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Review Article

Legal Cannabis, and Then…

Kannabis Yasal, Ya Sonra…

Hadiye Bostancı Demirci, Sevda Acar, Serap Annette Akgür*

Abstract: Recently, it is seen that the regulations regarding the use of psychoactive substances such as cannabis are considered just as a public security problem in specific periods and it is expected to be controlled by legal precautions. However, with the realization that the problem of substance use and addiction is not a mere public security problem, treatment and prevention activities have started to be given importance. In recent years, it has been observed that people who both regulate medical treatment, and work on the legal framework and related to the psychosocial dimension of the incident, have been working sensitively on legal regulations and new developments. From now on the substance use is evaluated within "public health and society safety", and along with this, especially cannabis regulations are being changed rapidly and the issue is still being discussed in many countries. It is thought that it will be difficult to predict the long-term consequences of these practices as the basis of both individual and societal in terms of public health and public safety. This article is written in order to summarize the individual and social consequences that may arise if the use of recreational cannabis is allowed by compiling the studies regarding the subject.

Keywords: cannabis, recreational use, medical use

Öz: Yakın tarihe baktığımızda kannabis gibi psikoaktif etkili maddelerin kullanımı ile ilgili düzenlemelerin belirli dönemlerde sadece bir asayiş sorunu olarak değerlendirilerek, yasal tedbirlerle kontrol edilmek istendiği görülmüştür. Ancak, madde kullanımı ve bağımlılığı sorununun, zamanla sadece bir asayiş sorunu olmadığının farkına varılmasıyla, tedavi ve önleme faaliyetlerine de önem verilmeye başlanmıştır. Son yıllarda ise, tıbbi tedaviyi düzenleyen, yasal çerçeve konusunda çalışan ve olayın psikososyal boyutu ile ilgili kişilerin yasal düzenlemeler ve yeni gelişmeler konusunda hassasiyet ile birlikte çalıştığı görülmektedir. Madde kullanımının artık "halk sağlığı ve toplum güvenliği sorunu" olarak beraber değerlendirilmesi ile birlikte, son dönemlerde özellikle kannabise ilişkin düzenlemeler hızla değiştirilmekte, konu birçok ülkede hala tartışılmaktadır. Bu uygulamaların birey ve toplum bazında halk sağlığı ve toplum güvenliği açısından uzun vadede ortaya çıkacak sonuçlarının öngörülmesinin zor olacağı düşünülmektedir. Bu makale, konuya ilişkin yapılan çalışmaların derlenerek özellikle eğlence amaçlı (rekreasyonel) kannabis kullanımına izin verilmesi durumunda doğabilecek bireysel ve toplumsal sonuçları özetlemek amacıyla yazılmıştır.

Anahtar Kelimeler; kannabis, rekreasyonel kullanım, tıbbi kullanım

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Hadiye Bostancı Demirci: BSc(Psych)., Ege University, Institute on Drug Abuse, Toxicology and Pharmaceutical Science, Department of Drug Abuse, İzmir
Email: hadiyebostanci@gmail.com
ORCIDiD:https://orcid.org/0000-0001-9524-4689

Sevda Acar: BSc(Psych)., Ege University, Institute on Drug Abuse, Toxicology and Pharmaceutical Science, Department of Drug Abuse, İzmir
Email: psk.sevda_acar@hotmail.com
ORCIDiD:https://orcid.org/0000-0002-5875-0379

Serap Annette Akgür: Prof. Dr., Ege University, Institute on Drug Abuse, Toxicology and Pharmaceutical Science, Department of Addiction Toxicology, İzmir
Email: serap.akgur@gmail.com
ORCID iD: http://orcid.org/0000-0001-9638-2311

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* Corresponding Author

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1. Introduction

Cannabis, known as one of the oldest psychoactive substances; is among the plants used in different fields such as medical, industrial and food (1,2). Cannabis plant is identified with different names according to type and purpose of use. These names may be listed as; Cannabis, Indian hemp, hemp, and marijuana. For example; while as it comes to fiber production hemp was used for expression, the same plant is defined as hemp seeds as a source of seed oil. The plant Cannabis appears itself with the names of Cannabis and Marijuana in its illegal use (3). The increase in the use of cannabis, which has been using for medical, industrial, cultural and ceremonial purposes during the historical period for recreational reasons over time, and along with this increase, the emergence of various results such as (safety, health, perceived risk, etc.) influence the decisions taken on the production and use of cannabis. It should not be ignored that the use of cannabis is threatening the public health and safety by the way of causing situations such as creating addiction, facilitating access to other stimulants and drugs and their access, generating income through illegal trafficking, triggering criminal behaviors of those seeking access to these illegal substances (4).

Cannabis, which has been used for various purposes for thousands of years, was considered illegal in the United States in 1923 as its potential for abuse increased. It was described as "narcotic" in 1924 and it was decided to take under strict control (5,6). The use of Cannabis was banned in England in 1928 and it was declared as illegal substance in 1941. Within the scope of the Turkish Penal Code, which was entered into force in 1926 in Turkey (TCK), Cannabis has taken place among the controlled substances. With the "1961 Single Convention on Narcotic Drugs", cannabis has become a substance cultivation, sale and possession of which were prohibited in our country as well (7).

As can be said that the Opium Act of the Netherlands, which took effect in the 1970s, has become effective especially in Europe and all over the world. Opium Act; is a law that defines the sale of substances, classification, cultivation, production, transportation and criminal acts and regulations related to them, and it includes regulations concerning the discriminalisation of the sale and use of cannabis within the framework of certain laws and special conditions (eg coffee shop). In recent years with the emergence of discussions over the legalization of cannabis use, new decisions have been taken by some countries to bend the current ban policy on both medical and recreational use.

Although cannabis has been among the banned substances since 1923 (USA), the opposite policies have been developing in the last 20 years in the United States (8,9). As of May 2018, 29 states in the USA have made medical use of cannabis and 8 states made recreational use of cannabis legal (10). Some states in the USA have made critical decisions and started to implement them on the use of cannabis for entertainment purposes since 2014. In addition to these states, similar steps have been taken to legalize in countries such as Canada, Uruguay, Spain and Portugal since 2018.

It is observed that the new policies are mostly related to medical and recreational use. At this point, it is important to have information about different usage definitions related to cannabis use. Recreational use; is the use that includes purposes such as enjoying, relaxing, changing perception and emotions, having fun in night life (11). As far as the medical use concerned; it includes the use depending on various legal regulations for therapeutic purposes in medical conditions such as neuropathic pain, Multiple Sclerosis, cancer, epilepsy (12).

In the recent period, movements to legalize the use of cannabis for recreational use especially in the European countries and in the American continent (food and other forms) and their attitudes on this issue are carefully monitored by other countries. Within the scope of this new approach, while some of the society benefits from the use of cannabis for recreational use, another part is concerned about the potential increases within the adolescent population, other negative consequences and addiction (13,14). Although the perception of cannabis as a harmless natural product is increasingly becoming more and more visible, the existence of concerns such as the legal spread of cannabis use and the effects of cannabis-related negative consequences on social structuring should not be ignored (15–18).

2. The Perception of the Society Regarding Cannabis-related Regulations

2.1. Demographical Factors

Various studies have been conducted on the characteristics of individuals who support / do not support the legalization of cannabis use. According to researches conducted on adults, in male gender, being a minority, race / ethnic status, having children, using cannabis have been associated with supporting the legal authorization of recreational use. However, it has been reported that people who think that cannabis use is risky for people with a higher average age, and female participants give lower

support for the legal use of cannabis for recreational purposes (9,19–25). Considering the variety of factors mentioned above in the process of making such decisions that may affect the society, it is observed that the variables capable of affecting the referendum and similar initiatives should be handled very carefully.

2.2. Perception of Risk

Risk is part of modern life. Modern life constitutes a social class that can make personal decisions in terms of thinking on and evaluating risk (26). Legalization of cannabis can affect social norms and risk perceptions arising from cannabis use, whether for medical or recreational use (8,9). Studies show the importance of perceived risk in supporting the legalization of cannabis, and provide evidence that those who support legalization or those who are hesitant perceive the risk of using cannabis lower than those who oppose it (24). In this context, with the legalization of the cannabis, if there will be a possible increase in use among young people; approaches are encountered to this increase may be related to the decrease in perceived risk and the increase in opinions about the social acceptability of use (27,28).

Epidemiological data in the USA supporting this prediction reveal that there is a negative relationship between the prevalence of cannabis use and the risk of perceived harm about its use (29). Doomfully, the perceived risk of using cannabis has been significantly reduced in the past two decades (30,31). In a study on young people, a significant decrease in the risk perception of cannabis use among young individuals was reported. Another part of the participants in the same research reports that cannabis use is risky. But this rate decreased from 54% in 2013 to 48% in 2015 (32).

According to these information, it seems possible to have a mutual relationship between the change in the perception of risk related to cannabis and its legality. It is considered that with the widespread use of cannabis, will bring the possibility of causing harm in health and psychosocial terms (17,33,34).

3. Biopsychosocial Results Related to Cannabis Use

There is a limited amount of research examining the changes that can be brought about by the use of cannabis for the recreational use, since it is a relatively recent development. However, since the states that constitute the USA adopt different cannabis policies and changing developments in cannabis use elicit problems in reaching healthy monitoring data, a complex picture regarding the results of cannabis use appears (35).

3.1. Use of Cannabis and Addiction

It has been thought that cannabis use is not addictive for many years. However, cannabis use was included in substance use disorders as cannabis use disorder with the regulation made in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) in 2013 (4,36). The withdrawal symptoms we encounter after regular cannabis use is stopped is only one of the effects of cannabis (37–39). The problems experienced by the person during the withdrawal period are listed as physical symptoms such as irritability, agitation / anxiety, sleep disorders, decreased appetite or weight loss, depressive symptoms, abdominal pain, chills, sweating, fever, cold or headaches (4). In general, cannabis use has been associated with a variety of short-term and long-term undesirable consequences such as addiction, short-term memory, motor coordination, judgment, brain development loss, impairment in brain development, acute paranoia, psychosis, and chronic psychotic disorder (16,17,40). These findings provide data, contrary to the opinion suggesting that cannabis use is not addictive.

3.2. Cannabis use and Periods of Development

Individual cannabis use is considered to be more harmful in some developmental periods. It has been reported that cannabis use harms the fetus during pregnancy and elicits prolonged neuropsychological decline and intellectual dysfunction when used regularly by adolescents (41,42). The data showing that the magnitude of the neuropsychological deterioration and the degree of continuance after withdrawal; may depend on the frequency and duration of cannabis use, the length of withdrawal and age of onset (43). Similar studies have shown a correlation between early onset of cannabis use and increased neuropsychological deterioration (44,45). In a longitudinal study supporting this finding, it was reported that participants who started using cannabis before puberty showed neuropsychological decline between the ages of 13-38 (42). Especially for the adolescent population, the function of the cannabis as switching to other stimulants and drugs and as facilitating access is another point to be considered.

3.3. Cannabis Use and Traffic Safety

It has been reported that cannabis use leads to psychomotor disorders that can cause accidents and deaths in traffic; it is also reported that it has been detected as an important factor in accidents caused by situations such as not wearing seat belts and violations of traffic laws (46,47). In European countries, cannabis comes first

among accidents that result in serious injury or death. Indeed, Masten and Guenzburger (2014) report that in some states (California, Hawaii, and Washington) where the medical use of cannabis has been legalized, the percentage of has increased in cannabinoid screening tests (48). The drivers were increased in the accidents resulted in death. There are many studies showing that the rate of drivers who drive vehicles and get involved in the accident is quite high, and that cannabis use influence driving ability (49). Whereas conducting a statistical risk assessment is not as easy as in alcohol. The first challenge for those working in this field is to put together a control group composed of those use substances but did not involve in an accident and the second is that the effects of cannabis on behaviors and its findings in the blood can not certainly be revealed (50,51).

When all relevant studies are examined, similarities are detected between cannabis and alcohol use when it comes to using a vehicle or machine; such as prolonged reaction time and impaired psychomotor coordination (43,52,53).

3.4. Cannabis Use and Unintentional Pediatric Exposure

One of the negative consequences resulting from the legalization of cannabis is stated as unintentional pediatric exposure to cannabis products. Unintentional pediatric exposure is caused by inhalation of smoke without smoking cannabis as well as by direct contact to contaminated objects (54). In parallel with the increase in the legal use, availability and sales, unintentional pediatric exposure increases as a result of passive smoking and cannabis mixed –added foodstuffs. In the last 10 years, the increase in cannabis cultivation in indoor places has also increased the knowledge and materials related to cultivation in various sales places and on the internet (55,56).

Cases from 2009 to 2017 were examined in a study conducted to investigate unintentional pediatric exposure in the State of Colorado, which was the first state accepted the use of cannabis in the United States as legal. As a result of the research, it has been reported that there has been an increase in the number of applications made to pediatric hospitals and the District Poison Center following the legalization of medical use and sale of cannabis in Colorado. Despite the public health interventions made in the legislation after 2014, it was observed that the frequency of applications related to unintentional pediatric exposure to the child hospitals and the District Poison Center doubled in 2017 in Colorado. Despite the versatile measures taken, unintentional pediatric exposure continues to increase 4 years after the legalisation of the use for recreational use in Colorado. It is thought that it is important to continue monitoring about the unintentional pediatric exposure in the child population and to examine the evaluations on public health, especially in this period when more governments and the state started to legalize the cannabis (10).

3.5. Cannabis Use and Normalization

Parker et al. (2002) list the factors that underpin the normalization of cannabis use; as the increase in access to illicit substances, the prevalence of cannabis use and the tendency to tolerate cannabis use, cultural acceptance of the media productions produced, and the establishment of liberal policies that paved the way for cannabis use (57). In addition to these factors, it is thought that the use of cannabis will gain a new momentum through the legalization process, the widespread of edible products, allowing the cultivation of plants at home for medical and entertainment purposes, smoking in designated places such as (social clubs, coffee shops and homes) and related marketing strategies. The fact that everything can be marketed in the globalizing world adds a different dimension to perception studies related to the marketed product. The marketing process of cannabis related products has an important role in determining the social norms regarding the use of cannabis. It is obvious that polishing of cannabis containing cosmetics (hand creams containing cannabis, body oils, etc.), food (gum containing cannabis, cakes, sugar, teas, coffees, etc.) and cannabinoid drops and similar products sold outside the pharmacy will change the social consumption behavior. In this context, to examine the concept of perception management is of paramount importance.

Perception management can be explained as spreading or ignoring various information in order to affect people's feelings, motivations and judgments (58). In the relationship of the individual with the environment, a thinking process begins regarding the events he perceives, as a result of which meaning emerges in his mind. The fact that this process takes place in a continuity forms the basis of the individual's perception system in the society (59). There are some factors that are important for perception management and affect it. These factors can be classified as; the characteristics of perceiving person and of the perceived object and of the perception environment (60). In this context, effective marketing strategies; can be defined as exposure to commercial advertisements and promotions, demonstration of use in the media (modeling), advertising and packaging for sale (61–63). Effective marketing strategies, attitude, belief, expectation and usage towards starting and maintaining

use; it is thought that it provides in particular adolescents to normalize cannabis (64–66). Adolescents are particularly sensitive and attractive targets for such strategies. In the literature, it is reported that the age of early use is a risk factor that increases the use of tobacco, alcohol, and cannabis and causes use disorders (40,67–73).

4. Conclusion and Recommendations

It can be claimed that it will take time to evaluate the biopsychosocial and other unpredictable results that will arise as a result of the legalization of the use of cannabis for recreational use.

There is evidence that the legalization of cannabis has brought the age of starting cannabis to higher limits, but this evidence alone is not considered sufficient. When Cannabis is legalized for recreational use; it is evident that the use will not be limited to adults only. As a matter of fact, although alcohol and tobacco use is restricted to certain legal frameworks in many countries around the world, it is reported that the use has become widespread and its use has started before the limits of legal age (74). In studies related to problematic behaviors, it is reported that adolescence is the highest period of substance use. Problematic behaviors, including cannabis use, are mostly exhibited for purposes such as gaining the trust of the adolescent's peer groups and being accepted by peer groups, declaring their freedom by getting away from the family, coping with stress and getting rid of pressure (75). These factors cause more contact with the substance during adolescence. This contact appears to cause addiction in early and mid term-adolescence, deterioration in brain development and many other negative consequences (17,76). As adolescents' cannabis use has negative results in terms of biological, social and psychological aspects, it can be said that academic research and field studies related to these risk factors are required.

In this context, in the researches to be conducted on the effects of cannabis use, especially adolescents in the society; the examination of the regular cannabis use rates in deaths and injuries in traffic accidents, emergency applications, applications to addiction treatment services, of individuals who benefit from mental health services and justice system (probation) can be recommended.

Within the context of practical applications, it is stated to be important in minimizing losses in the process of designing and implementing public policies that protect public health and public safety, educating the public about the negative consequences of cannabis origin (15). It is not clear in which direction will the social order and the safety of society be affected by the legalization of the use of cannabis. In this context, it is important that individual, social and institutional training are carried out by experts about the harm that may result from the use of cannabis, especially in cooperation with all public institutions that have more contact with children, adolescents, and young adults.

Finally, in case that cannabis use becomes legal; it is suggested that a new control system can be created in terms of crime, crime rates can be reduced, and it will contribute to the economic process of the states by the way taxation. In addition, there are defenses in this legalization process that the workload of the institutions such as law enforcement and probation will decrease. Rather than these defenses, the critical point is thought to be biopsychosocial damages that cannabis use will create on the basis of society and individuals.

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