

conference) were significantly more likely to adopt the workshop than were programs that received printed materials only.

(3) Differences in rate of adoption were not statistically significant between the site visit condition and the conference condition.

Results indicate the value of a conference or site visit strategy to permit the implementation of new treatment programming. Even printed materials in a manual format permitted one-quarter of programs to implement at least some portion of the JSWs. Only reliance on the research literature alone failed to result in any implementation of the innovation. In this regard, it is noteworthy that reports of the JSW and its efficacy had appeared in the research literature in three different articles. Finally, the study also highlighted the importance of the dimension of time in followup efforts to measure adoption. Adoption almost doubled between 3- and 9-month followup, suggesting that the adoption time lag may be quite extended.

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MDMA

A new synthetic drug, MDMA, popularly known as "ecstasy," may cause permanent brain damage, according to National Institute on Drug Abuse scientists.

NIDA officials are concerned that MDMA, which is an amphetamine with hallucinogenic properties, has a wide potential for abuse, especially following favorable reports in the press. According to one recent magazine article, the drug has become popular on college campuses for

its purported aphrodisiac qualities, and psychiatrists have been using it as an adjunct to therapy, even though it has not received FDA approval.

Based on the concern about MDMA shared by NIDA staff and other researchers, the Drug Enforcement Administration has announced it will invoke its emergency authority to place it in the same category of illegal drugs as cocaine and heroin as of July 1.

This concern about MDMA arises because it is so similar to two other drugs, methamphetamine and MDA, which have been shown to be damaging to the nervous system. According to Dr. Roger Brown, NIDA Division of Preclinical Research, "When two drugs closely related in structure and action are damaging to brain cells, most likely MDMA is also harmful." At least, he cautioned, individuals taking the drug should be made aware of the risk.

Methamphetamine, the parent compound of MDMA, has been shown by NIDA-supported researchers Drs. L.S. Seiden and C.R. Schuster, University of Chicago, to cause degeneration of neurons containing the neurotransmitter dopamine (damage to dopaminergic neurons underlies Parkinson's disease).

In laboratory experiments, a single exposure at high doses or prolonged use at low doses destroys up to 50 percent of this transmitter, which is responsible for initiating gross motor movement. Although immediate impairment is not noticeable, Brown says, "With aging, or exposure to other toxic agents, it is quite possible that Parkinsonian symptoms will eventually emerge." These symptoms begin with lack of coordination and tremors and may eventually result in a form of paralysis.

MDA, the amphetamine-like drug very similar in chemical structure to MDMA, affects the serotonin system and destroys it in the process, according to the Chicago researchers. Serotonin plays a direct role in aggression, mood, sexual activity, sleep regulation, and sensitivity to pain. Thus, says Brown, "It is

probably this action on the serotonin system that gives MDA its purported properties of causing heightened sexual experience, hallucinations, tranquility, and conviviality."

NIDA is arranging to have MDMA synthesized so that researchers can conduct further studies on the drug's abuse potential. Schuster and Seiden plan to investigate whether the same types of neurological problems occur with MDMA as they found with MDA.

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