

Suicide and attempted suicide trends in Mianwali, Pakistan: social perspective

M.N. Tahir,¹ A.H. Akbar,² R. Naseer,¹ Q.O. Khan,¹ F. Khan¹ and I. Yaqub¹

اتجاهات الانتحار ومحاولات الانتحار في ميانوالي، باكستان: المنظور الاجتماعي

محمد نويد طاهر، علي حماد أكبر، رضوان نصير، قيصر عبید خان، فاروق خان، عرفان يعقوب

الخلاصة: تهدف هذه الدراسة إلى التعرف على الخصائص الوبائية والأسباب المحتملة لحالات الانتحار ومحاولات الانتحار التي تم الإبلاغ عنها لإنقاذ 1122 حالة في مدينة ميانوالي في باكستان. وقد تم تجميع البيانات الخاصة استباقياً في عام 2011، إذ أُبلغ عن 108 حالات انتحار خلال فترة إجراء الدراسة، وقد تم العثور على أربع جثث (4%) من هذه الحالات في مسرح الحادث، بينما نُقلت 104 من الضحايا (96%) إلى المستشفيات، وكان من بين هذا العدد 84 رجلاً (78%) و24 سيدة (22%)، أما عدد الضحايا الذين تراوحت أعمارهم بين 11 و30 سنة فقد بلغ 98 حالة (90%). وكانت المواد أو الطرق الأكثر استخداماً في الانتحار هي السموم (36%) ومبيدات الآفات (31%) والجرعات الزائدة من الأدوية (11%). أما أهم الأسباب وراء محاولات الانتحار فكانت الاكتئاب/ الأمراض النفسية (33%)، والظروف الاجتماعية الاقتصادية (24%)، والبطالة (21%). هذا، ويعد الانتحار في باكستان من المشكلات الحساسة ومتعددة الجوانب والتي يجب معالجتها.

ABSTRACT This study aimed to examine the epidemiology and potential causes of suicides and attempted suicide cases that were reported to Rescue 1122 Mianwali in Pakistan. The data were collected prospectively for 2011. One hundred and eight suicides were reported during the study period. Four (4%) victims were found dead at the scene and 104 (96%) were taken to hospital. There were 84(78%) men and 24(22%) women and 98 (90%) were aged 11–30 years. Toxic substances (36%), pesticides (31%) and drug overdose (11%) were the most common materials/methods used. Depression/mental illness (33%), socioeconomic conditions (24%) and unemployment (21%) were the major reasons for attempting suicide. Suicide is a sensitive and multifaceted problem that needs to be addressed in Pakistan.

Tendances des suicides et des tentatives de suicide à Mianwali (Pakistan)^o: perspective sociale

RÉSUMÉ La présente étude visait à examiner l'épidémiologie et les causes potentielles des cas de suicide et de tentative de suicide signalés au service d'urgence « Rescue 1122 » à Mianwali (Pakistan). Les données ont été recueillies de façon prospective pour l'année 2011. Cent huit suicides ont été notifiés pendant la période d'étude. Parmi ces cas, 4 personnes (4 %) ont été retrouvées mortes sur place et les 104 autres (96 %) ont été transportées à l'hôpital. On comptait 84 hommes (78 %) et 24 femmes (22 %) ; 98 d'entre eux (90 %) avaient entre onze et trente ans. Les produits ou méthodes les plus utilisés étaient les substances toxiques (36 %), les pesticides (31 %) et la surdose de médicaments (11 %). Les principales causes des tentatives de suicide étaient la dépression/les troubles mentaux (33 %), les conditions socioéconomiques (24 %) et le chômage (21 %). Au Pakistan, le suicide est un problème délicat aux facettes multiples, auquel il faut s'attaquer.

¹Punjab Emergency Service (Rescue 1122), Lahore, Pakistan (Correspondence to M.N. Tahir: navidtahir1122@gmail.com).

²Alkhawarzmi Institute of Computer Sciences (KICS), University of Technology, Lahore, Pakistan.

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Introduction

Suicide is a major public health issue and is a shocking experience for families and society. Every year, almost 1 million people commit suicide and it is one of the three leading causes of death among those aged 15–44 years in some countries, and the second leading cause of death in the 10–24 years age group [1]. These figures do not include suicide attempts, which are up to 20 times more frequent than completed suicide.

The highest suicide rates for both men and women are found in Europe, particularly in Eastern Europe: Estonia, Latvia and Lithuania, and to lesser extent in Finland, Hungary and Russia [2]. Asia accounts for 60% of suicides worldwide and at least 60 million people are affected by suicide or attempted suicide in Asia each year [3,4]. Despite this, suicide has received relatively less attention in Asia than it has in Europe and North America. Lack of resources and competing priorities in many Asian countries have contributed to this under-emphasis [3].

Pakistan is an Islamic country with traditionally few suicides, but has seen a dramatic increase in suicide over the past few years [5]. According to the Human Rights Commission of Pakistan, there were 2 040 suicides in 2007, 2 528 in 2008, and >1 600 in 2009. The figure in 2008 constitutes a suicide rate of nearly two persons per 100 000 [6,7]. Despite the surge in suicide incidence in recent years, Pakistan neither collects national suicide statistics nor reports them to the World Health Organization (WHO) [5]. There is also a paucity of research on suicide in Pakistan, which means that prevention programmes cannot be developed [5].

The objectives of the present study were: (1) to establish the trends in suicide and attempted suicide in Mianwali, Pakistan in 2011; and (2) to explore the circumstances and potential causes

of suicides and attempted suicides that were reported to Rescue 1122 Mianwali.

Methods

The study was carried out at Rescue 1122 Mianwali. Rescue 1122 is a state-funded integrated service that provides emergency services, free of charge, through the toll-free telephone number 1122 [8]. Mianwali District is situated in the south-western part of Punjab Province. It has a population of more than 1 million, with 79.22% living in rural areas and 20.78% in urban areas [9].

This was a prospective study that collected data on all the suicides/attempted suicides in Mianwali that were reported to Rescue 1122 in 2011. A population-based survey was also conducted to find out the circumstances and possible causes of suicide/attempted suicide. The survey was conducted in Mianwali District, mainly in the areas where most of the suicides were reported. Five hundred people were interviewed, including family members of suicide victims, political leaders, social workers, teachers, and other community members. The survey was conducted by the Community Safety Officers and field staff of Rescue 1122.

Data coding, data entry, data interpretation and analysis, and graphic representation were performed by SPSS version 16.

The study was approved by the Ethics Committee/Review Board of Rescue 1122 and consent was obtained from the study participants.

Results

A total of 108 suicides/attempted suicides were reported to Rescue 1122 Mianwali during the study period. Four (4%) persons were found dead at the scene and 104 (96%) were taken to hospital by Rescue 1122. There were 84 (78%) men and 24 (22%) women; 61 (73%) men were married and 23 (23%) were unmarried/single, and there were 12 (50%) women of each marital status. The age distribution was: 43 (39.5%) 11–20 years, 55 (50.5%) 21–30 years, and 11 (10%) 31–40 years, with a mean age of 24 years.

Table 1 lists the occupations of the suicide/attempted suicide victims. Students, unemployed and labourers were the most common occupations.

Table 2 lists the methods and materials used for suicide/attempted suicide. The most common were toxic substances, pesticides and drugs overdose.

Table 3 lists the most common reasons for suicide/attempted suicide.

Table 4 lists the most common locations for suicide/attempted suicide. Eighty (74%) of the suicide attempts were made at home. Sixty-one (56.5%) of the attempts were made in the evening (18:00–06:00 h) and 47 (43.5%) in the daytime (06:00–18:00 h).

Table 1 Occupations of suicide/attempted suicide victims reported to Rescue 1122 Mianwali in 2011

Occupation	Total no.	%
Students	23	21
Unemployed	13	12
Labourers	9	8
Business people	2	2
Farmers	2	2
Government employee	1	1
Other	58	54

Table 2 Suicide methods/materials used by the victims attended by Rescue 1122 Mianwali in 2011

Suicide methods/materials	Total no.	%
Toxic substances	39	36
Pesticides	33	31
Drug overdose	12	11
Firearms	3	3
Other	21	19

Discussion

There has been a growing trend in suicide in Mianwali, Pakistan. Young men and women aged 11–30 years were involved in 90% of the reported incidents and most of them were married. According to a previous study in Pakistan, the majority of those committing suicide were <30 years old [10]. Another study conducted in Faisalabad from 1998 to 2001 revealed a suicide rate of 1.12 per 100 000, with a male preponderance. The peak incidence was in men aged 20–29 years and women aged 10–19 years [11].

Similarly, in the majority of Asian countries, most suicides happen before the age of 30 years, which results in great economic and social losses to the family and community [12]. In the East Mediterranean Region (EMR), Islam is the religion of about 90% of the population [13,14] and the Quran specifically condemns acts of suicide [13,15]. Therefore, lower rates of suicide have been observed in Islamic countries in the EMR; for example, 0.1 per 100 000 in Kuwait [13,16], 1.1 per 100 000 in Saudi Arabia [13,17], 2.1 per 100 000

in Jordan [13,18], and 6 per 100 000 in the Islamic Republic of Iran [13,19]. In 2000, suicide was estimated to be the 25th leading cause of death in the EMR, while it was estimated to be the 13th cause of death in all WHO Member States [13,20]. The comparatively low rates of suicide in Pakistan and other Islamic countries indicate that there is a strong relationship between suicide and religious beliefs, which needs further exploration.

In the present study, toxic substances, pesticides and drugs were the most common materials used by the suicide victims. This could be because Pakistan is an agrarian society, and drugs are freely available without prescription, therefore, these drugs and pesticides are commonly available in almost every household. A study of 262 female and 185 male suicidal inpatients in Mianwali, Pakistan found that benzodiazepines were the most common drugs used for self-poisoning in both sexes, but women used organophosphate insecticides more often than men did [21]. Similarly, Khan and Reza [22] conducted a 2-year analysis of reports related to suicide in a major newspaper

in Pakistan (306 suicides reported from 35 cities). Prevalence of suicide was associated with male sex, age <30 years, and marital status (unmarried for men and married for women). More than half the people used organophosphate insecticides.

Depression/mental illness, socio-economic conditions and unemployment were the leading causes of suicide identified in the current study. Adults with psychological disorders are one of the most excluded groups in society and social segregation is an important risk factor for deteriorating mental health and suicide [23]. Over 80% of people suffering from mental disorders such as epilepsy, schizophrenia, depression, intellectual disability, alcohol use disorders, and those committing suicide are living in low- and middle-income countries (LMICs) [24,25]. In addition, poor people are disproportionately affected by mental disorders [24]. A recent systematic review of epidemiological research in LMICs showed a strong relationship between many indicators of poverty and common mental disorders [24,25]. In Pakistan, 50% of suicides were committed due to poverty and economic hardships [26]. Epidemiological studies carried out in Pakistan have shown that 10%–66% of the general population suffers from mild to moderate psychiatric illnesses and 0.1% from severe mental illnesses [27].

Among the 108 suicide attempts reported in the current study, four people were found dead at the scene, while the remaining 104 victims were taken to hospital by the Rescue 1122 ambulance service. The average response time of the ambulance was 7 min. This highlights the importance of having pre-hospital emergency services and a system that can administer medical care at the scene and during patient transport.

The current study had a few limitations. First, Rescue 1122 serves the urban population of Mianwali District and covers an area about 24 km from the rescue station in the city centre.

Table 3 Major reasons for suicide/attempted suicide reported to Rescue 1122 Mianwali in 2011

Major reasons for suicide	Total no.	%
Depression/mental illness	35	33
Socioeconomic conditions/poverty	26	24
Unemployment	22	21
Domestic violence	8	7
Major failure in life	6	6
Other	11	10

Table 4 Location for suicide/attempted suicide reported to Rescue 1122 Mianwali in 2011

Variable	Total no.	%
Home	80	74
Other	28	26

Therefore, data were only collected from the operational area of the service and did not include suicides that were reported to other agencies such as the police and private ambulance services. Second, Rescue 1122 is a pre-hospital emergency service, thus it is not able to collect any information about the fate of the suicide attempters that were shifted to the hospital. Third, because

of sociocultural constraints, in-depth investigation of suicide and attempted suicide incidents was hard to carry out.

Conclusion

This study provides an overview of the current epidemiological status and possible causes of suicide and attempted

suicide in Mianwali, Pakistan. The younger population was found to be at highest risk, which is an alarming situation. Depressive disorders, growing economic instability of the country, and associated high unemployment rates were the predominant factors that persuaded people to end their lives. Suicide could be avoided to a certain extent if all stakeholders (such as government, public health departments, social workers, community and religious leaders, and media) play their part in addressing this serious public health and social issue. Further research is needed to devise effective suicide prevention strategies/programmes.

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