

## EDITORIAL

### Suicide Prevention

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**Introduction:** Suicide, in Egypt and Islamic countries, is an underestimated problem. The official statistics are likely to be less than the true rates because of religious and social reasons. One look at the daily newspapers will show an increase in the number of people who have deliberately taken drug overdose or harmed themselves in other ways. Suicide, in fact, has become a public health problem of major proportion. It has become clear that only a small minority of these people intend to take their lives; the rest have other motives for their actions.

In general, compared with people who harm themselves and survive, those who commit suicide are more often male, and are usually suffering from a psychiatric disorder. They plan their suicidal acts carefully, take precautions against discovery, and use dangerous methods. By contrast, amongst those who harm themselves and survive, a large proportion carry out their acts impulsively in a way that invites discovery and is unlikely to be dangerous. the two groups are not distinctly separate; they overlap in important ways. (Gelder et al., 1989; Linehan 1986).

**Epidemiology:** Okasha et al., (1979) had studied 200 cases from a total of 1155 patients who attempted suicide in 1975 and were admitted to the casualty department of Ain Shams University Hospital in Cairo, which has a catchment area comprising approximately 3 million people. A crude rate of suicide attempts

in Cairo would be 38.5 / 100,000. There was a high percentage among the age group (15-44) with no major difference between the two sexes. Single patients represents 53% of the total, with students showing the highest risk (40%). Depressive illness, hysterical reactions and situation disorders, in that order of frequency were the main causes of the attempt. Overdose by tablets ingestion was the most common method used (80%). Official government records are misleading and do not represent the true rate (see table 1).

Five hundred and sixteen final-year non-consulting medical students were studied as to the occurrence of different degrees of suicide feelings. Okasha et al., (1981) found that a total of 12.6% reported some degree of suicidal feelings during the past year. Responses ranged along a continuum such that subjects reporting the more intense feelings also reported the less intense feelings.

In 5.6% of the subjects the maximum intensity was only a feeling that life was not worthwhile, 4% had thought of taking their life, 0.9% had seriously considered suicide and made plans, and 0.4% had made an actual suicide attempt. Subjects experiencing suicide feelings in the past year had more minor psychiatric symptoms, particularly of depression and had experienced more stressful events and somatic illness. In these respects they resembled the description of complete suicide. (see table 2).

**Table (1) Diagnosis**

|                        | n   | Males | Females | %   |
|------------------------|-----|-------|---------|-----|
| Depression illness     | 126 | 83    | 43      | 63  |
| Hysterical reaction    | 26  | 6     | 20      | 13  |
| Schizophrenia          | 16  | 15    | 1       | 8   |
| Personality disorders  | 10  | 5     | 5       | 5   |
| Situational disorders  | 17  | 9     | 8       | 8.5 |
| Addiction intoxication | 5   | 5     | -       | 2.5 |

Source: Acta psychiat. Scand. (1979)

**Table (2) Prevalence of suicidal feelings**

|                                  | No. | Percent |
|----------------------------------|-----|---------|
| Total number                     | 516 | 100     |
| Felt life was not worthing       | 64  | 10.2    |
| Wished they were dead            | 32  | 6.1     |
| Thought of taking life           | 14  | 2.7     |
| Seriously considered taking life | 8   | 1.5     |
| Make a suicide attempts          | 3   | 0.4     |

Source: Acta psychiat. Scand. (1981)

Okasha and Lotaief (1983) found that the crude rate of suicide attempts in Cairo was estimated at 3.80 to 3.85. The highest incidence was between 15 and 24 years of age (60%) and the second highest between 35 and 44 (25.5%). There was only a slight preponderance of males in the sample, possibly reflecting the

more urgent need in the culture for females to conceal suicide attempts. The larger number of attempts in youth may be owing to the severe stress they encounter in adaptating traditional ways to a period of industrialization and in finding their aspirations frustrated even though their expectations were limited. The eld-

erly are respected and protected in Egypt's culture. As most attempters were deeply religious Muslims, religion did not seem to be a deterrent to suicidal behavior.

Official reports on both attempted and completed suicides are misleading. The record of Ministry of Interior in 1971, 1972 and 1973 listed 103, 88 and 81 cases of suicide, respectively and 43, 40 and 40 cases of attempted suicide. Thus the official annual report for the whole of

Egypt lists fewer attempted suicides than were admitted in one month to Ain Shams University Hospital. (See tables 3, 4 and 5).

Another study of a sample of (91) persons who were admitted for attempted suicide to the casualty department of three hospitals in Cairo during the year 1981-1982 were thoroughly studied (Okasha et al., 1983). The vast majority of the suicide attempters were young women (age

**Table (3) Religion of nineteen suicide victims in Cairo 1975**

| Religion | Males | Females | Total |
|----------|-------|---------|-------|
| Muslim   | 8     | 9       | 17    |
| Cristian | 0     | 2       | 2     |
| Total    | 8     | 11      | 19    |

**Table (4) Psychiatric Diagnosis in (200) cases of attempted suicide in Cairo, 1975**

|                             | Suicide attempts |         |       |      |
|-----------------------------|------------------|---------|-------|------|
|                             | Males            | Females | Total | %    |
| Depression illness          | 83               | 43      | 126   | 63.0 |
| Hysterical reaction         | 6                | 20      | 26    | 13.0 |
| Schizophrenia               | 15               | 1       | 16    | 8.0  |
| Personality disorders       | 5                | 5       | 10    | 5.0  |
| Drug addiction & alcoholism | 5                | 0       | 5     | 2.5  |
| Situational disorders       | 9                | 8       | 17    | 8.5  |

**Table (5) Methods used in (200) cases of attempted suicide in Cairo, 1975**

| Diagnosis                       | Suicide attempts |         |       |      |
|---------------------------------|------------------|---------|-------|------|
|                                 | Males            | Females | Total | %    |
| Overdose of drugs               | 98               | 62      | 160   | 80.0 |
| Pisnous materials               | 3                | 17      | 20    | 10.0 |
| Opium and other addictive drugs | 6                | 0       | 6     | 3.0  |
| Other                           | 14               | 0       | 14    | 7.0  |

range 15-34 years) belonging to large overcrowded families. They showed a higher tendency to be single, literate and unemployed than the corresponding age group in the general population. Drug overdose was the commonest method used. The majority made their attempts at home when there was somebody nearby, and 31% had previous non serious attempts. Dysthymic disorders, adjustment, affective and personality disorders were the most common diagnoses encountered.

Attempters scored higher in neurotics, extra-version and psychoticism and they tended to be more flexible.

Okasha and Raafat (1988) found that 64% of suicidal depressives with right hemispheric dysfunction showed marked extension of the right parieto-occipital dysfunction to the right temporal region. These results may indicate that suicidal depressives may represent a sub-group of depressive disorders with some organic pathology or there may be a physiological marker or predictor to the impulse of suicide. Whether this is a marker for impulsively and dangerousness including violent crimes is a matter which needs further replication and more cases.

In England drug overdose account for about two-third of suicides among women and about a third of those among men (Morgan 1979). 1% of Americans die by suicide, about 300,000 per year (the 8th leading causes of death). Among adolescents, the rate has tripled over the past 40 years to become the 3rd leading cause of death in youth (Wickramar et al., 1989).

Suicide rate in UK (less than 10 per 100,000 per year) is in the lower range of those reported in Western countries. It is reported also that rates of suicide are lower in Arabic countries than in other places in the world. Anyway, suicide rates have changed over the years since 1900, an unusual period was 1963-74 when rates declined in England but not in other European countries or in North America (Sainsbury 1986). The reasons for those changes are not clear.

In Iraq, Al Kassir (1983) reported that statistics on suicide in Iraq are not obtained, official reports for the forty two years 1934-1975 show completed suicides ranging from zero to 35. No pattern is distinguishable. A 1975 report on attempted suicides in one hospital in

Baghdad shows 116 attempts by self burning mostly by females.

Completed suicides tend to be male, between the ages of 15-30, with very few cases among older persons. The chief methods were gunshots, poison, and self-burning. Stabbing, hanging and drowning came next, in descending order. Women tended to use poisoning and self-burning, whereas men used gunshot, wounds and drowning. The cause of suicide attempts were not delineated in official reports, but case records indicate that the most frequent were disappointments in love and family problems. Most suicides had some education usually primary and secondary. All the reported suicides were committed in urban areas especially Baghdad. Files of the Institute of Forensic Medicine in Baghdad indicated that not a single complete suicide had been reported from rural areas since 1934. Any suicide or attempted suicide that occurs in the countryside is listed as an accident. Social condemnation is stronger in rural areas and families are not willing to be identified as having a member who committed or attempted suicide. Life in rural areas is more simple, family ties have probably remained intact and individuals have a strong sense of belonging.

In Jordan, Barhoum (1983) pointed out that suicide is more prevalent among married subjects, suicide attempts were made more frequently by single subjects. The first finding may be attributable to family troubles that occur in marriage. On the other hand, failure in a love affair and forcing a female to get married to a dislike person seemed to be cogent reasons for attempting suicide. Insecticides and poisoning were found to be the most common methods used in committing suicide in both statistical and the case studies sections of our survey.

The highest percentage among completed suicides were in the 20-29 age

group. Persons under 20 had the highest rate of attempted suicide, in both the statistical report and the case studies. Since suicide is still considered by official standards not to be a major problem in Jordan, no emphasis is placed on preventive measures.

In Kuwait, Ezzat (1983) pointed out that it is noteworthy that a majority of those who committed or attempted suicide were Arabs. It might have been supposed that foreign workers would constitute a large portion of the suicides since some of them came from countries where depressed conditions exist, and some of the westerners were single or divorced men, who are supposed to be the most vulnerable to suicide. Non-Kuwaitis represent more than fifty nationalities although the nationalities of the cases surveyed were not always recorded in the forensic medicine files, non Arab were easily recognized by the names. Little attention had been paid to suicide as a cause of death in Kuwait and therefore there are no suicide prevention activities. It is noteworthy that accidents poisoning and acts of violence were the third major cause of death, according to the annual statistical abstract for 1975, put out by the Central Statistical Office in Kuwait.

The primary cause of death was infection and parasitic disease, the second diseases of the circulatory system. It is possible that some of the recorded poisonings were suicide acts, according to comments of patients in his clinical practice.

In Syria, Al Hakim (1983) concludes that in the pattern of Syrian suicides as seen in his study, the largest number of suicidal acts took place before age 25, particularly between 15 and 24.

Attempted suicides were 66% females. Up to the age 55 completed suicides were almost equal between males

and females, in later life more men killed themselves than women. The estimated rate per 100,000 for the four years (1969-1972) varied from 3.7-7.2 for all suicidal acts. The larger majority of individuals covered by the survey were Muslims of the sunnite sect. Approximately a third of those who committed or attempts suicide took pills. Female suicidal acts seemed to be related to their inferior position in the society and their limited ability to protect themselves or to alter their circumstances.

Young persons were more vulnerable to stress than older persons in this rigidity hierarchical society.

The epidemiological data on suicide and suicidal attempts are becoming more reliable. Yet scanning the literature of the last decade, we will be faced by the absence of a coherent core of knowledge that would represent a widely accepted advance beyond what was known or at least believed, with the notable exception of contemporary reports on biological correlates.

It is believed that about 95% of suicide victims suffer from psychiatric illness and major depression is about 15% or it, while bipolar depression constitute about 10% followed by schizotypal disorder 8% then alcohol abuse 2%. Data about border line personality varies between 4% to 9% (Mosciki 1988).

Clinical thinking and classification are commensurable by dividing suicide into committed, attempted and threatened suicidal behavior. It became apparent that non lethal attempts are different from actual suicide, the non lethal attempts is to avoid pain and help in ameliorating it. On the other hand the poor impulse control can lead to a lethal attempt at avoiding pain.

From the clinical thinking and from studying suicidal population we can go into two theories:

a) The single population theory defining

all subjects with reference to the extreme minority who actually die, and here the importance of the majority who do not die is contingent on their relationship to the minority who do.

b) The multiple population theory which in contrast views each type of behavior identification, self harm and suicide as important in it's own right independent. (Clark et al., 1989).

### Causes of suicide

In 1897 Durkheim published an important book in which he proposed a relationship between suicide and social conditions. He divided suicide into three main categories. Egotistic suicide occurred in individuals who had lost their sense of integration within their social group. Anomic suicide occurred in individuals who lived in society that lacked 'collective order' because it was in the midst of major social change or political crisis. Altruistic suicide occurred in individuals who sacrificed lives for the good of social group. Durkheim's views have been influential even though it now seems that he overemphasized social factors at the expense of individual causes.

Mental disorders are a most important cause of suicide. It is believed that about 95% of suicide victims suffer from psychiatric illness, 15% of them due to major depression, 10% due to bipolar depression, schizotypal disorder 8%, alcohol abuse 2%, border line personality disorder varies between 4% to 9% (Mosciki 1988). The association between suicide and those various factors do not of course, establish causation. Nevertheless they point to the importance of two sets of interacting influences: amongst social factors, social isolation stands out; whilst among medical factors, depression, alcoholism and abnormal personality are particularly prominent.

Despite the findings mentioned above,

there can be doubt that suicide is occasionally the rational act of a mentally healthy person. Moreover mass suicides have been described among groups of people, and it is unlikely that they were all suffering from mental disorder (Rosen 1981).

Before the 1950s little distinction was made between people who killed themselves and those who survived after an apparent suicide act. Stengel (1952) identified epidemiological differences between the two groups, and proposed the terms 'suicide' and 'attempted suicide' to distinguish the two forms of behavior. He supposed that a degree of suicidal intent was essential in both groups; in other words, those who survived were failed suicides. These ideas were developed in an important monograph Stengel and Cook (1958).

In the 1960s it was proposed that suicidal intent should no longer be regarded as essential, because it was recognized that most 'attempted suicides' had 'performed their acts in the belief that they were comparatively safe. For this reason Kessel (Kessel and Grossman 1965) proposed that 'attempted suicide' should be replaced by 'deliberate self poisoning' and 'deliberate self-injury'. These terms were chosen to imply that the behavior was clearly not accidental, without any assumption whether the desire for death was present. By the end of the 1960s, these ideas were widely accepted.

Kreitman and his colleagues introduced the term 'parasuicide' to refer to 'a non-fatal act- in which an individual deliberately causes self injury or ingests a substance in excess of any prescribed or generally recognized therapeutic dose (Kreitman 1977, p.3). Morgan (1979) suggested the term deliberate self harm (sometimes abbreviated to DSH) to provide a single term covering deliberate self-poisoning and deliberate self-injury.

The distinction between suicide and deliberate self-harm is not absolute. There is important overlap. Some people who had no intention of dying succumb to the effects of an overdose. Others who intended to die are revived. Moreover many patients were ambivalent at the time, uncertain whether they wished to die or to live.

It should be remembered that among patients who have been involved in deliberate self-harm, the suicide rate in the subsequent twelve months is about a hundred times greater than in the general population.

During the 1960s and early 1970s there was a substantial increase in cases of deliberate self harm admitted to general hospitals. Among women, deliberate self harm, is now the most frequent single reason for admission to a medical ward, and among it is second only to ischaemic heart disease.

In the early 1960s a substantial increase in deliberate self-harm began in most Western countries (see Weissman 1974; Welxler et al., 1978). In the United Kingdom, the rates of admission to general hospitals increased about fourfold in the ten years up to 1973 (Kreitman 1977; Bancroft et al., 1975). The rates continued to increase more slowly in the mid-1970s, but have been failing since the late 1970s, especially among young women (Alderson 1985). The reasons for the decline are unknown, as there has been no change in most of the social factors associated with deliberate self-harm, and unemployment has been rising.

The recent increase in unemployment in all Western countries has focused attention on a possible association with deliberate self-harm. Amongst men who deliberate harm themselves, the proportion of unemployment has been increasing in the recent years, and the rate of de-

liberate self-harm is greater with greater length of unemployment. However, unemployment is related to many other social factors associated with deliberate self-harm and there is no evidence that unemployment is a direct cause. Little is known about any association between deliberate self-harm and unemployment among women (See Platt (1986 for a review).

### Predictors of suicide

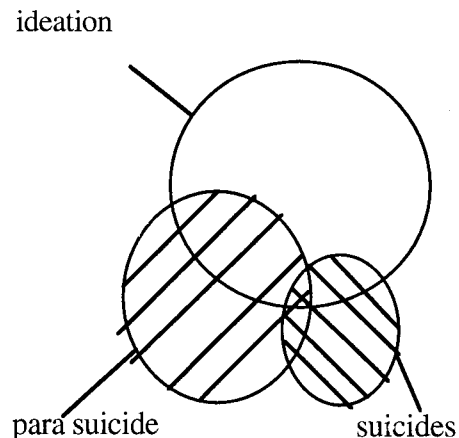
Prediction is the best way to deal with suicide and to prevent it or at least to lessen it's risk so it can be suspected in individual who reflect a genetic predisposition in those who have a positive family history of suicide in depression, suicide in patients with mood disorder tends to cluster in families, adoption studies also suggest an inherited vulnerability to suicide itself, independent of diagnosis.

Suicide also is (Kety 1990) highly expected in patients who had previously attempted it, what is known as the crescendo hypothesis that a first suicide attempt is primarily a situation then each succeeding attempt is more likely because a psychological threshold had been lowered and easily overcome (Himmelhoch 1988).

In searching for an underlying common risk factor in suicide, we have to evaluate the relative important of cluster of personality feature e.g. impulsiveness, stimulus seeking, rigid dichotomous thinking or abnormal serotonergic functioning and become many of these features are in effect contaminated by psychotic illness we have to know what illness are more comrbid with suicide.

Linehan's (1986) hypotheses analysis led her to a tentative one group of suicide attempters, specifically those with a clear intent to die overlap with the group of individuals who actually commit suicide,

but the overlap is probably small, and we must be careful not to confuse these two populations and the overlap between those who think of suicide (ideators) and those who attempt and commit is very small as shown in the following figure



Lineham (1986)

In order to lessen the risk of suicide we have to make proper prediction, proper diagnose, a good Somatic approach, through either using SSRI or ECT or both and lastly a psycho therapeutic approach based mainly on understanding and accepting the patients despair.

### Preventing suicide

If prevention after the first episode of self harm is so difficult, can primary prevention be achieved? Three main strategies have been suggested: reducing the availability of means of self-harm; encouraging the work agencies that try to help people with social and emotional problems; and improving health education.

1- Public health approach:

- a) Health events surveillance.
- b) Epidemiology analysis to identify the risk factors.
- c) The design and evaluation if interventions.
- d) Implementation of prevention pro-



grams.

2- Community prevention programs:

a) Improved communication networks will prove to be careful for maintaining long term prevention.

b) Continuous low intensity contact with the suicidal patients is more important than hospitalization.

3) School base suicide prevention programs directed to adolescents with deviant behaviors especially characterized by alienation and withdrawal from social support.

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