

Pattern of Suicidal Deaths in Faisalabad

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ABSTRACT

Introduction: Suicide in Pakistan has been a long term social issue and is a common cause of un natural deaths. It is among the top three leading cause of death in man developed countries. Pattern of suicidal death varies from country to country. **Objectives:** To study the pattern of such deaths in Faisalabad, Pakistan and compare it with the other countries. **Material & Methods:** Study was conducted at Department of Forensic Medicine Punjab Medical College, Faisalabad during the period of January 01, 2007 to December 31, 2011. A total of 73 cases of suicidal deaths were included in the study. Manner of death was decided on the basis of circumstances of death, autopsy findings, visit to the scene of incidence, police investigation and

information from the relatives & friends. **Results:** Suicide formed 4.3 % of the total autopsies conducted during the period. Highest incidence was recorded during 2011. Rate of suicide in Faisalabad city is 0.21/100000 of population. Male to female ratio is 3:1. Peak incidence was in the month of February. Firearm was the commonest method used for suicide followed by hanging. Most vulnerable age group in males was 20-29 years while in females 10-19 years.

Conclusion: In Faisalabad. Pakistan rate of suicide is less than western countries however, its trend is increasing. Preventive strategies should be designed by identifying the factors leading to suicide

INTRODUCTION

Suicide is self killing, an extremely complex phenomenon having medical, social, ethical and philosophical implications. It is prohibited under religion codes of Islam and Christianity. Suicide is among the top three leading causes of death among developed countries especially in Dubai, China and USA. Adolescents and young adults are mostly involved so, the youth is at high risk.^{1,2,3} Suicide in Pakistan has been a long-term social issue and is a common cause of unnatural death. In recent years suicide has become a major public health problem in Pakistan. Traditionally, suicide cases in Islamic societies remained very low but recently we see a sharp rise in suicides.⁴ Suicide is condemned act in Islam. It is a criminal

offence and a major mental health problem has destructive effects on individuals, families and communities.⁵ "Data from the WHO indicate that approximately one million people worldwide die by suicide each year. This corresponds to one death by suicide every 40 seconds".⁶ Almost 5,000 to 7,000 people commit suicide annually in Pakistan and there are approximately 50,000 to 150,000 cases of attempted suicides across Pakistan.⁷

Irrespective of gender, relationship loss and conflicts were the most commonly identified negative life events precipitating suicidal behaviours in the acute community setting.⁸ Loss of status within the community, ashamed after doing something wrong/unacceptable, depressed, and angered and failure in school examination.⁹

From available evidence it appears that most suicides occur in young people (single men and married women) under the age of 30 years.¹⁰ Commonly used methods of suicide are firearm, hanging and poisoning all over the world. Cases of complex suicide may be found ,where more than one

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method of suicide is used to induce death.¹¹ Methods used to commit suicide are widely available and are difficult to restrict.¹² Measures can be taken to prevent suicide by observing the factors significantly linked to suicidal behavior.¹³ Most cases of suicide occur during spring and summer season. The particular suicidal cases were analyzed according to age group, sex, method used and season of peak incidence, among autopsies conducted in Faisalabad to compare this information with previous studies in this respect to see the changing trends. This study will help in formulating preventive strategies in future.

MATERIALS AND METHODS

A total of 73 cases of deaths labeled as suicide on the basis of police inquest, autopsy findings, visit of the scene of crime and interview with relatives, friends and contacts of victim were selected from the autopsies conducted at Post-Mortem Unit, Allied Hospital Faisalabad between January 01, 2007 and December 31, 2011.

These cases were grouped on the basis of age, sex, method used and seasonality in suicidal cases.

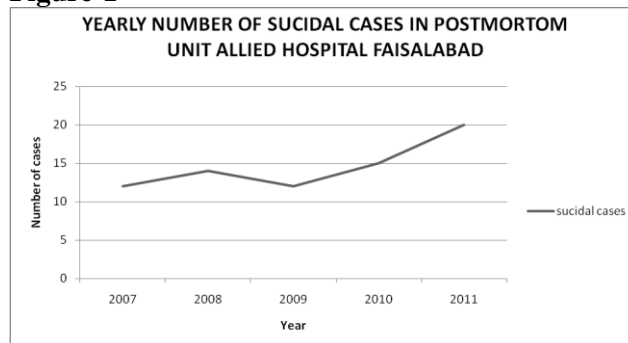
RESULTS

A total of 73 cases of suicide occurred during this study period. This formed 4.3% of the total of 1687 autopsies conducted during the period.

Table-1
Yearly no. Of Postmortem Cases in Allied Hospital Faisalabad during 2007-2011

Year	Homicidal	Accidental	Suicidal	Miscellaneous	Natural	Undetermined	Total	Per year-%
2007	216	21	12	1	7	20	277	4.3
2008	195	66	14	0	6	25	306	.6
2009	224	45	12	0	0	43	324	3.7
2010	241	67	15	0	3	49	375	4
2011	258	74	20	0	6	47	405	5
Total	1134	273	73	1	22	184	1687	4.3

Figure-1



The highest incidence was during 2011 where an average of 1.66 persons committed suicide every month. The lowest was during 2007 and 2009 where an average of one person per month committed suicide. This translates to a rate of 0.21 / 100,000 for the city of Faisalabad, calculated from the mean population of Faisalabad for these five years (6943009.2) and the mean suicides for these 5 years (14.6).

Figure-2

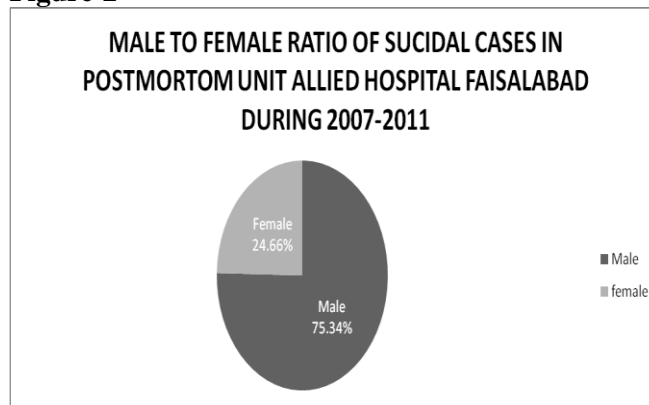
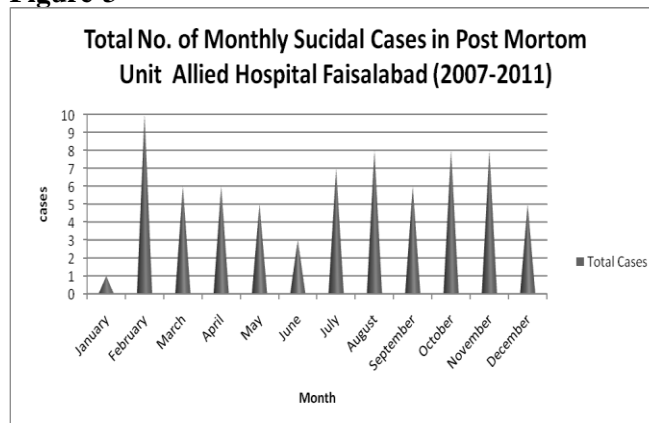


Figure-3



Peak incidence of suicide is seen in the month of February where 10 persons committed suicide, followed by August, October and November where 8 persons took their lives each month, during the period of this study

Figure-4

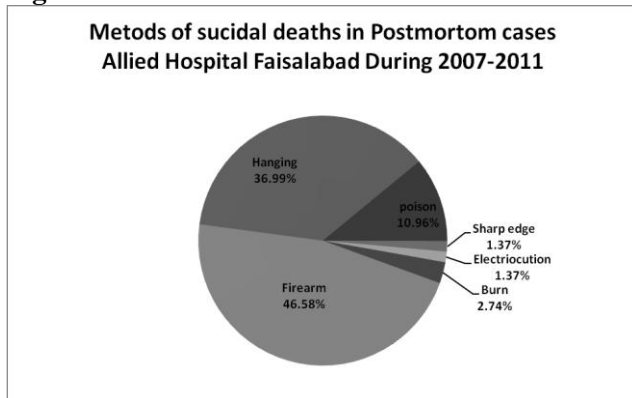
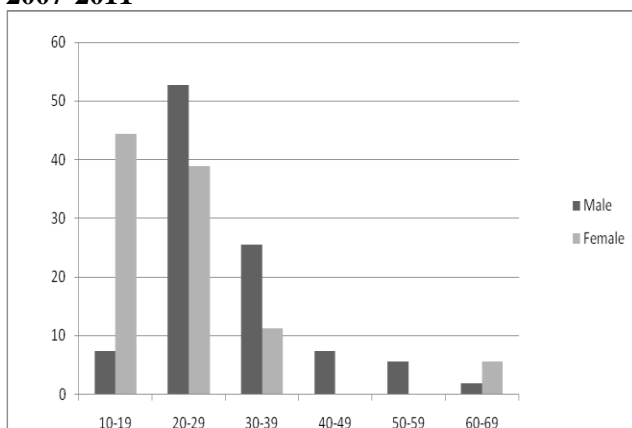


Figure-5
Age Groups Involved In Suicidal Cases During 2007-2011



The most vulnerable age group in males was 20-29year (52.73%), followed by 30-39year (25.45%). In females 10-19 year age group (44.44%) was most prone, followed by 20-29years (38.89%). 87.7% Suicides were among 10-39 years.

DISCUSSION

Suicide is the enormous public health problem worldwide¹⁴. Its incidence varies all over the world as it depends upon social, religious and cultural values of the nations. In our study rate of suicide is very low as

compared to the previous study done in this regard. It is markedly lower than many other countries like UK¹⁵, USA¹⁶, Turkey¹⁷, South Korea¹⁸, China¹⁹ and Japan²⁰. Reason for lower incidence could be the role of religion and belief in the world hereafter, which prevents the feeling of hopelessness. Too low rate is suggestive evidence of under reporting, as families are reluctant to register cases of suicide or attempted suicide because they consider it a social stigma^{5, 21}.

In our study 87.7% suicides were among 10-39 years of age. So, incidence of suicide showed a sharp decline with advancing age and it is opposing the studies of many countries UK²², USA²³ and Korea²⁴. The same trend of decreased suicidal rate with increased age is seen in previous studies of Pakistan, Dubai¹, Turkey^{17, 25}, Bangladesh²⁶ and India²⁷. Reason of suicide at an early age can be marital, economic and domestic problems in early years of independent existence²⁸.

Lower incidence of suicide with advancing age is because of family system in which elders are taken care, get relax and enjoy their advancing years with their grand children. Increased inclination towards religion with advancing age and strong belief in the world hereafter also play an important role²⁸.

Males are three times more likely to die by suicide than females in this study. Almost same pattern is observed in previous studies of Pakistan^{5,7}, Tokeland⁹, UK¹⁵, USA¹⁶, India²⁷, Netherland²⁹, Taiwan³⁰, Saudi Arabia³¹, and many other western and non-western countries¹⁶. Reason for male predominance among suicidal cases can be more economic burdens on them as compare to females in our region. Some studies of China¹⁹, Japan²⁰ and Austria³² have opposite trend with excess female mortality from suicide.

Our study shows temporal changes in methods used for suicides than previous Pakistani literature. Firearm, hanging and poisoning in this order were commonest among the methods used for suicides in our study and same trend was in Turkey²⁵ and USA.^{16,33,34} Firearm was the method of choice in males, while hanging in females. Hanging is the commonest method used by females in previous studies of Pakistan^{28,36}, Tokelau islands⁹ and India²⁷. Poisoning was used more in women than men. Burning for suicide was used less frequently but equally by men and women. Suicidal deaths by burning were frequent in Iran³⁶. Sharp edge

weapons and electrocution were used only by small percentage of men. It is apparent that males are more likely to end their lives through effective violent means while females primarily use less severe methods³⁵.

Peak incidence of suicides was seen in spring and late summer. No cases were reported during winters. Same pattern was observed in Poland³⁸ and Hungary³⁹. A strong association was found in season of birth and suicide in Hungary-a country with highest rate of suicide³⁹.

There should be proper database for recording all suicidal cases in Pakistan at Government level, so that actual rate can be determined. Methods used to commit suicide are widely available and difficult to restrict, so, suicide prevention strategy based on risk factors should be implemented.

CONCLUSION

In Faisalabad Pakistan rate of suicide is less than western countries however, its trend is increasing. Preventive strategies should be designed by identifying the factors leading to suicide.

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Submitted for Publication:	28-03-2013
Accepted for Publication:	15-05-2013
After minor revisions	