

Attitudes and Beliefs About the Use of Cannabis for Symptom Control in a Palliative Population

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ABSTRACT. There is increasing support for the use of cannabis in terminal illness. Sixty-eight patients from a palliative population were surveyed for their attitudes and beliefs about the use of cannabis in terminal illness.

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Journal of Cannabis Therapeutics, Vol. 3(2) 2003
<http://www.haworthpress.com/store/product.asp?sku=J175>
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10.1300/J175v03n02_04

Symptomatic patients with advanced illness were surveyed for attitudes, beliefs and symptom severity. Participants showed concern about cannabis' possible side effects and social consequences, with some significant differences between ethnic groups. Comfort with the use of cannabis for symptoms was reported by 80.9% and willingness to participate in a research study using cannabis was reported by 73.5%. Many felt cannabis was safer than morphine for pain management. Patients preferred an oral route of administration and had concerns about smoking cannabis.

Despite significant concerns about using cannabis, most palliative patients were still willing to try it for symptom relief. This may have implications if cannabis access regulations are relaxed, in that access will come before clinical studies on its uses and side effects in this population. If cannabis is viewed as safer than morphine by some, cannabis may be used as the sole analgesic and the standard therapy of opioids may be rejected. The reluctance of patients to smoke cannabis and the need for accurate information about cannabis and pain control in the palliative population is noted. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <<http://www.HaworthPress.com>> © 2003 by The Haworth Press, Inc. All rights reserved.]*

KEYWORDS. Cannabis, medical marijuana, palliative care, symptom relief

INTRODUCTION

There is increasing advocacy for the medical use of cannabis (Hoey 2001). There is biologic and clinical evidence to show that cannabis has efficacy in relieving pain, muscle spasm, nausea and anorexia (Joy et al. 1999). In humans, there is promising data regarding cancer pain (Noyes et al. 1975a; Noyes et al. 1975b; Staquet et al. 1978) and neuropathic pain (Pertwee 2002; Rice 2001). The effects of cannabinoids on these symptoms typically are modest and in most cases there are more effective medications, suggesting that cannabis' value will either be as an adjuvant medication, or in those who fail to respond adequately to standard medication.

As a pilot study for our submission for a clinical trial of cannabis, we undertook to survey the palliative patient population for its willingness to try cannabis, to assess the population's knowledge about cannabis and its effects, and their knowledge about morphine for pain manage-

ment. We felt this would assist us in determining how willing that population was to trying the cannabis and what education they might need. Although numerous attitudinal studies have been done on various populations that smoke cannabis (Beesley and Russell 1997; Doblin and Kleiman 1991) none have been done on a palliative population.

METHODS

The survey consisted of 11 statements about cannabis, morphine and analgesics in general. The questions were drawn from perceived concerns about cannabis and from a previous study about knowledge and attitudes about palliative pain management in the general population (Gallagher 2001). Patients were asked if they would be willing to use cannabis for their symptoms as part of a study. Methods of taking cannabis were listed (smoking, pill, inhaler, sublingual drops, added to food, tea) and patients were asked to state their preference. The survey participants were asked to rate their pain, nausea, appetite and anxiety over the past two days using a visual analog scale of 0-10 (0 = no symptom, 10 = worst severity imaginable). In addition to the usual demographic information of age, gender, ethnicity, religion and education, patients were asked if they had used cannabis before and if they or a family member had a substance abuse disorder.

The survey was offered to patients who attended symptom management and palliative care clinics at two regional cancer centres, one in a major city (Vancouver, BC) and another in a smaller centre in the same province. As well, patients of inpatient palliative care programs in two Vancouver hospitals were asked to participate.

To be eligible, the patient must have an advanced life-limiting illness and been aware of their diagnosis. All the patients being seen at the cancer clinics and the palliative care units have exhausted any curative therapies and would now have therapy aimed at quality of life and comfort. The majority of patients are in their last six months of life. While almost all of the patients had a diagnosis of a malignancy, advanced cardiac, respiratory, liver or neurological diseases without dementia comprised the other diagnoses. A healthcare professional or family translator was used in those patients who could not read English fluently. Symptom scales were self-rated by patients and not by family or caregivers. Patients were excluded if they were delirious or had an impaired level of consciousness or were unable to give informed consent.

The study was approved by the university behavioral ethics committee. Frequency tables were prepared for each of the demographic variables and for each question. One-way analysis of variance was used to assess the effects of the demographic variables on each individual question.

RESULTS

A total of 68 surveys were analyzed. The mean age was 56.6 years with an age range of 29 to 92 with 5 missing entries. The gender ratio was 55.4% female and 44.6% male with 3 missing cases. Ethnicity of the study population showed 86% White of European origin, 7.7% Asian origin, 3.1% First Nations (Native North American), 1.5% Indo-Pakistani, and 1.5% other with 3 missing answers. The ethnicity of the whole province is 2.1% First Nations, 14.7% Asian and Indo-Pakistani, and 67.2% White of European origin (Statistics Canada 1996).

The study group education levels were 63.9% post-high school education, 23% high school and 13.1% less than high school and 7 missing entries. These education levels represent a slightly higher education than the provincial average, which is 52%, 29.5%, and 18%, respectively (Statistics Canada 1996). The majority of the study subjects were Christian (67.2%) with the next largest groups being other or none, both at 10.9% with 4 choosing not to answer. Cannabis had been used at some time in the past by 35.3% of the study group, 52.9% had not, with 8 participants not answering this question. A Canadian study from 1994 showed a general population use of cannabis of 7.6% of adults within the last year (Smart and Ogborne 2000), another Canadian self-report study showing that 1.9% of adults had used cannabis for medical use (self-defined) and that 6.8% used it recreationally within the previous year (Ogborne et al. 2000). A 1996 survey in the US found that 32% of people over the age of 12 had at some time tried cannabis (SAMHSA 1998). Four of the participants reported a history of substance abuse (6.6%) with 7 missing entries and 9 reported a family history of substance abuse (14.5%) with 6 missing entries.

The study population was asked to self-rate their intensity of pain, nausea, anorexia and anxiety. On a VAS scale, where 0 is absence of symptom and 10 is the worst symptom intensity imaginable, the mean pain score was 4.9. Aside from 7 missing cases, 45.9% rated it as a 6 or more denoting a significant degree of distress. The mean on the nausea scale was 2.87 and 7 cases not reporting, suggesting that most this popu-

lation was not experiencing significant nausea. However, 24.6% still rated their nausea at 6 or more out of 10. The anorexia scale had a mean of 3.97, with 8 not answering. Anorexia was reported at 6 or more by 28.3% of the study group. Anxiety reported by the study group was a mean of 3.54 with 9 unrecorded answers. The percentage of subjects reporting anxiety at 6 or more of 10 was 27.2%.

The responses to the statements about cannabis, its side effects and potential adverse social outcomes and statements about pain control are listed in Table 1.

Table 1 shows that there is a high number of “don’t know” answers to the statements about cannabis and its use with a range of 17.6% for vulnerability to attack and theft, to a high of 36.8% for the statement that cannabis is safer than morphine. In addition some patients chose to not answer all the attitude and belief questions, with the highest level of missing answers for the questions about cannabis being safer than morphine (25/68). The question with the lowest rate of missing cases was the question about comfort with the use of medical cannabis, with only 6/68 participants not answering. Interestingly, 45.6% of the population agreed that “cannabis was safer than morphine” for the treatment of pain and other symptoms. Response to this question may have been influenced by the lead in statement that “cannabis is more natural than morphine.” However, the other questions about risk of addiction with the use of morphine and loss of efficacy over time illustrated that the concern about morphine is not totally due to the wording. Participants were invited to write additional concerns about the use of medical cannabis and the majority of concerns were about side effects from smoked cannabis, permanent harm from its use and drug interactions.

Analysing the attitude and knowledge data with the demographics revealed no significant difference with age. Significantly more males were concerned about cannabis being addictive ($p = .031$), leading to the use of more harmful substances ($p = .036$), and causing an inability to think clearly ($p = .008$). These concerns were echoed when ethnicity (White of European origin vs. non-White) was considered. Non-Whites expressed significantly more concern over addiction ($p = .023$), inability to think clearly ($p = .004$), loss of effectiveness ($p = .042$) and leading to problems with the law ($p = .010$). Non-Whites also significantly disagreed with the statement about a low risk of addiction when treating pain with morphine ($p = .008$). Despite the high level of concern over the use of cannabis in non-Whites, there was no significant difference in the question of comfort with cannabis used for pain and ethnicity, as the vast majority of the non-Whites expressed comfort with its use. Non-

TABLE 1

Percent Frequencies of Attitude and Belief to Questions About Medical Cannabis and Pain Relief	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	Missing
Cannabis used for the relief of pain or nausea is addictive.	0	22.1	26.5	23.5	27.9	19
Cannabis used for pain and nausea may lead to the use or abuse of harmful substances such as heroin.	2.9	13.2	36.8	27.9	19.1	13
If cannabis is used for the relief of pain and nausea it will cause an inability to think and act clearly.	1.5	23.5	35.3	7.4	32.4	22
Because cannabis is a more natural substance, it is safer than morphine and other strong pain killers.	10.3	35.3	14.7	2.9	36.8	25
Strong pain relievers should not be used to control pain early in the disease as the effectiveness of the medication will wear off and there will be poor pain control later on.	2.9	33.8	30.9	8.8	23.5	16
When using narcotics such as morphine for relieving pain, the risk of becoming addicted to the pain medication is extremely low.	10.3	39.7	14.7	11.8	23.5	16
The use of cannabis for medical reasons will cause disagreements and relationship problems between my loved ones and me.	0	7.4	38.2	33.8	20.6	14
The use of medical cannabis will cause problems with the law and I may be arrested or charged with possession of the substance.	5.9	29.4	23.5	11.8	29.4	20
The use of medical cannabis will make me vulnerable to attack and theft by substance abusers.	2.9	17.6	39.7	22.1	17.6	12
I would feel comfortable with the use of medical cannabis for the treatment of my pain and/or nausea.	33.8	47.1	5.9	4.4	8.8	6

Christians were significantly more concerned than Christians with cannabis leading to problems with the law ($p = .035$) and in their belief that cannabis was safer than morphine ($p = .037$). Those whose education level was high school or less were significantly less likely to believe that cannabis is safer than morphine ($p = .014$). Previous users of canna-

bis showed no significant differences in their beliefs or attitudes except to disagree more often with the statement that use of cannabis leads to addiction ($p = .012$). Those who agreed with the statement about comfort with cannabis' use in pain showed no significant difference from those who disagreed with its use, except for a significant concern over the use of cannabis causing relationship problems ($p = .0004$).

Despite the lack of knowledge about cannabis's possible side effects and concerns about social harms, there was overwhelming support for the use of cannabis for pain and/or nausea with 80.9% of the participants agreeing or strongly agreeing that they were comfortable with its use. Only 10.3% disagreed and 12 of 68 patients did not answer or replied, "don't know" to this question.

Participants were also asked "If you were offered an opportunity to take part in research assessing whether or not medical cannabis helps when added to your usual care, would you say yes or no?" Five of 68 patients (7.4%) did not answer this question, 73.5% said yes and 19.1% said no.

Patients were also asked to state their preference for route of administration. A number of participants chose to enter more than one preference so there were a total of 80 responses from 66 patients. Most patients were comfortable with an oral form, either as a pill (32), drops under tongue (15) or added to food (10). The smoking of cannabis was selected in only 12/80 responses. There were also several written concerns about the smoking of cannabis and harmful effects on the lung. Only 3/80 of responses agreed to "whatever works" suggesting that the route of administration remains a significant concern for patients, even those with significant symptoms.

DISCUSSION

The sample we obtained reflected the demographics of British Columbia quite closely. Utilization data from one of the units we drew our sample from showed their average age of 67, ten years younger than our sample (Tong et al. 1993). The difference is likely due to the outpatient cancer clinics where the younger and less frail patients attend.

The study numbers are small, which is a common difficulty of palliative care research, but they illustrate several key points. First, an overwhelming number of people are willing to participate in trials of medical cannabis and are comfortable with its use as a medication. The

support of the use of medical cannabis spans all demographics. The previous use of cannabis in our study population appears to have little or no bearing on willingness to use it as a medical therapy. Where they are getting their information was not known but may be helpful in future studies on cannabis beliefs and attitudes.

Currently, there is no consensus in the literature about which route of administration of cannabis is best for the various symptoms it is thought to help. Palliative patients in our study showed a definite preference for an oral form of medication. Only 15% of patients favoured smoking of cannabis, which should be a concern for clinical research studies using this form of cannabis. There are currently two oral preparations available, nabilone and dronabinol, but side effects from them are common and significant (Tramer et al. 2001) and it is reported by many patients that the smoked form works better for pain.

There are a number of significant differences in beliefs and attitudes towards cannabis especially when gender and ethnicity are considered. There were only 9 non-Whites who completed the study, so further research in the non-White population is necessary to confirm these results. Education about the use and effects of cannabis needs to be in multiple languages and focus on concerns that are common in the non-White ethnic groups.

There is significant literature about the risks and side effects of cannabis (Joy et al. 1999; Ogborne et al. 2000). Our population has a number of misconceptions about cannabis and its effects, but also about pain management and use of opioids. There needs to be a recognized and credible source of information for both patients and healthcare providers who are considering using or prescribing cannabis for symptom control. If cannabis is viewed as safer than morphine, the result may be the use of cannabis as the sole analgesic and the rejection of what is considered standard therapy for moderate to severe pain in a terminal illness.

Although our study population expresses significant concerns about the use of medical cannabis, most of this same population is still willing to try the cannabis for symptom control. This has implications for the consideration of releasing cannabis for a wider use among those with symptoms that may respond to cannabis therapy (Health Canada 2001). Currently, evidence for the efficacy of cannabis and its place in the management of symptoms in terminal illness is not clear and further research is necessary. Proposed cannabis access regulations in Canada and other countries will come into effect long before any clinical trials are complete. We are at risk for widespread use of cannabis before we

understand its uses in the palliative population. People who are facing the end of their life and whose symptoms are not well controlled are willing to trying anything that may hold out the hope of relief. They may also delay using standard pain and symptom therapy if they believe that cannabis is safer. It would be very helpful to know where cannabis works best in the palliative population based on clinical trials rather than word of mouth. We believe that there is a need for coordination between regulators and potential researchers to make the best use of this therapy based on scientific evidence.

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SUBMITTED: 10/15/2002

ACCEPTED IN REVISED FORM: 11/02/2002



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