Revisiting Suicide and Parasuicide

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ABSTRACT

Suicide is one of the emerging causes of death among adolescents in India. The sociodemographic factor in India is different from the western counterpart. With a global mortality rate 16 per 1,00,000 population there is one attempt in every 3 seconds and one death in every 40 seconds globally. Beyond Durkheim’s sociological typology, the neurobiology of suicide has been explained in different studies. Studies on the neurobiology of suicide have implicated dysfunction of serotonin, dopamine, acetylcholine, adrenaline, noradrenaline, opioid, GABA, and glutamate systems. Once the suicide is committed it’s no longer treatable. The SUPRE-MISS study by WHO evaluated various management option in this culturally diverse world. The management and prevention of suicidal and parasuicidal behaviours requires proper assessment, empathic listening skills and interview, pharmacotherapy, psychotherapy, media management and awareness.

INTRODUCTION

The word suicide is derived from Latin, sui (oneself) and cide (murder). According to Emile Durkheim “Suicide is any death that is the direct or indirect result of a positive or negative act accomplished by the victim himself/herself which, he/she knows or believes will produce this result”. Suicidal ideation includes thoughts about killing oneself; making plans of when, where and how to carry out the suicide and thought about the impact of one’s suicide on others. Suicide attempt is a life threatening act, requiring medical attention that is committed with an intent to end one's life. Parasuicide is the term recommended by Kreitman- the act mimics or simulates suicide. It is defined as non-fatal act of self injury or taking of substance in excess of the generally recognized or prescribed therapeutic dose. Full spectrum of suicidal behavior includes fleeting ideation to persistent thoughts, gestures, threats and attempts to completion. Suicide can be noticed in the ancient writings of India – its religions, philosophies, epics and cultures¹. There are different types of suicides that are unique to Indian context like self-surrender (selective suicide), ichhyamrityu, sati.²
Table 1: Differences between Suicide and Parasuicide

<table>
<thead>
<tr>
<th>Aspects of behaviour</th>
<th>Suicide</th>
<th>Parasuicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>The stimulus of psychological pain suffered by patients</td>
<td>Endurable (tolerable) to some extent quantitatively not overwhelming</td>
<td>Unendurable quantitatively overwhelming</td>
</tr>
<tr>
<td>The purpose of the behaviour</td>
<td>The patient tries to evoke a response in others, who may help him or her to solve a problem.</td>
<td>Solution to an overwhelming problem, where no other option is felt worth trying</td>
</tr>
<tr>
<td>The nature of the behaviour</td>
<td>Evocative (bringing feelings)/even provocative</td>
<td>Conclusive</td>
</tr>
<tr>
<td>The target of evocation in the behaviour</td>
<td>Punishing a specific other or generalized others</td>
<td>Self punishment</td>
</tr>
<tr>
<td>Content of thought of the patient</td>
<td>Disconnectedness, disenfranchisement (to deprive of any privilege), disenchantment (disappointed)</td>
<td>Hopelessness, helplessness, worthlessness</td>
</tr>
<tr>
<td>Subject's attitude</td>
<td>Indecision which is trivalent among the options of living, suffering, dying</td>
<td>Indecision which is ambivalent or bivalent to life or to die</td>
</tr>
<tr>
<td>The action per se</td>
<td>Is aimed towards emotional linking and unity with life.</td>
<td>Is an escape, or leaving life</td>
</tr>
</tbody>
</table>

(Adopted from Shneidman)
In 2000, approximately one million people died of suicide. This represents a global mortality rate of 16/100,000 or one death every 40 seconds. Worldwide, suicide ranks among the three leading causes of death among those aged 15-44 years. According to the WHO estimate, by 2020, 1.53 million people will die from suicide. 10-20 times more people will attempt suicide worldwide. This represents, on an average, one death every 20 seconds and one attempt every 1-2 seconds. Almost 30% of the total suicides worldwide are committed in China and India alone. In India, suicide has been investigated from a number of angles in health and related areas beginning with the earliest study undertaken in 1960’s in NIMHANS. There are limitations of CRS (Civil Registration system) of National level data. First of all, only about one quarter of all deaths are registered and, of them, only about 10% are medically certified. Secondly, the deaths from homicide and suicide are particularly under-reported. The information regarding the cause of death are tabulated without any probing which lead to ‘false positives’.

NATIONAL CRIME RESEARCH BUREAU REPORT

According to IPC, all unnatural deaths or deaths under suspicious circumstances have to be reported to the nearest police station or magistrate. Their cause is then determined by a medical examiner. Compiled by the Bureau of Police Research and Development in New Delhi from all states and union territories. It is published annually as “Accidents and Suicides in India” under the Ministry of Home Affairs by Govt. of India. The limitation of NCRB data is that police personnel are not trained and equipped to investigate the social, economic, health and personality factors in suicide investigations. At least one-third of suicides are missed in police records. Medically certified deaths from the CRS identify merely about 15 per cent of deaths by suicide, largely because the system omits non-institutional deaths, but partly also in order to avoid making the judgment of suicide.

The lack of data may also be due fear of punishment, stigma or ignorance and misconception of the people. The means adopted for committing suicide varied from the easily available means such as consumption of poison, jumping into the well, etc. to more painful means such as self-inflicted injuries, hanging, shooting etc. As per NCRB, consuming poison (35.5%), hanging (32.8%), self immolation (8.7%), drowning (7.3%) are most common causes of suicide in India. Those engaged in farming or agriculture activities accounted for 16.8 per cent of total committing suicide.
A total of 7000 farmers have committed suicide during the last 3 yrs i.e. average of 6 per day. The various factors which play a role are chronic indebtedness, economic decline leading to complications and family disputes, depression and alcoholism etc. The rising cost of agricultural inputs and falling price of agricultural produce, compensation following death helps to repay the debt. An enquiry into causes of suicide in farmers in Maharashtra found that indebtedness was prevalent in 92.8% of the farmers. In 2006, 5,857 students — or 16 a day — committed suicide across India. While the global teen suicide rate is 14.5 per 100,000, a 2004 study by the Christian Medical College in Vellore reported 148 for girls and 58 for boys in India. High parental aspirations, increasing level of competition and the marks being benchmarks of student’s self-esteem. The combination has been found to be fatal in most of them. In a retrospective case file study conducted in Chennai by SCARF (1987-2000) - 3175 patients, 27 committed suicide. There is equal frequency in men and women. A longer duration of illness, a continuous psychotic illness and past attempts of suicide were significantly associated with suicide completion. The major methods involved were self-immolation, drug overdose, hanging and drowning (Female-self-immolation; Male-drug overdose).

In a study of suicide attempt’s v/s. completers in Kerala, it has been found that attempters & completers in male gender were in their forties and females were in thirties. The young females, married and house wives overrepresented among the suicide victims. In male and female suicide victims, hanging was the commonest method followed by poisoning in males and self-immolation in females. The poisoning was the commonest mode in male attempters and drug overdose in female.

Over 800 000 people die due to suicide every year and it is the second leading cause of death in 15-29-year-olds. There are indications that for each adult who died of suicide there may have been more than 20 others attempting suicide. Suicides are preventable. For national responses to be effective, a comprehensive multisectoral suicide prevention strategy is needed. The communities play a critical role in suicide prevention. They can provide social support to vulnerable individuals and engage in follow-up care, fight stigma and support those bereaved by suicide.

**STRESS-DIATHESIS MODEL OF SUICIDE**

A proposed stress – diathesis model of suicidal behaviour describes it to be the result of an interaction between stressors and a susceptibility to suicidal behaviour (diathesis). Most people with major psychiatric disorders never manifest suicidal behaviour, indicating the importance of diathesis in addition to a disorder. About 50% of the risk of suicide due to diathesis is inherited, and this percentage is possibly higher in women than in men.

![Fig 2: Stress-diathesis model of suicidal behaviour](image)

**PROTECTIVE FACTORS**

- Strong connections to family and community support.
- Skills in problem solving, conflict resolution, and non-violent handling of disputes.
- Personal, social, cultural and religious beliefs that discourage suicide and support self-preservation.
• Restricted access to means of suicide.
• Seeking help and easy access to quality care for mental and physical illnesses.

WARNING SIGNS
• Trouble coping with recent losses, death, divorce, moving, break-ups, etc.
• Feelings of hopelessness and despair
• Making final arrangements: writing a will or eulogy, or taking care of details (i.e. closing a bank account).
• Gathering of lethal weapons
• Giving away prized possessions
• Preoccupation with death, such as death and/or ‘dark’ themes in writing, art, music lyrics, etc.
• Sudden changes in personality or attitude, appearance, chemical use, or school behavior.

PSYCHOSOCIAL TREATMENT
a) Problem-solving
b) Psychotherapy
c) Distress-tolerance skills
d) Outreach
e) Provision of emergency cards
f) Family therapy

PHARMACOLOGICAL TREATMENT
a) Antidepressants-fluoxetine, should be always combined with other therapies
b) Lithium
c) Assessing suicidal risk
d) Assessing treatment needs
e) Psychological therapies
f) Pharmacological treatments
g) Social and service level interventions

FORMULATION OF MANAGEMENT PLAN
The appropriate treatment of suicidal patients involves usually a combination of emotional support, problem solving advice and regular follow up. Evidence base for treatment of suicidal behaviour is weak and most of the studies are small and works for specific subgroups. The other specific therapeutic strategies are

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Figure 3: Multilevel strategies to prevent suicide.
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- Problem oriented therapy
- Dialectical behavior therapy (borderline personality)
- Inpatient behavior therapy
- Home-based family therapy
- Group therapy (multiple attempters) (Adolescent)

INTERVENTION AT COMMUNITY LEVEL

1. Increasing public awareness
2. Campaign to reduce stigma

3. Guidelines for the mass media
4. Regulating formulations, packaging and sale of pesticides
5. Regulation of over-the-counter medication
6. Gender-related legislation and action
7. Introducing alcohol policies

In the WHO Mental Health Action Plan 2013-2020 - the global target of reducing the suicide rate in countries by 10% by 2020. WHO’s Mental Health Gap Action Programme, launched in 2008, includes suicide prevention as a priority and provides evidence-based technical guidance to expand service provision in countries.

Figure 4: Framework by WHO
There are certain myths to be broken like

“When someone is suicidal, he or she will always remain suicidal”

The truth is heightened suicide risk is often short-term and situation-specific. While suicidal thoughts may return, they are not permanent and individual with previously suicidal thoughts and attempts can go on to live a long life.

“Only people with mental disorders are suicidal”

The suicidal behaviour indicates deep unhappiness but not necessarily mental disorder.

“Most suicides happen suddenly without warning”

The majority of suicides have been preceded by warning signs, whether verbal or behavioural. Of course there are some suicides that occur without warning.

Suicide is therefore preventable. Understanding the neurobiology, finding coping strategies with multisectoral coordination is the call for the day.

REFERENCES

5. Gururaj G, Isaac MK. Epidemiology of suicides in Bangalore. National Institute of Mental Health and Neuro Sciences, 2001 publication no 43