

# Medical Marijuana: The Ethics of Evidence Based Practice and Quality of Life

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## Objectives

- The participant will be able to articulate the historical studies completed on medical marijuana.
- The participant will be able to define the concepts of evidence based practice and quality of life.
- The participant will be able to identify ethical theories relevant to the use of medical marijuana

## Goals of Hospice and Palliative Care...

- Hospice has been open to any and all methods to treat pain and symptoms at the end-of-life, including alternative methods.
- Evidence exists for our medical interventions as well as our alternative methods, including massage therapy, music therapy, etc. (Kozak, 2009).
- We are seeing a greater emphasis on evidence based medicine in hospice care.
- Quality of life, an important consideration, is an area of subjectivity.

## Cigarette Smoking

- There is no evidence that smoking cigarettes alleviates pain and symptoms at end of life.
- However, hospice clinicians do not discourage cigarette smoking if a patient desires to smoke.
- Smoking a cigarette could easily be seen as a quality of life accommodation.

## What is Evidence Based Practice?



## For Thought...

- Where is the evidence to suggest that marijuana alleviates pain?
- If there is no evidence, should hospice clinicians advocate its use to treat pain?
- A number of hospice clinicians have indicated that marijuana should be used to treat pain and symptoms with their patients (Uritsky, McPherson, & Pradel, 2011).

#### Legalization of Marijuana

- California became the first state to pass legislation to legalize marijuana (Furlow, 2012).
- Since that time around 20 states and the District of Columbia have legalized marijuana to varying degrees (Wall, et al., 2011).
- Gallup recently indicated for the first time that a majority of Americans support the legal use of both medical and recreational marijuana (Swift, 2013).

- Who is from a state where medical marijuana is legal?
- How/from where is it dispensed?
- How much can you get at a time and how often can you go back?
- What does it cost to get medical marijuana?
- Is it taxed like any other product in the state, or does it have a higher tax/surcharge?

#### Recreational Marijuana

- Now legal in Colorado and Washington.



People in line in Northglenn, Colorado on the first day recreational marijuana was legal in the state (Christian Science Monitor, January 7, 2014).

#### History of the Issue

- In 1970 the Controlled Substance Act banned marijuana and classified it as a Schedule I drug (Mu-Chen, et al., 2012).
- The drive to legalize medical marijuana has been fueled by various reports and studies which seem to show some effectiveness in treating certain debilitating illnesses.

#### What Has the Research Shown?

- Some research has shown evidence of efficacy with cluster headaches and neuropathic pain (Napchan, Buse, & Loder, 2011; McQuay, 2010).
- Others have suggested that medical marijuana has a positive effect on those suffering from PTSD (Trossman, 2010).
- In chemotherapy patients, medical marijuana has been shown to help with nausea and cachexia with AIDS patients (Bostwick, 2012).

#### There are concerns...

- Much of the research has been anecdotal in nature and not backed by scientific methods (Dresser, 2009).
- RCTs in existence are scarce, although the ones in existence appear to be well designed (Kollas & Boyer-Kollas, 2011).

What do we know?

- Little is known about the long term effects of marijuana use (Kollas & Boyer-Kollas, 2011).
- Research on medical marijuana has shown impaired respiratory status, stroke, increased risk of motor vehicle fatalities, addiction, psychotic disorders, suicide, testicular cancer, and increased anxiety ("Medical Marijuana," 2010; Hall & Degenhardt, 2009; Bramness, 2012; Singh, Pan, Muegtaweepansa, Geller, & Cruz-Flores, 2012; Lacson, et al., 2012).

Tetrahydrocannabinol (THC)

- Most of the research centers around THC.
- THC is one of the estimated 400 components in marijuana, some of which may be therapeutic while others are toxic in nature (Joyner, 2010).
- A positive aspect of marijuana is that there is no lethal dose (Joyner, 2010).
- Yet with so many unanswered questions and so little research, one questions how such becomes legalized medicine (Bostwick, 2012).

Marinol and Dronabinol



Approved by the FDA since 1985 for nausea, vomiting, and weight loss.

Uses synthetic THC.

Sativex



Manufactured by GW Pharmaceuticals (2010), not approved by the FDA for use in the USA.

Used to treat spasticity due to multiple sclerosis.

Contains two cannabinoids: THC and CBD.

Charlotte's Web



Dravet Syndrome

Charlotte Figi

Low in THC, high in CBD.

Used to treat seizures.

Confusion...

- The medical establishment has struggled with their role in states where marijuana has been legalized.
- Colorado family physicians are hesitant to prescribe, are unconvinced of its medical merit, and concerned about potential side effects (Kondrad & Reid, 2013).

#### Potency

- The potency of marijuana varies by state and is not generally regulated (Hoffman & Weber, 2010).
- It's overall potency has more than doubled since the 1990's (Price, 2011).
- High potency marijuana carries the potential for seizures and other unknown risks (Mehmedic, et al., 2010).
- The increased potency has led to acute psychotic episodes in Canadian emergency departments (Pagan, 2013).

#### Potency continued...

- All of this suggests that medical marijuana is hardly a "carefully calibrated medication" (Pagan, 2013).
- The California Medical Association does not want their doctors to be gatekeepers for medicine which is not medicinal ("ASAM and NAADAC," 2011).

#### Emotions...

- Jaime Montolavo, a Kentucky resident, indicated that he turned to illegal marijuana when prescription medications were unable to alleviate his pain (Musgrave, 2013).
- There does appear to be some therapeutic potential to marijuana ("ASAM and NAADAC," 2011).

#### More concerns...

- Legalizing a substance that can be inhaled, ingested, or applied topically with such little medical and scientific data related to its efficacy and side-effects, seems to be a public health step backward instead of forward.
- Without regulations on potency will there be an increase in traffic fatalities?
- Will we see an increase in addiction?
- States that have legalized medical marijuana have seen increased usage among adolescents (Cerdeira, Wall, Keyes, Galea, & Hasin, 2012).

#### Balanced solution?

- Since the 1970 ban there has been little research on the marijuana plant itself.
- The ban has effectively prevented randomized controlled trials on marijuana.
- Reclassifying marijuana as a Schedule II narcotic like morphine would open the doors for more research on how to best use it and bottle it (Bostwick, 2012).
- A scientific evaluation would allow marijuana to go through a rigorous process and potentially be approved by the FDA (Dresser, 2009).

#### Ethical quandaries for hospice employees

- The federal law still considers marijuana an illegal substance, although the government has been lax in enforcement (Dennis, 2013).
- It typically cannot be dispensed by a pharmacy.
- The recommended dose for a hospice patient is unknown.
- The current evidence for its use seems weak at best.

### Quality of Life

- From a purely quality of life perspective, it would seem that terminally ill patients using marijuana, whether the rationale is medicinal or really recreational, would be ethically justifiable.

### Ethical Theories Regarding the Use of Marijuana

- Autonomy
- Beneficence
- Nonmaleficence
- Virtue Ethics
- Utilitarian Ethics
- Deontological Ethics
- Common Sense Ethics

### To Think About...

- To justify its use among hospice patients and then jump to a conclusion that it should be legalized for all lacks credibility.
- This is an issue where politics, popular vote, research, and medicine are all in conflict.
- The use of medical marijuana can be justified based on quality of life.
- However, there is no evidence based practice to support its use with terminally ill patients.

### References

- "ASAM and NAADAC affirm opposition to medical marijuana" (November 7, 2011). *Alcoholism & Drug Abuse Weekly*. Retrieved from <http://www.alcoholismdrugabuseweekly.com/sample-articles/opposition-medical-marijuana.aspx>
- Bostwick, J. M. (2012). Blurred boundaries: The therapeutics and politics of medical marijuana. *Mayo Clinic Proceedings*, 87, 172-186. doi:10.1016/j.mayocp.2011.10.003
- Bramness, J. G. (2012). Commentary on Bosker et al. (2012): Driving under the influence of cannabinoids. *Addiction*, 107, 1845-1846. doi: 10.1111/j.1360-0443.2012.03949.x
- Cerda, M., Wall, M., Keyers, K. M., Galea, S., & Hasin, D. (2012). Medical marijuana in 50 states: Investigating the relationship between state legalization of medical marijuana and marijuana use, abuse, and dependence. *Drug and Alcohol Dependence*, 120, 22-27. doi: 10.1016/j.drugalcdep.2011.06.011
- Dennis, B. (August 29, 2013). Obama administration will not block state marijuana laws, if distribution is regulated. *The Washington Post*. Retrieved from [http://articles.washingtonpost.com/2013-08-29/national/41566270\\_1\\_marijuana-legalization-attorney-general-bob-ferguson-obama-administration](http://articles.washingtonpost.com/2013-08-29/national/41566270_1_marijuana-legalization-attorney-general-bob-ferguson-obama-administration)
- Dresser, R. (2009). Irrational basis: The legal status of medical marijuana. *Hastings Center Report*, 39, 7-8. doi: 10.1353/hcr.0.0207

- Furlow, B. (2012). States and US government spar over medical marijuana. *The Lancet*, 13, 450. doi: 10.1016/S1470-2045(12)70152-3
- Hall, W., & Degenhardt, L. (2009). Adverse health effects of non-medical cannabis use. *The Lancet*, 374, 1383-1391. doi:10.1016/S0140-6736(10)60087-6
- Hoffman, D. E., & Weber, E. (2010). Medical marijuana and the law. *The New England Journal of Medicine*, 362, 1453-1457. doi: 10.1056/NEJMp1000695
- Joyner, J. (2010). Medical marijuana and hospice. *The Clinician*, 5(4), 1-4.
- Kollas, C. D. & Boyer-Kollas, B. (2011). Medical marijuana: What should palliative care specialists know? *Journal of Pain and Symptom Management*, 41(1), 210.
- Kondrad, E., & Reid, A. (2013). Colorado family physicians' attitudes toward medical marijuana. *Journal of the American Board of Family Medicine*, 26, 52-60. doi: 10.3122/jabfm.2013.01.120089
- Kozak, L. E. (2009). Use of complementary and alternative medicines (CAM) by Washingtonstate hospices. *American Journal of Hospice and Palliative Medicine*, 25(6), 463-468. doi: 10.1177/1049909108322292

- Lacson, J.C.A., Carroll, J.D., Tuazon, E., Castela, E.J., Bernstein, L., & Cortessis, V.K. (2012). Population-based case-control study of recreational drug use and testis cancer risk confirms an association between marijuana use and nonseminoma risk. *Cancer*, 118(21), 5374-5383. doi: 10.1002/cncr.27554
- "Medical marijuana and the mind" (2010). *Harvard Mental Health Letter*, 26(10). Retrieved from [http://www.health.harvard.edu/newsletters/Harvard\\_Mental\\_Health\\_Letter/2010/April/medical-marijuana-and-the-mind](http://www.health.harvard.edu/newsletters/Harvard_Mental_Health_Letter/2010/April/medical-marijuana-and-the-mind)
- McQuay, H. (2010). More evidence cannabis can help in neuropathic pain. *Canadian Medical Association Journal*, 182, 1494-1495. doi: 10.1503/cmaj.100799
- Mehmedic, Z., Chandra, S., Slade, D., Denham, H., Foster, S., Patel, A., ...ElSohly, M. A. (2010). Potency trends of Δ<sup>9</sup>-THC and other cannabinoids in confiscated cannabis preparations from 1993 to 2008. *Journal of Forensic Science*, 55, 1209-1217. doi: 10.1111/j.1556-4029.2010.01441.x
- Mu-Chen, L., Brady, J. E., DiMaggio, C. J., Lusardi, A. R., Tzong, K. Y., & Guohua, L. (2012). Marijuana use and motor vehicle crashes. *Epidemiologic Reviews*, 34, 65-72. doi: 10.1093/epirev/mxr017

Musgrave, B. (February 6, 2013). Medical marijuana bill has slim chance, but growing support, sponsor says. *Lexington Herald Leader*. Retrieved from <http://www.kentucky.com/2013/02/06/250839/medical-marijuana-bill-has-slim.html>

Napchan, U., Buse, D. C., & Loder, E. W. (2011). The use of marijuana or synthetic cannabinoids for the treatment of headache. *Headache*, *51*, 502-505. doi: 10.1111/j.1526-4610.2011.01848.x

Pagan, C. N. (May/June 2013). Treating pain with medical marijuana. *Arthritis Today*.

Price, L. H. (2011). The myth of medical marijuana. *The Brown University Psychopharmacology Update*, *22*. doi: 10.1002/psu.20147

Singh, N. N., Pan, Y., Muengtaweeponsa, S., Geller, T. J., & Cruz-Flores, S. (2012). Cannabis-Related stroke: Case series and review of literature. *Journal of Stroke and Cerebrovascular Diseases*, *21*, 555-560. doi: 10.1016/j.jstrokecerebrovasdis.2010.12.010

Swift, A. (October 22, 2013). For first time, Americans favor legalizing marijuana. Retrieved from <http://www.gallup.com/poll/165539/first-time-americans-favor-legalizing-marijuana.aspx>

Trossman, S. (2010). Exploring the science of medical marijuana. *The American Nurse*, May/June. Retrieved from [http://www.advancedholistichealth.org/PDF\\_Files/Official%20Publication%20of%20the%20American%20Nurses%20Association.pdf](http://www.advancedholistichealth.org/PDF_Files/Official%20Publication%20of%20the%20American%20Nurses%20Association.pdf)

Uritsky, T. J., McPherson, M. L., & Pradel, F. (2011). Assessment of hospice health professionals' knowledge, views, and experience with medical marijuana. *Journal of Palliative Medicine*, *14*(12), 1291-1295. doi: 10.1089/jpm.2011.0113

Wall, M. M., Poh, E., Cerda, M., Keyes, K.M., Galea, S., & Hasin, D. (2011). Adolescent marijuana use from 2002 to 2008: Higher in states with medical marijuana laws, cause still unclear. *Annals of Epidemiology*, *21*, 714-716. doi: 10.1016/j.annepidem.2011.06.001

## Questions?

