Viewpoint

Medical marijuana applications in pain management and healthcare: the need for evidence-informed policies and not undue justice

Andem Effiong[1], Prerna Kumari[2], Daanial S. Iqbal[3]

[1]Kennedy Institute of Ethics, Georgetown University, Washington, DC, USA; [2]Manipal University College of Pharmaceutical Sciences, Manipal Academy of Higher Education, Manipal, Karnataka, India; [3]Georgetown College, Georgetown University, Washington, DC, USA
Correspondence to: Andem Effiong. Kennedy Institute of Ethics, Georgetown University, 3700 O St. NW, Washington, DC 20057, USA.
Email: andem.effiong@me.com.

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Attorney General Jeff Sessions recently discontinued years of Obama-era policy by rescinding guidance which allowed states to legalize marijuana use without federal intervention. In the aftermath of the repeal of the Cole Memorandum, criminalization of marijuana is once again listed as a federal drug enforcement priority.

Currently, 29 states and the District of Columbia have legalized medical marijuana (MM). In addition, 8 states have legalized recreational use, but it is still deemed illegal under federal law. Adding to the complexity surrounding laws and policies on marijuana is that 13 states have decriminalized, but not legalized marijuana, with decriminalization laws varying from state to state.

Protections for MM use in "legal medical" states have primarily been under the umbrella of the Rohrabacher-Blumenauer amendment which protects MM legislation in states from federal interference. This protection is set to expire in September 2018 unless renewed once more by Congress. In addition, proponents of legalization have staunchly denounced repeal efforts by arguing that MM is a safer and more potent alternative to pharmaceuticals like opioids. Further, they argue that criminalization of marijuana use is a failed public health policy. Nonetheless, opponents of legalization argue the risks of decriminalization greatly outweigh the benefits, and so any attempts at full-scale commercial legalization must be thwarted.

Recently, Bradford and Bradford suggested that MM policies may serve as a medium to promote lower prescription opioid use and mitigate harms attributed to the opioid epidemic (1). In their longitudinal analysis, they showed that in the United States Medicare Part D population, there is an association between MM laws and decreases in opioid prescribing. This association is seen primarily in states where dispensaries are allowed and in terms of morphine and hydrocodone prescriptions (1).

Other studies have also pointed to the benefits of MM in the management of epilepsy, glaucoma, cancer, and chronic pain (2). Its therapeutic efficacy for symptom relief in inflammatory bowel disease (IBD) patients who have not responded favorably to pharmacologic treatments has also been established (2).

Some others studies point to the harmful effects associated with MM use. In one study, MM users were more likely to use prescription drugs medically and nonmedically (3). Nonmedical use was defined as the use of prescription drugs in a manner that is inconsistent with prescriber instructions. Specifically, using without a prescription, using longer than prescribed or consuming a more considerable amount than directed (3). A randomized controlled trial on the effects of cannabis-based medicinal extracts in multiple sclerosis (MS) noted that MS patients showed no improvement in function when administered cannabinoids (4). Another study listed increased pediatric exposure leading to nonfatal intoxication as an unintended consequence of medical decriminalization (5).

Accordingly, MM is widely seen as a scourge, panacea or both (6). To make matters worse, legalization efforts are often guided without the robust scientific data usually required to justify a new medication's introduction (6).

On a more optimistic note, United States Food and Drug Administration reviewers recently endorsed an experimental drug created from a marijuana plant. It is used to manage seizures associated with two rare types of epilepsy seen in children. Subsequent approval by commissioners absent any unanticipated issues will likely lead to marketing of the drug. On April 20, 2018, Senate Democratic Leader Chuck Schumer (D-NY) announced his plan to decriminalize marijuana at the federal level. Although his plan is not a silver bullet, it is a modest step forward in the proper direction. Specifically, it aims to make more funding available for public health research on the effects of tetrahydrocannabinol on the brain and the efficacy of MM for certain illnesses.

As with any therapeutic agent, there are benefits and drawbacks associated with the administration of MM and so safe adoption is imperative. Oftentimes, however, perspectives on medical and recreational marijuana are conflated. Consequently, there is the need to adequately balance rational thought and caution, in terms of decision making and policies surrounding its use.

Decisions on whether to make MM more widely available and prevent unnecessary criminalization of users, abusers and dispensers should not be taken lightly. Conventional regulatory rigidity should give way to a broader discourse aligned more clearly with patient and population needs. Besides, global trends in the MM market forecast that it is expected to grow at a compound annual growth rate (CAGR) of over 21% in the next 4 years (7). A key driver of that growth is the increasing demand for marijuana for medicinal purposes with chronic pain accounting for 39% of the total market share (7).

American policymakers, legislators, and law enforcement officers should carefully study usage trends in states where the criminal justice system subscribes to a more utilitarian inclined approach on MM issues. Such an approach when rightly combined with other normative frameworks is more pragmatic and ethical. It is neither based strictly on moral rigidity nor on flawed evidence. It aims to prevent unfair justice. It acknowledges that there is no virtue in an approach that is counterproductive.

Rather than inadvertently ban MM, based on preconceived biases and skewed data, maximization of its value should be directed more towards evidence-based public health objectives. For example, systematically working towards improving our understanding of how to harness the potential medical benefits of the marijuana plant. And, minimizing exposure of the vulnerable to its inherent risks (8). Federal regulators should reexamine evidence on the Compassionate Investigational New Drug (IND) program. They should also not merely elect to get "tough on crime and drugs" because such choices disproportionately affect certain groups like minorities and noncitizens.

Indeed states like Colorado and Washington have made significant strides in value maximization. To minimize the negative population health effects of increased MM access Colorado decided to amend some of its policies. Colorado now includes questions on marijuana use in population-based surveys of both adults and young people. The change is meant to assist with the tracking of troubling patterns by public health practitioners. It also encompasses wider protections for vulnerable subpopulations (9). These efforts may help mitigate concerns regarding MM legalization, e.g., traffic fatalities and inform a more balanced public health response (9). In Washington State, MM users are protected from being "*arrested, prosecuted or subject to other criminal sanctions or civil consequences*" as long as they adhere to state law (9).

Notably, a recent consensus study report touched on the need for future research to strive towards developing a comprehensive understanding of the health effects of marijuana. The report emphasized the importance of efforts being directed towards overcoming barriers that may make it difficult to do research on marijuana's health effects (10).

Evidently, more objective benchmarks and metrics should be used to evaluate regulations and policies on MM. More than ever before there is the need to empirically examine the effects of macro-level factors which have led to variabilities in outcomes among individuals and jurisdictions.

Finally, we do not endorse the imprudent application of regulations and policies. We emphasize, however, the importance of regulatory and policy decision making on MM being informed by sound evidence and not overly rigid. For when that is the case, better outcomes are guaranteed for all stakeholders.

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

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