



Epidemiology of Suicide Attempt in Noor City, 2017-2018

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Abstract: *Introduction and objectives: Suicide is a phenomenon that has lasted for many years from traditional relations to today's complex urban relations and involved the human. In social changes, it hurts family's soul. Suicide as a behavior is a death that person does it by himself. Analysis method: The present study is a descriptive-analytic cross-sectional study. All the cases are the people that referred to the Imam Khomeini Emergency of Noor Hospital in 2017 and 2018. They confessed suicide with a questionnaire in the hospital and an emergency doctor and psychologists in the Health Network. Data was analyzed with Spss software. Finding: The data showed that in 2017-2018 more than half (%67- %73) of the suicide attempters were women and age categories between 15-34 years (%44- %45) that about %51-%62 were married and %53-%56 of that were in urban areas, motivated by family disputes. With the dominant method, drug poisoning has taken place. Conclusion: Finding of research show the rate of suicide attempts has increased. The number of women was remarkable that shows the need to increase education in communication and life skills and maybe it is possible to control individuals' access to drugs.*

Keywords: *Suicide, Drug and Action Method, Motive Action*

INTRODUCTION

In 1737, Defontaine used "suicide" word for first time. After 25 years in 1762, this word accepted by French Academy of Sciences. "suicide" means destroy and kill yourself, consist of two French and Latin words, "sui" and "cide" that means "yourself" and "to kill", respectively (Li, Li and Cao, 2012).

Piyer Morn defines "suicide" as a conscious action for destroying himself that targets death. It is not easy to find a comprehensive definition of suicide.

In Emil Dorkim's view, suicide means any type of death that results directly or indirectly in the victim's positive or negative attitude that knows this result.

Emil Dorkim made the first systematic study about suicide in 1897.

The terms used in suicide topic are:

- A. Suicide attempt or act: in this behavior, suicide is committed, but it does not lead to death.
- B. Completed or successful suicide: the act of killing and ending your life in a successful manner (Hojjat and Hamidi, 2013).

Suicide in the contemporary world

According to the World Health Organization (WHO), more than 2500 people commit suicide daily. Each year, nearly a million people die of suicide. In general, international comparison of suicide rates is not an easy task, because the countries are very different in terms of suicide definition, legal, medical and cultural issues. In

America, each year 30.000 people die of suicide and the rate of suicide attempt is estimated at 650.000. in another report from WHO is predicted that nearly 1.53 people will die of suicide in 2020, and the rate of suicide in the world will be 10 to 20 times higher. On average we have one death every 20 seconds and one suicide attempt every 1 to 2 seconds (Ghoraishi and Mousavinasab, 2008; Mousavi et al., 2007).

Causes and motives of suicide

Biological factors

The biology of suicide involves wide content, contain review of neurotransmitters, pugnacity researches, genetic factors and family history. Recent studies have showed that Serotonin has a sedative effect on the brain. Reducing the amount of Serotonin causes depression, violent behaviors and making sudden decision in people.

Psychological factors

In the psychoanalysis studies usually mental disorders and psychological discomfort such as personality disorders, depression an anxiety are the causes of suicide.

Enviromental and social factors

Some researches, specially sociologists, social psychologists and criminologists, are focusing more on inappropriate an unfavorable cultural conditions. In their opinion enviromental, family and social factors, including upbringing manners, sociability, huge changes in economic conditions also lack or weakness of communication and social links can lead to frustration and disappointment and suicide (Pooryousefi H., study of rate, causes and motivated of suicide in Iran and world).

Method

the present study is a descriptive-analytic cross-sectional study. All the cases are the people that referred to the Imam Khomeini Emergency of Noor Hospital in 2017 and 2018. Their suicides confirmed by an emergency doctor and psychologists in the Health Network. The required information were collected by a questionnaire contain age, sex, education, occupation, suicide attempt method and region.

Data was analyzed with Spss statistical software. To describe the data, frequency distribution tables, central indexes and dispersion were used. K-square test was used for analyzing qualitative data and in this study the significant level was considered 0/05.

It was explained for patient companions tha the information is without mentioning the patient`s name and only for the evaluation of the data and personal information and patient identities will remain confidential.

Finding

In this study, 138 people attempted to suicide in 2017, that 93 cases were women equivalent to %67/39 and 45 cases were men equivalent to %32/60.

In 2018, 151 cases of suicide have been recorded, 111 cases were women equivalent to %73/50 and 40 cases were men equivalent to %26.49.

The relation between attempting to suicide and sex was is statistically significant.

The range of age were between 15-80 years old. The highest percentage of 2017 was for 15-24 age category with 62 people and %44/92.

But in 2018 the highest percentage was for 25-34 age category with 69 people and %45/69.

Table 1: the frequency of attempted suicide based on age variable in 2017, in order of frequency.

Age category	frequency	Percentage
15-24 years old	62	%44/90
25- 34	47	05//34

35- 44	10	٪7/24
55-64	7	٪5/07
45- 54	5	٪3/62
5- 14	4	٪2/89
64 – 80	3	٪2/17
Death in the age group of 25- 34	2	
Death in the age group of 35- 44	1	

Table 2- the frequency of attempted suicide based on age variable in 2018, in order of frequency.

Age category	frequency	Percentage
25-34 years old	69	٪45/69
15- 24	44	٪29/13
35- 44	28	٪18/54
45- 54	4	٪2/64
55- 64	3	٪1/98
64- 80	2	٪1/32
5-14	1	٪0/66
Death in the age group of 25- 34	2	
Death in the age group of 35- 44	1	

Statistics show in 2017 from 138 cases of suicide attempted:

71 people were married equivalent to %51/44

66 people were single equivalent to %47/82

1 person was divorced equivalent to %0/72.

That all the 3 death people in 2017 were married.

In 2018 from 151 cases of suicide attempted:

95 people were married equivalent to %62/91

54 people were single equivalent to %35/76

2 people were divorced equivalent to %1/32.

From 138 cases of suicide attempted in 2017:

74 people were resident of the city equivalent to %53/62

64 people were resident of the village equivalent to %46/37

That all the 3 death people were resident of the city.

From 151 cases of suicide attempted in 2018:

86 people were resident of the city equivalent to %56/95

65 people were resident of the village equivalent to %43/04

That 2 death people were resident of the village and 1 person was resident of the city.

Table 3- the frequency of attempted suicide based on education, in 2017

Education	frequency	percentage
Illiterate	3	% 2/17

Under the diploma	61	% 45/64
Diploma	63	% 44/20
Academic	11	% 7/97

Table 4- the frequency of attempted suicide based on education, in 2018.

Education	frequency	percentage
Illiterate	2	% 1/32
Under the diploma	67	% 44/37
Diploma	69	% 45/96
Academic	13	% 8/60

Table 5- the frequency of suicide tools in 2017.

Tools	frequency	percentage
Drug poisoning	110	% 79/7
Aluminum phosphide tablets*	9	% 6/52
Toxin poisoning	7	% 5/07
Cold weapon	7	% 5/07
Others	5	% 3/62

*Aluminum Phosphide tablets (AIP): know as Rice Pill in Iran.

Table 6- the frequency of suicide tools in 2018.

Tools	frequency	percentage
Drug poisoning	124	% 82/11
Aluminum phosphide tablets*	8	% 5/29
Toxin poisoning	7	% 4/63
Cold weapon	1	% 0/66
Others	11	% 7/27

Table 7- the frequency of attempted suicide based on occupation in 2017.

Occupation	frequency	percentage
House wife	71	% 51/44
Self-employed	36	% 26/08
Student	16	% 11/59
Unemployed	9	% 6/52
College student	4	% 2/89
Others	2	% 1/44

Table 8- the frequency of attempted suicide based on occupation in 2018.

Occupation	frequency	percentage
House wife	90	59/60
Self-employed	44	% 29/13
Student	6	% 3/97
Unemployed	6	% 3/97
College student	4	% 2/64
Others	1	% 0/66

Table 9- the frequency of attempted suicide based on reasons in 2017.

Occupation	frequency	percentage
Family issues	81	٪ 58/69
Emotional problems	41	٪ 29/7
Unemployment	9	٪ 6/52
Neuropsychological illness	4	٪ 2/89
Others	3	٪ 2/17

Table 10- the frequency of attempted suicide based on reasons in 2018.

Occupation	frequency	percentage
Family issues	126	٪ 83/44
Emotional problems	12	٪ 7/94
Unemployment	3	٪ 1/98
Neuropsychological illness	7	٪ 4/63
Others	1	٪ 0/66

Discussion

Suicide is a tragedy that is prevalent in all societies and causes a lot of economic-cultural, social and emotional burdens. The result of the research in two consecutive years indicates that the amount of suicide attempted among women is higher than men, significantly. ($p=0.254$)

From 138 people in 2017: %67/39 women, %32/60 men.

And from 151 people in 2018: %73/50 women, %26/49 men.

After studies in several countries on women`s health, in a report has provided from the WHO, this issue has been proven that committing suicide among women is more than men, also a major cause of suicide behavior among women can refer to violence committed by the spouse, physical violence, divorce, widowhood and sexual abuse in childhood (Devries et al., 2011).

The same result has reported from a study in Isfahan that many social and cultural factors have led to suicide behaviors among women including family issues, marriage and problem with spouse, social bias and high expectations from women (Keyvanara and Haghshenas, 2010).

The observed rates and their differences in several countries suggest difference in culture, religion, attitudes and life style in the societies of these countries, but even in different cities of a country, there are many differences.

An inquiry into the age categories indicates the number of suicide victims increased from 15-24 years old (%44/92) in 2017 to 25-34 years old (%45/69) in 2018. Which does not match the results of research have done with Mohammadi in Neishaboar, Zohoor in Jiroft (Mohammadi and Saadaty, 2003).

But totally it includes the youth age group, means 15-34 years old. ($p=0/109$)

In this research in 2017 the highest number of suicide attempt was in education under the diploma with %45/64 and in 2018 the highest number was in graduated from school with %45/96.

The studies done by Behmaneshpoor in Zahedan and Keyvanara in Isfahan, have shown that most people who have committed suicide had education under diploma (Poor, Tabatabaei and Bakhshani, 2014; Keyvanara, Mousavi and Karami, 2013).

In another research in 2011 by Bakhsha in Golestan indicated the most people who have committed suicide were at a low level of education (Bakhsha, Behnampour and Charkazi, 2011).

Also the results of this study about increasing of suicide in elementary education level, do not correspond with researches in Zahidan, Golestan and Isfahan. It can depend on lack of access of educated individuals to state and native emergency services.

In this study, there is a significant relationship between suicide attempt and marriage. In the other word, in a consecutive year the number of suicide in married people is more than singles.

In 2017, equivalent to %51/44 and in 2018, %62/91.

The same result, suicide attempted in married more than single, reported from Cheng-jin in China (Cheng-jin zhao et al., 2015). According to the result of the study, the annual average of suicide attempt in urban area in 2017 was %53/62 and in 2018 was %56/95, that shows in urban area it was more than villages. This result is consistent with some other studies that done in other provinces, because the effect of stressful environment in cities (Hossini et al., 2012). ($p=0.569$)

The methods that use for suicide in Noor city in 2017 were: Toxin poisoning, Rice pills, cold weapon, respectively. And in 2018 were: Toxin poisoning, Rice pills and some other methods such as hanging out, fall from height and sharps ($p=0.119$).

Although, the statistics of ministry of health show the highest method for suicide are self-burning, hanging out, toxin poisoning, opiate and weapon (Rezaeian, 2005).

Generally there are significant differences in methods of suicide between countries.

In Sweden, 4 more common methods are: poison, hanging, weapon and drowning.

In America: weapon, poison and sharps.

In India: poison, hanging, self-burning and drowning.

In China: hanging, drowning and fall from height (IASP, 2000).

In this study, the most common cause of suicide was family conflicts and dispute with the spouse. This result is consistent with Jafari Fard (2013) in Lordegan. Rahbar (2004) in Rasht, Ansari (2010) in Rafsanjan.

It should be noted the questionnaire has been completed by the patient and colleagues, other reasons may be hidden. But insecure family environment and conflicts between parents and teenagers can be a major cause of suicide in this age that the need to train communication and life skills is quite tangible.

Based on the results of this study, the most common method of suicide was Drug poisoning, due to depression and psychiatric problems are rising in the country, it is not strange the availability of these drugs. It is better to make arrangements in this regards by government and make some limitation in medication for patients.

Conclusion

Due to the increasing suicide rate in young people, it is imperative to pursue massive media policies. News and information in the media should not cause stress and depression in people and pay attention to the aspects of joy and motivation. Life skills including self-awareness skills, communication with others, adoption and daring should be strengthened. The use and availability of drugs should be done with caution.

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