

## Marijuana Abuse in Singapore

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Marijuana has taken the spotlight in recent years fuelled by calls by some governments<sup>1</sup> to legalise and permit its use for medical purpose, and decriminalise the abuse of the substance. Decriminalisation refers to reducing the criminal sentences of convicted users or diverting them to treatment rather than incarceration. Marijuana has recently been legalised for medical use in 25 states in the United States.<sup>2</sup> In the European Union, there is a grassroots movement towards decriminalisation<sup>3</sup> and in Portugal, drug use has been decriminalised since 2001. In Australia, formal clinical trials using marijuana have started.<sup>4</sup> In Singapore, marijuana has been a Schedule I drug since 1961 and the use or trafficking of the substance carries harsh penalties.

The main psychoactive substance of marijuana is tetrahydrocannabinol (THC). Marijuana can be used by smoking, vaporisation and extracts have been included in food. THC induces a “high”, a change in perception, euphoria and an increase in appetite. Short-term side effects may include a decrease in short-term memory, dry mouth, impaired motor skills, red eyes, and feelings of paranoia or anxiety. Long-term side effects include addiction, decreased cognitive ability in those who started as adolescents and psychosis. THC can induce arteritis and it increases the workload of the heart. There is evidence that it can precipitate myocardial infarction in persons at high risk of cardiovascular disease and ischaemic stroke in those at risk for cerebrovascular disease.

Advocates for using marijuana for medical purposes propose that marijuana is useful in autism, certain cancers, epilepsy, spasticity in multiple sclerosis and chemotherapy-associated nausea.<sup>5</sup> However, there has been no rigorous clinical trial that has evaluated its benefits. To date, the United States Federal Drug Administration has not approved marijuana as a safe and effective drug for any indication.<sup>6</sup> A synthetic version of THC has been approved for chemotherapy-associated nausea and increasing appetite in acquired immune deficiency syndrome (AIDS) patients. Internationally, no state or national medical association

has endorsed the use of marijuana for medical purposes. However, most would support further rigorous clinical research in this area.

The regulation of the use of marijuana is a complex issue and the medical argument cannot be taken in solitude. Beyond the medical benefits of any molecule, the impact of the substance on society must be considered. Drug abuse and illicit substance control has many facets that includes legal, healthcare, education, political and rehabilitation dimensions. Buprenorphine, an opioid used to treat heroin dependence was legally available in Singapore from 2002 to 2006. Beyond its use to treat heroin addicts, it also led to widespread abuse of the drug obtained from doctors, diversion of legally obtained buprenorphine,<sup>7</sup> increase in blood-borne viral infections from intravenous drug abuse and case reports of unusual infection pattern not usually seen in Singapore.<sup>8</sup> Doctors were also prosecuted for failure to provide appropriate duty of care when prescribing buprenorphine to patients. Advocates for marijuana cite that the harm of the substance is low. In territories where illicit drugs have been decriminalised or where liberal policies prevail, drug abuse amongst teenagers and young adults has correspondingly increased.<sup>9</sup>

In Singapore, despite our drug policies, there has been an increase in drug arrests and trafficking of some substances. In the first half of 2015, the Central Narcotics Bureau<sup>10</sup> reported that marijuana seizures increased 174% from 8.81 kg to 24.12 kg; there were 1717 drug abuse arrests representing an increase of 10% compared to the first half of 2014. About 37% (629) of all drug abusers arrested were new abusers. Among the new abusers, 71% (446) were below 30 years old. This trend in drug abuse is caused by several factors. Firstly, the way illicit drugs are portrayed in traditional and social media have taken on a positive spin. There is rising affluence and affordability of drugs by youth and young adults. The internet has also made information and misinformation widely accessible. Our youths are also increasingly exposed to a multitude of alternative views and

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attitudes when travelling, studying overseas or interacting with foreigners.

Currently, the medical evidence for the use of marijuana for treating medical conditions is weak. Analogues of THC, the psychoactive substance in marijuana have been approved for restricted indications. Even if medical evidence emerges in the future, any change in policy must be weighed against the wider impact to society and the definite risk of diversion and abuse of the substance. The Institute of Mental Health (IMH) and the National Addictions Management Service (NAMS) have recently reviewed the literature on marijuana. The findings,<sup>11</sup> summarised in this editorial have been reported in the press and are in the process of publication in medical journals. Based on the current medical evidence, IMH and NAMS support the current regulations restricting the use of marijuana for medical use in Singapore.

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