Viewpoint

CHANGING TRENDS OF SUICIDES IN KERALA AND SOLUTIONS

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ABSTRACT
Suicidal behaviour with consequent fatal outcome has become a significant public health problem in India. On average, 9,000 people per year commit suicide in Kerala. Despite the enormity of the problem, there are only a few methodologically sound studies in this area. Currently available data show that suicidal phenomena, which occur in Kerala, are different from western society in a number of ways. Second and third decade seems to be the most susceptible age for Kerala suicides. The predominance of males in suicide reported from western countries is not so significant in Kerala. In Kerala, more than 70% of suicide victims are married. Though emotional disorders play an essential role in suicides, social factors also have an important role in Kerala suicides. Hanging and insecticide poisoning appear to be the favourite methods in Kerala. These observations have high relevance in planning suitable and meaningful suicide prevention strategies in our state. Mental health professionals in Kerala have an important responsibility to develop and implement effective suicide prevention programmes.

Keywords: suicide, attempted suicide, research, Kerala

INTRODUCTION
The alarming rate of suicide is a significant public health problem in Kerala for many years. In the print media as well as in seminars and conferences this problem has been discussed widely. Despite low levels of income, Kerala society has successfully engineered a fall in fertility, a rise in life expectancy, and a decline in birth, death and infant mortality rates. In health front, Kerala is something of a model, and its achievements are comparable to those of developed countries. On the paradox, Kerala has been reporting one of the highest suicide rates in the country.

In 2016, the state government came out with a comprehensive plan to achieve high health indicators by 2030 as part of the United Nations (UN) programme on Sustainable Development Goals. The plan included bringing the suicide rate down from 24.9 per lakh to 16 per one lakh population. The latest figures indicate that the state is heading towards that goal.


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Our state contributes 5.8 % of all the suicides occurring in India, while our population forms only 3.4% of the nation's populace. During the period 1991-2011, the incidence of suicide in Kerala rose at a compound growth of 4.61% as against the population rate of 2.2%. During this period suicides peaked in the year 1999 with a rate of 32 per one lakh population. After 2014 the rate is gradually coming down (Figure.1). According to the latest reports, Kerala stands 5th in the country in terms of the rate of suicide (21.6 per 1 Lakh). Still, it is two times the national average 10.3%. On average, there are 8,900 plus suicides in the state each year. In Kerala, on an average 26 people are committing suicides per day.

Since many years suicide rate is consistently high in Kollam, Thiruvananthapuram, Idukki, Wayanad, Thrissur etc. Interestingly in Thiruvananthapuram district, the suicide rate had a steep increase from 19.1 in 1995 to 41.4 in 2001. (Table.1) In all other districts, the rate is more or less constant over these years. The drastic fall in the price of agricultural products is reported as the reason for the high rate of suicides in the farmers dominated districts. The ever-increasing rate of alcohol abuse is another reason for this alarming rate. During the last five years, the lowest suicide rate is reported from Malappuram and Kasaragod. Since suicide is not allowed in Holy Koran, deep-rooted religious beliefs might be the reason for this lower rate. The absence of any family suicide from Muslim-dominated district supports that view.

**Suicide in cities**

The four metropolitan cities - Chennai (2,274), Bengaluru (1,855), Delhi City (1,553) and Mumbai (1,122) had reported a higher number of suicides in 2015. These four cities together have reported almost 34.6% of the total suicides reported from 53 megacities. Kollam (361) also reported high suicides.

“Family Problems (other than marriage related issues)” was the primary cause of suicide in cities which accounted for 34% of
Table 1. District wise break up of suicides in Kerala

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Source: Kerala State Crime Records Bureau

There is a wide variation in suicide rates, year to year, among Indian cities.\(^1\)

**Mass/family suicides**

In 2016 maximum cases of mass/family suicides were reported from Tamil Nadu (11 cases), Madhya Pradesh (9 cases), Rajasthan and Maharashtra (7 cases each) followed by Kerala and Andhra Pradesh (6 cases each).\(^1\)

Kerala was first in the rate of family suicides, but it has come down to 5th position in the recent reports of NCRB. Of the total number of suicides in the state, 15 to 20% are group or family suicides.\(^1\)

The phenomenon of mass suicide has attracted public attention in Kerala. Theoretically speaking the terminology of family suicide is not correct. It is really a mass murder or extended suicide. Here only the dominant person has a suicidal tendency. That person first kills other members of the family and finally kills himself. The despair and hopelessness related to family life arising
out of a severe financial crisis are reported as the reason for family suicides in newspapers. However, on a more in-depth exploration, growing consumerism and alcoholism is the main culprit for this trend. The concern towards the children may be making the parents wish that their children should not suffer after their exit from the world. It may also be that their act would gain completion only if children also join in it. Though suicide attempt originates as a purely personal idea, it gains the status of a family act in these cases.4

**Age group**

While the general suicide rate has been decreasing gradually compared to other states, the suicide rate among youngsters is on the higher side in Kerala. The largest number involved are married men and women between the ages of 18 and 50. Difficulties in securing stable jobs, financial problems and problems arising out of marriages which take place increasingly during the early phase of life (suicide is high among the married in Kerala) might have enhanced the suicidal risk in younger age group.5

**Gender difference**

The male to female ratio in suicide in Kerala is 2.2:1. The dominance of male in suicide shown in western literature is not reflected in Kerala. This diminishing gender difference is quite interesting. For the last few years, many studies from various parts of India as well as from other developing countries have also reported an increasing female proportion in suicide.

Women are now more independent in Kerala society, and this has bought consequent problems, along with the positive aspects. The divorce rate is going up. Many women called it a final exit following quarrels with their spouse. Interestingly, though the majority of the victims were men, a larger number of women than men attempted unsuccessfully to end their lives.5

**Marital status**

Married people (75.4%) outnumbered unmarried (18.7%) and widowers/widows/separated (5.9%) among the suicide victims in Kerala. In Western countries, suicide is more common in unmarried and separated individuals. In our country, marriage is a social obligation and is performed automatically irrespective of the individual's fitness for it. Further, marriage is believed to be part of the treatment for mental illness, and hence there could be several adjustment problems among the married mentally ill. In the West, on the other hand, marriage is believed to be a measure of emotional stability, and married people have a lower rate of mental illness.

The predominance of suicides among married has been reported from other states of India as well. It is held that females in India are submissive, docile and non-assertive, and these traits have built into their psyche with the result that they find themselves unable to deal with their negative feelings adequately. Among the stresses, the marital ones appear to be most frequent in women. Amidst the hostile environment of the families with problems of a difficult husband and dowry demanding in-laws, they feel helpless with the threat of losing their husband's sympathies with none to turn to (Fortunately dowry-related suicides are considerably less in Kerala). This results in the choice of suicide as a way out from psychological pain, anguish and suffering. This calls for measures to
cultivate and improve their coping styles to face domestic conflicts and dowry related problems.⁶

**Education**

Majority of the victims had studied only up to the secondary school level, with the largest number having only primary- or middle-school-level education.²

**Employment status**

The occupational profile shows that the largest number of victims were unemployed and housewives, followed by self-employed people in agriculture and other activities.² Kerala accounts for only 3.4% of India's population but has nearly 16% of the unemployment status among the Indian States. Moreover, Kerala has the highest rate of unemployment of the educated. It could be the educated, frustrated, unemployed youths who resort to suicide. A gap between the high level of education and the lack of commensurate jobs is projected as a reason for suicide among youths.

**Mode of attempt**

Majority of suicide victims took their lives by hanging, followed by insecticides and other poisons. A significant number of females committed suicide by drowning and self-immolation. Factors like feasibility, accessibility, credibility and rapidity of action and degree of suicide intent could be behind the choice of method for committing suicide. The availability of methods becomes more critical when the suicidal act is impulsive in nature.

For males, because of easy mobility and being farmers, have easy accessibility to insecticides. Similarly, for females, because of limited mobility and the majority being housewives, have more accessibility to medicines, corrosives, kerosene, native poisons, etc. However, in both genders, the stronger suicidal intention might have led them to choose a more lethal method like hanging as sure means to commit suicide.⁷ Venkoba Rao has revealed that domestic burns as a method of completing suicide by young women and most lethal one with a promise of a high degree of success.⁸ Burns, in general, have reported more in younger women.⁹

**Precipitating factors**

The causes reported for suicides differ in police records and in clinical experience. According to police records, 19% of suicides were caused by family problems, 16% physical illnesses, 15% financial problems, 11% mental illnesses, 2% joblessness, 2.1% professional/career problems, 1.6% love failure and 0.9% failure in exams. In SCRB reports, mental illness is identified as an important cause, accounting for 11% of suicides in Kerala, higher than the all-India average of 5%.² Reports from the pharmaceutical companies show that Kerala is a fast-expanding market for psycho-therapeutic drugs. 35% of the market of psychotropics in South India was in Kerala; the growth of psychotropics market in the State was 47%. South India, as a whole, accounted for 30% of the national market.¹⁰

Depression is the most untreated and under-treated mental health issue in the state. If untreated, nearly 15% of people might develop suicidal tendencies at a later stage. A survey conducted by Kerala State Mental Health Authority and National Health
Mission in five districts (2015-16) revealed that one in every eight persons (12.4%) had a mental illness requiring psychiatric intervention. It is in this context that psychiatrists have called for expansion of government's initiative ‘Ashwash Clinics’ for detecting minor and major mental ailments at the level of Primary Health Centres across the state.\(^{11}\)

Alcohol is the culprit in many suicides. The alcohol consumption in the state has increased manifold, and it is today one of the highest in the country. The per capita consumption of alcohol in the state stands at 8.3 litres, according to the Alcohol and Drug Information Centre (ADIC, 2017), India.\(^{12}\) 15% of the population consumes alcohol. The average age of first consumption of liquor came down from 19 in 1986, to 17 in 1990 and to 12 in 2014. Most drinkers are in the 21 to 40 age group, the same group where the maximum number of suicides also take place.

Depression, together with alcohol or drug abuse, can be lethal. People might try to alleviate the symptoms of their depression by consuming alcohol or drugs (which also is rising in the state). Alcohol and drugs only make the problem worse, increasing the risk of suicide. Depression is being trivialised as a minor problem, and only 5% of the patients in Kerala get treatment. A person complaining of chest pain gets immediate medical attention and stands only a 20% risk of dying of it. But a person complaining of depression is ignored, though he holds a 15% chance of committing suicide.\(^{13}\)

Migration of Keralite to the Middle East also adds to this fact. Almost every second family with a relative in the Gulf has a history of mental illness. The worst victims seem to be women between 15 and 25 years of age. It could be the incompatibility with in-laws that leads to most women developing mental problems.\(^{14}\)

On closer scrutiny, it would be observed that mild and moderate difficulties, lack of competence in handling them and the emotional difficulties arising from it are responsible for the majority of suicides. This is the real background of many suicides where financial difficulties are projected as the causal factor. More than the gravity of the financial difficulties and genuine problems in looking after the family, it is the incompetence and lack of confidence in handling these difficulties and the feeling of helplessness emerging from it setting the stage for the suicides.\(^{15}\)

Aspirations and needs are quite high for an average Keralite, but resources are limited. Many tend to buy things through instalments. Migration adds to this. People who go abroad (especially to the Gulf) try to inculcate the same living standards and culture here. The influence of consumerism, increasing prevalence of alcoholism and drug abuse, ruthless and competitive lifestyle, all collaborate to set the tragedy of the individual in the contemporary Kerala society.\(^{16,17}\)

Moreover, the pampered child-rearing practice have made a typical Keralite an individual without much fortitude or frustration tolerance and emotional immunity. Once the flow of Gulf money began to ebb, there are very few opportunities within the state for social advancement and for the nouveau-riche to maintain the standard of living that they had suddenly gotten used to. It is the middle class that has been affected the
most. Because of this suicide rates are higher among people who are downwardly mobile.  

Kerala is known as an 'intellectual State', not an 'emotional State. We do not douse in kerosene when a charismatic leader dies, as would possibly happen in some other states. But the flip side is that our society does not provide a release mechanism for the tensions that could build up within an individual as a result of the rapidly changing social climate around him or her.

The attitude of Kerala society towards suicides has also been changing. Most strikingly, some religious groups, especially Christian ones, have come to accept the phenomena of suicides and in recent years have even issued special directions offering burial rights for suicide victims. Marriage relationships with the families of suicide victims are also becoming less of a taboo.

Guidelines for prevention

Suicidal phenomena, which occur in Kerala, are different from the west in a variety of ways. 2nd and 3rd decade seem to be the most susceptible age for Kerala suicides. The gender difference is diminishing. More than clear diagnostic syndromes, maladjustment with family members and domestic strife are the causative factors. Furthermore, the event of marriage in our culture appears to augment the proneness for suicidal behaviour. The commonly observed modes of suicide like hanging, poisoning, drowning and burning indicates that apart from the credibility and rapidity of action, the availability and accessibility of a particular method is also vital.

Hence it is crucial for our state to develop locally and culturally relevant and feasible strategies for suicide prevention that can be implemented along with other national health, education, and welfare programmes.

For the first time in Kerala, a people's initiative for suicide prevention was launched at Ponnani panchayat in 1998 (which witnessed a spurt in suicides in those years). The 'Ponnani Document' includes guidelines for the State Government, the local bodies and non-governmental organisations (NGOs) to evolve immediate and long-term preventive strategies such as establishment of at least one suicide prevention centre in each district, continuing education facilities for doctors to identify and treat depression-related mental illnesses, life-skills education for children, counselling centres in colleges, reorientation of priorities by NGOs to make suicide prevention a significant area of their activity, and training for priests, social workers, public men, the police, teachers and others to deal with people in distress. It also calls on the media to be restrained in reporting incidents of suicide, especially in glorifying them and presenting them as a problem-solving method.

The Government of Kerala through its project, KRISIS (Kerala Integrated Scheme for Intervention in Suicide), Kerala State Mental Health Authority and Kerala State Branch of India Psychiatric Society have taken various preventive measures to control the alarming rate of suicide by adopting culturally relevant methods in suicide prevention.

Around the same time, Befriender’s movement started in Kerala under the aegis Befriender’s International and India and started suicide prevention centres in many cities of Kerala (Cochin-Mythri, Kozhikode-Thanal, Trivandrum-Sanjeevani) providing
emotional solace to the distressed which has helped in reducing suicides in Kerala. It is only a beginning.

Media can make a very relevant contribution to suicide prevention by minimising sensationalist reporting and maximising reporting on how to cope with suicidal tendencies and adverse circumstances. This was effectively tested in Austria back in 1987. Many other countries now support active collaboration with the media to prevent suicide contagion. One of the effective strategies to counter the Werther effect is the Papageno effect. This protective effect has been the name in honour of the character in Mozart’s opera, The Magic Flute. When Papageno fears that he has lost his love, Papagena, he prepares to kill himself. But three boys save him at the last minute by reminding him of alternatives to dying.20

Some of the principles on which suicide prevention strategies need to be developed are as follows:

- Early detection and treatment of depression and other mental disorders, including alcohol and drug abuse.
- Enhanced access to mental health services
- The intervention aimed at the psychological reaction to physical illness.
- Assessment and intervention for those who attempt suicide with close liaison with other medical specialities
- Intervention after a suicide - postvention
- Interventions for high risk and special groups
- Training - health / education / welfare personnel
- Restrict the availability of means such as insecticides and medicines
- Training for acute care management of poisoning and establishment of such a facility in every community health centre

**School-based interventions**

- Life skills education (to improve self-esteem and problem-solving skills)
- School-based counselling
- Training for teachers
- Close liaison with mental health services
- Include mental health in the curriculum

**Crisis intervention**

- Telephone helpline
- Samaritans, Befrienders
- Suicide prevention centres
- Public education
- Collaboration with media for responsible reporting
- Sensitization of policymakers regarding sustainable development, employment.

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Nil

**Conflict of Interest**

There are no conflicts of interest.

**REFERENCES**

18. Kumar PNS, Anish PK. Cross sectional analysis of suicidal behavior in adolescents – comparison with adult attempters. JIMA (In press)