

Research Article

The Relative Frequency of depression in Patients with Drugs Poisoning Admitted to Hospital of Rafsanjan , Iran

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Abstract

Background: Poisoning is a medical emergency and based on many studies; most of intentional poisoning arises with an origin of patients' psychological disorders. Aim of this study is the survey relative frequency of depression in patients with drugs poisoning in Rafsanjan.

Methods: In this descriptive cross-sectional study, the frequency of depression among admitted cases of poisoning to emergency room of Ali-Ebn-Abitaleb hospital of Rafsanjan has been evaluated. A sample size of 116 patients was randomly chosen and went under close observation. Patients' data was collected through Beck questionnaire for depression. All data was then analyzed by SPSS-16.

Results: The prevalence of depression is 20.7% in form of mild, 29% moderate and 54.3% severe. Severity of depression is signification relation with history of mental illness in the past, suicide in the past, level of education.

Conclusion: The prevalence of depression among cases of poisoning with both drugs and chemicals are noticeably higher than general population. This fact strongly suggests the necessity of in-advance consultation and treatment of any underlying psychiatric disorders of patients to prevent coming complications. **Keywords:** Poisoning; Drug; Depression

Introduction

Poisoning is a condition resulting from toxin, drug or a specific substance gaining entrance into the body and damaging it through that substance. This injury can be mild (with symptoms such as headache and nausea) or severe (with symptoms such as convulsion or high fever). However, either chemical or pharmaceutical toxins can cause death in severe poisonings (1). Although technological progresses and science developments have led to greater access to chemical, agricultural and industrial drugs and materials, they have caused a lot of problems. This is because individuals use, either intentionally or unintentionally, many of these compounds which may cause some complications. Thus, it is essential to accurately identify and study these materials and the psychiatric impairments caused after their consumption (2).

More than 90 percent of the cases regarding toxin exposure happen at home and mortality resulting from it is significant among adolescents and adults (3-5). Most poisonings occur by exposing and taking anti-pain medications, sedatives, anti-depressants, incentive materials, hydrocarbons, cleansing agents, antipsychosis, cardiomyopathy drugs, theophylline, insecticides and rodenticides, including rat poisons. Poisoning can occur in four different ways, consisting of random, purposeful, environmental and occupational poisoning. Therefore, committing suicide through poisoning is inevitable (1). Studies showed that the majority of suicides are affected by the importance of using this instrument in the clinical intervention financial and emotional failures and substance abuse (6-10).

mortality is not available and the experience of the recent decades one-week interval, which was 0.93. Various researches have also shows that having the statistics for the past is essential for a favorable plan and development. In addition, controlling the causes of these psychiatric disorders is also regarded as one of the factors for health and medical development (11). Due to the high prevalence of deliberate poisoning, especially in women, and the easy access to drugs, and also since the illness caused by poisoning has been the most frequent reason of being admitted in hospitals, it seems that the number of such cases are still The collected data were interpreted using SPSS (version 16) and increasing. Thus, this requires a careful examination (12).

Due to the lack of a coherent, comprehensive system for collecting the data regarding poisoning and those poisoned, it was decided to obtain extensive information on some psychiatric disorders in patients with poisoning and to examine the role of Results each kind of toxin in their destiny; the effective factors in the treatment, recovery or death of the patients was also examined. In Regarding the relative frequency of depression, 63 subjects this way the number of the poisoned and the death caused by that (54.3%) suffered from severe depression, 29 subjects (25%) from can be obviously reduced by providing appropriate strategies for moderate depression, and 24 subjects (20.7%) from mild the prevention and treatment of poisoning. Informing the health departments can be useful in order to better control and improve these problems and design appropriate strategies for the promotion of physical and mental health of patients with psychiatric disorders. Finding the frequency of depression disorder in patients suffering from different poisonings can also be a step towards this direction.

Methods

The present study is a descriptive cross-sectional one. The population includes the poisoned patients admitted to Ali-Ebn-Abitaleb hospital of Rafsanjan, Iran, in 2017. Using random sampling method and based on the previous similar studies, up to 120 subjects were chosen, 116 of which were investigated.

Data collection

The researcher-made questionnaire was design to follow the study purpose. The demographic characteristics of the subjects, including age, sex, occupation, education level, place of residence, marital status, past history of suicide attempts, past history of mental illness, social class, type of the consumed material and type of poisoning were assessed.

Beck depression inventory (BDI-II): This questionnaire, consisting of 21 items, was first developed in 1961 by Beck and his colleagues. They basically revised it in 1996. Thus, the scale determines varying degrees of depression, including normal to mild (1 to 16), medium (17 to 30) and severe (31 and up). The score range obtained by the questionnaire is from 0 to 63. Due to

psychiatric disorders and those who commit suicide are not diagnosis, many psychometric researches have been done about psychiatrically treated in spite of the need for that. The authorities its psychometric properties. Among the most important of them, have failed to provide this kind of treatment, especially for public a meta-analysis of conducted in 1988 by E. T. Beck, Steer, and clients. The most common psychiatric problem among patients is Garbin can be noted. By reviewing the investigations that used mood disorders such as major depressive, bipolar, psychotic, this instrument, Beck and his colleagues found that using the testanxiety (e.g. panic disorder) and personality disorder, as well as retest method, its reliability co-efficient varied from 0.48 to 0.86, depending on the interval between the number of times it was performed and the type of population tested. Once again in 1996, In Iran, the exact number of cases of poisoning complications and Beck et al. obtained the test-retest reliability coefficient within been conducted in Iran that tried to measure the psychometric properties of this instrument. Among the others, Tashakori and Mehryar (1994) obtained reliability coefficient, which was equal to 0.78. In other researches, such as Partou (1975), Vahabzadeh (1973) and Chegini (2002), the reliability of Beck's questionnaire was reported to be high and ranged from 0.70 to 0.90 (12).

> different statistical analyses such as descriptive statistics including frequency, mean and standard deviation through the considering statistical assumptions of the inferential Chi-Square test.

Variables	Mild		Moderate		Severe		Total		Sig.
	N	%	N	%	Ν	%	Ν	%	
Gender Men Women Total	13 11 24	18. 3 24. 4 20. 7	22 7 29	31 15. 6 25	36 27 63	50. 7 60 54. 3	71 45 116	100 100 100	0.168
Age 14-24 25-35 Total	11 13 24	16. 9 25. 5 20. 7	16 13 29	24. 6 25. 5 25	38 25 63	58. 5 49 54. 3	65 51 116	100 100 100	0.474
Education level Elementary Junior High School High School College Total	2 5 5 12 24	12. 5 15. 6 14. 7 35. 3 20. 7	4 7 6 12 29	25. 5 21. 9 17. 6 35. 3 25	10 20 23 10 63	62. 5 62. 5 67. 6 29. 4 54. 3	16 32 34 34 116	100 100 100 100 100	< 0.045
Marital level Single Married Widowed/divorce d Total	18 6 0 24	23. 1 17. 6 0 20. 7	23 5 1 29	29. 5 14. 7 25 25	37 23 3 63	47. 4 67. 6 75 54	78 34 4 116	100 100 100 100	0.251
Mental disorder Yes No Total	2 22 24	6.7 25. 6 20. 7	3 26 29	10 30. 2 25	25 38 63	83. 3 44. 2 54. 3	30 86 116	100 100 100	< 0.001
Suicide attempt Yes No Total	24 0 24	25. 2 0 20. 7	28 1 29	29. 8 4.5 25	42 21 63	44. 7 95. 5 54. 3	94 22 116	100 100 100	< 0.001

depression.

categorized by demographic characteristics

According to the above result, severe depression in women (60%) (16). is more than in men (50.7%). Mild depression in men (18.3%) is the lowest. This relationship was tested by Chi-square test, which Regarding the history of suicide attempt in the past, 81 percent of age group between 14 to 24 years of old, severe depression results, severe depression (67.6%) had the highest rank among important factor of the future suicide attempt (18). those with high school education level, while mild depression in Based on The Summary of Psychology by Kaplan and Sadouk the elementary level (12.5%) was the lowest. This relationship (2007), the most common factor in suicide is the previous suicide was tested by Chi-Square test was significant with p-value=0.045. attempt. One of the reasons that cause the inconsistency between Thus, severity of depression is higher in those with high school the above-mentioned cases and our statistical findings was that level.

disorder, while mild depression was lowest (6.7%) among consideration (19). subjects with a history of mental disorder. This relationship was tested by Chi-square and it was significant with p-value=0.001. In addition, in our study, depression severity had a significant was higher. Given the above results, severe depression was highest (95.5%) among the subjects with a history of suicide attempt, while mild depression was lowest (0%) among subjects with no history of suicide attempt. This relationship was tested by Chi-square and it was significant with p-value = 0.001. Thus, the depression severity in subjects with suicide attempt was higher.

Discussion

Regarding the relative depression, 54.3 percent of depression was severe, 25 percent was moderate, and 20.7 percent was mild. Given our statistical sample, severe depression was the most suicide attempt in the past, and the type of drug used. frequent among poisoned subjects. Among the patients with a history of psychological problems, the most common problem Conclusion was social dysfunction (97.57%) and depression (88.9%) (2). Pajoumand et al. (2012) conducted a study on 6414 patients in Luqman Hakim Hospital. One out of every five patient suffered from a psychological problem, the most common of which was compatibility disorder (13).

The findings of the former study are consistent with our statistical and after they occur. findings and the two latter ones are against those of ours. That can be explained by a large sample size of the mentioned studies as well as the study of mental disorder that was not our matter of concern. In our study, one of the common reasons was deliberate poisoning among subjects with severe depression; this can be treated by psychological treatments in order to decrease depression severity and consequently deliberate poisoning. As suffering from a mental illness, especially depression, can

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increase deliberate poisoning (14, 15), inadequate treatment of depression can also be an important factor in the creation of Table 1. Frequency distribution of depression among the subjects intentional poisoning [15]. Suffering from physical disease also increases the risk of poisoning because suffering from chronic physical disease in many cases is associated with mood disorders

was not significant by p-value=0.168. Therefore, the depression the subjects did not declare any history. Only 19 percent declared severity is identical in both sexes. Given the above results in the a history of suicide attempt. In a study conducted by Lee et al. (2012) on 2996 patients in Korea, one of the most important (58.5%) had the highest rate, while mild depression (16.9%) had factors of suicide attempt was found to be the previous suicide the lowest. This relationship was tested using Chi-Square, which attempts (17). In addition, in a study by Alberdi-Sudupe et al. was not significant with the p-value=0.474. Thus, the severity of (2011) on 5424 patients at the Psychiatric Center of the University depression was similar in both age groups. Given the above of La Coruna, Spain, previous suicide attempt was the most

the poisoned subjects with several suicide attempts were not sent to a psychiatric center. As these subjects were not admitted in a Given the above results, severe depression (75%) was the highest psychiatric center, they were not honest about the history of among the widowed/divorced group, and again mild depression suicide attempt. The second reason is that as the study was among the same group was the lowest. This relationship was conducted in a small city, the subjects denied such attempts to tested by Chi-square and it was not significant with the p- save face and avoid some possible future educational, value=0.251. Thus, depression severity was not dependent upon occupational and marriage problems by declaring such facts. Due marital status. Given the above results, severe depression was to the fact that unsuccessful suicide attempts may consequently highest (83.3%) among the subjects with a history of mental lead to successful ones, this issue needs to be taken more

Thus, the depression severity in subjects with mental disorders relationship with a history of mental illness in the past (pvalue=0.001), education (P-value=0.045), and a history of suicide attempt in the past (p-value = 0.001). The subjects with a history of mental illness in the past suffered from higher depression; this can be explained by the fact that such subjects have accepted their psychological problem, are not able to perform daily tasks, and are rejected by others in their surroundings. Depression is also more severe at the ages of high school education. One of the reasons for that is emotional, academic (especially failing the university entrance examination), and other problems related to this age. No significant relationship was found between age, sex, socioeconomic status, occupation, type of poisoning, history of

The frequency of psychiatric disorders among patients poisoned by a variety of toxins and drugs are more likely than the general population. This emphasizes the need to provide counseling services and treating such disorders in the community both before

Conflict of Interest

The authors declare that they have no conflict of interest.

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Ethical Approval

Our study was approved by Ethics Committee of Islamic Azad 15. University, Yazd Branch, Ali-Ebn-Abitaleb medical school.

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