

The magical mystery cure

Richard Shrubb reports on controversial trials that use Class A drugs such as MDMA and LSD for psychotherapeutic purposes

A small number of pioneering psychiatrists, psychologists and psychotherapists are researching how certain Class A drugs can be used with very positive effect to help people with severe, chronic psychological and emotional health problems.

Despite the practical and legal difficulties, pilot trials are currently under way into the use of LSD, pure MDMA (ecstasy) and psilocybin (magic mushrooms) as an adjunct to conventional talking therapies for the treatment of post-traumatic stress disorder (PTSD) and in end-of-life care.

The therapeutic use of banned drugs has featured in the UK national media headlines in recent months, thanks to the outspoken David Nutt, Professor of Neuropsychopharmacology at Imperial College London and former Chair of the Government's Advisory Council on the Misuse of Drugs. He was sacked from the Advisory Council in 2009 after declaring that ecstasy was less dangerous than horse riding (in terms of adverse incidents per use). In a subsequent paper he classified drugs according to the harm they caused; alcohol and tobacco emerged as more harmful than ecstasy and cannabis.

In September last year, he, with Val Curran, professor of psychology at University College London, joined forces with Channel 4 to film some of the participants (including the novelist Lionel Shriver) in a study that used fMRI imaging to examine the effects of MDMA on the brain. In April this year, in his presentation to the British Neuroscience Association's biennial conference, he roundly condemned the British Government for blocking attempts to develop more effective

treatments for depression with what he says are its 'irrational' drugs laws.

Nutt wants to research the use of the chemical psilocybin, the psychedelic ingredient in magic mushrooms, which he says can suppress activity in the parts of the brain that are overactive in severely depressed people. But, because magic mushrooms are a Class A drug, their active chemical ingredient cannot be manufactured without a special licence. Despite a grant of £550,000 from the Medical Research Council to begin a three-year project to test the drug on people with depression, Nutt and his team have been unable to progress because they can't get the comparatively small amount of the drug needed to conduct their trials. It isn't easy to find companies who can manufacture the drug and are prepared to stump up the estimated £100,000 and go through all the bureaucratic hoops to get a licence.

Nutt's research has already established that psilocybin appears to switch off the ruminative parts of the brain that are overactive in people with depression. 'We badly need more types of treatment [for depression] but we cannot pursue these because the Government is denying scientists access to powerful tools that could help people in need,' Nutt told the conference. 'The whole field is so bedevilled by primitive old-fashioned attitudes. Even if you have a good idea, you may never get it into the clinic, it seems.'

MDMA and PTSD

Post-traumatic stress disorder (PTSD) is notoriously difficult to treat, and a condition for which almost no drugs are being developed. Psychotherapy is generally regarded as the treatment

of choice for the condition. NICE guidance recommends: 'All people with PTSD should be offered a course of trauma-focused psychological treatment (trauma-focused CBT or EMDR)'.

At the heart of PTSD is the issue of avoidance: the patient finds the experience too difficult to face and is therefore unable to process it. Clinical trials are being conducted in Israel, the US, Canada and Switzerland into the use of MDMA-assisted psychotherapy to treat PTSD. The trials are funded fully or in part by the US-based charity Multidisciplinary Association for Psychedelic Studies (MAPS), a research and educational organisation dedicated to promoting use of psychedelics and marijuana for therapeutic purposes.

South Carolina-based psychotherapist Michael Mithoefer is leading one of the trials. Mithoefer, a psychiatrist by training, believes that MDMA can open doors in the mind, whether the person wants it or not. The MDMA-assisted therapy sessions are eight hours long, with two therapists present – generally a male and a female so the client can talk to either, as they prefer. Though an apparently intense session – 45 minutes can be a lot for most patients in traditional non-drug psychotherapy – it is designed to be completely relaxed and without pressure.

It takes place in a non-clinical setting and, as the drug takes effect and the session progresses, the client finds him/herself talking naturally about the stressor that is causing them so much trouble. 'We have an agreement with the client that if nothing comes up during the session at a certain point, the therapist can engage them. This has never happened yet,' Mithoefer says.

'By letting go I regained my mind'

Mikee (not his real name) was a Forward Air Controller for the US Army during the Surge in Iraq in 2006-07. He had to get artillery and air strikes signed off by officers. 'There were so many career officers in it for themselves that would not sign off strikes when I deemed them necessary that I had to sit by while 20 men were killed in six months whose lives I could have saved.'

PTSD is severely stigmatised in the US Army, particularly among elite soldiers like Mikee. Until he was medically discharged with a broken back, and his behaviour in civilian life forced his hand, he wouldn't admit his problems.

'As a soldier your mind controls everything. You live in the next five seconds in a structure that controls everything you do. In civilian life there is no control of your life,' says Mikee. He

became violent on several occasions and had difficulty reintegrating with civilian life.

For Mikee, taking MDMA allowed him to let go of the control, which allowed him to understand what was going on for him. 'The feeling initially was extreme anxiety as I was about to come up on the drug, but when I became high I was only anxious when I had a thought about my past and didn't talk about it. When I talked about the thing, in my head I relaxed.

By letting go and no longer being in control, I regained my mind.'

Asked how he has changed, Mikee says: 'I feel as if I have grown as a person. What doesn't kill you makes you stronger!'

Mikee is now going to medical school to learn to be a doctor. He wants to study psychedelics as part of therapy and help his former buddies cope with civilian life when they too leave the Armed Forces.

Few of the clients found taking MDMA an 'ecstatic experience', according to Mithoefer, and all have been able to both face the trauma and not be traumatised by doing so.

Outcomes to date indicate that MDMA-assisted psychotherapy is achieving results.^{1,2} Twenty patients with chronic PTSD that had not responded to other forms of psychotherapy and drug treatment were randomly assigned to psychotherapy with MDMA or a placebo. The participants had suffered PTSD for an average of 19 years. Most of those who underwent the MDMA-assisted therapy had not relapsed 3.5 years later. Four out of five of the MDMA treatment group improved, compared with just one in four of those in the placebo group. The study found no evidence of drug-related serious side effects or adverse neurocognitive effects and concluded that MDMA can be given safely to people with PTSD, and may be particularly useful for those who have not responded to other treatments.²

Stephen Joseph, Professor of Psychology, Health and Social Care at the University of Nottingham, is sceptical. He has pioneered psychological techniques to treat PTSD and is the

author of *What Doesn't Kill Us: a guide to moving forward and overcoming adversity*, on post-traumatic growth. He argues: 'In a nurturing, supportive environment, people can let go. If you rush them they will become more avoidant. You have to build up the client's trust over a couple of months.' Indeed, 'it is important to spend a lot of time not talking about their trauma'. Joseph is concerned about the use of any kind of drug to treat PTSD: 'PTSD is not a psychiatric disorder – it is more of a bereavement. You cannot medicate an existential crisis.' But he is prepared to be convinced: 'I'd be interested to see where we are when the research is complete in 10 years. I may well be surprised.'

MDMA and social anxiety

The US Food and Drug Administration (FDA) is currently considering an application from MAPS to conduct an MDMA-assisted psychotherapy trial for social anxiety among autistic adults.

Dr Berra Yazar-Klosinski, Lead Clinical Research Assistant at MAPS, says there is a lot of anecdotal data suggesting that MDMA can help with social anxiety, 'although there is little hard science on the subject'.

Put very simply, MAPS is arguing that MDMA can address social anxiety by reducing the individual's reactions to negative social interactions and enhancing the feel-good effect of positive interactions. The treatments are once or twice only, several weeks apart. There is no suggestion that people should be regularly dosed with MDMA, like an antidepressant or antipsychotic. The theory is that MDMA is a 'teacher', not a 'helper'.

Julian, a Londoner who has Asperger's, has taken MDMA at raves and confirms this effect: 'It seems to help filter out the signals you normally get, teaching you how others see social interaction.'

To help design the pilot study, MAPS brought in Nick Walker, who has autism and has taken MDMA recreationally. A teacher on the Interdisciplinary Studies programme at California Institute of Integral Studies in San Francisco, Walker says: 'Though MDMA is empathogenic for most who take it, the theory that autistic people lack empathy is complete rubbish.' He feels that social anxiety results from the power imbalance imposed on the autistic by 'neurotypical' mainstream society. 'Autistic people are generally bullied at school and

misunderstood as children. By their adolescence and adulthood they are traumatised from being taught they are somehow wrong. MDMA makes you warm and welcoming. It helps you get involved in others' interests. How do you share your interests? By getting over your social fear.'

LSD-assisted therapy

Dr Peter Gasser was able to practise psychedelic assisted psychotherapy in the 1990s under licence in Switzerland, as a member of the Swiss Association of Psychedelic Therapists. The licence was revoked when LSD and other psychedelics were banned even for medical use in 1993, but Gasser has since been given a licence to run a clinical trial into its use in end-of-life psychotherapy, partly sponsored by MAPS.³ The results have yet to be published.

Taking LSD is a very intense and transformative, almost religious experience, according to research assistant Katharina Kirchner, who worked with Gasser and wrote her Master's thesis on LSD-assisted end-of-life psychotherapy.

Many writers over the years have likened the experience of taking LSD to Eastern mystic religious experiences. Kirchner challenges this: 'Those who have the language of the Eastern mystic experience speak of an LSD trip on those terms. An ordinary person from a village in Switzerland or Germany doesn't have that language to use, so describes their experience on the terms they have for reference.'

Kirchner practises meditation and describes the LSD experience as like 'taking a train to a peak meditative experience. You arrive in under an hour where through learning meditation it sometimes takes years to achieve that destination – not unlike walking'. One participant had a horrifying experience in the first trip, which they described as '... really black, the black side. I was afraid, was shaking [...] Really it was a total strain, no way out, no escaping.'

They had reservations about taking the next trip but this proved more positive: 'Suddenly there came a phase of relaxation. Completely detached. It became bright. Everything was light. It is a pleasant feeling, a warm feeling. No pain. Almost like floating, like being carried, and together with the music... really wonderful...'

The protocol for the Gasser clinical trial explains that psychotherapy will take place before, during and after the LSD session. During the experience, 'as appropriate, the investigators will engage with the participant to support and encourage emotional processing and resolution of whatever psychological material is emerging. The investigators will also encourage periods of time in which the participant remains silent with eyes closed and with attention focused introspectively on his or her sense of self and life history in order to increase the psychological insights mediated by the LSD treatment'.

Very simply, there are two forms of experience, depending on the dose of LSD. A low dose is known as 'psycholytic' – it is still intense and transformative, but the client doesn't 'leave the planet' or hallucinate bright lights, for instance. The other dose is a 'psychedelic' experience and will result in complete release from reality. Kirchner says 300 microgrammes in most cases will bring about a psycholytic experience, depending on the person's body weight, health and stage of illness; 400mcg is the minimum needed to achieve a peak psychedelic experience in a healthy adult of a typical weight.

The therapy environment itself is similar to that for MDMA-assisted therapy: a calm, relaxing and non-clinical setting. The patient wears a blindfold and can choose to listen to music. They are given the LSD under the supervision of two therapists. Kirchner says: 'Therapists are there to guide you through the experience and help along the way.' After the trip has worn off, the client goes to bed

and is left to sleep overnight – although a therapist is there for them to speak to if they wish at any time. Kirchner explains: 'Patients often just need time to process their experience and understand what they have seen and felt.' They receive talking therapy the next day, but again in a non-traditional way – the therapist is there simply to listen and help the person articulate what they felt, heard and saw, not to interpret or analyse it.

In her thesis Kirchner argues that LSD opens the individual's mind to a different viewpoint and way of thinking while they remain conscious, so they gain a different perspective on the seemingly intractable issue (for example, their impending death) facing them. Brad Burge, Director of Communications at MAPS, puts it more simply: 'With end of life therapy one comes to the understanding that "I do not end where my body ends".'

As the end-of-life research progresses, the hope is that enough scientific evidence will be gathered to break through the social and legal barriers that are currently blocking the therapeutic application of these and other so-called recreational drugs. ■

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References

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