

MDMA (Ecstasy) use and psychiatric problems

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Drug policy and intervention ideally should be empirically based. Hence, scientists have a responsibility to accurately portray the health risks of drug use to policy makers and health-care professionals. The drug 3,4-methylenedioxy-methamphetamine (MDMA; “Ecstasy”) has drawn much attention from researchers. In particular, some researchers have concluded that MDMA may put users at significant risk for developing psychiatric problems and therefore have recommended that this information be conveyed to policy makers and health-care professionals (Montoya et al. 2002; Verheyden et al. 2003). For instance, Parrott et al. (2000) once stated, “The message that regular MDMA use causes [psychobiological] problems needs to be incorporated into drug education packages” (p. 109). Given the putative role of MDMA in the development of psychiatric disorders, a critical evaluation of the recent studies that have addressed this relationship is warranted.

Several cross-sectional studies have revealed that psychiatric symptoms often precede Ecstasy use. Lieb et al. (2002) found that 88% of Ecstasy users diagnosed with a mental disorder reported that the onset of the disorder preceded Ecstasy use. Similar to the previous study, de Win et al. (2004) found that 71% of Ecstasy users diagnosed with a mood disorder reported that symptoms of the mood disorder preceded Ecstasy use. Falck et al. (2006) found that approximately 60 to 80% of Ecstasy users diagnosed with a mental disorder (i.e., major depression, generalized anxiety disorder, or posttraumatic stress disorder) reported that the initial episode of the disorder occurred previous to Ecstasy use. In contrast, one study did find that approxi-

mately 20% of Ecstasy users reported that the development of an affective disorder was coincidental with Ecstasy use (Thomasius et al. 2005). Notably, the prevalence of affective disorders in this group of Ecstasy users was not higher than in the general population.

Cross-sectional studies also have revealed that vulnerability to psychiatric disorders often precedes Ecstasy use. Singer et al. (2004) found that Ecstasy users reported significantly more experiences of childhood emotional and physical neglect and physical abuse in comparison to Ecstasy-naïve controls. Soar et al. (2006) found that problematic Ecstasy users reported an elevated history of familial depression, anxiety, and panic attacks in comparison to nonproblematic Ecstasy users and control participants. More specifically, the rate of familial depression in problematic Ecstasy users was about two times greater than the rates reported by the comparison groups; the rate of familial anxiety was about three to seven times greater, and the rate of familial panic attacks was about two to five times greater.

Longitudinal studies have provided even stronger evidence that psychiatric problems often precede Ecstasy use. Lieb et al. (2002) found that nonusers of Ecstasy at baseline who had a psychiatric history were twice as likely to have used Ecstasy 4 years later in comparison to those who did not have a psychiatric history. In addition, Huizink et al. (2006) found that childhood anxiety and depression scores predicted later Ecstasy use. It should be noted, however, that one study did not find an association between baseline depression scores and future Ecstasy use (de Win et al. 2006).

Longitudinal studies also have failed to show an increase in psychiatric symptoms as a result of Ecstasy use. For example, de Win et al. (2006) found that current Ecstasy users failed to show an increase in depression, impulsivity, and sensation-seeking scores as measured 1 to 2 years later.

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Thomasius et al. (2006) found that current Ecstasy users failed to display an increase in psychopathological symptoms when measured 1 and 2 years after initial assessment. In summary, longitudinal studies have failed to show an increase in psychiatric symptoms in Ecstasy users, and the bulk of the evidence has indicated that psychiatric symptoms or vulnerabilities tend to precede Ecstasy use.

To date, there is not much evidence to support the notion that Ecstasy use causes long-term psychiatric symptoms or disorders. This does not mean that future studies will not reveal such a relationship, or that Ecstasy use poses no significant health risks. The adverse physiological effects of Ecstasy (e.g., hyperthermia and hypertension), either alone or in combination with other drugs, in rare instances can be fatal (Kalant 2001). As evidenced by case studies, Ecstasy use occasionally may trigger psychopathological reactions in vulnerable individuals (Cole and Sumnall 2003). Also, positron emission tomography has provided evidence of protracted serotonergic alterations in Ecstasy users (McCann et al. 2005), which may lead to deficits in memory and attention (Verbaten 2003). Thus, as with all drugs that have abuse potential, the risks of Ecstasy should not be understated. However, because at this time there is no compelling evidence that MDMA use typically causes long-term psychiatric difficulties, health-care professionals and drug education packages should not present this linkage.

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