

Designer Drugs - The Ecstasy and The Agony

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The recent surge of arrests of Ecstasy abusers in Singapore, Malaysia and Indonesia has a seismic effect in the region. There is anxiety in government agencies involved in drug enforcement and also among doctors, social workers and parents. The anathema of the recent past like opium, heroin and marijuana has not even been controlled and another scourge has descended upon us. Ten years ago when a book about drug abuse in Singapore was written, Ecstasy was then unknown⁽¹⁾. The grave concern is that drug traffickers usually target young people like students who as a group, are more vulnerable and prone to experiment with mind-altering drugs. Abusers are also not penurious kids from working class backgrounds but young people who do not lack the wherewithal. In Singapore, more than half of the drug abusers prosecuted in court consumed Ecstasy and the majority were under 35 years of age⁽²⁾.

With the burgeoning number of Ecstasy abusers, the government response has been swift and uncompromising. Indonesia is amending its Anti-Narcotics Law to classify Ecstasy as a dangerous drug, giving the enforcing agencies power to deal with the abusers and pushers. Malaysia is also amending the law to provide for heavier penalties for possession of this illicit drug. In Singapore, the maximum penalty for possession or consumption of Ecstasy is 10 years jail and a \$20,000 fine.

What are the 'designer drugs'? These are compounds mainly intended for recreational use and whose molecular structure has been modified from legitimate pharmaceutical substances to circumvent legal restriction. Designer drugs have greater potency than the parent compound and a number of new analogues of methamphetamine, phencyclidine, meperidine, fentanyl and mescaline have been synthesized. Young people are enticed by the euphoric and hallucinogenic effects of designer drugs much like LSD (lysergic acid diethylamide) in the 1960s.

Derivatives of meperidine and fentanyl are synthetic opioids with heroin-like qualities. Two analogues of meperidine, MPPP (1-methyl-4-phenyl-4-propionoxypiperidine) and MPTP (1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine), have been reported to cause irreversible Parkinson-like symptoms due to neuronal inactivation in the substantia nigra⁽³⁾. Fentanyl is used as an analgesic and has tranquilising effect; it has only a short duration of action but is eighty times more potent than morphine. A fentanyl compound, α methyl-fentanyl, is purported to be 1000 times more potent than heroin and overdose can lead to fatal suppression of the respiratory centre.

The most popular designer drug in the Asean region is Ecstasy (3,4-methylene dioxymethamphetamine). This mescaline-methamphetamine analogue is a CNS stimulant, which can cause fatal cardiac dysrhythmias and hyperthermia with seizures⁽⁴⁾. It was initially developed as an appetite suppressant for treatment of obesity but has now been abused as a hallucinogen. Other

mescaline-methamphetamine derivatives are 3,4-methylenedioxyamphetamine or MDA, and 3,4-methylene dioxymethamphetamine or MDEA. The euphoric effect of MDA leads to disinhibition, garrulity and improved social interaction, which earned it the street name, 'love bug'. MDEA, known as 'Eve' has similar physical and psychological effects as Ecstasy.

The sale of designer drugs is estimated to be a multi-million dollar enterprise. This public health bane can be produced with minimal capital and relative ease. Although original reports were from California, designer drugs are now a worldwide industry. There are legal difficulties in restricting the synthesis of designer drugs because once a designer drug is controlled by legislation, a minor alteration of the molecular structure by underground chemists can produce a new drug that is not prohibited. There is

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suggestion that the law should ban an entire class of pharmaceutical drugs and not merely one compound to avert the synthesis of future potential dangerous agents⁽⁵⁾. Legislation can cut a wide swath in controlling the abuse of drugs, but the management of inveterate abusers requires also the assiduous effort of counsellors, family members and health professionals.

The advent of Ecstasy has added to the angst of the worldwide epidemic of drug abuse. Designer drugs are a health threat and can lead to serious medical problems or even death. In order to keep readers informed of the latest developments in the medical world, the SMJ has introduced a new column, 'What you need to know', to discuss topical and contemporary issues of interest. In the first of this 1997 series of articles, the SMJ has invited Dr Brian Ho, a specialist in addictive behaviour, to write a commentary on the recognition, complication and management of the toxic effects of Ecstasy abuse.

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