



CODEN (USA): IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.582320>Available online at: <http://www.iajps.com>

Research Article

**THE COMPARISON OF SUICIDAL THOUGHTS, DEPRESSION,
ANXIETY, AND STRESS AMONG ADOLESCENT SUICIDE
ATTEMPTERS ABUSING DRUG AND ADOLESCENTS WITHOUT
DRUG ABUSE IN ZABOL, 2016****Mohammad Behnampoor¹, Mohamad Reza Havasian², Halime Aali³, Fatemeh Parooei⁴,
Morteza Salarzaei⁴, Zohreh Mahmoodi^{5*}**¹Student of Medicine, Students Research Committee, Zahedan University of Medical Sciences, Zahedan, Iran.²Department of Periodontics, School of Dentistry, Ilam University of Medical Sciences, Ilam, Iran.³Department of Internal Medicine, Amir al-Momenin Hospital, Zabol University of Medical sciences, Zabol, Iran.⁴Student of Medicine, Students Research Committee, Zabol University of Medical Sciences, Zabol, Iran.⁵Department of Cardiology, Faculty of Medicine, Zabol University of Medical Sciences, Zabol, Iran.**Abstract:**

Addiction and drug abuse are among the issues that have been greatly adverted by the clinical psychologists and psychiatrists. Suicide attempt, like other social phenomena, is not uni-causal; a variety of factors affects this phenomenon. Thus, having an exact awareness of suicide factors and studying the importance of the factors seem necessary. The present research aims at studying suicidal thoughts, depression, anxiety, and stress among adolescent suicide attempters abusing drug and adolescents without any drug abuse in Zabol in 2016. The present study is a comparative descriptive-analytical one. The statistical populations of the present study were all the 18-to-29-year-old suicide attempters, with a record of drug abuse referring to Imam Ali Hospital in Zabol in 2016. The data collection tool was depression questionnaire and Beck's suicidal thoughts questionnaire. T-independent and chi-square tests were used for data analysis applying SPSS version 18. The participants' mean age was 14.12±4.13 years. The drug abusers' mean score of depression, anxiety, stress, and suicidal thoughts were 10.12±4.16, 7.26±4.48, 9.02±4.15, and 18.42±6.12 respectively. As for the comparison group they were 4.32±2.18, 4.36±4.26, 5.16±4.46, and 6.32±4.18 respectively (p=0.001). The findings obtained from the T-test for the independent groups indicate the difference in means between the two groups with respect to the degree of depression (p=0.001) and suicidal thoughts (p=0.002). The findings obtained from the present study indicated that variables such as drug abuse, depression, anxiety, and suicidal thoughts are closely related with suicide attempt. Given the comorbidity of drug dependence and other psychiatric disorders, providing educational interventions, executing preventive social plans, and treating psychological disorders for preventing suicide attempts are of great importance.

Keywords: Suicidal, Depression, Anxiety, Stress, Adolescent.**Corresponding author:****Zohreh Mahmoodi,**

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Please cite this article in press as Zohre Mahmoodi et al, *The Comparison of Suicidal Thoughts, Depression, Anxiety, and Stress among Adolescent Suicide Attempters Abusing Drug and Adolescents without Drug Abuse In Zabol, 2016*, Indo Am. J. P. Sci, 2017; 4(05).

INTRODUCTION:

Suicide is one of the psychological-social problems whose rate is increasing nowadays as the interactions and communications get more complicated in most of the communities [1]. Over the last decade, the suicide mortality rate in both developed and developing countries have been recorded as the eleventh leading cause of deaths in different age groups especially among the adolescent suicide attempters [2]. As for the 15-to-24-year-old individuals, suicide has been recorded as the third leading cause of deaths [3]. Suicide rate has been reported as 6.2 in 100,000 people in Iran. According to the statistics announced, Iran is ranked fifty-eighth with regard to suicide [4]. Previous studies indicate that at least one-third of the whole population think about suicide in their lifetime [5]. The findings of the study by Soko et al (2008) conducted on 4712 adolescents indicated that the prevalence of suicidal thoughts, the suicide plan, and suicide attempt are 3 percent, 0.7 percent, 0.5 percent respectively in people's lifetime [6]. The findings indicate that psychiatric disorders and background variables such as family background, drug abuse, age, and gender account for most of the suicide attempts [7]. Moreover, suicidal thoughts are closely related with uncommon behaviors such as drug abuse, and suicidal thoughts are considered as a risk factor for attempting to commit suicide [8]. The epidemiological data indicate that almost half of the individuals diagnosed with addiction related disorders are suffering from psychological disorders as well [9]. There are numerous studies indicating that psychological factors play an important role in predicting drug abuse. Thus, depression, anxiety, and stress disorders can be accounted as the important psychological factors related with drug abuse [10]. Addiction and drug abuse are among the important issues studied by the clinical psychologists and psychiatrists. Addiction and drug abuse result in numerous negative effects and consequences for the communities, and they are closely related with other problems and negative phenomena including suicide [11]. Based on the evidence, one of the reasons behind the increasing suicide rate is drug abuse as well as psychedelic abuse [12]. In fact, drug abuse is considered as one of the risk factors related with suicide [13, 14, and 15]. Moreover, almost half of the suicides are committed by individuals suffering from drug abuse disorders [16, 17, and 18]. Among the psychiatric disorders, depression, anxiety, and stress account for %58 of the suicide attempts. Depression, anxiety, and stress are regarded as the most common psychiatric disorders with the annual prevalence rate of 10-20 percent in the general population [11]. Hübner-Liebermann et al (2010) conducted a study to reduce suicide rate through alliance against depression in Germany. After 5 years of medical interventions on depressed patients and conducting the research, the pre-intervention and post-

intervention suicide rates were evaluated. The findings indicated that suicide rate significantly reduced during the intervention; the reduced suicide rate resulted from the significant suicide reduced rate in men [19, 20]. The increasing prevalence of this problem in different areas of Iran is affected by the risk factors. Drug abuse has been introduced as one of the risk factors of suicidal behaviors for many years, and numerous studies have stressed the importance of addicts screening and identification at risk of suicide [13]. Suicide attempt, like other social phenomena, is not uni-causal; a variety of factors affect this phenomenon. Thus, it seems necessary to have an exact awareness of suicide factors as well as factors effective for planning preventive plans and taking care of individuals at risk. The present research aims at studying suicidal thoughts, depression, anxiety, and stress among adolescent suicide attempters abusing drug and adolescents without any drug abuse in Zabol.

METHODS:

The present study is a comparative descriptive-analytical one. The statistical populations of the present study were all the 18 to 29 years old suicide attempters, with a record of drug abuse referring to Imam Ali Hospital in Zabol in 2016. The controls were selected by age and gender matching from the community. The research sample is accessible; it includes 60 individuals without any drug abuse experience and record as the control group, and 60 individuals with drug abuse record as the case group. The control group was selected using cluster selection method, and the case group was selected through access selection method. The study data of the case group was collected through communicating with Amir al Momenin Hospital in Zabol and referring to the individuals intended who referred to this hospital. The participants' satisfaction was acquired first. They were then asked to fill out two questionnaires as self-report; Beck's depression questionnaire, and Beck's suicidal ideation questionnaire. Beck's suicidal ideation questionnaire: Beck's suicidal scale has been prepared for divulging and measuring the attitudes intensity and planning for the suicide attempt. This scale includes 19 questions each of which is scored from 0 to 2. Thus, the total score ranges between 0 to 38. The inter-correlation of the present study is %89 and the inter-tester reliability turned out to be %83. The concurrent validity of Beck's suicidal ideation scale and the general health questionnaire was %76, and its validity turned out to be %95 using Cronbach's alpha. Beck's depression questionnaire: Beck's depression questionnaire includes 21 items, each of which includes 4 phrases that have been formulated based on the symptoms of depression and their intensity; the scores given range from 0 to 3. The questionnaire's items include different issues including sadness, pessimism, feeling of failure,

feeling of guilt, change in sleeping patterns, loss of appetite, and self-dislike. Two items deal with emotions, eleven items deal with cognition, two items deal with apparent behaviors, five items deal with physical symptoms as well as interpersonal symptoms. For data analysis, T-independent and chi-square tests were applied through using SPSS version 18 [21].

RESULTS:

The participants' total average age was 14.12 ± 4.13 . The drug abusers' average age 24.22 ± 4.08 ; as for the comparison group it was 25.32 ± 3.18 . Among the drug abusers 22 were identified with a record of Methamphetamine use, 10 with crack cocaine use, 3 with ecstasy use, 5 with alcohol use, and 20 with opium use. Among the participants, 16 were married, 30 were single, and 14 participants had separated their spouses (table 1). With respect to the educational degree, the highest frequency belonged to individuals with high school diploma degree, and

the lowest frequency was for the illiterate individuals (table 2). The addiction prevalence was higher among the drug abusers who had separated their spouses than that of the comparison group; chi-square test indicates that this difference is significant ($p=0.003$). The drug abusers' mean scores of depression, anxiety, and stress were 10.12 ± 4.16 , 7.26 ± 4.48 , and 9.02 ± 4.15 respectively. As for the comparison group, the above scores were 4.32 ± 2.18 , 4.36 ± 4.26 , and 5.16 ± 4.46 respectively (table 3) ($p=0.001$). Moreover, the logistic regression analysis indicates that psychological factors and depression (Wald=8.12) had the closest significant relationship with drug abuse and suicide ($p<0.001$). Furthermore, the results obtained from the T-test for the independent groups indicate the difference between the mean scores of the two groups with respect to the degree of depression ($p=0.001$) and suicidal thoughts ($p=0.002$).

Table 1: The frequency of marital status in the two groups.

Marital Status Group	Married		Single		Separated	
	Number	Percentage	Number	Percentage	Number	Percentage
Addict N=60	16	%27	30	%50	14	%23
Non-addict N=60	34	%57	22	%36	4	%07
Total N=120	50	%42	52	%43	18	%15

Table 2: The participants' educational level based on the groups.

Educational Level Group	Illiterate		Elementary School		High School Diploma		Associate degree		BA/BS and higher	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Addict	4	%07	12	%20	28	%46	6	%10	10	%17
Non-addict	1	%01/7	3	%05	20	%33/3	10	%17	26	%43
Total	5	%04	15	%13	48	%40	16	%13	36	%30

Table 3: The mean and standard deviation of depression, anxiety, and stress in the two groups.

Psychological Disorder	Addict		Non-addict		P Value
	Mean	Standard Deviation	Mean	Standard Deviation	
Depression	10/12	4/16	4/32	2/18	P< 001
Stress	7/26	4/48	4/06	4/24	P< 001
Anxiety	9/02	4/15	5/16	4/46	P< 001

DISCUSSION:

Suicide attempt, like other social phenomena, is not uni-causal, and a variety of factors affects this phenomenon. The drug abusers' mean scores of depression, stress, and anxiety were higher than those of the non-addicts. In the present study, the scores of depression, anxiety, and stress were significantly different in the two groups. Cranford et al (2009) conducted a research to study substance use behaviors, mental health problems, and use of mental health services. Their study indicated that depression, anxiety, and stress were significantly related to drug abuse behaviors [22]. Fathi et al have reached similar findings in this regard (Fathi et al). Logistic regression analysis indicates that psychological factors and depression (Wald=8.12) had the closest significant relationship with drug abuse behavior. Moreover, in the present study, suicide attempters' depression, anxiety, and stress scores were significantly different from those of the healthy participants. Furthermore, the findings of the studies conducted by Scoso et al (2008) and Sharma et al (2008) indicated that there was a significant difference depression, anxiety, and stress scores in suicide attempters and healthy participants [6, 23]. In fact, drug abuse is a factor that can have negative effects on the individual's psychological state, physical condition, vocational performance, and social function, i.e. the addict's life is mostly affected by the problems arising from the drug abuse. Thus, the present of negative factors can bring about the increased depression, anxiety, and stress, and therefore provides incentives for ending one's life, and leads the depressed individual to commit suicide. Drug abuse is one of the main consequences of tension in life. The past as well as capabilities to take actions in the future are evaluated negatively by the drug abusers, and they always think of self-criticism and expect failure in the affairs [24]. In fact, there is a significant difference between drug abusers and suicide attempters' suicidal thoughts and those of the healthy individuals. Drug abusers attempting to commit suicide had more suicidal thoughts than healthy individuals did. Moreover, there was a significant relationship between the intensity of depression, anxiety, stress, and suicidal thoughts; this relationship is positive, i.e. the higher the depression, anxiety, and stress, the more likely it is for the individual to commit suicide, and vice versa. One can claim that those who don't seek addiction and drug abuse enjoy sufficient psychological health, and they attempt to deal with their psychological complexes. They attempt to form their own environment and adapt themselves with it as far as it is deemed necessary. In fact, healthy individuals are seeking logical solutions in dealing with problems. However, drug abusers tend to be more depressed and more anxious than other people in the society, and since they do not have

any motives in life, when seek ways to escape from the problems in case of facing them. According to studies conducted on depressed individuals, the way of escape turns out to be ending one's life, and every action toward this starts from thinking about it. Based on the studies, drug abuse as well the depression, anxiety, and stress arising from the drug abuse are accounted as strong factors in predicting the suicidal thoughts and attempting to commit suicide [25]. The present study indicates that attempting suicide in different individuals is affected by depression, anxiety, and stress arising from drug abuse, suicidal thoughts, or all of these factors. The findings of the present study comply with those of Fadaei et al (2010) that was conducted to study the state of control, depressive symptoms, and suicidal thoughts on academic achievement [26]. In the present study, the statistical populations were drug abusers attempting to commit suicide, and thus the generalization of the findings is subject to some limitations. The limitations of the present study include the following: the sample size was small; the data collection tool was self-reporting; the likelihood that the answers were exaggerated and untrue despite the researcher's attempt to attract the participants' cooperation (naturally, it has to do with adolescence). It is recommended to conduct similar studies on other population groups to study the social factors affecting suicide.

CONCLUSION:

The findings of the present study indicate that drug abusers are more likely to be affected by the psychological injuries and psychiatric disorders than common people. Moreover, drug abusers are more likely to suffer from depression, anxiety, and stress than the controllers. In fact, providing medical intervention, the execution of preventive social programs, and the treatment of psychological disorders seem necessary for solving the drug abusers' psychological disorders as well as providing psychiatric intervention, so that the psychological disorders of adolescents having no record of drug abuse are identified and prevented.

Ethical Considerations:

This research project was approved by the ethics committee of Zabol University of Medical sciences and name and Specifications of patient were kept.

ACKNOWLEDGEMENT:

We thanks from Zabol University of Medical Sciences for financial supporting

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