Myths about psychoactive substances and public policy

Media reports regarding psychoactive substances - and public policy addressing their promotion, restriction and use – have flooded the public. Psychoactive substances are raw, refined, synthesized and/or adulterated physical and biologic matter with analgesic, hypnotic, sedative, euphoric and other nervous system effects when ingested, inhaled, and/or absorbed. Public policy is often forged from myths. Below are a few:

Psychoactive <u>medicines</u> are psychoactive matter that has been approved by government agencies for use by the general public after definitive medical research has established safety and efficacy.

Few definitions are as murky as those describing medicines. Historically, any substance an individual "testified" prevented, ameliorated or cured a disease or related condition, e.g., pain, nausea, rash, insomnia, fit the definition. In modern times, the term is primarily used to describe specifically identified physical, chemical or biologic derivatives of raw materials (or synthesized) that have been shown in population studies to result in reproducible medical benefit and/or harm within certain sub-populations when used in specified quantitative amounts, frequencies and routes of administration.

However, many substance are legally available in pharmacies and other commercial outlets that make claims of medical efficacy and safety that have not been substantiated by a government agency, e.g., FDA, or based upon definitive medical research. Moreover, many states legally recognizes substances such as cannabis as medicine without meeting "modern" criteria or substantiation by agencies such as the FDA, relying largely on "testimony" of medical merit.

To protect the health of the public, government agencies identify all matter and "medicines" that could yield medical benefit or harm and consistently regulate their manufacture, distribution, possession and use.

Inconsistency is the norm. Wine, beer, whiskey, tobacco, reindeer horns, shark fin, warthog, peyote, cannabis, foxglove, ginseng, opium, cocaine and goat testicles are a few of thousands of examples of matter with medical derivatives that possibly yield benefit and harm. Harvesting, limited manufacture, possession and/or use by individuals is allowed in many cases, e.g., warthog, wine, beer but severely restricted and controlled in other cases, e.g., cognac from wine, opium, tobacco. FDA regulates tobacco/tobacco derivatives and tobacco-free "e-cig" devices, but has no restrictions on hookah mixtures, water or other pipes, corn silk or cannabis. State governments currently heavily restrict opiates – and even the agents to treat opiate addiction such as methadone, buprenorphine, and vivitrol – but are relaxing restrictions on cannabis (another psychotropic Schedule 1 substance). In the early 1900s, heroin was introduced as a "safe" drug to treat cocaine addiction.

Regardless of inconsistencies in practice, the goal and message of state involvement in taxing and control of psychoactive substances is clear.

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The goal and message are mixed, muddled and often contradictory. The message often is that your state approves and/or promotes the production and sale of a legal and safe supply of "this" psychoactive substance but encourages you not to use it, use it responsibly or just use it in certain situations, e.g., medical. In some cases, e.g., tobacco, heavy taxing appears to have decreased use, although most of the reduction is likely attributable to health education and promotion, especially in youth. Treatment for substance abuse is inadequate, very expensive, and fraught with recidivism. Primary prevention through education, health promotion and social/cultural community interventions is far cheaper and effective.

If all revenues generated through control of psychoactive substance were used to prevent and treat substance abuse, a case could be made for goal consistency, but they are not - creating an inherent conflict of interest. In fact, as revenues from tobacco and gambling have decreased, many states have approved and promoted new psychoactive substances, like cannabis, often touted as a "medicine".

Addiction to psychoactive substances primarily occurs when an individual is prescribed a psychoactive medicine by a physician for a legitimate medical condition, like pain, but develops dependency upon the substance even if the initial condition no longer exists. The primary way to limit addiction is to curtail the supply and prescribing of psychoactive substances for legitimate medical conditions.

Addiction is a complex medical condition that is difficult to treat. In the case of opiates, less than 10% of addicts might become addicted in the manner noted. Limiting supply and use of psychoactive medicines has the potential to deprive many non-addicts optimal pain control and relief from other medical conditions.

Excess supply and prescribing might contribute to addiction but more likely influences the psychoactive substances an addict uses and the sources of acquisition. Some contend constricting legal acquisition forces addicts into accessing illegal supplies and leads to a host of negative consequences from public health (lacing with more dangerous additives, infection, OD) and public safety perspectives. Ironically, such rationale is used by states who legalize so called "medical cannabis". Increasing the cigarette tax in New York significantly in 2000, by 2016 resulted in less tax revenue and "smuggled" products constituting 58% of the market. The major way to control addiction is to treat the social, psychological and cultural factors that lead to excess and illegitimate "demand" for – and dependency upon - psychoactive substances resulting in negative health and social consequences.

If a health practitioner "prescribes" a psychoactive substance its efficacy and safety is assured.

There is a major difference between prescribing a substance and treating a patient. As William Osler best explained: a <u>good</u> doctor will know about diseases and conditions, as well as various

substances and practices that might help one maintain or improve their health status; a great doctor will know the patient and the genetic, social, behavioral, environmental factors that must be considered to use these substances responsibly to treat the patient. As we move towards "precision medicine", knowledge of the patient will play an even greater role in determining efficacy and safety.

Thus, a few physicians might recommend - but do not prescribe – "medical" merlot, porter or raw cannabis since none of these has the specificity of modern medicines. Moreover, even when prescribing medicines ideally, often the expected benefit may not occur and unanticipated harm may surface.

Published in February 10, 2017 *Charleston Gazette-Mail* as "The myths about psychoactive substances and public policy"