Patients and Caregivers Report Using Medical Marijuana to Decrease Prescription Narcotics Use

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Abstract

In depth qualitative interview data were collected from medical marijuana patients and knowledgeable producers in Michigan about their perceptions and observations on the medical use of marijuana. Patients consistently reported using marijuana to substitute or wean off prescription drugs. All patients and producers who were taking opiate pain killers claimed they reduced overall drug use, especially opiates, by using medical marijuana. Patients and caregivers also claimed medical marijuana was preferred over opiates, eased withdrawal from opiates, and in some cases was perceived as more effective at relieving pain.

Keywords: drugs, marijuana, marihuana, medical marijuana, addiction, opiates, gateway effect

Introduction

Using a convenience and snowball sample of 28 medical marijuana patients and producers in Michigan, qualitative interview data were collected about lifetime drug use patterns, perceptions about the long and short term effects of marijuana, how marijuana has impacted lives, and the use of marijuana as medicine. A consistent theme was the claim that marijuana reduced or eliminated the use of prescription painkillers, in particular orally administered opiates. This claim by patients is at odds with many previous studies on marijuana use and abuse (Golub & Johnson, 1994). There are numerous studies on the "Gateway Hypothesis" that the use of marijuana leads to use of "hard" drugs like heroin and cocaine but very limited research on the potentially beneficial effects of marijuana. The "Gateway Hypothesis" is the centerpiece of the campaign against marijuana (DEA, 2011).

However, proving the gateway hypothesis has been problematic. There is no question that the use of marijuana is associated with later use of more dangerous drugs for some individuals, but it is also possible that those predisposed to use marijuana are already predisposed to use other drugs. Some studies find support for a general causal model that marijuana use leads to use of "hard" drugs (Fergusson, 1997; Fergusson, 2006; Chase and Donovan,1980) while others dispute the methodology and interpretation of these findings (Kandel et al, 2006). One of the more convincing recent studies used a meta-analysis of longitudinal, animal, epidemiological and twin studies to determine causality of the gateway effect claims (Hall & Degenhardt, 2009). Hall and Degenhardt (2009) showed that pre-existing traits, along with social and peer influences from early and/or heavy entry into the drug culture are the primary influences in later abuse of other illicit drugs. They concluded that regular cannabis use may have pharmacological effects on brain function that increase the likelihood of using other drugs. However, this "minor" effect is a "secondary concern" in human subjects.

The claim that marijuana use decreases the use of other drugs was called the "Reverse-Gateway Hypothesis" in a telephone conference with this author, several Michigan medical marijuana certifying physicians, and several lawyers specializing in the new area of medical marijuana law and was later affirmed in a personal communication. Dr. Townsend, an activist and medical marijuana certifying physician in Michigan claimed the "overwhelming majority" of his patients seek marijuana in order to decrease their prescription use, especially opiates (R. Townsend, M.D., personal communication, August 10, 2011).

The aim of this paper is to present the patient perspective and perceptions about the effect of medical marijuana use on prescription drugs use. A nonrandom sample of patients and producers was used and all patients who had experience with opiates expressed the view that medical marijuana is not a "Gateway Drug" but a "Reverse-Gateway Drug" that permits a decrease in opiate utilization.

Review of the Literature

Almost all marijuana research in humans has used synthetic THC delivered orally, in pill form. There is one study on the use of smoked marijuana to improve Multiple Sclerosis (MS) symptoms. Using an ex-post-facto survey methodology, 97% of MS patients reported that smoked marijuana improved their condition (Consrue, 1997). Despite the growing evidence, no blinded, randomized clinical study using smoked marijuana has ever been approved in the United States for problems associated with Multiple Sclerosis. Grant, Atkinson, & Gouaux (2012) provide a recent review on the accumulating anecdotal reports on the potential medical benefits of marijuana which includes claims of relief from chronic pain, nausea, muscle spasms, neuropathy, relief from glaucoma, and stimulation of appetite, among others.

Lenza (2007) focused on the issue of using marijuana to decrease alcohol intake, suggesting that chronic alcoholics may use marijuana to substitute for alcohol. Another very early study used synthetic THC with a group of psychiatric patients that happened to include some alcoholics in the acute phase of recovery and found improvement in alcohol withdrawal symptoms in 85% of the cases (Thompson and Proctor, 1953). One writer to the

American Journal of Psychiatry claimed he had clinical experience suggesting marijuana is a viable treatment for alcoholism (Scher, 1971). He also claimed that marijuana and alcohol are "mutually exclusive agents" arguing that greater use of marijuana is associated with less alcohol use. No other studies on whether marijuana may be associated with *decreased* alcohol intake have been identified.

There is a growing body of research showing marijuana may reduce the negative side effects of various symptoms and signs associated with narcotics use and withdrawal, especially nausea (Todaro, 2012) and headaches (Robbins et al., 2009). Support for the proposition that greater use of marijuana is associated with less use of drugs, such as alcohol, may be important because it opens the possibility that marijuana use may also decrease utilization of other drugs.

The central claim of this paper is that medical marijuana patients consistently report that greater consumption of marijuana is associated with less consumption of opiates. The claim that marijuana is used to substitute for narcotics and other drugs has been recently supported by a survey of over 400 dispensary patients in California which found 41% of patients report substituting marijuana for alcohol and 68% report substituting marijuana for prescription drugs (Lucas et al., 2012). The present study is the first report of interview data in support of these findings.

Rationale and gaps in the literature.

There is little research about the medical marijuana population nationwide and no published research about the Michigan population. Since marijuana remains a Schedule 1 drug under United States federal law, there has been no clinical research approved in the United States using the potent marijuana available to medical marijuana patients, and very few randomized controlled studies in the entire world on the effects of marijuana. In fact, more than 95% of the studies purporting to investigate marijuana are not studies of natural smoked marijuana but of synthetic, oral pharmaceuticals such as Nabilone, Dronabinol, or Levonantradol (Armentano, 2011; Earleywine, 2002). There is almost no research on the impact of marijuana use on prescription medications or the hypothesis that marijuana might reduce prescription opiate intake. More research is warranted on the population of medical marijuana patients and on the perceived positive and negative effects of medical marijuana.

This study was only made possible by passage of the Michigan Medical Marijuana Act by the people of Michigan in open defiance of federal law. The Proposal 1 ballot initiative was passed in November 2008 by 63% of the electorate. Proposal 1 lets patients use medical marijuana when a doctor certifies the patient has a "serious and debilitating medical condition...[such as]... Cancer, glaucoma, positive status for human immunodeficiency virus, acquired immune deficiency syndrome, hepatitis C, amyotrophic lateral sclerosis, Crohn's disease, agitation of Alzheimer's disease, nail patella, or the treatment of these conditions... [and which]...produces 1 or more of the following: cathexia or wasting syndrome; severe and chronic pain; severe nausea; seizures...epilepsy; or severe and persistent muscle spasms, including but not limited to those characteristic of multiple sclerosis" (Mich. Compiled Laws §333.26423, 2008).

Methods

The Wayne State University Human Investigations Committee (HIC) approved the study design that included in-depth, recorded interviews of medical marijuana patients. A total of 28 medical marijuana patients were interviewed for this study; 19 were "regular" patients and 9 were also producers or "Caregivers" under Michigan law. All Caregivers were also cardholding patients. A total of 7 participants were obtained by posting flyers at medical marijuana dispensaries, compassion clubs and other areas where medical marijuana patients were known to gather. Additional contacts were requested at the conclusion of each interview and the remaining 21 participants were recruited using a partially purposive snowball methodology.

Sample characteristics and partial purposive sampling.

Although the interview population was a convenience sample, partial purposive sampling was used because the goal was to find the views and perspective of the "regular" medical marijuana patient. The intent of this study was not to provide evidence for the efficacy and utility of medical marijuana by interviewing the sickest cancer and Multiple Sclerosis patients. This category would be expected to be most supportive of the use of medical marijuana but they also represent a small minority (<5%) of the medical marijuana patient population (LAR, 2012).

There was a very strong tendency for medical marijuana patients, particularly activists with a financial incentive in the medical marijuana industry, to provide leads initially to the most serious patient cases. This was strongly resisted with sources and participants were repeatedly told we were looking for "the common and regular" medical marijuana patient. Therefore, only two cancer patients and one Multiple Sclerosis (MS) patient were interviewed. Many potential leads were deliberately passed up in order to have a sample that was roughly representative of the patient population on qualifying condition and on gender.

Table 1: Interview Recruitment Sources

Number	Interviews	Method of Recruitment
n=7	1-3, 7, 8, 20-21	Flyers (not purposive)
n=7	6, 11, 16, 17, 19, 23, 24	Personal contact with the PI during the course of the research (purposive)
n=14	4, 5, 9, 10, 12-15, 18	Snowball (purposive)
	22, 25, 26, 27, 28	

The sample interviewed was certainly not probabilistic but was approximately proportional and balanced by known medical conditions and by gender.

Table 2: Interviewees by Medical Condition

Medical Condition	Number Interviewed	
-Severe Pain/Post-Surgical Trauma	6 (21%)	
-Cancer	2 (7%)	
-Multiple Sclerosis	1 (3%)	
-Minor Back, neck or muscle pain	2 (7%)	
-Arthritis	6 (21%	
-Minor Headaches	1 (3%)	
-Severe Headaches (Cluster/Migraine)	2 (7%)	
-Minor Knee pain	3 (11%)	
-Severe Knee or Hip Pain	3 (11%)	
-Other	2 (7%)	

Similarly, the actual population of patients is approximately 30% female (LAR, 2012) and the sample consisted of 36% females (10 of 28). Significantly more females volunteered to be interviewed than males and over half of the female interviews were passed up in an attempt to interview a population that was more representative of the actual patient population.

Interview types.

There were two categories of interviewees:

- 1. Producers and Activists ("Caregivers"): (n=9).
- 2. Regular Patients: (n=19).

Some interviews (n=9) were with patients who were also individuals classified as "Caregivers" under Michigan law. The Caregiver interviewees were producers and activists in the medical marijuana community. Proposal 1 under Michigan law lets each patient designate a "Caregiver" who may grow, purchase, or otherwise obtain marijuana for his or her patient and legally receive remuneration from the patient. A caregiver may assist up to five patients under section 8 of the Act (Mich Compiled Laws §333.26428, 2008). However, section 4 of the Act states that "A (i.e. "any") registered primary caregiver may receive compensation for assisting a (i.e. "any") registered qualifying patient" (Mich. Compiled Laws §333.26424, 2008). Thus many of the "Caregivers" helped more than the five patients to whom they were connected through the Michigan medical marijuana caregiver registry. Furthermore, many of the "Caregivers" were leaders in the community as political lobbyists, owners and employees of medical marijuana dispensaries, and other financially invested activists and producers. These

interviews took approximately two hours and included the personal observations about the categories and types of patients they had observed.

Most of the interviews (n=19) were with "regular patients." A "regular" patient was an individual with his or her certification card from the State of Michigan but did not have any significant contacts with the medical marijuana industry as growers, sellers, employees, owners, or activists. They were only patients and consumers of medical marijuana. These interviews took approximately one hour.

 Table 3: Caregiver Interviewees by Medical Marijuana Experience

"How many patients have you personally observed or advised about the use of medical marijuana?"

Number of Caregivers	Number of patients claimed to have advised about medical
Total n=9	<u>marijuana</u>
1	A few dozen
4	Lotstoo many to count
2	Hundreds
2	Thousands

The Caregivers interviewed were not representative of the population of medical marijuana patients as they were mostly highly educated producers, leaders, and activists in the medical marijuana community. Only two Caregiver interviewees did not have a college degree and both of these were young females recently graduated from high school who intended to go to college.

Table 4: Interviewees by Education

Interviewee Characteristics	High School	College	Masters
Patient Interviews (n=19)	10 (53%)	7 (37%)	2 (10%)
Caregiver Interviews (n=9)	2 (22%)	4 (44%)	3 (33%)

Interviewees previous experience with marijuana.

Twenty-six of 28 respondents (both Patient interviewees and Caregiver interviewees) reported using marijuana since long before they developed their qualifying condition. Two others were born with their qualifying medical condition and began using marijuana before age

15.

This convenience sample is too small to provide a meaningful average (mean) age of entry into the use of marijuana and this was certainly not the purpose of this study. However, other measures of central tendency were interesting: Both the median and mode of entry into the use of marijuana was age 15, suggesting a larger sample of interviewee patients might demonstrate a normal distribution around this age. Four respondents reported first using marijuana at age 9, two at age 10, and one, who grew up in a "hippy" commune reported age 6. All but two claimed they had been smoking regularly on a daily or weekly basis since their initiation. Over half claimed they started smoking marijuana at age 18. Only one first tried marijuana at age 25 and one claimed she was in her 60's the first time she used marijuana. Seven were unclear on the age they began, did not wish to divulge this information, or were not directly asked the question after revealing they had been smoking since long before they developed their qualifying condition.

Interview locations.

Interviews took place at locations of the patient's choosing. Approximately 1/4 of the interviews were in a public location such as the library (n=2) or a restaurant (n=4). The majority of the interviews took place in the participants home (n=16) while the rest (n=6) took place at a medical marijuana center. Six of the interviews were tandem or dual interviews with two married couples and a long-time intimate couple. In these interviews, both members of the dyad were medical marijuana patients and both were interviewed at the same time.

Results

Interview results are reported in two sections. Results from "Patients" are reported in section one while results from "Caregivers" (Producers and Activists) are reported in section two. Eleven of 19 patients and 8 of 9 caregiver interviewees had experience with opiates. All of the patients and caregivers who had experience with prescription opiates made sweeping claims that they personally reduced opiate consumption and/or had personally observed patients reducing opiate consumption as a result of using medical marijuana. Many provided personal, specific and detailed examples of patients using medical marijuana to substitute for other drugs, particularly prescription opiates. The only patients who did not claim they substituted marijuana for opiates were patients who were not taking opiates.

Patient results.

Some patients reported completely eliminating prescription opiates by substituting medical marijuana. Several patients claimed they had been able to completely stop taking narcotics by substituting marijuana. A male in his 40's with dual hip-replacements and severe arthritis described months of his life taking Darvon, Oxycodone, and sublingual Codeine. He mentioned several times that he was only able to completely stop these drugs because of marijuana. Many patients were almost unable to contain their glee when they reflected on their drug use before and after they had access to medical marijuana. One was post-surgery after he "broke" his back at work. The interviewees verbal medical history was consistent with low

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back herniated discs and lower right side peripheral neuropathy:

Interviewer: Are there other drugs that you are not on now that you might be if you didn't

have marijuana?

Respondent: Yes I no longer take, the... frankly I want to jump up and dance because of that

you know I took those pain pills and all those other pills for so long but no more Tramadol [a prescription opiate pill] for me! I don't have to see the doctor at the prescription mill for any pills so no...no antidepressants no pain medications, no Tramadol, just marijuana (Male, 50's, College Graduate, post-surgical lumbar

pain).

Four of 11 patients who claimed experience taking opiates stated they were able to completely eliminate "the pills" by using medical marijuana. Seven of 11 patients reported they were able to reduce the number of pills they took by substituting marijuana but did not completely eliminate the use of opiates. These were usually patients whose condition was more serious and life altering.

Respondent: I used to be on probably about 20 different pills, and I am down to I think 7 or 8. I have reduced them by 2/3 (Female, 30's, High School Graduate, Multiple

Sclerosis).

Patients frequently provided specific and detailed quantitative information about their reduction in opiate use when they used medical marijuana. One described significant low back pain that included a post-surgical back injury with a morphine pump and a history of taking "handfuls" of narcotic pain medications: "I was taking 20 pills a day, almost 20 pills a day and now I am down to 12." (Male, 40's, College Graduate, severe post-surgical lumbar trauma).

Both cancer patients interviewed were Stage IV, with severe pain and mental distress, and spent some time describing their experiences with prescription narcotics. Both were terminal and both viewed medical marijuana as their last option for pain management. Both talked extensively about the importance of being able to reduce their narcotics intake in the final months and years of life and complained about the amount of narcotics they were prescribed. Both cancer patients claimed they were able to significantly reduce their narcotics use by substituting marijuana:

Respondent: When I use the oil and smoke I... realize...it is two hours past the time when I

would've normally taken my Fentanyl. I have two 100 mg patches Fentanyl that I use at a time. As well as 40 or 50 mg of Oxycodone immediate release on top

of that.

Interviewer: Were you able to decrease any of your treatments since you started using

medical marijuana?

Respondent: Well that I have been able to do, yes absolutely. Like I said before, (I am) less

dependent on those pills...which makes me happy. But as far as changing any

protocol like at the cancer center then no. (Female, 50's, College Degree,

Cancer).

Results were consistent across several medical conditions. Whether the medical condition was trauma, cancer, Multiple Sclerosis, arthritis, or some other condition, whenever the patient had a history of prescription narcotics utilization (n=11 of 19 patients) they all made nearly the same claim they had been able to reduce or eliminate narcotic pills by using medical marijuana. Caregivers reported that medical marijuana is routinely substituted for prescription narcotics.

In addition to nineteen patients, nine caregivers (producers and activists) were also interviewed. This group was also asked about their observations on the use of marijuana in order to reduce opiates.

One of the nine caregiver interviewees (Interview 19) disagreed with all the other patients and caregivers interviewed that medical marijuana regularly was used to decrease opiate use.

Interviewer: (of the "thousands" of people you have talked with about medical marijuana)

How many people have you personally witnessed able to reduce or discontinue medications, pharmaceuticals, because they started using medical marijuana?

Respondent: Personally about 10 (Male, 20's, High School Degree, Medical Marijuana

Dispensary Operator, Chronic Pain).

He thought this percentage of patients was very low because the narcotics addiction was so powerful that "once they are hooked it is really hard to stop." The other eight caregiver interviewees all claimed that medical marijuana was used to decrease opiate use.

Interview 1 worked in a medical marijuana dispensary in Northeastern Michigan. She and her parents were both caregivers who worked at the facility. The woman in her early 20's suffered from severe fibromyalgia and Scheuermann's disease (mid-back kyphotic or "hunchback" changes that are often very painful). She described an extensive medical history and extreme and disabling pain that caused her to miss a significant amount of high school. She talked for some time about her medications that included "huge amounts" of Vicodin, and several other narcotics, anti-depressants, Flexeril, and non-steroidal anti-inflammatory medications. Both her personal experience and her experiences working with the patient population were broader than the limited hypothesis that marijuana might be useful to "decrease" narcotics intake:

Interviewer: Have you been able to decrease other treatments since you started using

medical marijuana?

Respondent: I use nothing but medical marijuana.

Interviewer: You don't use any narcotics?

Respondent: Nope. Nothing. (Female, early 20's, high school graduate, fibromyalgia,

medical marijuana dispensary employee).

The young woman's observations about the patient population matched her personal medical history:

Respondent: People will...are coming to us mostly because they don't want to be on any

more pills or so many, you know. I mean I started (using medical marijuana) because I didn't want to be on those pills. (Female, early 20's, High School

Graduate, fibromyalgia, medical marijuana dispensary employee).

"Wanting to get off those pills" became one of the most common themes in the interviews which stood out prominently with the phrase repeated verbatim in nearly half of the interviews.

The second caregiver interview had the least experience in the medical marijuana industry of all the interviews classified as "Caregiver" interviews. She only worked in a dispensary for six months but her limited experience set the tone for later interviews:

Can you be more specific what did you see. What have you heard? Interviewer:

I saw everybody coming in there for it (medical marijuana), and just like Respondent:

especially the old people it really touched me because they come in complaining mostly about Vicodin, and how they put me on this and that, and it was killing me. Lots of older people would come in and tell me about how medical

marijuana saved their life by letting them get off that stuff (Female, late teens,

High School Graduate, knee pain, medical marijuana dispensary employee).

Both groups of interviewees, Patients and Caregivers, used very similar language such as "saving their life" or "lets me live my life" or "lets me function in my life" in describing how medical marijuana is used to substitute for narcotic pills. Interview 11 was a Master's level college instructor who reported:

Respondent: I may have personally processed 400 doctor certifications. I am the one the person talks to the longest...doing their case prep (for the doctor's office)...And through these hundreds of patient encounters I would say about 90%...of them have already been taking doctor prescribed narcotic and opiate pharmaceuticals and they, the side effects of these are so onerous and debilitating themselves they are not able to function in their normal capacity and they are seeking to get off the zombie effect of the pharmaceuticals. That is where medical marijuana really works well (Male, 50's, Master's Degree, back pain, medical marijuana delivery service provider and medical office consultant).

Interviewee 16 agreed almost verbatim with Interviewee 11 and he had accessed a much larger group that included "several thousand" sit-down interviews and discussions with patients specifically about their medical condition. Interviewee 16 is a prominent political activist, the president of a statewide medical marijuana advocacy group, a caregiver, and a "budtender" with the largest medical marijuana facility in Michigan. All the interviewees (except 19 described at the beginning of this section) were budtenders, meaning they hand the cannabis samples to patients and advise them about the properties and expected effects of the available types of medical marijuana in light of the patient's qualifying medical condition.

A tandem interview with two managers of a Michigan medical marijuana center contained similar and even broader claims. Each had talked with and advised "hundreds" to "thousands" of patients and were so eager to tell the story the interviewer could barely complete the questions:

Interviewer: Have either of you ever heard mentioned in your presence that maybe somebody

was able to reduce pain killers and or narcotic drugs...

(interrupting) all the time... Female:

Interviewer: as a result of their marijuana use.

Female: All the time.

Male: yes, all the time.

....Crosstalk....

Female: Yes, yes, more people than I could list. We have people come in here – well, all

the time - everyday - and talk about that... yes, of course.

Interviewer: Do you think that the majority of people who come in here and you talk with

here claim they are able to reduce the meds, the narcotics they're taking.....

Male: Yes

Interviewer: because it is probably really only a few people who....

Male: No! Female: No!

....Crosstalk....

Female: So many people, so many people, you know text us, they thank us, this is

something we hear all the time. It is not a small thing....

....Crosstalk....

Interviewer: go ahead.

Male: I see, I mean yah, I see people myself firsthand come in and more times than not

they're not happy when they come in...and every single one of them will tell you hey, I went from taking 10 pills a day to taking 2 pills a day. With fewer pills it's still a better quality life because of the medical marijuana (Male and Female, 30's-40's, College Graduates, chronic radiating pain and headaches,

medical marijuana dispensary owners and operators).

Every single Caregiver interview transcript includes consistent and numerous claims that at least some patients were using marijuana to decrease prescription opiate utilization.

Caregiver interviews.

Every Caregiver that was interviewed gave specific examples and articulated personal observations about patients using medical marijuana to decrease prescription drugs use, particularly opiates. Every patient that was interviewed (including the eight Caregiver interviewees) with experience taking narcotics claimed they reduced or eliminated their prescription opiates because they substituted medical marijuana.

Why did patients prefer marijuana to opiates?

Opiates caused very unpleasant side effects. Most patients described unpleasant side effects from taking opiates.

Female: He simply can't take [Vicodin] without getting sick.

Interviewer: Now when you say you get sick, do you throw up?

Male: Yeah, what happens is I get a severe headache, and I start feeling... I don't

know, like fuzzy in my head, like there's cotton all over inside my head and then it starts making me feel like... motion sickness is the best way I can describe it, and then I just started getting sick and trying to throw up and throw up (Male and Female, 40's-50's, married couple, College Graduates,

chronic pain).

All of the interviewees claimed that medical marijuana did not have any of the negative side effects associated with narcotics. Another very unpleasant side effect that was reported in up to 1/3 of the interviews was that high doses of opiates caused them to be in a haze and not be present in their own lives. Several referred to feeling like they were "going crazy":

Respondent: Marijuana doesn't put me off in some world where I don't know where my kids

are and I don't know what's going on with the world.

Interviewer: And Oxycodone does?

Respondent: Yeah it does that. I don't like [to] take it. They gave it to me and I gave it back

to them because... you take this, I don't want this. I can't even remember

having a conversation with my own husband or my own child. This is bad stuff, you take this I don't want it. I gave it back to them, because I refuse to take it. Give me a joint, give me a bowl, do whatever, because I can smoke a bowl and then have a conversation with my husband, or my kid, and I can still remember that conversation. Because, I'm sorry, I would rather do that than to take one of those pills. They make you go crazy! It just puts you off in a world that you don't even know that you're in, and that's scary (Female, 40's, High School

Graduate, torn rotator cuff).

Several of the patients with experience taking high doses of opiates reported detailed, graphic, and apparently valid fears about their mental health if they could not find an alternative to "the pills":

Respondent: They sent me home with bottles and bottles of the pills, OxyContin and I was

taking them the OxyContin was making me well I don't want to say miserable because I was not miserable by any means I was off in lala land but I wasn't living. I wanted a solution where I could have the release... When it came to my final decision when I decided to try medical marijuana was when I asked my dog

to make me lunch one day (Female, 60's, Master's Degree, Cancer).

Patients also complained about several other side effects of opiates, including the fear that opiate drug use was putting their children in danger, causing them to sleep all the time, or causing them to miss out on life. Medical marijuana was perceived to be more effective at relieving pain than some opiates but not the more powerful narcotics. All patients and caregivers who had experience taking narcotics (n= 19 of 28) in this small sample thought medical marijuana was more effective at relieving pain than codeine. This is consistent with earlier work (Campbell et al., 2001). Two patients and three caregivers appeared to claim that marijuana relieved pain better than Vicodin which has not been previously reported. All agreed that marijuana was not as effective at relieving pain as stronger narcotics such as Morphine or Oxycontin. However, marijuana was still preferred over the opiate.

There was some difficulty separating out the two issues of the adverse side effects of opiates and the pain relieving effects of opiates during the course of the interviews. Although it was clear that patients preferred marijuana over Vicodin, it was not always clear whether marijuana was preferred because it was more effective at relieving pain than Vicodin or whether marijuana was preferred because it was not associated with the adverse side effects of Vicodin.

One patient attempted to explain this issue by describing the difference between narcotics and marijuana, concluding that Oxycontin was more effective at relieving pain, but the side effects of opiates made them less desirable:

Interviewee: [Smoking marijuana]... makes my life better than when using narcotics.

Narcotics keep my back from hurting, sure, but the pot, you know with the medical marijuana my health and...you know it helps me forget about the fact that I'm in pain. Narcotics... you know I don't have the nausea like that and I

physically feel better.

Interviewer: I want to get very specific about what it does for your pain. It doesn't work as

well as Percodan, am I right?

Interviewee: well yeah, you know that, that is that medications job. It is the thing that they

do... is to kill the pain...and mess your head up a little bit. You know, obviously their main purpose of life is essentially to dull pain and they do a very good job [of] that, however, it is a Catch-22. You can be pain free but you'll feel like garbage with the nausea and the side effects from the narcotics that come with it

(Male, 20's, College Student and Marine, Back Pain).

Almost every patient interviewed complained about "that sick nausea feeling" caused by taking opiates.

Several participants refused to take opiate pills because they believed marijuana was a "natural" remedy different than synthetic pills. Of the eight patients and one caregiver (out of a total of 28) who had no experience taking opiates, seven claimed they never started taking opiates because they used medical marijuana.

Interviewer: What about other treatments, have you been given drugs?

Respondent: I choose not to take them...I personally... I have personal beliefs... I don't like

to take chemicalized pills, you know what I mean?

Interviewer: OK, you don't have a problem taking medical marijuana though.

Respondent: No.

Interviewer: How is medical marijuana different than the...

Respondent: Well it is grown. It is an actual plant, so for me it is just a natural

way to treat this (Female, 30's, High School Graduate, Chronic Pain).

Most patients had been smoking marijuana from the early teenage years and most expressed a strong dislike for opiates. Most of the patients who had never started taking opiates explained this by using some version of the "natural remedy" claim:

Respondent: I was against smoking marijuana for a long time for recreational use, and then

the whole medical marijuana thing started to come around and so I gave it a try and I was like wow it really does help. And now I have a whole other different lifestyle now, I don't do any chemicals, nothing like that, it's all natural, every

thing natural, and I feel a lot better just as a person.

Interviewer: Can you go into that a little bit more? What do you mean you live a whole

different life style?

Respondent: I don't... I mean anything unnatural I don't do to my body. I don't take any

prescription pills (Female, 20's, High School graduate, knee pain, worked in

medical marijuana center).

Conclusion

Marijuana vs. opiates.

Medical marijuana patients and caregivers who volunteered to be interviewed for this study did not like opiates. They complained about the nausea caused by opiates, the "sick feeling" caused by opiates, fear of putting their loved ones in danger due to opiate intoxication, and fear of "going crazy." Consistent with previous work, medical marijuana was thought by patients to be more effective than codeine but less effective than stronger narcotics like Oxycodone or Morphine. Some patients reported they preferred medical marijuana over Vicodin but it was not clear if this was due to the lack of side effects from medical marijuana or from superior analgesia. Medical marijuana patients who did not have experience taking opiates often actively avoided taking them even when prescribed because they preferred the "all natural" remedy of medical marijuana.

Limitations.

This study uses in-depth interviews of a small, nonrandom sample of twenty-eight Michigan medical marijuana patients and caregivers. The sample was not probabilistic and participants were obviously over-represented by volunteers with strong, often very articulate beliefs in the efficacy of medical marijuana. No African Americans and only one Hispanic were interviewed. Four African American interviews were scheduled but unfortunately none were completed. The medical marijuana law was strongly opposed by the State Attorney General and several local prosecutors and a number of prominent patient prosecutions occurred during the time this research was ongoing which may explain the high rate of last minute cancellations among prospective interviews, particularly minority candidate interviews. However, the rate of last-minute cancellations was very high among all groups. This sample included approximately 80 interviews scheduled over a two year period with only 28 completed and recorded. After the first few interviews there were so many volunteers that cancellations were generally not followed up. This sample does roughly approximate both the gender ratios found in the medical marijuana population and the types of qualifying conditions in the population (LAR, 2012) but this was certainly not a random sample of patients in Michigan. Appropriate caution should be exercised in interpreting these results and generalizing them to the population of medical marijuana patients and caregivers in Michigan.

Based on the tone of the interviews, and conditions reported by the State of Michigan (LAR, 2012) it is believed the sample included those with more defensible medical conditions than the general population of patients. If patients had a question about whether their medical condition rose to the level of "serious or debilitating" (Mich. Compiled Laws §333.26424, 2008) required under Michigan law it is assumed they did not volunteer to be interviewed for this convenience sample.

The results from the caregiver interviews contain excerpts from highly educated professionals and individuals with considerable specialized knowledge of the patient population. However, they also had a pecuniary interest in the medical marijuana industry. Obviously they were not an unbiased group and were in a position where they would be more likely to support the idea of beneficial effects from the use of marijuana. Therefore, their results deserve particular and skeptical scrutiny. Many were tireless advocates for the cause of medical marijuana and could only be described as "true believers."

Recommendations.

This study presents a very unique set of data: The actual words, beliefs, and thoughts of a sample of medical marijuana patients and caregivers in the State of Michigan. This is the first reported study on the medical marijuana population in Michigan. Qualitative results allow the formation of testable hypotheses. Based on the data provided by this research we hypothesize and recommend that:

- 1. Some medical marijuana users may be using marijuana as a substitute or replacement for opiates. Therefore, medical marijuana may be useful for some individuals undergoing treatment for opiate addiction. Clinical research using medical marijuana to treat opiate addicted patients is warranted.
- 2. Medical marijuana may be more effective than some types of narcotics by providing analgesia without the side effects associated with opiates. Randomized clinical trials need to be performed to provide evidence or falsification of these hypotheses.

The results from this qualitative study do not provide evidence or proof for these hypotheses but they do raise the question and provide ample justification for further research. Research is needed on the possibility that medical marijuana might aid the treatment of persistent opiate addiction. Comparative clinical trials with opiates and medical marijuana are needed although considerable cultural biases within the drug treatment community and federal regulations will need to be overcome to pursue such research. One specific recommendation given the well-established dangers of the respective substances would be comparing methadone maintenance therapy with medical marijuana in heroin addicted patients. Future work should also compare narcotics addiction recidivism rate among those in traditional drug treatment programs and those in traditional drug treatment programs who are also using medical marijuana. Surveys and interviews of larger and more statistically representative patient samples that focus on medical marijuana patients who are current or former opiate addicts should also be pursued.

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