

# CHANGING PATTERN OF SUICIDE AND PARASUICIDE IN KARACHI\*

Pages with reference to book, From 76 To 78

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Figures of suicide and parasuicide for 1974-1978 were collected from official sources (police) and compared with a similar study carried out fifteen years back. The temporal constancy of under-reporting in Karachi was proved when changing situations in developing countries are taken into consideration. The differences in the pattern of suicide and parasuicide found were: the suicide rates have fallen considerably and the parasuicide rates remained more or less same; more younger people under the age of 20 and more females are successfully committing suicide than before, and more are using insecticide and tablets as compared to late fifties and early sixties. Domestic troubles remain the most common reason for suicide and parasuicide in both the studies (JPMA 31:76,1981).

## Introduction

It is an accepted fact that the official statistics on suicide and parasuicide underestimate the incidence. Suicide rates in Dublin from 1900-1904 were compared with a series in 1964-1968 and found that underestimation was of similar proportion. The temporal constancy of underreporting was therefore concluded (Burgha and Walsh, 1978). Ashraf (1964) reported suicide and parasuicide in Karachi between 1959-1963 on the basis of figures drawn from official sources (police). The purpose of this study was to collect data from a similar source after fifteen years and observe (a) temporal constancy theory in developing countries like Pakistan, and (b) changes in the pattern of suicide and parasuicide in Karachi.

## Material and Method

It was planned to collect data on suicide and parasuicide in Karachi during 1974-1978 on the same information pattern and exactly in a similar manner to that in 1964. Various police stations compiled the statistics and no attempt was made to supervise the operation. Those involved were not aware of the earlier study. The information asked were age, sex, methods used and stated reasons. Suicide is still a crime in Pakistan (Criminal Procedure Code 309) and the medicolegal centres located in three different hospitals enter the case in a medicolegal register and inform the police. The 'methods' and 'reasons' should be viewed with reservation as they are derived from the police investigation. 'Drug and poison' as a method is a wide category where drug is synonymous with tablets and poison is any other harmful substance which is named when possible. No result of chemical analysis was provided (Khan, 1979).

## Results

During five years (1974-1978) 25 cases of suicide and 167 of parasuicide were reported (Table I).

Table I: Comparison of Suicide (S) and Parasuicide (Ps) According to Sex and Their Ratios During 1959-1963 and 1974-1978.

<i>Sex</i>	1959-1963		1974-1978	
	S	Ps	S	Ps
Male	65	89	14	137
Female	24	13	11	30
Total	89	102	25	167
M:F	2.7:1	6.8:1	1.2:1	4.5:1
Rates per 100,000 pop.	0.72	0.82	0.11	0.73

The yearly breakdown of suicides and parasuicides respectively being: 1974, 7 and 26; 1975, 8 and 34; 1976, 1 and 25; 1977, 2 and 35; 1978, 7 and 47. In the suicide group there were 14 males and 11 females while in parasuicide 137 males and 30 females (Table I). Sixteen out of 25 cases (64%) committing suicide fell in the age group of 11-20 years and 84 out of 167 (50.2%) attempting suicide between 21-30 years.

The means used according to priority in the suicide group were: drugs and poisons 44.0%; sharp instruments 20.0%; burning with fire 20%; hanging 8.0%; and shooting 8.0%. In the parasuicide group the distribution was: drugs and poisons 35.3%; sharp instruments 35.3%; burning with fire 12.6%; jumping in the sea 2.8%; hanging 1.8%; shooting 1.2%; and 'others' 11.39% (Table II).

Table II: Comparison of Parasuicide and Suicide According to Means Used Between 1965 and 1978 Series.

<i>Means</i>	1959-1963		1974-1978	
	<i>Parasuicide</i>	<i>Suicide</i>	<i>Parasuicide</i>	<i>Suicide</i>
Drugs and poisons* .. ..	43 (42.1)	35 (39.3)	59 (35.3)	11 (44.0)
Sharp instrument .. ..	24 (23.5)	6 (6.7)	59 (35.3)	5 (20.0)
Jumping in sea or from building .. ..	23 (22.5)	13 (14.6)	4 (2.83)	0 (—)
Fire .. ..	5 (4.9)	16 (17.9)	21 (12.6)	5 (20.0)
Hanging .. ..	3 (2.9)	16 (17.9)	3 (1.79)	2 (8.0)
Shooting .. ..	2 (1.9)	3 (3.4)	2 (1.19)	2 (8.0)
Others .. ..	2 (1.9)	0 (—)	19 (11.39)	0 (—)
Total	102 M=89 F=13	89 M=65 F=24	167 M=137 F=30	25 M=14 F=11

\*Copper sulphate, Dhatura, Kerosin oil, Acid, DDT, Sleeping pills.

\*Insecticide, tablets, Acid, Kerosin oil.

As no results of chemical analyses were available the commonest stated drugs and poisons when mentioned, in order of frequency, were insecticides, tablets, acid and kerosine oil.

When the commonest means used were divided according to sex in the suicide group, 72.7% females as compared to 21.4% males took overdoses of drugs and poisons; while more males, i.e. 28.6% used sharp instruments as compared with 9.1% females. In the parasuicide group again 66.7% females used drugs and poisons as compared with 28.5% males. In the use of sharp instruments males exceeded females in both suicide and parasuicide groups (Fig. 1).

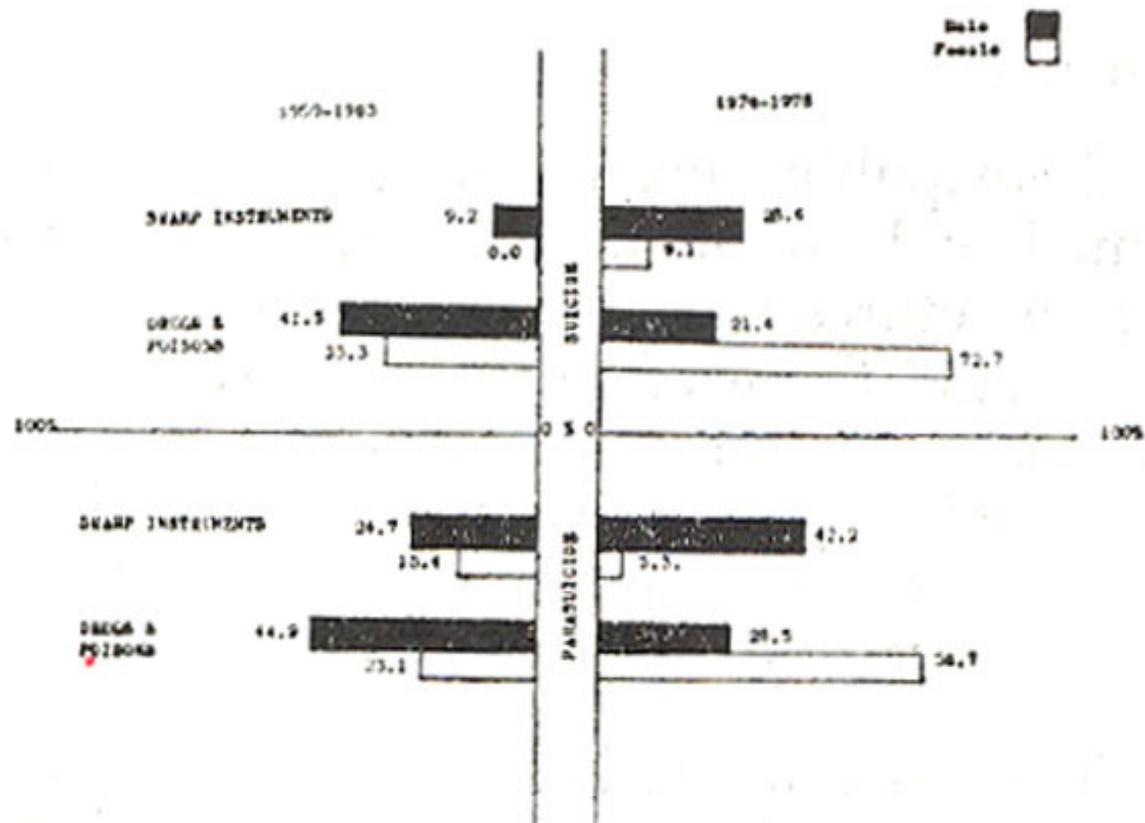


Fig. Comparison of suicide and parasuicide between two samples according to Sex and two frequent means used.

The stated reasons of suicides and para-suicides are given in Table III.

Table III: Distribution of Suicide and Parasuicide According to Reasons 1959-1963 and 1974-1978.

Reasons	1959-1963		1974-1978	
	Suicide	Parasuicide	Suicide	Parasuicide
Domestic troubles .. .. .	39 (43.3)	45 (44.1)	20 (80.0)	72 (43.1)
Mental disorder .. .. .	13 (14.6)	5 ( 4.9)	2 ( 8.0)	2 ( 1.2)
Unemployment .. .. .	7 ( 7.8)	11 (10.9)	1 ( 4.0)	19 (11.4)
Prolonged illness .. .. .	10 (11.2)	7 ( 6.9)	2 ( 8.0)	5 ( 2.9)
Financial problems .. .. .	6 ( 6.7)	8 ( 7.8)	—	5 ( 2.9)
Failure in love .. .. .	5 ( 5.6)	9 ( 8.8)	—	18 (10.8)
Fear of punishment .. .. .	3 ( 3.4)	10 ( 9.8)	—	18 (10.8)
Failure in exam. .. .. .	—	3 ( 2.9)	—	1 ( 0.6)
Others .. .. .	6 ( 6.7)	4 ( 3.9)	—	27 (16.2)
Total .. .. .	89	102	25	167

Among suicides the most frequent were: domestic troubles (male 78.6%, females 81.8%), mental disorder (only females, 18.2%), unemployment (only males 17.1%), prolonged illness (only males 14.3%). Among the parasuicide group they were: domestic troubles (males 37.9%; females 66.7%), unemployment (only males 13.9%), fear of punishment (only males 13.1%), and failure in love (males 9.0%; females 23.3%).

## Discussion

**Temporal constancy:** The 1964 study covering a period from 1959-1963 (henceforth referred to as the first study) shows suicide/parasuicide ratio as 1:1.1, while in the present series it is 1:6.7. It appears unlikely and emphasis might have been on those who died. However, when suicide and parasuicide are added the total numbers are remarkably similar, i.e. 191 in the first study and 192 in the recent series. When the rate per 100,000 population is computed (Pakistan Economic Survey, 1979) the average annual rates show: first study, suicide 0.7 and parasuicide 0.82; present series, suicide 0.11 and parasuicide 0.72. The parasuicide rates in the two series are very nearly the same but suicides appears to have shown a sharp decline (Table I). It can be argued that due to better treatment facilities more survived during 1974-1978. This argument is strengthened by the fact that the first intensive care unit in Karachi was established at Jinnah Postgraduate Medical Centre in 1975.

The low recorded suicides and parasuicides should be seen in the background that they are still taken as crimes. Another contributory factor could be the changing attitude of the medical profession towards such individuals. Our limitations in collection, storage and retrieval of statistics and no tradition of issuing data on suicide needs emphasis. It is therefore reasonable to conclude that temporal constancy of under-reporting suicides and parasuicides is equally applicable to developing countries.

**The Pattern:** Being fully aware of the limitations of the available data on suicide and parasuicide in Karachi, it is worthwhile comparing them as the source is common.

**Age and Sex:** In the first study, 51.6% of suicides were in the age group of 21-30 years, while in the present series there is a shift to younger age and 64% fall below 20 years of age. For parasuicide there is no difference between the two and about 50% fall between 21-30 years. The females are consistently less in suicide and parasuicide in both the samples. The male/female ratio has changed from 2.7:1 to 1.2:1 among the suicides, meaning more females are represented now than in the first study. The ratio has not changed much in the case of parasuicides. It is 6.8:1 to 4.5:1.

**The methods used:** In both the studies 'drugs and poisons' and sharp instruments were the commonest methods used. When they are compared on the basis of sex, more females have used 'drugs and poisons' in the recent series compared to the first (Figure 1). Only five cases out of a total of 191 (suicide and parasuicide) used tablets (drugs) in the first study, which is remarkably low. The 'drugs and poisons' used in order of frequency were: copper sulphate (used for rinsing clothes after washing), dhatura (wildly grown plant which is an atropine-like substance), kerosine oil, acid, DDT (organophosphates), and tablets. In the present series the frequency has changed to insecticide, tablets, acid and kerosine oil. Copper sulphate and dhatura have vanished. A similar pattern of overdose was reported from the intensive care unit of Jinnah Postgraduate Medical Centre, Karachi, where tablets and insecticide were most commonly used. Out of 11 deaths in one year, 9 were those who ingested organophosphates (Jamil et al., 1977). Jumping into the sea or from buildings was much more common in the late fifties and early sixties (14.6% killed themselves and 22.5% attempted to), while more recently only 2.8% resorted to such violent methods.

**The reasons:** Among the suicide group in the first study, domestic troubles (43.4%), mental disorder (14.6%), prolonged illness (11.2%) and financial problems (6.7%) were the main reasons. When compared with the present series, domestic troubles took the highest toll (80.0%), followed by mental illness (8.0%) and unemployment (4.0%). Failure in love and fear of punishment were significant by

their absence. The domestic trouble leading to suicide in recent years can be explained on the basis of shattering values and strains of disintegrating joint family systems.

Among parasuicides there was little difference between the two series. In order of frequency they were: domestic troubles, unemployment, fear of punishment and failure in love. In the domestic trouble group, more females (66.7%) attempted suicide than males in the present series.

## **References**

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