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ORIGINAL ARTICLE

# Attitudes of Irish patients with chronic pain towards medicinal cannabis

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## Abstract

**Background** Medicinal cannabis use is topical in the media in Ireland. A recent Health Products Regulatory Authority review, however, has recommended against its use for patients with chronic pain. This is despite evidence for its effectiveness in this patient's cohort and the inadequate pain management of these patients.

**Aim** The aim of this study was to evaluate the attitudes of Irish patients with chronic pain towards medicinal cannabis.

**Methods** After institutional ethics committee approval, a 12-item questionnaire (excluding demographics) was randomly assigned to patients attending a chronic pain clinic (University Hospital Limerick). The questionnaire was designed to incorporate patient's attitudes on a variety of medicinal cannabis related topics.

**Results** Ninety-six adult patients were surveyed. 88.54% agreed that cannabis should be legalised for chronic pain medicinal purposes. 80.21% believed it would have health benefits for them and 73.96% agreed it would be socially acceptable to use cannabis for this purpose. 33.33% perceived cannabis to be addictive while 68.75% would be willing to try it if prescribed by a medical professional.

**Conclusions** The study highlights the attitudes of chronic pain patients in Ireland towards medicinal cannabis. It shows their desire to have medical cannabis legalised for chronic pain and that they view it as a reasonable pain management option.

**Keywords** Attitudes · Cannabis · Chronic pain

## Introduction

Cannabis is the most widely used illicit drug in the world [1]. It has been used for over five millennia for medical, recreational and spiritual purposes [2]. The commonest approach to dealing with illicit drugs worldwide is prohibition followed by decriminalisation and legalisation [3]. Countries adapt different approaches to this in relation to cannabis due to its dynamic political landscape. This scene includes the contested nature of whether cannabis is a safe drug or not, the expanding social and legal acceptance of cannabis coupled with the pressure from patient advocate groups to incorporate these compounds into evidence-based medical practice [4]. As the aphorism goes, however, the plural of anecdote is not data and Ireland has yet to be convinced by individual stories of the benefits of medical cannabis. In response to this, the Department of Health has set up a Cannabis Reference Group to examine the availability of cannabis for medical use [5]. This group has been tasked with developing clinical guidelines and an access programme for cannabis for medical use in Ireland. Regulations have not been changed from prohibition yet; however, it still remains possible to prescribe cannabis in Ireland under licence from the Minister for Health.

The Health Products Regulatory Authority (HPRA) has also recently conducted a scientific review of cannabis for medical use in Ireland [6]. It recommended treatment with cannabis should only be permitted under a controlled access programme for patients with certain

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conditions. These included spasticity associated with multiple sclerosis, nausea and vomiting associated with chemotherapy and treatment resistant epilepsy. These recommendations are, however, in direct conflict with evidence from a systematic review that states that cannabinoids are effective and safe for non-cancer chronic pain [7]. The Irish Pain Society has also criticised the exclusion of patients with chronic pain from this list. Reasons given for not including chronic pain in their recommendation is that other medications are already available, the large number of chronic pain patients and their diversity.

The pain in a Europe study has shown nonetheless a 40% reporting rate of inadequate pain management for chronic pain patients [8]. An increased significance is also been placed by patients and government agencies on adequate analgesia [9]. Interestingly, concerns over the safety of commonly used pain medications such as opioids and non-steroidal anti-inflammatory drugs are also intensifying [10]. This displays the need for more multimodal analgesia and the basis for the development of this study in this patient's cohort.

The primary aim of this study was to evaluate the attitudes of Irish patients with chronic pain towards medicinal cannabis. Amongst others, attitudes we sought to gauge were the acceptance of these patients towards cannabis if prescribed by a physician, their perceived benefit of cannabis, their safety attitude towards it and the legal stance they would have in relation to it.

## Methods

The study protocol was approved by the research ethics committee of University Limerick Hospitals Group, Mid-West Region. An anonymous questionnaire (survey) was designed to collect data on patient's demographics and patient's attitudes to the following 12 topics: cannabis criminal status, legalisation for medicinal purpose, legalisation for chronic pain, prescription by consultant only, perceived health benefits, willingness to use if prescribed, tried cannabis before, formulation of cannabis, cannabis as a safe drug, cannabis safer than morphine, cannabis addictiveness and the social acceptance of cannabis. A five-point Likert scale was used as is the standard instrument for assessing attitudes about a particular topic. The choices given were strongly disagree, disagree, neutral, agree and strongly agree.

Participant information leaflets and consent forms were given to patients prior to the questionnaire. This gave patients the opportunity to decline participation if wanted. The questionnaire was distributed to patients in the waiting rooms of chronic pain clinics prior to their appointment time. This took place in the University Hospital Limerick between September 2017 and December 2017 on days subject to pain clinic timetables and availability of nursing staff to orchestrate the questionnaire. Results were stored on an encrypted database and statistical descriptive analysis was done using Microsoft Excel 2010. The questionnaire form is displayed in Table 3.

**Table 1** Summary of demographic variables

| | | | |
|---|---|---|---|
| Age | < 30 years 7.29% | 30–50 years 35.42% | > 50 years 57.29% |
| Sex | Male 39.58% | Female 60.42% | |
| Employment status | Unemployed 63.54% | Employed 36.46% | |
| Pain diagnosis if known | Unknown by patient 17.71% | Back pain 35.42% | Neck pain 13.54% |
| | Back and neck 7.29% | Widespread 4.17% | Others 21.88% |
| Years living with chronic pain | < 1 year 11.46% | 1–5 years 72.92% | > 5 years 15.63% |

## Results

Ninety-six questionnaires were completed with all results included. A summary of the demographics of the cohort of patients can be seen in Table 1. There was a majority of females (60.42%), unemployed (63.54%) and patients over 50 years old (57.29%). The most common timeframe for years living with chronic pain was 1 to 5 years with 72.2% in this range. The leading pain diagnosis of these patients was back pain (35.42%) with 17.71% not having a current diagnosis.

Patient's attitudes to topics are summarised on the Likert scale on Table 2. The questions are themed in topics from the legal status of cannabis (questions 1–4), perceived health benefits (question 5), acceptability of cannabis (questions 6–8 and 12) and safety opinions on cannabis (questions 9–11). From these questions, we can see a strong demand for medical cannabis with 86.46% agreeing that it should be legalised for medicinal purposes and 88.54% agreeing for its use in chronic pain. 87.50% of participants also agreed that cannabis should only be prescribed by a consultant. Only a minimal majority (58.33%) agreed that the criminal status of cannabis should be abolished.

In relation to the perceived health benefits cannabis, 80.21% agreed that cannabis has health benefits when used

**Table 2** Summary of patient's attitudes to medical cannabis questionnaire

| | Strongly disagree (%) | Disagree (%) | Neutral (%) | Agree (%) | Strongly agree (%) |
|---|---|---|---|---|---|
| 1. The criminal status of cannabis should be abolished | 11.46 | 8.33 | 21.88 | 19.79 | 38.54 |
| 2. Cannabis should be legalised for medicinal purposes | 4.17 | 1.04 | 8.33 | 20.83 | 65.63 |
| 3. Cannabis should be legalised for chronic pain | 4.17 | 1.04 | 6.25 | 23.96 | 64.58 |
| 4. Cannabis if legalised should only be prescribed by a consultant | 5.21 | 2.08 | 5.21 | 29.17 | 58.33 |
| 5. Cannabis has health benefits when used appropriately | 1.04 | 2.08 | 16.67 | 30.21 | 50.00 |
| 6. If prescribed cannabis, I would try it | 6.25 | 2.08 | 22.92 | 22.92 | 45.83 |
| 7. I have tried cannabis before | 40.63 | 13.54 | 22.92 | 12.50 | 10.42 |
| 8. The formulation of cannabis would matter to me (e.g. tablet, spray, inhaler, etc.) | 8.33 | 4.17 | 43.75 | 17.71 | 26.04 |
| 9. Cannabis is a safe drug | 5.21 | 8.33 | 42.71 | 21.88 | 21.88 |
| 10. Cannabis is safer than morphine | 5.21 | 3.13 | 40.63 | 20.83 | 30.21 |
| 11. Cannabis is addictive | 8.33 | 14.58 | 43.75 | 18.75 | 14.58 |
| 12. It would be socially acceptable to use cannabis for medicinal purposes | 3.13 | 2.08 | 20.83 | 30.21 | 43.75 |

appropriately. The social acceptability of cannabis use for medicinal purposes is high with 73.96% agreeing to this. 68.75% of participants would also be willing to try cannabis if prescribed for them. Only 22.92% of participants had tried cannabis before. The formulation of cannabis was not a major priority for participants with 43.75% neutral in regards to this. Participants were not fully convinced on the safety of cannabis however. Only 43.75% agreed that cannabis is a safe drug and merely 51.04% agreed cannabis is safer than morphine. Concerns over addiction to cannabis are ambiguous with 43.75% taking a neutral stance to this question.

## Discussion

It has been previously recognised that people with personal experience of cannabis use are more in favour of it been legalised [11]. However, in our study, only 22.92% of participants had experience with cannabis yet an overwhelming 86.46% agreed for it to be legalised for medicinal purposes. It has also been noted from studies in Australia and the USA that decriminalisation of cannabis does not significantly lead to an increased use [12]. Our study suggests that chronic pain patients do not fully support decriminalisation with only 58.33% agreeing to this. Also, the majority of Irish GPs do not support decriminalisation of cannabis to the same effect [13]. Interestingly, however in Colorado, where medicinal cannabis is legal, only a handful of physicians write half the states prescriptions for cannabis [14]. The spectacular results portrayed about medicinal cannabis in the media, the long-held beliefs surrounding its recreational use and the various laws in relation to medicinal cannabis are thought to be some of the reasons physicians avoid providing counsel in this field [15].

In 1964, the main active ingredient of cannabis, tetrahydrocannabinol, was isolated. However, the complexities of the endocannabinoid are still been appreciated [2]. The long-term health risks of cannabis are not fully clear and the evidence is based mainly on recreational use [16]. This is the era of patient cantered care nonetheless and more emphasise and important is been placed on the patient's experience/perspective [17]. However, as Bernard Lown remarked "Caring without science is well-intentioned kindness, but not medicine". It is here that the conflict lies. While our study shows a patient's desire for medicinal cannabis and a belief for its health benefits. Studies on physicians have shown the opposite with a lack of support for medicinal cannabis and only a minority believing it confers a health benefit [18]. Some physicians have even suggested that doses determined by patients deviates from modern medical practice [19].

Cannabis has over 100 cannabinoids in the species *Cannabis sativa* alone. Evidence is accumulating nonetheless that cannabinoids may be useful for certain medical conditions [20]. In relation to this, however, we still do not know exactly which cannabinoids or combinations work best for which conditions [20]. More clinical trials are warranted as expressed by many medical professionals [21]. Sativex, which has a recently granted market authorisation in Ireland, for example has a specific combination of cannabinoids which has demonstrated analgesic effects with sleep improvements [22]. This is delivered as an oral mucosal spray which avoids the none-specific

and potentially hazardous method of drug delivery that smoking delivers [23]. The importance of drug delivery, however, was not weighed as heavily as expected from our survey with only 43.75% of participants agreeing that it mattered to them.

Dependence characterised by withdrawal symptoms such as restlessness, tremor and salivation can occur after 7 days of cannabis use [24]. Interestingly, our survey found that only 33.33% agreed with cannabis been addictive, highlighting perhaps one of the many social myths on the topic. Another Irish study has also shown the relatively low levels of perceived risk in relation to the drug in adolescents [25]. This is concerning given the detrimental effects of cannabis exposure on cognition and its unknown impact on the maturing brain [26]. Cannabis use has also been shown to independently increase the risk of psychotic outcomes [27]. Attitudes in relation to risk are regarded as major influences in deciding whether or not to use cannabis [28]. In our study, 68.75% of participants were willing to try cannabis if prescribed it. Social tolerance and acceptance of cannabis has also been reported in studies elsewhere [29].

In relation to chronic pain, this condition is seen in over 90% of the registered medicinal cannabis users in the USA [30]. In Canada, it is also approved as an adjunctive analgesia for opioid resistant advancer cancer pain [31]. Indications for its use in chronic pain are backed with systematic review evidence of moderate quality [32] and similar evidence also exists specifically for non-cancer chronic pain [7]. The prevalence of chronic pain is also likely to increase in the future as the population ages and medical advances continue to improve survival rates in previously fatal conditions [33]. This highlights the critical need to new treatments in this area. Patient factors will also play a key role in this expansion with particular attention needed for a more favourable risk benefit ratio before widespread use commences.

## Conclusion

In conclusion, this study demonstrates the attitudes of Irish patients with chronic pain towards medicinal cannabis. It highlights their desire for cannabis as an option for chronic pain management, believing it would have a health benefit. They deem this option to be socially acceptable; however, they are slightly ambiguous about its safety. It also displays their opinions about what they think the legal stance should be for cannabis in Ireland. The study should be helpful as a result to better equip decision makers in relation to policy changes about medicinal cannabis in Ireland. It is the opinion of the authors that patients with chronic pain should be included in the Irish-controlled access programmes for medicinal cannabis.

### Compliance with ethical standards

The study protocol was approved by the research ethics committee of University Limerick Hospitals Group, Mid-West Region.

**Conflict of interest** None.

## Appendix

**Table 3** Patient's attitude to medicinal cannabis questionnaire

| | | | |
|---|---|---|---|
| **Today's Date** | | | |
| **Age** | <30 years ◯ | 30-50 years ◯ | >50 years ◯ |
| **Sex** | Male ◯ | Female ◯ | |
| **Employment status** | Unemployed ◯ | Employed ◯ | |
| **Pain diagnosis if know** | | | |
| **Years living with chronic pain** | <1 year ◯ | 1-5 years ◯ | >5 years ◯ |

| | Strongly disagree | Disagree | Neutral | Agree | Strongly agree |
|---|---|---|---|---|---|
| **1.** The criminal status of cannabis should be abolished | ◯ | ◯ | ◯ | ◯ | ◯ |
| **2.** Cannabis should be legalised for medicinal purposes | ◯ | ◯ | ◯ | ◯ | ◯ |
| **3.** Cannabis should be legalised for chronic pain | ◯ | ◯ | ◯ | ◯ | ◯ |
| **4.** Cannabis if legalised should only be prescribed by a consultant | ◯ | ◯ | ◯ | ◯ | ◯ |
| **5.** Cannabis has health benefits when used appropriately | ◯ | ◯ | ◯ | ◯ | ◯ |
| **6.** If prescribed cannabis, I would try it | ◯ | ◯ | ◯ | ◯ | ◯ |
| **7.** I have tried cannabis before | ◯ | ◯ | ◯ | ◯ | ◯ |
| **8.** The formulation of cannabis would matter to me (e.g. tablet, spray, inhaler etc) | ◯ | ◯ | ◯ | ◯ | ◯ |
| **9.** Cannabis is a safe drug | ◯ | ◯ | ◯ | ◯ | ◯ |
| **10.** Cannabis is safer than morphine | ◯ | ◯ | ◯ | ◯ | ◯ |
| **11.** Cannabis is addictive | ◯ | ◯ | ◯ | ◯ | ◯ |
| **12.** It would be socially acceptable to use cannabis for medicinal purposes | ◯ | ◯ | ◯ | ◯ | ◯ |

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