

VIEWS & REVIEWS



PERSONAL VIEW

Psychedelic drugs should be legally reclassified so that researchers can investigate their therapeutic potential

Trials of physiologically safe and non-addictive drugs such as LSD are almost impossible, writes **James J H Rucker**, calling on the authorities to downgrade their unnecessarily restrictive class A, schedule 1 classification

James J H Rucker *specialist registrar in adult psychiatry and honorary clinical lecturer, MRC Social, Genetic and Developmental Psychiatry Centre, Institute of Psychiatry, Psychology and Neuroscience, King's College, London, SE5 8AF*

Psychedelic drugs, especially lysergic acid diethylamide (LSD) and psilocybin, which is found in the *Psilocybe* genus of “magic” mushrooms that grow throughout the United Kingdom, were extensively used and researched in clinical psychiatry before their prohibition in 1967. Hundreds of papers, involving tens of thousands of patients, presented evidence for their use as psychotherapeutic catalysts of mentally beneficial change in many psychiatric disorders, problems of personality development, recidivistic behaviour, and existential anxiety.¹

This research abruptly ended after 1967, when psychedelics were legally classified as schedule 1 drugs under the UK Misuse of Drugs Regulations and as class A drugs under the UK Misuse of Drugs Act 1971. Schedule 1 in the UK broadly mirrors schedule I of the 1971 United Nations Convention on Psychotropic Substances, adoption of which is a requirement of UN membership.² This classification denoted psychedelic drugs as having no accepted medical use and the greatest potential for harm, despite the existence of research evidence to the contrary.

Indeed, in 1992 John Ehrlichman, former assistant to Richard Nixon—the US president who intensified the “war on drugs” in the 1970s—notoriously admitted that the administration had lied about the harmful effects of drugs and had manipulated media coverage of them for political advantage.³ Nearly 50 years later psychedelic drugs remain more legally restricted than heroin and cocaine, which are schedule 2, class A in the UK. But no evidence shows that psychedelics are habit forming; little evidence shows that they are harmful in controlled settings; and much historical evidence has shown that they could have use in common psychiatric disorders. A growing number of organisations, most recently in Norway, are questioning the need for such draconian restrictions.⁴

Where's the harm?

Psychedelic drugs do not induce dependence.⁵ A 1984 review of adverse reactions to psychedelics found little evidence of harm in controlled settings.⁶ Furthermore, in 2010, an analysis of harms caused to recreational users and to society by a range of psychotropic substances ranked LSD and psilocybin among the safest of all those studied.⁷ The therapeutic index (toxic dose as a ratio of standard dose) for LSD and psilocybin is about 1000; for cocaine it is 15, for heroin it is 6, and for alcohol it is 10.⁸ The belief that psychedelics induce homicidal or suicidal behaviour was inculcated by the politically driven and media led condemnation of LSD in the 1960s.⁹

In a population study of 130 152 respondents to the US National Survey on Drug Use and Health (NSDUH) from 2001 to 2004, a history of reported psychedelic use was associated with lower reported levels of serious psychological distress, the need for mental health treatment, and psychiatric medicine.¹⁰ Researchers found no association with psychosis. Using data from the 2008-12 NSDUH (n=191 382) Hendricks et al found that ever having used psychedelics was associated with a significantly reduced risk of suicide.¹¹ These results have been broadly replicated in another sample of 135 095 randomly selected US adults.¹²

Evidence for medical use

Many of the clinical trials of psychedelics published in the 1950s and '60s, before prohibition, fell short of modern standards; however, several good quality, controlled trials were performed. Using data from six such trials in alcoholism, a recent meta-analysis that compared treatment with LSD against controls in 536 people found that LSD treatment was favoured

in terms of objectively measured improvements in alcohol misuse, with an odds ratio of 1.96 (95% confidence interval 1.36 to 2.84).¹³ Recent pilot studies performed outside the UK have shown clinical efficacy in anxiety associated with advanced cancer,¹⁴ obsessive compulsive disorder,¹⁵ tobacco addiction,¹⁶ alcohol addiction,¹⁷ and cluster headaches.¹⁸

However, larger clinical studies are almost impossible throughout the Western world because of the practical, financial, and bureaucratic obstacles imposed by schedule 1 classification or its equivalent.¹⁹ For example, because of the burden of compliance with the UN's schedule I, only one manufacturer in the world produces psilocybin at sufficient quality, quoting our group a prohibitive £100 000 for 1 g (50 doses).

In the UK, to hold a schedule 1 drug, institutions require a licence costing about £5000. Only four hospitals currently hold such licences, which come with regular police inspections and onerous rules on storage and transport. Prescribers of a schedule 1 substance also must hold a licence, which costs £3000.

These restrictions, and the accompanying bureaucracy, mean that the cost of clinical research using psychedelics is 5-10 times that of research into less restricted (but more harmful) drugs such as heroin—with no prospect that the benefits can be translated into wider medical practice. The self reinforcing cycle of stigma generated by schedule I classification means that almost all grant funders are uncomfortable funding research into psychedelics, and similar problems are encountered with ethics committees.

Legal prohibition of some psychotropic substances continues to be a condition of UN membership, stigmatising a facet of behaviour and arguably causing more harm than it prevents.²⁰ The UN schedule I creates its own circular argument for psychedelics to remain stringently restricted, even though the original reasons for classifying them as such were largely fallacious.

Because psychedelics are not harmful in relation to other controlled substances and are not habit forming, and because evidence suggests medical use, we call on the UK Advisory Council on the Misuse of Drugs and the 2016 UN General Assembly Special Session on Drugs to recommend that psychedelics be reclassified as schedule 2 compounds to enable a comprehensive, evidence based assessment of their therapeutic potential.

Competing interests: I have read and understood the BMJ policy on declaration of interests and have no relevant interests to declare.

I thank Robin L Carhart-Harris and David J Nutt, Centre for Neuropsychopharmacology, Division of Brain Sciences, Imperial College London, W12 0NN.

Provenance and peer review: Not commissioned; not externally peer reviewed.

- 1 Grinspoon L, Bakalar J. The psychedelic drug therapies. *Curr Psychiatr Ther* 1981;20:275-83.
- 2 United Nations. Convention on psychotropic substances, 1971. www.unodc.org/pdf/convention_1971_en.pdf.
- 3 Baum D. Truth, lies, and audiotape. In: Smith L, ed. The moment: wild, poignant, life changing stories from 125 writers and artists. Harper Perennial, 2012.
- 4 Higgins A. Odd push in drug averse Norway: LSD is OK. *nytimes.com* 4 May 2015. <http://bit.ly/1FntGeK>.
- 5 Brunton L, Chabner B, Knollman B. The pharmacological basis of therapeutics. 12th ed. McGraw Hill Professional, 2011.
- 6 Strassman RJ. Adverse reactions to psychedelic drugs: a review of the literature. *J Nerv Ment Dis* 1984;172:577-95.
- 7 Nutt DJ, King LA, Phillips LD. Drug harms in the UK: a multicriteria decision analysis. *Lancet* 2010;376:1558-65.
- 8 Gable RS. Comparison of acute lethal toxicity of commonly abused psychoactive substances. *Addiction* 2004;99:686-96.
- 9 Grinspoon L, Bakalar J. Psychedelic drugs reconsidered. 1st ed. Lindesmith Center, 1997.
- 10 Krebs TS, Johansen PØ. Psychedelics and mental health: a population study. *PLoS One* 2013;8:e63972.
- 11 Hendricks PS, Thorne CB, Clark CB, et al. Classic psychedelic use is associated with reduced psychological distress and suicidality in the United States adult population. *J Psychopharmacol* 2015;29:280-8.
- 12 Johansen PØ, Krebs TS. Psychedelics not linked to mental health problems or suicidal behavior: a population study. *J Psychopharmacol* 2015;29:270-9.
- 13 Krebs TS, Johansen PØ. Lysergic acid diethylamide (LSD) for alcoholism: meta-analysis of randomized controlled trials. *J Psychopharmacol* 2012;26:994-1002.
- 14 Grob CS, Danforth AL, Chopra GS, et al. Pilot study of psilocybin treatment for anxiety in patients with advanced stage cancer. *Arch Gen Psychiatry* 2011;68:71-8.
- 15 Moreno FA, Wiegand CB, Taitano EK, Delgado PL. Safety, tolerability, and efficacy of psilocybin in 9 patients with obsessive-compulsive disorder. *J Clin Psychiatry* 2006;67:1735-40.
- 16 Johnson MW, Garcia-Romeu A, Cosimano MP, Griffiths RR. Pilot study of the 5-HT2AR agonist psilocybin in the treatment of tobacco addiction. *J Psychopharmacol* 2014;28:983-92.
- 17 Bogenschutz M, Forcehimes A, Pommy J, et al. Psilocybin-assisted treatment for alcohol dependence: a proof-of-concept study. *J Psychopharmacol* 2015;29:289-99.
- 18 Sewell RA, Halpern JH, Pope HG. Response of cluster headache to psilocybin and LSD. *Neurology* 2006;66:1920-2.
- 19 Nutt DJ, King LA, Nichols DE. Effects of schedule I drug laws on neuroscience research and treatment innovation. *Nat Rev Neurosci* 2013;14:577-85.
- 20 Hari J. Chasing the scream. 1st ed. Bloomsbury Publishing, 2015.

Cite this as: *BMJ* 2015;350:h2902

© BMJ Publishing Group Ltd 2015