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ORIGINAL PAPER

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Drug Addiction as Risk for Suicide Attempts

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ABSTRACT

Introduction: Suicide is closely linked to the substances use. Therefore it is very important to confirm the factors that affect the possibility of suicidal behavior. **Methodology:** The survey included 200 respondents; 100 heroin addicts on the substitution program that attempted suicide and 100 opiate addicts who have not attempted suicide. The evaluation included a questionnaire with socio-demographic, hereditary and addiction data, legal problems and then the Minnesota Multiphasic Personality Inventory–MMPI-2. **Results:** The results showed a statistically significant difference compared to the personality structure, especially pronounced in hypersensitive structures, in relation to the duration of addictive experience and duration of heroin by intravenous route, as well as in relation to the presence of psychotic disorders, drug abuse and suicidal behavior in the family. **Conclusion:** As risk factors among opiate addicts are identified interfered biological and psychological factors and the effects of the substances themselves.

Keywords: Suicide attempt, addiction, opiates, risk.

1. INTRODUCTION

Suicide is a leading cause of premature death in young adults. Data from the World Health Organization indicate that the rate of completed suicide for the world's population is 16 per 100,000 inhabitants, which means that each year more than a million people in the world commit suicide. Suicide attempts are five to twenty times more common than the completed suicide (1,2). Based on the data from the research community, approximately 5% of adults attempt suicide at least once in their lifetime (3).

Mental health problems are the most common and best explored risk factor associated with suicidal ideas, suicide attempts and completed suicide. About 90% of all people who commit suicide met the diagnostic criteria for one or more psychiatric disorders (4). People who abuse alcohol and/or drugs or are dependent on them, attempting suicide nearly six times more often than people who do not abuse these substances. The rate of completed suicide among addicts is 2 to 3 times higher than among the males who are not addicts. Among women, the use of substances increases the risk of suicide for 6.5 to 9 times compared to women non addicts (5,6).

In most cases, drug addicts attempt suicide by overuse of drugs that is an overdose, or a combination of drugs and tablets, while in a few cases the manner in which the suicide is attempted is not directly related to drugs (7). Although there is a correlation between the disorder caused by the use of substances and suicidal behavior, a large number of addicts will never attempt

suicide. It is therefore important to identify those individuals with the disorder caused by the use of substances that may be at higher risk for suicide (8,9).

Many risk factors for suicide in the general population also apply to drug addicts. The older drug addicts are at higher risk for attempts and suicides than younger addicts (10,11). Previous suicide attempts there represent a strong risk factor for repeated suicidal attempts (12). Affective disorders in general, and particularly depressed mood is a risk factor for suicidal behavior in the general population and among addicts (3,6,10). Another very important fact when it comes to suicide attempts is the drug used. It is known that heroin and sedatives are substances with which suicide attempts are most often made, while other drugs are less characteristic (9). Suicidal addicts tend to have certain emotional problems and behavioral problems that strongly affect their activities, primarily as impulsive reactions and the inability to control behavior (13).

2. GOAL

The goal of this study was to determine the characteristics and risk factors of opiate addicts who have attempted suicide compared to addicts who have not attempted suicide.

3. MATERIAL AND METHODS

3.1. Respondents

This study included 200 opiate addicts who have been in

the recovery phase on a substitution treatment. Respondents agreed to participate in this study, with the permission of centers for treatment of drug addicts in Novi Sad, where the research was conducted. The survey was conducted from January to April 2015.

The experimental group consisted of 100 opiate drug users who have had a history of suicide attempts, and a control group of 100 opiate addicts who had no history of suicide attempts. Inclusion factor for both groups was the opiate addiction by ICD-10 criteria, while excluding factors were: organic and symptomatic mental disorders, schizophrenia, schizoid personality disorder and insane mental disorders, mood disorders and mental retardation.

The average age was 43.31 (standard deviation = 8.38 and range = 16-70 years). There were 169 men (79.5%) of whom 90 attempted suicide and 31 female (20.5%), including 10 who attempted suicide.

2.2. Methods

This study tested the factors that affect suicidal behavior of opiate addicts. Data were collected from anonymous participants on voluntary basis and no compensation was not offered in connection with the study. To ensure the anonymity of respondents, the data are entered as codes into Excel files.

2.3. Questionnaire

For this study was used questionnaire structured specifically for this research. The questionnaire contained the following areas: socio-demographic data, data on psychiatric heredity, data on addiction characteristics and on judicial issues. In addition, respondents filled out the Minnesota Multiphasic Personality Inventory MMPI-2, which objectively assessed personality structure (14).

For statistical analysis were used Student's t test and Pearson's chi-square test. Odds relations and confidence intervals of 95% (CI) were also calculated.

4. RESULTS

In relation to social factors—with whom they live: alone, with a partner or with a partner and children in relation to the life with the primary family or with other/friend, suicidal and non suicidal addicts do not show a statistically significant difference. The level of significance in relation to the employment status is only marginally significant. Education among the groups showed no statistically significant difference. Addicts who attempted suicide were statistically significant more often unmarried and divorced. A statistically significant difference between the examined groups in respect of whether they have children does not exist, as well in relation to the marital status of the parents.

Analysis of psychiatric heredity is performed with respect to the family members and psychiatric disorders. In respect of family members, there was no statistically significant difference, while in relation to psychiatric disorders there was. Among addicts who attempted suicide were more common psychotic disorders, drug addiction and suicide attempts in the family.

Analysis of heroin use onset, between groups showed no statistically significant difference. Unlike the previous variables,

Variable	Suicidal	Non suicidal	Chi square	DF	p	
Social factors	Independently	82	71	4.521	2	0.104
	Dependently	18	29			
Employment status	Employed	22	25	5.852	2	0.053
	Unemployed	66	72			
	Disabled	12	3			
Education level	Incomplete primary school	2	0	7.182	4	0.126
	Primary school	17	17			
	High school	60	73			
	College	8	4			
Marital status	Faculty	13	6	10.502	3	0.014
	Married	27	33			
	Single	54	58			
	Divorced	19	6			
Children	Widowed	0	3	0.022	1	0.88091
	Yes	34	33			
Marital status of parents	No	66	67	0.482	1	0.48742
	Married	81	77			
	Child out of wedlock	0	0			
	Divorced	19	23			

Table 1. Socio-demographic data

Variable	Suicidal	Non suicidal	Chi square	DF	p	
Psychiatric treatment	Father	27	26	4.027	4	0.40232
	Mother	5	5			
	Siblings	12	6			
	Close relatives	2	6			
	No heredity	54	57			
Psychiatric disorder	Alcoholism	21	30	19.601	8	0.011
	Drug addiction	10	2			
	Psychosis	9	6			
	Psychoneuroses	0	2			
	Depression	0	3			
	Suicide	5	0			
No disorder	54	57				

Table 2. Psychiatric heredity

Duration of addiction and duration of intravenous heroin use are at border levels of statistical significance in relation to the mean, and highly statistically different in relation to the analysis of variance. Addiction duration and the duration of intravenous use among persons who attempted suicide is longer.

In relation to judicial issues, also there is no statistical significant difference. In the group of addicts who have attempted suicide 15 respondents did not have problems with the law, 16 subjects have committed offenses, and 69 criminal offenses. In the group of addicts who have not attempted suicide 9 respondents did not have problem with the law, 14 subjects have committed offenses, and 77 criminal offenses. Chi square was 2.07; DF-2, and p = 0.354.

Using MMPI is performed detection of disorders in eight categories: psychopathy-1, hypersensitivity structure-2, symptoms of alleviating problems-3, passive-aggressive-structure -4, narcissistic structure -5, borderline personality disorders-6, passive-aggressive structure-7 and schizoid personality structure-8. Passive-aggressive and schizoid structure was not diagnosed in any case. Statistical analysis showed that the difference between groups is statistically significant: Chi-square- 13.892, df-5, p = 0.0163

	Mean suicide	Mean Non suic.	t-value	DF	p	Std. Dev. suicide	Std. Dev. nonsuicide	F ratio	p
Age of first use	19.940	19.640	0.340	19	0.733	5.901	6.532	1.225	0.313
Addiction duration	10.11	8.870	1.437	19	0.052	7.070	5.000	1.999	0.000
Duration of intravenous use	7.070	5.000	1.999	19	0.054	4.217	8.630	4.187	0.000

Table 3. Addiction features

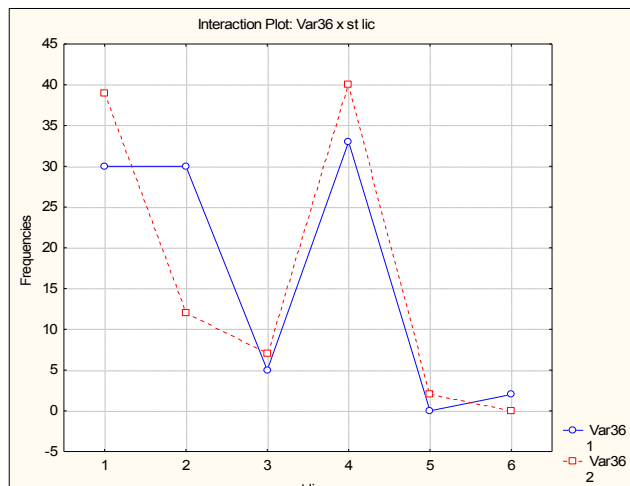


Figure 1. Personality structure

5. DISCUSSION

Suicide is closely linked to the substance use. Therefore it is very important to confirm the factors that influence the possibility of suicidal behavior. As presented in literature data, older men who use drugs are at greater risk for suicide attempts than younger addicts (15,16). In this study, we did not verify that, nor are the studies that claim the women about four times more likely to attempt suicide than men in addict population as reported by National Center for Disease Prevention and Control of injuries (17). From the tested socio-demographic data separates living in marriage or with partner. It can be assumed that the entry into the community with a partner is a sign of stability in social functioning and thus reduces suicide risk (18-20).

Psychiatric heredity is always associated with psychiatric disorders of children, as well as in the case of suicide. This research has, however, confirmed that the psychiatric heredity is significant predictor of suicidal attempts in the case when the family members present psychotic disorders, drug abuse and suicide attempts. Besides the classical genetic heritage, which is primarily related to psychotic disorder, behavior patterns also can be significant. Specifically, for suicidal behavior it cannot be said that the disorder but rather a pattern of behavior that is transmitted (21-23).

Addiction characteristics are significant in terms of duration of substance use and duration of intravenous use. This way of use is the most invasive and inherently carries the risk of suicide. The question is whether suicidal people are more prone to intravenous injection of entering into such a state of “protracted suicide” or that the existing manner of use carries higher risk also for completed suicidal attempts (24).

The tendency toward criminal behavior that is often associated with addicts with violent behavior is potentially a significant risk factor for suicide among drug users. Up to 75% of drug users are involved in violent behavior (e.g. physical assault, robbery, assault with weapons) (20,21). This research data did not confirmed that. In our research, the crimes as a form of

bullying had 69% of respondents who have attempted suicide and 77% of respondents who have not attempted suicide. Although the percentage distribution corresponds to these data from the literature, that factor did not show significance in suicidal behavior (25,26,27).

The structure of personality is assessed by the MMPI-2 questionnaire indicated the most marked distinction in the subjects who are hypersensitive.

Hypersensitive (Highly Sensitive Person- HSP) persons are very vulnerable people therefore are very empathetic but show major problems and impotence in fighting the symptoms of anxiety and depression. HSP external and internal stresses tolerate far more difficult experiencing distress because they are often carriers of psychosomatic and mental disorders. Heroin in such cases could represent a way of becoming more resistant to internal and external stimuli causing pain and discomfort. Insight into their state of dependency or still present problems that result from these structures can tend towards suicide.

6. CONCLUSION

In this study, as the main risk factors for suicide attempts among addicts were proven the following variables: heredity, primarily psychotic disorders, drug addiction and suicide attempts in the family, then the duration of substance use and intravenous heroin use and hypersensitive personality structure. When this is integrated, we conclude that these are interfered biological and psychological factors and the effects of the substances themselves.

CONFLICT OF INTEREST: NONE DECLARED.

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