Research Article   **Open Access**

Factors Affecting the Population's Opinions Regarding Cannabis Treatment for Chronic Pain Patients

Keren Grinberg*, Meital Amzaleg, Manor Forman, Carmel Hayut and Noa Gil

Nursing Department, Ruppin Academic Center, Israel

Received: June 19, 2018; **Published:** June 25, 2018

*Corresponding author: Keren Grinberg, Nursing Department, Ruppin Academic Center, Israel

Abstract

Background: In the search to reduce chronic pain, the cannabis plant is considered a possible treatment. Many studies have been conducted about its effectiveness in reducing pain sensation due to the cannabinoids system in the human body. Nevertheless, cannabis use is still controversial in many countries for varied reasons (i.e., dangerous, addictive and harmful drug, or related to criminal activities).

Purpose: This study aimed to recognize the causes influencing public opinion about medical use of cannabis for reducing chronic pain. This descriptive / correlative study included 236 subjects in 2 age groups (18-40 years old, 40+ years old).

Methods: Every participant filled out a questionnaire, which was constructed based on a literature review of research on cannabis use to treat chronic pain.

Results: A higher level of education was correlated with participants' attitudes that cannabis was harmful (r=0.17, p=.01). We also found a significant difference between participants who had information about chronic pain compared with those who did not (r=0.13, p=.03). The more information one had, the more one was supportive of medical cannabis treatment. We did not find significant differences between the two age groups regarding their attitudes to using cannabis for chronic pain (t=0.62, p=.02.).

Conclusions: This research helped us to map the possible factors that influence public attitudes concerning medical cannabis for chronic pain patients. Knowledge about chronic pain was the most critical factor influencing public and individual opinions.

Keywords: Medical Cannabis; Chronic Pain

Introduction

The prevalence of chronic pain in the population is 1%-5% [1]. In the US, the direct and indirect cost of treating chronic pain is about 635 billion dollars annually [2]. Chronic pain causes a great deal of suffering and harms the patients' quality of life in most areas. In the 21st century, with the inclusion of pain as the 'fifth vital sign', Western medicine is determined to reduce its frequency and to alleviate the patients' suffering. Consequently, the various treatments developed to this end include medication, surgery and others [3]. Despite considerable progress that was made, pain – and particularly chronic pain – is a symptom that is hard to treat as it incorporates many variables. Together with medication, the effect of which on the individual is not uniform, it can be said that the side effects of chronic pain treatment in many cases make it hard for the individual to lead a normal life [4]. At present, despite the high prevalence of people suffering from chronic pain, the treatment is limited, demanding and often not effective. The treatment requires changes in one's lifestyle such as physical activity, changing sleep patterns and reducing stress.

Because of the treatment's ineffectiveness, patients make multiple visits to medical facilities, which in turn overburden the medical system and take up a great deal of the medical staff's time. Also, alternative treatments, which are known to alleviate chronic pain, are not always funded by medical insurance groups [2,5]. One of the common treatments for persistent chronic pain is the cannabis plant [2,6]. Numerous studies have been conducted in recent years on the effectiveness of cannabis for the treatment of chronic pain, yet it is not a treatment of choice and is made available only after all other treatment options have been pursued. Many patients, who are offered cannabis as treatment, express doubts about its use, and thus miss an opportunity that might improve their condition. Parallel to cannabis being pushed aside as having therapeutic potential, it also has the image of a substance connected with the criminal world, which in 1937 led to an all-time low in its medical-research status and to its illegalization due to widespread use on the streets and what was termed by US federal law as 'inactivity in known medical use' [7,8].

In 1996, the state of California passed an initiative that regulated the use of medical cannabis, followed by other states throughout the US [4]. At present, twenty US states have legalized the therapeutic use of medical cannabis [9]. Policies concerning the use of medical cannabis have also been developing in Canada and European countries [10]. In 2014, about 4.2 million people in the US suffered from a medical diagnosis that fulfilled the criteria for treatment with medical cannabis [2,11]. Since chronic pain is a condition that affects a significant segment of the population, and has an impact on their quality of life and that of their families, it is very important to investigate factors that could help to make an effective medical treatment accessible to many. The public's views about the therapeutic use of cannabis, even among those suffering from chronic pain, are still controversial, and could be affected by socio-demographic factors such as age, education, and information about chronic pain, including the question of its efficacy [12]. Therefore, the aim of this study was to identify factors that could affect the population's views regarding the use of medical cannabis to relieve chronic pain conditions.

Identifying these factors may sheds more light regarding the attitudes (of the various populations, whether patients, medical staff, family members, friends or organizations and institutions) about medical cannabis use for chronic pain patients. In addition, identifying these factors could open a window to more focused research of this issue, and extend the knowledge about various attitudes of the population to cannabis use for chronic pain patients.

Consequently, our hypotheses were:

a)   H1: A link will be found between an individual's age and his/her attitude to the use of medical cannabis to treat chronic pain, so that younger individuals will have a more positive attitude.

b)   H2: A link will be found between an individual's level of education and his/her attitude to the use of medical cannabis to treat chronic pain, so that individuals with a higher level of education will have a more positive attitude.

c)   H3: A difference will be found between the attitude of a person with information about chronic pain and that of a person with no information about chronic pain, so that the more information one has about chronic pain, the more supportive he/she will be about the use of medical cannabis.

Method

This study is a descriptive quantitative research. The study included 236 participants from the general healthy population in Israel, approached through online forums of students and forums that deal with issues of pain and chronic pain. Exclusion criteria were: Chronic pain patients, individual who used cannabis for chronic pain. The respondents were divided into two groups: young adults aged 18-40 and adults over the age of 40.

Procedure

After receiving approval from the Ethics Committee of Ruppin Academic Center, the questionnaires were distributed to the participants via Google Docs, and returned to the researchers for analysis. The questionnaires included an explanation about the nature and aim of the research, and about how the questionnaires should be filled out. Also, the participants were assured anonymity, and told that there was no right or wrong answer, but that they should choose answers that fit their personal opinions and feelings. All participants signed a consent form. The interviewees were given ample time to complete the questionnaire, and the researchers were available via email and telephone to provide explanations or clarifications if needed.

Research Tools

This study utilized a questionnaire to examine a number of characteristics related to the use of cannabis to relieve chronic pain, divided into three sub-sections. The first part asked about socio-demographic characteristics (such as age, sex, education, etc.). The second part examined the respondent's degree of information about chronic pain on a Likert scale of 1 (completely disagree) to 5 (completely agree). Sample items: "Chronic pain is a medical symptom that stays with the patient for life"; "Chronic pain is an uncomfortable condition, but does not damage the patient's quality of life". The third part examined attitudes about the use of cannabis on a Likert scale of 1 (completely disagree) to 5 (completely agree). Sample items: "Cannabis is a drug and should be avoided"; "Cannabis should be the front-row treatment for chronic pain patients". Cronbach's alpha for the entire questionnaire was 0.78.

Data Analysis

The data was analyzed using SPSS V21.0. First, the research measures were built, and the reliability of the research questions was assessed. Then, descriptive statistics were performed on the participants' background variables and the research measures (means and SD). Pearson correlations were examined between education level, degree of information about chronic pain and attitudes towards cannabis use. T-tests for independent samples were used to examine the differences between the age groups and their attitudes about cannabis use.

Results

Table 1 describes the distribution of the research population's demographic data. Inspection of the center and distribution indices of the attitude towards the use of medical cannabis to treat chronic pain indicated a considerably highly positive attitude (M=3.89, SD=0.58). A high average was found for the amount of information and the desire to gain more information about medical cannabis' qualities (M=4.08, SD=0.81). Low averages were found for the perception of cannabis as harmful (M=2.03, SD=0.70), and for a positive attitude to limiting the use of medical cannabis (M=2.25, SD=0.78). To test the first hypothesis, T-tests for independent variables were performed to examine the differences in attitudes to the use of cannabis between the younger (age 18-40) and older (above 40) age groups (Table 2). presents the T-test results. The results indicate that no differences were found between the younger and older age groups regarding the statement that cannabis was effective in the treatment of chronic pain (t=.62, p>.05). Similar results were found

for the perception that cannabis was harmful (t=0.77, p>.05), and the perception that cannabis use should be limited (t=0.91, p>.05).

Table 1: Socio-demographic data of sample.

Percentage (%)	Number of respondents (N)	Category	Variable
69.9	158	Up to age 40	Age
0.1	68	Above age 40	
69.1	163	Women	Sex
31.9	71	Men	
48.5	131	Single	Marital status
41.6	97	Married	
9	21	Divorced	
0.9	2	Widowed	
87	201	Jewish	Religion
8.7	20	Moslem	
0.9	2	Druze	
2.6	6	Atheist	
0.9	2	Christian	
68.9	157	Secular	Religiousness
21.9	50	Traditional	
9.2	21	Religious	
84.3	193	Israel	Place of birth
15.7	36	Other	
48.5	112	High school	Education level
21.6	50	Academic - BA	
9.3	21	Academic - MA and up	
81	187	Yes	Working
19	44	No	
32.3	71	Below average	Economic status
53.7	118	Average	
14	31	Above average	

Table 2: Means and T-test results of younger and older age groups' attitudes to cannabis use.

t($_{224}$)	Adults (N=68)		Young Adults (N=158)		Variable
	(SD)	M	(SD)	M	
-0.62	0.61	3.93	0.55	3.88	A statement that cannabis is effective for chronic pain
0.77	0.61	1.99	0.74	2.06	The perception that cannabis is harmful
0.91	0.73	2.17	0.81	2.27	Limitation of cannabis use

Thus, hypothesis H1, namely that younger individuals would have a more positive attitude to the use of medical cannabis, was refuted. To examine the second and third hypotheses, Pearson correlations were performed to assess the existence, direction and strength of the association between the level of education and attitude to the use of cannabis to treat chronic pain, and between the degree of information and attitude to the use of cannabis to treat chronic pain (Table 3). presents the Pearson correlations between these variables. The level of education was not found to be linked to any of the variables; thus, the hypothesis (H2) that individuals with a higher level of education would have a more positive attitude to the use of medical cannabis was not corroborated. A significant positive correlation was found between the degree of information about chronic pain and attitudes toward the use of medial cannabis to treat chronic pain. Hypothesis H3, namely that the more information one had about chronic pain, the more supportive he/she would be about the use of medical cannabis, was confirmed.

Table 3: Pearson correlations between education, information and attitude to cannabis use (N=236).

	1	2	3	4	5
Cannabis is effective for the treatment of chronic pain	1				
Cannabis is harmful	-.52**	1			
Limitation of cannabis use	-.48**	.66**	1		
Information about chronic pain	.13*	.06	.07	1	
Level of education	-.03	.04	.10	.12	1

*p < 0.05, **p < 0.01

Discussion

This study addressed the effect of socio-demographic factors on the attitudes of the general population in Israel as to the importance of the use of medical cannabis to treat chronic pain. Our main hypothesis was that an association would be found between the respondent's age and his/her attitude to the use of cannabis to treat chronic pain. We hypothesized that younger people would have a positive attitude, whereas older people would have a negative attitude, because we assumed that older people in general are considered more conservative than younger people who are more open to changes and innovations [13]. The findings showed that there were no differences between the attitudes of the younger (18-40) and the older (40+) groups, thus refuting this hypothesis. We also examined whether individuals with a higher level of education would have a more positive attitude to treatment of chronic pain with medical cannabis, assuming that educated people were more aware, exposed to studies on this subject, and were familiar with the law. This hypothesis was also refuted. Finally, we examined the link between degree of information about chronic pain and attitudes to using cannabis to relieve it. The findings indicate that the more information one has about chronic pain, the more positive one's attitude to the use of medical cannabis is, and vice versa. It is possible that exposure to chronic pain and understanding the complex coping required to deal with it in daily life could explain the positive attitudes to the use of medical cannabis [14,15].

Lack of information about the beneficial effects of medical cannabis could lead to a negative attitude about its use to treat chronic

pain. Moreover, it could be that people who had a good experience with the use of medical cannabis, as opposed to people for whom it was less effective, would have a positive attitude, but this aspect was not examined in this study. The current study identified some of the factors that affect, whether positively or negatively, public opinion regarding medical cannabis for the treatment of chronic pain. We found a strong positive correlation between information about chronic pain and a positive attitude to treatment with medical cannabis. Those who are opposed or neutral are unaware of the severity of chronic pain that can be relieved with cannabis treatment. Medical cannabis has been proven effective as treatment for many diseases. Future research could continue to examine the differences between the attitudes of chronic pain patients that are treated with medical cannabis and the general population, as well as the public awareness regarding the cannabis use in treating chronic pain, and also the differences between the attitudes of chronic pain patients that are treated with medical cannabis and chronic pain patients that receive other forms of treatment. Additionally, future research could continue to map the factors that affect attitudes to this issue among specific populations such as medical staff, and patients from various sectors and ethnicities.

Limitations of this study

The sample for this study was not homogenous, and did not proportionally or equally represent the various groups in the population. The respondents were from various populations, ages, and levels of information. Also, the sample was relatively small (N=236). The maximum age of the participants was 69, so it was difficult to make significant conclusions about all age groups, as opposed to a larger sample, which could have included varied age groups. Since the questionnaire was distributed online, it was published in various groups that advocate the use of medical cannabis or that seek relief for chronic pain. Due to the need to create a short, clear and concise questionnaire, we did not examine additional variables that could have shed more light on the results; for example, whether the respondent had tried medical cannabis, under which circumstance, and how the environment had reacted – all of which could affect one's attitude.

References

1. Jongen JL, Hans G, Benzon HT, Huygen F, Hartrick CT (2013) Neuropathic Pain and Pharmacological Treatment. Pain Practice 14(3): 283-295.

2. Boehnke KF, Litinas E, Clauw DJ (2016) Medical Cannabis Use Is Associated With Decreased Opiate Medication Use in a Retrospective Cross-Sectional Survey of Patients with Chronic Pain. The Journal of Pain 17(6): 739-744.

3. Tompkins DA, Hobelmann JG, Compton P (2017) Providing chronic pain management in the "Fifth Vital Sign" Era: Historical and treatment perspectives on a modern-day medical dilemma. Drug and Alcohol Dependence 173: S11-S21.

4. Goldenberg M, IsHak WW, Danovitch I (2016) Quality of life and recreational cannabis use. The American Journal on Addictions 26(1): 8-25.

5. Baron R, Binder A, Wasner G (2010) Neuropathic pain: Diagnosis, pathophysiological mechanisms, and treatment. The Lancet Neurology 9(8): 807-819.

6. Grotenhermen F, Muller-Vahi K (2012) The Therapeutic Potential of Cannabis and Cannabinoids. Medicine 109(29-30): 495-501.

7. Savage SR, Romero-Sandoval A, Schatman M, Wallace M, Fanciullo G, et al. (2016) Cannabis in Pain Treatment: Clinical and Research Considerations. The Journal of Pain 17(6): 654-668.

8. Bhatnagar S, Kashyap K, Joshi S, Vig S, Singh V (2017) Impact of scrambler therapy on pain management and quality of life in cancer patients: A study of twenty cases. Indian Journal of Palliative Care 23(1): 18-23.

9. Weiss SR, Howlett KD, Baler RD (2017) Building smart cannabis policy from the science up. International Journal of Drug Policy 42: 39-49.

10. Ko GD, Bober SL, Mindra S, Moreau JM (2016) Medical cannabis – the Canadian perspective. Journal of Pain Research 9: 735-744.

11. Ahmed W, Katz S (2016) Therapeutic Use of Cannabis in Inflammatory Bowel Disease. Gastroenterology & Hepatology 12(11): 668-679.

12. Martin-Sanchez E, Furukawa TA, Taylor J, Martin JLR (2009) Systematic Review and Meta-analysis of Cannabis Treatment for Chronic Pain. Pain Medicine 10(8): 1353-1368.

13. Ware MA, Wang T, Shapiro S, Collet J, Boulanger A, et al. (2015) Cannabis for the Management of Pain: Assessment of Safety Study (COMPASS). The Journal of Pain 16(12): 1233-1242.

14. Wallace MS, Marcotte TD, Umlauf A, Gouaux B, Atkinson JH (2015) Efficacy of Inhaled Cannabis on Painful Diabetic Neuropathy. The Journal of Pain 16(7): 616-627.

15. Wilsey B, Marcotte T, Deutsch R, Gouaux B, Sakai S, et al. (2013) Low-Dose Vaporized Cannabis Significantly Improves Neuropathic Pain. The Journal of Pain 14(2): 136-148.

Assets of Publishing with us

- Global archiving of articles
- Immediate, unrestricted online access
- Rigorous Peer Review Process
- Authors Retain Copyrights
- Unique DOI for all articles

https://biomedres.us/