
SOME ASPECTS OF THE PSYCHOACTIVE SUBSTANCES ABUSE IN ADOLESCENTS

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ABSTRACT

Cannabis is a plant whose consumption causes hallucinations soon after it has been inhaled. This study was conducted with 600 adolescents of age 12 to 17 with even gender distribution from two residence locations (rural and urban). Epidemiological-analytic study was prospectively conducted, whose results were analysed with standard statistical methods. The results showed that the use of cannabis is greater by the adolescents in high school (15-17 years old), than the adolescents in the elementary school (12-14 years old). The χ^2 test showed great significance. Among the tested adolescents the consumption of cannabis is more present in urban than in rural type of residency. However, gender structure did not show significant differences. It is obvious that the prevention of the use of psychoactive substances should be at its maximum.

Key words: Cannabis, adolescents, pleasure.

INTRODUCTION

It is well known that drug abuse is common during the early adolescent period of life. It carries the risk of harmful consequences on the future personality development and quality of life (1). Two decades ago, cannabis abuse has become very popular among young people. Hashish and marijuana are the most popular representatives of the species *Cannabis sativa L.* that grows anywhere in the world. Adolescents frequently combine the use of cannabis with different drugs (2).

Cannabis has been used for a long time and is being used at present times as a custom (similarly to use of coffee, tea and tobacco) in many tribal societies situated in North Africa, Middle East, and territories that belong to the states of Pakistan, India, Nepal and Afghanistan. In addition to its certain ritual values, cannabis is also assumed to have medical value by being capable of curing some diseases (3).

The main active chemical in the both cannabis forms is THC (delta-9-tetrahydrocannabinol).

AIM

The aims of our research were: to compare cannabis abuse among adolescents living in urban and rural areas, to present demographic characteristics of different ado-

lescent groups and to reveal the correlation between cannabis and alcohol abuse and cannabis and tobacco abuse in young people.

METHODOLOGY

The type of research was prospective and epidemiological. Our research enclosed 600 adolescents with equal gender and age distribution. The average age of participants was ranging from 12 to 17 years with equal prevalence regarding gender and residence location. (rural-urban). The collection of necessary information was performed by "Q2000" questionnaire as a comprehensive researching tool for all aspects of adolescent life.

RESULTS

Researching results were calculated by standard statistical methods and were presented by EPI-INFO software programme (in the form of tables and charts) (4).

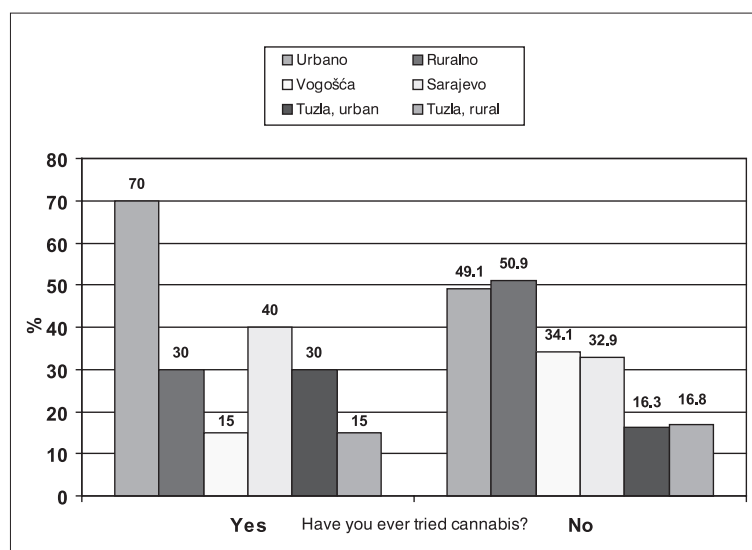
Overview of the cannabis abuse obtained results

Distribution of cannabis abusing adolescents according to settlement type and living area

From the total number of examinees 20 of them (3.34) regularly abuse cannabis. Drug abuse prevalence according to settlement type (Graph 1) is 70% in urban settlements while in rural settlements is 30.0%. In urban parts of Sarajevo Canton, the occurrence of drug abuse is 40.0% while in rural parts is 15.0%. In urban parts of Tuzla Canton the occurrence of drug abuse is 30.0% while in rural parts is 15.0%. The value of χ^2 test (relating to settlement type and difference between Sarajevo and Tuzla Cantons) confirms that obtained results are very close to the limits of the statistical significance

About 85.0 % of High School examinees abuse cannabis in comparison to 15.0% of cannabis abusers from Elementary Schools. The value of χ^2 test relating to cannabis abuse confirms a significant difference between Elementary School and High School examinees.

Table 2 is showing approximately equal gender distribution regarding cannabis consumption: 55.0% of boys and

Graph 1 Drug abuse according to settlement type**Table 1** Cannabis abuse according to school class

School Class		Have ever tried grass smoking?			
		Yes		No	
		N	%	N	%
(X ² =10.236 p=0.00001)	1 High School	17	85.0	281	48.6
	7 Elementary Schools	3	15.0	297	51.4

45.0% of girls said that they had previously tried cannabis smoking.

Young people who have tried cannabis are very often tobacco smokers (75.9%) while only 4.3% of tobacco non-smokers have tried to smoke cannabis. The value of χ^2 test proves a highly statistically significant difference between these two groups of adolescents. Parents allow cigarette smoking in 29.4% of young people who have tried cannabis smoking and in 2.6% of them who have not tried cannabis smoking. The value of χ^2 test also confirms a highly statistically significant difference between both groups of examinees.

Table 4 is presenting that 80.0% of adolescents who have tried cannabis smoking simultaneously consume alcohol while only 13.6% of young alcohol consumers have not tried cannabis smoking. Parents allow alcohol drinking in 38.9% of young people who have smoked "grass" and in 10.1% of adolescents who are not drug abusers. Table 4 also presents that young people who have tried cannabis smoking drink alcohol together with friends and family more often in comparison to young people who do not abuse drugs. The value of χ^2 test confirms a statistically

significant difference relating to all mentioned aspects in both groups of young persons.

Table 5 illustrates a high positive correlation between abuse of different types of substances. The comparison between tobacco and alcohol abuse, tobacco and drug abuse, and alcohol and drug abuse confirms results with a very high positive correlation. All obtained results might point out a genetic tendency for poly-drug abuse. Table 5 demonstrates that the most significant correlation has been detected between tobacco and drug abusers. In addition, the correlation between alcohol and drug abuse is significant.

We have previously mentioned that poly-drug abuse occurred among addicts very frequently. Our study results are very comparable to the this researching and scientific field results. Throughout analyses, we discovered that young people who abused cannabis very often simultaneously abused alcohol or psychotropic medications and vice versa, indicating the presence of all variations of mixed abuse of these substances.

Table 2 Cannabis abuse according to gender

		Have you ever tried cannabis smoking?			
		Yes		No	
		N	%	N	%
Gender ($X^2=0.477$ $p=0.5037$)	Boy	11	55.0	274	47.4
	Girl	9	45.0	304	52.6

Table 3 Simultaneous drug and tobacco-smoking abuse

		Have you ever tried cannabis smoking?			
		Yes		No	
		N	%	N	%
Are you smoking tobacco? ($X^2=154.701$ $p=0.00001$)	Yes	15	75.0	25	4.3
	No	5	25.0	553	95.7
If you smoke, do you parents allow you to do that? ($X^2=28.590$ $p=0.00001$)	Yes	5	29.4	7	2.6
	No	12	70.6	262	97.4
If you smoke, how many cigarettes do you smoke each time?	M	10		8	
If you smoke, how old were you when you smoked your first cigarette?	M	12		13	

Gilligan and the group of authors explored tobacco smoking and high-risk behaviour with intention to explain the relation between cigar smoking, cigarette smoking and alcohol drinking in adolescents aged from ten to fifteen years. Adolescents who smoked used more frequently other tobacco products and alcohol beverages (5).

Our research results have proved that cannabis is most commonly abused by among adolescents.

DISCUSSION

After the manage research and obtained decided results, it is obvious that there are no significant deviations in comparison with the world scientific indices. We have found cannabis consumption in 3.34% of young people. It is evident that psychoactive substance abuse is more frequent in urban than in rural settlement types. The value of x^2 test regarding cannabis abuse indicates that the obtained results are in close proximity to the limit of statistical significance taking in consideration settlement type and differences between Tuzla and Sarajevo Cantons.

Some American researchers have showed that the rate of illegal drug consumption is greater in large cities (7.1%) than in little towns (7%) or rural zones (5.2%) (6,7,8). Very similar results have been revealed by Dutch researches. They have concluded that the newer drugs are mostly abused by Dutch avant-garde children, people of middle class and finally by lower class people (9).

According to our results, cannabis abuse is more frequent in High School adolescents (15-17 years of age) than in Primary School pupils (12-14 years of age). The value of x^2 test is indicating a very high significance on comparison between these two groups of examinees. Similar results have been found in the world literature describing the age distribution of psychoactive substance abuse. A group of authors have been investigated cannabis abuse in adolescents aged from 10 to 15 years (9). One American research has revealed that 14.8 million Americans are users of illegal drugs (out of the total number, 6.7% are persons aged 12 years or older, and cannabis is the most frequently used drug (75%) (5).

We have previously mentioned that polydrug abuse very often occurs among addicts. Our results are very similar

Table 4 Simultaneous alcohol and drug consumption

		Have you ever tried cannabis smoking?			
		Yes		No	
		N	%	N	%
Do you drink alcohol? ($X^2=63.920$ $p=0.00001$)	Yes	16	80.0	77	13.6
	No	4	20.0	490	86.4
If you drink alcohol, do your parents allow that? ($X^2=14.330$ $p=0.00001$)	Yes	7	38.9	43	10.1
	No	11	61.1	383	89.9
If you drink alcohol beverages, how old were you when first tried alcohol?	Mean	12		12	
How often do you drink alcohol together with your friends?	Everyday or almost everyday	2	10.0	2	,5
How often do you drink alcohol together with your family? ($X^2=19.688$ $p=0.00001$)	Several times a week	3	15.0		
	Several times a year	2	10.0	30	7.2
	Several times a week	1	5.0	3	,7
How often do you drink alcohol alone? ($X^2=0.140$ $p=0.9866$)	Several times a month	1	5.0	5	1.2
	Once a month	1	5.0	5	1.2
	Several times a year	2	10.0	8	1.9
	Several times a week	3	15.0	1	,2
How often do you get drunk? ($X^2=2.708$ $p=0.2582$)	Several times a month	1	5.0	3	,7
	Several times a year	5	25.0	10	2.3

and correspond to the scientific data found in literature. Throughout analyses, we have discovered that young people using cannabis very often use alcohol beverages or psychotropic medications, and vice versa, which implicates the presence of all variations of mixed abuse of these substances.

Gilligan and the group of authors have explored tobacco smoking and high-risk behaviour, with intention to describe the correlation between cigar smoking, cigarette smoking, and alcohol drinking among adolescents aged from ten to fifteen years. Adolescents, who smoke, more frequently use other tobacco products and alcohol beverages (6).

Throughout our research, it has been confirmed that cannabis is most commonly abused by adolescents.

CONCLUSION

1. Our research has confirmed that psychoactive substance abuse is more commonly broadened in urban than in rural settlements. In urban settlements, cannabis consumption has been observed in 70.0% of young people ($x^2=29.212$ $p=0.0001$).
2. Cannabis is more frequently abused in high-school period in comparison to the overall age of examinees (85.0%).
3. Gender difference is not significant (alcohol $x^2=20.080$ $p=0.0001$; drug $x^2=0.477$ $p=0.5037$).
4. The relation between tobacco smoking and drug abuse, as well as between alcohol drinking and drug abuse confirms a significant positive correlation indicating genetic or phylogenetic liability towards simultaneous abuse of polyvalent harmful substances.

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