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Polish students' opinion about medicinal cannabis

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Abstract

Introduction and the aim:

According to statistics, in 2014 marijuana was used by 183 million of people, representing 2.5% of the world's population. However, marijuana also found its application in medicine. There is an evidence on the therapeutic benefits of cannabinoids in certain disease states. The aim of our study was to examine the attitude of the Polish students to medical marijuana and their knowledge on the use of cannabis in medicine. We were also interested in the opinion of students whether they accept the use of this therapy in Poland and which medical marijuana distribution channel they consider most appropriate.

Material and methods:

The study was conducted in 2017 on 132 individuals – 60 men and 72 women. The results were analyzed in STATISTICA 10 at $p < 0.05$.

Results:

Most of students (72.0%) believe that marijuana has medicinal properties. The most common disorder of the respondents tied the use of medical marijuana is a drug-resistant epilepsy. Almost all of respondents (92.4%) believe that marijuana should be legal and accessible for people with indications for its use. The vast majority of respondents indicated that medical cannabis should be sold as a prescription drug (59.1%).

Conclusions:

Polish students seem to be ready for introduction into medical marijuana and are aware of its therapeutic potential. The majority is in favor of sales in a controlled manner. The task of researchers should be accurate examination of the effectiveness of specific cannabinoids in the treatment of diseases.

Keywords: cannabis, medicinal marijuana, therapy

Introduction

Cannabis as marijuana are the most common addictive substance, both in Europe and in the world. Statistics show that in 2014 it was used by 183 million people, representing 2.5% of the population of the world [1]. This reflects the fact that cannabis is the most commonly confiscated drug in Europe (78%) [2]. Recreational and medicinal properties of marijuana are appreciated for a long time [3]. Use of cannabis in the medicine is based on alleviating the symptoms of diseases rather than controlling them. There is evidence of the therapeutic benefits of marijuana in certain patient populations [4]. Studies were performed which testing the effect of marijuana for different indications. The results show effect of cannabinoids to reduce central pain and subjective reduction in muscle spasticity in multiple sclerosis [5]. Cannabis and derivatives also exhibit low efficacy in cancer pain combating and pain in the course of HIV [6,7].

Recently, widely reported is the use of medical marijuana in cases of refractory epilepsy [8]. There is clinical evidence of a decrease in seizure frequency in the use of cannabinoids but also data indicating a worsening of epilepsy or the absence of any therapeutic effect [8]. Preliminary data from a study of cannabidiol (Epidiolex) showed correlation with the improvement of its application condition of pediatric patients with epilepsy resistant to treatment [9]. Attempts to use medical marijuana have also been taken in groups of patients with Tourette syndrome [10], posttraumatic stress disorder (PTSD) [11] or Alzheimer's disease [12]. Low quality research and too short the time of their conduct does not allow conclusions on the effectiveness of treatment and points out the need to implement long-term randomized trials [10,11,12].

The use of cannabis is controversial therapy of the subject [13]. Concerns against the use of these compounds resulting from insufficient knowledge on safety, appropriate dosages and treatment of other side effects such as anxiety, dysphoria, euphoria, hallucinations, paranoia, acute impairment of memory or cognitive reduction [4]. Chronic marijuana use can also cause respiratory disease and cancer of the esophagus [4]. Both internationally and in Europe itself, there is currently a political and public debate on the legalization of medical marijuana [14].

Purpose of Work

The aim of our study was to examine the attitude of the Polish students to the medical use of marijuana. We asked respondents to questions about their knowledge of the therapeutic potential of cannabinoids and their willingness to undergo such therapy. We wanted to find out if they accept the introduction of Polish students in our country, this form of treatment, and how medical marijuana distribution channel they consider most appropriate.

Materials and Methods

The study was conducted in 2017 by using standardized online survey on loan to students on different subjects on Polish universities. Participation in the study was voluntary and anonymous. Questionnaire was completed by 132 people including 60 170 males (M) and 72 females (F). The age of respondents was between 19 – 29 years old, the average was 22 years old (standard deviation = 2,18). In terms of habitual residence, the largest group of people were the public living in the city of 100 thousand to 500 thousand residents which formed 41% of all respondents. The largest groups of interviewees were law students (34.1%), medicine students (27.3%) and psychology students (13.6%). The most respondents study at the Catholic University of Lublin (47.7%) and Medical University in Lublin (32.6%).

The data were analyzed using Statistica 10.0 software (StatSoft, USA). The chisquared test was used to determine whether there was a significant difference between the expected frequencies and the observed frequencies in categorical data categories; Spearman's rank correlation coefficient test was used to assess whether two parameters were correlated. A p-value of less than 0.05 was considered statistically significant.

Results:

The most important results obtained from the survey is the fact that according to most respondents (72.0%) marijuana has medicinal properties. With this thesis agrees to 70.0% of men and 73.6% women. Only 10.0% of men and 4.2% of women believe

that cannabinoids can not act therapeutically ($\chi^2 = 1.67$; $p = 0.19$) (**Figure 1**). There was no correlation between belonging to the university and the opinion on this issue.

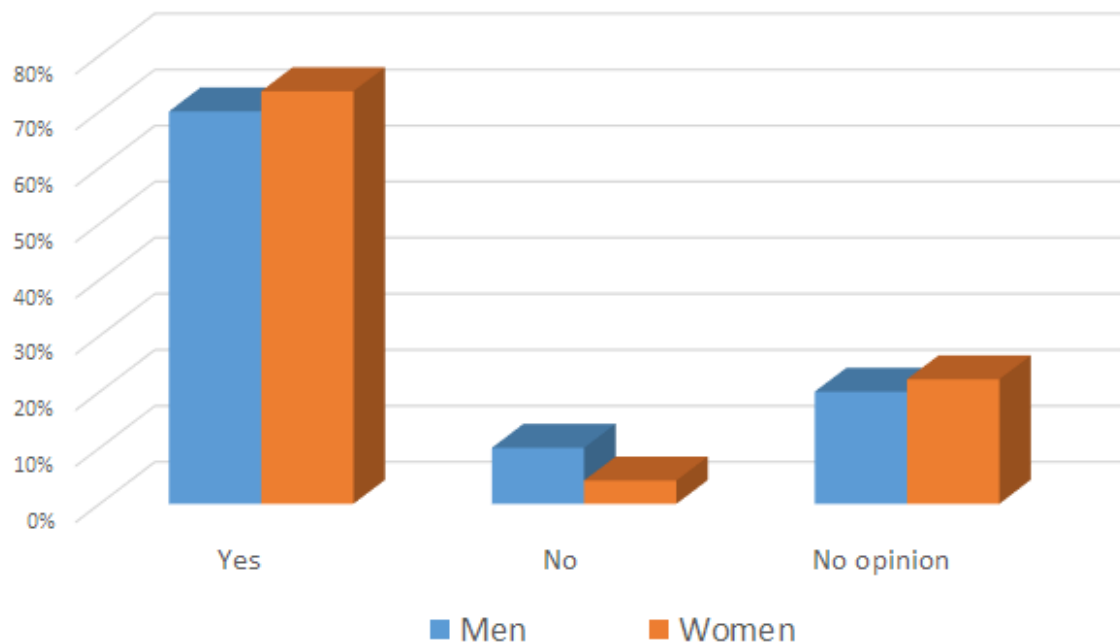


Figure 1 – Does marijuana have medical properties?

The next question which was asked to respondents was: what diseases they believe can be used medical marijuana. The respondents here can give more than one answer. By far the most common disorder that tied subjects using cannabis products is a drug-resistant epilepsy (69.7%). Often Indicated complaints were also "persistent pain" (48.5%), and "nausea and vomiting associated with cancer chemotherapy" (38.6%) (**Figure 2**).

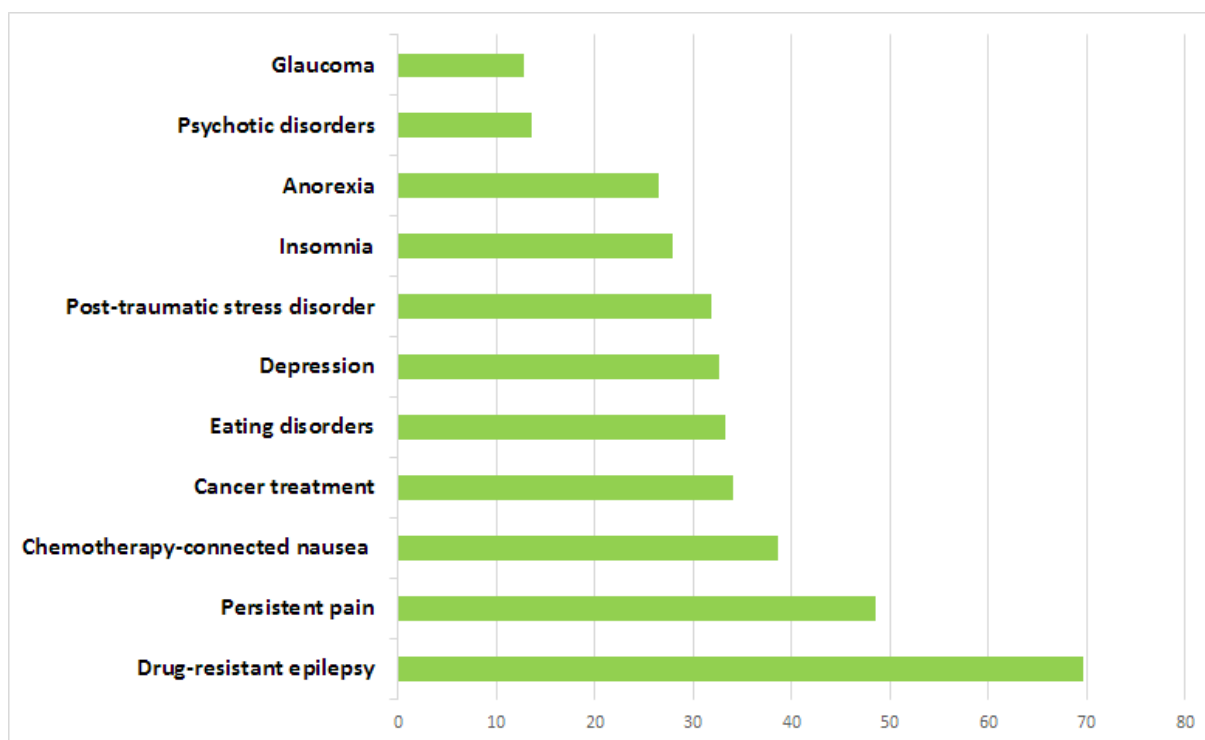


Figure 2 – Opinion about diseases that can be treated with medical cannabis

According to the vast majority of respondents (92.4%), marijuana should be legal and accessible for people with indications for its use. The respondents of different sexes answered a question similar, slightly higher percentage of positive answers recorded in the male group (M: 93.3%, K:91.7%) ($\chi^2 = 0.05$; $p = 0.82$). Students of the Medical University lean toward legal marijuana more often than students of the Catholic University of Lublin (Medical University of Lublin: 95.4%, Catholic University of Lublin: 88.9%) ($\chi^2 = 3.07$, $p = 0.55$).

The question whether the respondents themselves reacting therapy cannabis predominant proportion of respondents (90.2%) also answered in the affirmative (M: 93.3%, K: 87.5%) ($\chi^2 = 0.27$; $p = 0.60$). Again, this question can be seen a bit more favorable attitude toward marijuana among men (**Figure 3**). Students of the Medical University answer the above question in the affirmative, a little more often than students of the Catholic University of Lublin (Medical University of Lublin: 90.7%, Catholic University of Lublin: 87.3%) ($\chi^2 = 3.77$, $p = 0.44$).

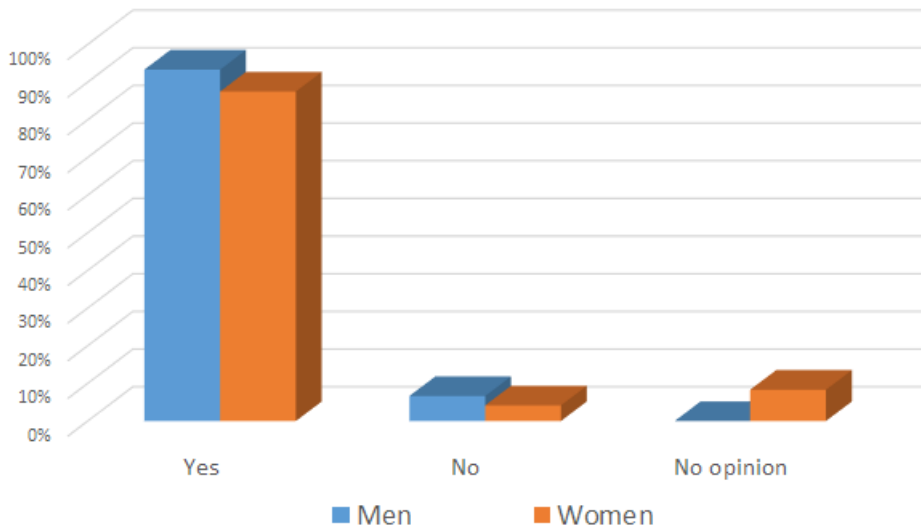


Figure 3 – „Would you undergo a marijuana therapy if it was necessary?”

Significant differences are emerged in the responses to the question about what the source of marijuana should be available to patients. Most often pointed to the option of obtaining marijuana for medicinal purposes was the sale in pharmacies as a prescription drug (59.1%). A larger proportion of men (28.3%) than women (11.1%) was of the opinion that marijuana should be getting out of their own culture ($\chi^2 = 6.32$; $p=0.01$). For their own breeding in favor of marijuana 18.9% of respondents. Slightly fewer respondents (15.9%) felt that this treatment should be reserved for inpatient. Opinion of respondents varies depending on their home university: up 74.4% of the students of the Medical University in Lublin in favor of the sale of marijuana in a pharmacy as a prescription drug, and among the students of the Catholic University of Lublin was only 44.4% ($\chi^2 = 9.35$; $p = 0.002$) (**Figure 4**).

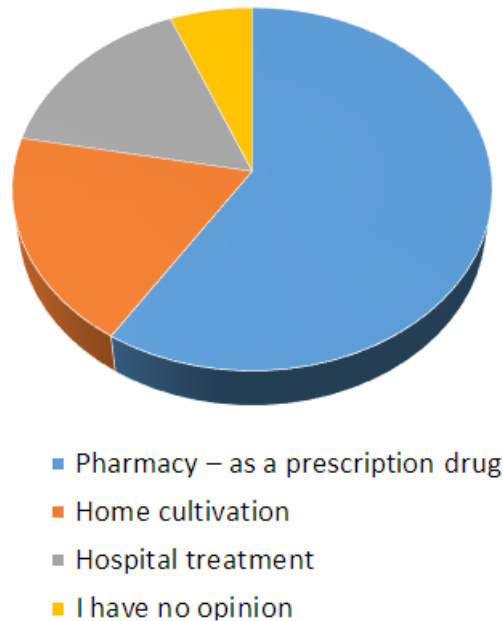


Figure 4 – Opinion about possible sources of medical marijuana

Discussion

Given the anonymous nature of the Internet and the survey can be expected that respondents will be sincere [15]. The most important conclusion from our work is that students, regardless of which university study, perceive marijuana as a potential therapeutic substance. Most subjects had heard about the potential of cannabinoids in the treatment of intractable epilepsy or relieving the side effects of cancer chemotherapy. Probably such a high percentage of respondents are indicating the above answers that the popularity of this topic in the media. Few, in turn, knows about the research on the potential of marijuana to treat glaucoma. Only 12.9% indicated this answer.

Among the analyzed according to a statistically significant effect on the response of the respondents had sex respondent - interestingly, despite the fact that a higher percentage of women than men see marijuana as a therapeutic substance (M: 70%, F: 73.6%), men are more accommodating introduction of legal, medical marijuana for treatment where appropriate (M: 93.3% F: 91.7%). The fact that the percentage of respondents support the legalization of medical marijuana is greater than the percentage of respondents who consider cannabis as a therapeutic compound may

seem illogical, but this discrepancy is easily explained. On the question of the therapeutic potential of marijuana up to 21.2% of the respondents replied: "I have no opinion."

Most respondents do not see a problem in the use of marijuana as a drug and if necessary, they are willing to undergo such treatment. An interesting observation is the fact that, in turn, from what source, according to the respondents, the patient in need of medical marijuana should receive it. The majority of respondents (59.1%) believe that marijuana should be available in pharmacies as a prescription drug. Probably this form of distribution can provide the greatest control over the quality of the substance and to enable the most effective reduction of the availability of cannabinoids to a group of people who have medical indications for their use. According to our probe, there is also a large group of respondents (18.9%) in favor of a culture of marijuana in his home. This form of distribution of cannabis actually prevents the strict distinction between the use of medical marijuana and recreational use by people without medical indications for the taking, for example people in the family or among friends. One can speculate that these are persons who are advocates of total abolition of controls over the production and distribution of marijuana in Poland.

Conclusions

Polish students seem to be ready for introduction into medical marijuana. They are aware of the therapeutic potential of this substance and usually do not feel the resistance against treating cannabis like any other medicine. The vast majority of respondents would like to see marijuana was sold in a controlled manner, not necessarily involving a general legalization of cannabis cultivation for personal use. The task of researchers should now be accurate study of the effectiveness of cannabinoids in the treatment of specific disease entities - as is clear from our research, potential patients will not have resistance to the well-justified cases undergo such treatment.

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Conflict of interest statement

The authors declare no conflict of interest.

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