Unraveling Insomnia: No More Sleepless Nights

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MDMA: 'Madness, not ecstasy'

With a single twist on a chemical formula, "basement chemists" have sent legislators, researchers and psychiatrists into bitter battle. The latest round of controversy centers on the drug MDMA (3,4-methylenedioxyxymethamphetamine), known as "ecstasy" to some and trouble to others.

A chemical relative of methamphetamine (speed), MDMA has been hailed by users since its street debut in the late 1970s as a "safer" psychedelic drug. Free for the most part of the hallucinations produced by other psychedelics, the distilled effects, users say, leave them feeling more empathetic, more insightful and aware.

Some psychiatrists have spoken in favor of its limited use in therapy, claiming that it lowers patients' defenses, improving treatment progress. (See "MDMA: Psychodelic Drug Faces Regulation," May 1985.) But there is evidence that even short-term use can cause long-term, irreversible effects on the brain, and other studies have shown MDMA's addictive potential.

Last year the federal Drug Enforcement Administration (DEA) took "emergency" action, temporarily replacing MDMA on Schedule I of the federal Controlled Substances Act. Alongside heroin, LSD and marijuana, at this level of control, producers, distributors and possessors of a drug can incur penalties of up to 15 years in jail and/or $100,000 in fines. A final decision on MDMA's permanent scheduling is expected soon.

The DEA's decision came after consideration of a series of biochemical and behavioral studies conducted on rats and guinea pigs by psychopharmacologists Lewis Seiden and Charles Schuster. They found that MDMA causes long-term and perhaps irreversible effects on the brain. Serotonin (a neurotransmitter involved in the regulation of sleep, sex, aggression and mood), in particular, reached an alarmingly low level.

"We've looked at rats eight weeks after they've received MDMA," says Seiden. "Their brains are still depleted in serotonin, and there doesn't seem to be a hint that it's going to come back." Without a government go-ahead, MDMA cannot be obtained for research or any other purpose. For therapists who had previously been using it in treatment, and for researchers wishing to study its potential, federal approval can involve a lot of paperwork and a measure of stigma, says Frank Sapienza, a chemist with the DEA. "Schedule I drugs are harder to get," he says. "And with this placement, MDMA would seem as bad as heroin or LSD."

Seiden, Schuster and others, however, see these drugs as appropriate for MDMA. Its therapeutic use, to me, is completely unproven," says Sidney Cohen, a former LSD researcher at the University of California, Los Angeles. "There has never been a single article published on its therapeutic value. We have to ask why..."

Psychopharmacologist Ronald K. Siegel agrees. "MDMA has been promoted as a cure for everything from personal depression to alienation to cocaine addiction," he says. "It's got a lot of notoriety, but the clinical claims made for its efficacy are totally unsupported at this time."

MDMA's acute physical and psychological effects resemble those produced by amphetamines, another chemical relative, Siegel says. In addition to its "mind-expanding" properties, some users have interviewed says that it can produce nausea and dizziness as well as jaw pain lasting for weeks after taking MDMA. They also use terms such as "energy churn" and "destressing" to describe their experiences, phrases Siegel says are euphemisms for muscle spasms and nausea and vomiting.

"I've seen people get ecstatic and I've seen people crawl into fetal positions for three days," he says. "When doses are pushed, we get the 'madness, not ecstasy,' which is my concern."

Based on their animal studies, Seiden and Schuster conclude that MDMA can be administered safely without causing harm to the brain. In doses harmful to the brain are only about 2 to 3 times greater than the average street dose. This finding worried the DEA. "Seiden and Schuster identified a dose of MDMA close enough to street doses to concern us," Sapienza says, "and that's a concern."

The concern has spread to other researchers, who have been studying the substance for its abuse potential and potential. Psychopharmacologist Roland Grif...
How to tell someone the honeymoon isn't over.

... and colleagues studied baboons to see whether they would inject themselves with MDMA. When allowed to administer the drug intravenously at will, the animals did so at regular intervals. Since lab animals do not usually take psychoactive drugs purely for their hallucinogenic effects, the baboons' behavior suggests that MDMA has some other naturally reinforcing properties, Griffiths says. Other researchers have found similar behavior in monkeys allowed access to the drug, findings they say should alert those who use MDMA recreationally or therapeutically to its abuse potential.

Although the DEA has until July 1 to decide on a permanent rescheduling for MDMA, theoretically that decision has already been made. In February, the United Nations Commission on Narcotic Drugs placed the drug on Schedule I of an international treaty that theoretically binds 78 nations, including the United States, to its regulations. This decision limits the use of MDMA in those nations to medical and scientific settings under government control.

Strict regulation of MDMA, however, will not prevent the creation and abuse of chemical successors. Researchers at the National Institute on Drug Abuse have already begun to study the effects of MDE ("Eye") and other compounds. And Congress is considering several bills that would prohibit the manufacture and distribution of drugs similar to those previously placed on Schedule I for LSD.

Without this sort of preventive approach, the MDMA story will be told and retold, with only a slight variation in format. 'There's no end to the possibilities of drugs that can be engineered,' Siegel says. 'Designer drugs present a real law-enforcement nightmare.'

Marjory Roberts Seiden and Schnitzer are at the University of Chicago. Siegel is at the University of California, Los Angeles. Griffiths is at the Johns Hopkins Medical Institutions.
Dear Editor,

May 29, 1986

Your article on MDMA in the Crosstalk section of the June issue was remarkably ironic. Between the opening words "Drug Abuse" and the closing word "nightmare", not one psychotherapist who has used MDMA was quoted. And within days after Psychology Today painted a frightening picture of MDMA, the Administrative Law Judge of the DEA declared that MDMA does have a currently accepted medical use, is safe for use under medical supervision, and does not belong is Schedule 1, but rather in Schedule 3.

Judge Young found that the studies the DEA cited as proving the addictive potential of MDMA "lack significant indica of reliability to be given any weight. They certainly fail to buttress the Agency's position that MDMA has a "high potential for abuse" in humans. They are immaterial."

The studies suggesting that MDMA causes permanent brain damage were also discounted by the Judge. He wrote "the study on which this conclusion was based indicates only that the MDMA was injected into rats...Humans are known to take MDMA orally, not by injection. This difference is of great importance, and renders the test meaningless for our purposes." Judge Young continued "the drug fenfluramine has been determined to produce the biochemical effects in rats of which MDMA is suspected, but at much lower dosage levels than in the case of MDMA... Nonetheless, FDA has approved the daily use of fenfluramine in humans on a chronic basis."

Research groups at Harvard Medical School, University of New Mexico Medical School, and the University of California San Francisco are in the process of seeking FDA approval for MDMA research in humans. I hope that Psychology Today will see fit to report on their findings, for only when MDMA is submitted to scientific scrutiny unclouded by politically-motivated interpretations will the true potential of MDMA be elucidated.

Sincerely,
Rick Doblin
President, Multidisciplinary Association for Psychedelic Studies, Inc. (MAPS)

(MAPS submitted MDMA animal toxicity studies to the FDA, and holds Drug Master File 6293. Researchers interested in studying MDMA can write to MAPS and request permission to cross reference the toxicity data in our DMF. At oral doses of 100 mg/kg per day for 28 days, there was no evidence of MDMA related brain damage in rats.)

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Editor— if you need to shorten my letter, I suggest that you eliminate the two paragraphs quoting Judge Youngs findings. I am enclosing a complete copy of his recommendation for your review.