. 2008 Nov;193(5):357-63
  - <sup>4</sup> Hall W. Degenhardt L. Adverse Health Effects of Non-Medical Cannabis Use. *Lancet* 2009 Oct;374 (9698):1383-1391
  - <sup>5</sup> Nutt D, Prof. Oral evidence to The Home Affairs Select Committee, 2002 Jun 19.
  - <sup>6</sup> European Monitoring Centre for Drug and Drug Addiction. Country overview: United Kingdom. Available from: <http://www.emcdda.europa.eu/publications/country-overviews/uk#pdu>
  - <sup>7</sup> Home Office Statistical Bulletin. Drug Misuse Declared: Findings from the 2010/11 British Crime Survey. London: Home Office. 2011 Jul. Available from: <http://www.homeoffice.gov.uk/publications/science-research-statistics/research-statistics/crime-research/hosb1211/>
  - <sup>8</sup> Home Office Statistical Bulletin. Drug Misuse Declared: Findings from the 2010/11 British Crime Survey. London: Home Office. 2011 Jul. Available from:

---

<http://www.homeoffice.gov.uk/publications/science-research-statistics/research-statistics/crime-research/hosb1211/>

<sup>9</sup> EMCDDA [Internet] Table EYE-23. All ESPAD school surveys: prevalence and patterns (percentages) of cannabis use among students 15-16 years. Available from: <http://www.emcdda.europa.eu/stats11/eyetab23a>

<sup>10</sup> National Health Service. Adult Psychiatric Morbidity in England, 2007: results of a household survey. p. 38. Available from: <http://www.ic.nhs.uk/pubs/psychiatricmorbidity07>

<sup>11</sup> National Health Service. Adult Psychiatric Morbidity in England, 2007: results of a household survey. p. 16. Available from: <http://www.ic.nhs.uk/pubs/psychiatricmorbidity07>

<sup>12</sup> Department of Health. Statistics from the National Drug Treatment Monitoring System (NTDMS) London: National Treatment Agency for Substance Misuse; 2010 Nov. The majority of those in treatment, 49%, cite opiates as their main drug of misuse. Another 32 per cent cite opiates with crack cocaine.

<sup>13</sup> European Monitoring Centre for Drug and Drug Addiction. Country overview: United Kingdom. Available from: <http://www.emcdda.europa.eu/publications/country-overviews/uk#pdu>

<sup>14</sup> European Monitoring Centre for Drug and Drug Addiction. Country overview: Netherlands. Available from: <http://www.emcdda.europa.eu/publications/country-overviews/nl#gps>

<sup>15</sup> European Monitoring Centre for Drug and Drug Addiction. Country overview: Netherlands. Available from: <http://www.emcdda.europa.eu/publications/country-overviews/nl#gps>

<sup>16</sup> B Bieleman et al. Coffeeshops in Nederland, 2008.

<sup>17</sup> European Monitoring Centre for Drug and Drug Addiction. Country overview: Netherlands. Available from: <http://www.emcdda.europa.eu/publications/country-overviews/nl#gps>

<sup>18</sup> Department of Health. Statistics from the National Drug Treatment Monitoring System (NTDMS) London: National Treatment Agency for Substance Misuse; 2011

<sup>19</sup> Hardwick S. King L. Home Office Cannabis Potency Study 2008. London: Home Office. 2008.

<sup>20</sup> HES Online [Internet] Hospital Episode Statistics, Primary diagnosis: 4 character. 1999-2012. [cited 2012 Jun 19] Available from: <http://www.hesonline.nhs.uk/Ease/ContentServer?siteID=1937&categoryID=214>

<sup>21</sup> Home Office [Internet] Updated Drugs Strategy 2002. 2002. [cited 2012 Jun 19] Available from: <https://www.education.gov.uk/publications/standard/publicationdetail/page1/HO-Drug-Strategy>

- 
- <sup>22</sup> Home Office [Internet] The Classification of Cannabis under the Misuse of Drugs Act 1971. 2002. [cited 2012 Jun 19] Available from: <http://www.homeoffice.gov.uk/acmd1/cannabis-class-misuse-drugs-act>
- <sup>23</sup> The Report [Radio] London: BBC 2010 Nov 19
- <sup>24</sup> Brett M. Cannabis A General Survey of its Harmful Effects Submission to The Social Justice Policy Group. 2012 Feb. [cited 2012 Jun 19] Available from: <http://www.eurad.net/filestore/PDF/CannabiscombineddocumentFeb2012.pdf>
- <sup>25</sup> Murray R. Prof The Guardian. [letter] 2006 Jan 19
- <sup>26</sup> Advisory Council on the Misuse of Drugs Strategy [Internet] 2005 Dec, Further Consideration of the Classification of Cannabis under the Misuse of Drugs Act 1971. [cited 2012 Jun 19] Available from: [http://www.csdp.org/research/cannabis\\_reclass\\_2005.pdf](http://www.csdp.org/research/cannabis_reclass_2005.pdf)
- <sup>27</sup> Simona A. Stilo,MD; Robin M. Murray RM. Translational Research 2010: The epidemiology of schizophrenia: replacing dogma with knowledge. *Dialogues Clin Neurosci.* 2010 Sep;12(3):305–315.
- <sup>28</sup> Advisory Council on the Misuse of Drugs. Full Council Meeting Minutes. 2007 Nov 29. [cited 2012 Jun 19] Available from: <http://www.homeoffice.gov.uk/acmd1/meeting-november-2007/minutes?view=Binary>
- <sup>29</sup> Brett M. Cannabis A General Survey of its Harmful Effects Submission to The Social Justice Policy Group. 2012 Feb. Available from: <http://www.eurad.net/filestore/PDF/CannabiscombineddocumentFeb2012.pdf>
- <sup>30</sup> Advisory Council on the Misuse of Drugs Strategy [Internet] 2008, Cannabis: Classification and Public Health. 2008. [cited 2012 Jun 19] Available from: <http://www.homeoffice.gov.uk/acmd1/acmd-cannabis-report-2008>
- <sup>31</sup> Boydell J. van Os J. Caspi A, Kennedy N. Giouroukou E. Fearon P. Farrell M. Murray RM. 2006. Trends in cannabis use prior to first presentation with schizophrenia, in South-East London between 1965 and 1999. *Psychological Medicine* 36:1441–1446)
- <sup>32</sup> Frisher M. Crome I. Martino O. Croft P. Assessing the impact of cannabis use on trends in diagnosed schizophrenia in the United Kingdom from 1996 to 2005. *Schizophr Res.* 2009 Sep;113(2-3):123-8)
- <sup>33</sup> David Nutt, Colin Blakemore, Leslie King, Development of a rationale Scale to assess the harm of drugs of potential misuse, *The Lancet*, 2007, 369:1047-53
- <sup>34</sup> Ghosh, P. Science Chief Backs Cannabis View. BBC News Online. 2009 Nov 3. [cited 2012 Jun 19]. Available from: <http://news.bbc.co.uk/1/hi/sci/tech/8340318.stm>. "I think the scientific evidence is absolutely clear cut. I would agree with it."

- 
- <sup>35</sup> Jones S. Booth, R. David Nutt's sacking provokes mass revolt against Alan Johnson. The Guardian. 2009 Nov 1. Available from:  
<http://www.guardian.co.uk/politics/2009/nov/01/david-nutt-alan-johnstone-drugs>
- <sup>36</sup> Vuillamy E. Richard Nixon's 'war on drugs' began 40 years ago, and the battle is still raging. The Guardian. 2011, Jul 24. Available from:  
<http://www.guardian.co.uk/society/2011/jul/24/war-on-drugs-40-years>
- <sup>37</sup> Brokenshire J. Written Answer. HC Deb, 2011 Apr 4, c586W
- <sup>38</sup> Morrison PD, Zois V, McKeown DA, Lee TD, Holt DW, Powell JF, Kapur S, Murray RM. The acute effects of synthetic intravenous Delta9-tetrahydrocannabinol on psychosis, mood and cognitive functioning. *Psychol Med*. 2009 Oct;39(10):1607-16.
- <sup>39</sup> Lagerberg T, Sundet K, Aminoff S, Berg Akiah, Ringen P, Andreassen, O, Melle I. Excessive cannabis use is associated with earlier age at onset in bipolar disorder. *Eur Arch Psychiatry Clin Neurosci*. 2011 Sep;261(6): 397–405
- <sup>40</sup> Malone DT, Hill MN, Rubino T. Adolescent cannabis use and psychosis: epidemiology and neurodevelopmental models. *Br J Pharmacol*. 2010 Jun;160(3):511-22.
- <sup>41</sup> Compton MT, Broussard B, Ramsay CE, et al. Pre-Illness Cannabis Use and the Early Course of Non affective Psychotic Disorders: Associations with Premorbid Functioning, the Prodrome, and Mode of Onset of Psychosis, *Schizophr Res* 2011; 126(1-3):71-6
- <sup>42</sup> Brooks M. Early Cannabis Use Tied to Schizotypal Personality Disorder. *Schizophrenia Res*. 2012;137:45-49.
- <sup>43</sup> Clear: Cannabis Law Reform [Internet] [cited 2012 Jun 19]. Available from:  
<http://www.clear-uk.org/category/press-complaints-commission/> Over 70 entries in the PCC Category on the CLEAR website indicate that a vigorous campaign is being pursued
- <sup>44</sup> D'Souza DC, Sewell RA, Ranganathan M. Cannabis and psychosis/schizophrenia: human studies. *Eur Arch Psychiatry Clin Neurosci*. 2009 Oct;259(7):413-31.
- <sup>45</sup> Reuters. Cannabis fails to slow progress of multiple sclerosis in study. Fox News Online. 2012 May 29. [cited 2012 Jun 19]. Available from:  
<http://www.foxnews.com/health/2012/05/29/cannabis-fails-to-slow-progress-multiple-sclerosis-in-study/>
- <sup>46</sup> Ranström J. Adverse Health Consequences of Cannabis Use: A Survey of Scientific Studies Published up to and including the Autumn of 2003. Stockholm: National Institute of Public Health Sweden; 2004.
- <sup>47</sup> Laurance J. Young cannabis users 'do not realise the huge danger to their health'. Independent Online. 2012 Jun 6. [cited 2012 Jun 19]. Available from:  
<http://www.independent.co.uk/life-style/health-and-families/health-news/young-cannabis-users-do-not-realise-the-huge-danger-to-their-health-7818050.html>

CALL FOR PAPERS  
The Journal of Global Drug Policy and Practice  
<http://www.globaldrugpolicy.org/>

The Journal of Global Drug Policy and Practice is an international peer-reviewed journal with the goal of bridging the information gap on drug policy issues between the medical-scientific community, policymakers, practitioners, and the lay public. Our intended readership includes clinicians, clinical researchers, policymakers, prevention specialists, and other persons interested in understanding drug policy issues or in providing drug policy recommendations. The Journal of Global Drug Policy and Practice is a joint effort of the Institute on Global Drug Policy and the International Scientific and Medical Forum on Drug Abuse.

The theme of our next issue is, **Current Trends in Substance Abuse**, and the possible subject areas include, but are not limited to:

- Designer and/or synthetic drugs
- Over-the-counter medication abuse
- Neo-natal addiction
- Prescription drug abuse
- Marijuana and mental health
- Substance abuse and the economy

You may write a new article, republish work that is previously published, or even a combination. All manuscripts must be prepared in English. The deadline for submission of your article is August 31, 2012, in order to be considered for publication. A letter of intent is recommended and should include the working title or subject, plus the anticipated submission date. Please submit your letter of intent and paper, via e-mail, to the following address:

Sylvia Raymond  
sraymond@dfaf.org

---