IMPACT OF SUICIDE PREVENTION ACTIVITIES IN WAYANAD, AN AGRARIAN DISTRICT

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The background

Wayanad, a tiny hill district in Kerala famous for its spices and coffee plantations, was been in the news for the widespread suicides by distressed farmers - a phenomenon that is becoming increasingly commonplace in rural India as a result of implementation of free market economic policies.

This tiny district located in the high ranges of Kerala has a population of about 7 lakh, of which 90 per cent depend upon agriculture for sustenance. There are 40,129 farmers, 74,813 agricultural labourers, and 17,413 plantation labourers in the district. Another 37,267 people earn their livelihood from animal husbandry and forest produce. (Source: District Project - Draft Document, Wayanad, 2001. Govt. of Kerala). The district has highest tribal population - about 1.25 lakh -constituting 17 per cent of the total population. The major crops grown here are coffee, pepper, tea, cardamom, arecanut, etc. These are perennial cash crops (District Project - Draft Document, Wayanad, Govt. of Kerala 2001.

Unrestrained imports and changes in tariff regimes brought in by the liberal economic reforms have led to a drastic drop in agricultural prices over the last few years. The crops grown by Wayanad farmers have been the worst hit. The peasants are finding it difficult to recover even the production expenses. The price of pepper and coffee beans per quintal has come down in the recent few years. The name, Wayanad, is believed to have been derived from the word, Vayalnadu, meaning the land of paddy fields. This backward district is perhaps one of the biggest foreign exchange earners of the state, thanks to its cash crops like pepper, cardamom, coffee, tea, spices and other condiments.

Salient features

The total geographical area and population of Wayanad are 2131 sq.km, and 7,86,627 respectively. The male and female population are 3,93,397 and 3,93,230 respectively. The female-male sex ratio is 1000 per 1000 males. The density of population is 369 per sq.km.(Kerala population and census 2001) against 315 in 1991. The literacy rate in the region is 85.52 per cent. Male literacy rate is 90.28 and female literacy rate is 80.80.

Rural/urban population

Strictly speaking, there is no urban population in Wayanad. However, life in Sulthan Bathery, Mananthavady and Kalpetta is in the process of gaining urban status.

People

Wayanad district stands first in the case of adivasi population (about 36%) among other districts in the state. They form 17.1% of the total population of the district consisting mainly of Paniyas, Kurumas, Adiyars, Kurichyas, Ooralis, Kadans, Kattunaikkans etc.

Migrants

Wayanad has a large settler population. There was an influx of settlers to Wayanad after the Second World War. The economic slump, difficulties and miseries creeping as a result of war into the life of common people compelled them to seek 'pastures anew' on the virgin soil of Wayanad from all parts of Kerala and Karnataka. Wayanad has a small Jain community consisting of Gowders who came from Karnataka in the 13th century. The Nairs from Kottayam dynasty made an entry in

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the 14th century. They were followed by Muslims constituting one fourth population. Almost all sections of Christianity are well represented constituting another one fourth of population. Rest of the population belongs to Hindus.

There was large scale migrations from southern Kerala in the early 1940s. Their hard work and sacrifice helped them to prosper. On the other hand, the last few decades have seen the complete marginalisation of the indigeneous people. Alienated from their land and victimized by the state, their status is a blot on the progressive ideals of Kerala society.

Economy

Wayanad is the most backward district in Kerala. It is only 3.79% urbanised. Agriculture, mainly plantation and estate type, is the main stay of the economy. Coffee, tea, cocoa, pepper and lately,plantain, vanilla are the main cash crops. Besides cash crops, the most important crop in the district is rice. Agriculture in Wayanad is equally divided between paddy and plantation crops, except coconut. The economy of Wayanad depends mainly on coffee. In Kerala, coffee is cultivated in an area of 75,057 hectors. With Wayanad district having the highest area of 66,999 hectares. Pepper is grown as an additional crop on trees that are groomed to give shade to the coffee shrubs. In Pulpally area, there are exclusive pepper gardens. Tea is cultivated in large estates.

Agrarian crisis

Wayanad has an agricultural economy and it has no major industry to boast of. The district is struggling to deal with an agrarian crisis precipitated by the economic reforms. The tea plantations are facing shut downs mainly due to the Free Trade Agreement with SriLanka. Unscrupulous farming practises like excessive use of chemical fertilisers and insecticides have laid to waste large tracts of land. It is a known fact that the neighbouring districts and even the people of Wayanad do not consume some of its own products.

Banks

A notable feature of life Wayanad is that it is touched to its very roots by the operation of the nationalized, commercial and cooperative banks. The branches of these banks located in the remote areas of the district have a busy time during the marketing time of cash crops.

BARE FACT	
District	Wayanad
Area (in sq.km.)	2,131
Population	7,80,619
Males	3,91,273
Females	3,89,346
Sex ratio : Females/1000	995
Density of Population	366
Per Capita Income (in Rs)	34,123
Literacy rat	85.25%; Male 89.77%; Female 80.72%; Total

Major Agricultural Products

Products	Area under cultivation (ha.)	Production in tonne
Rice	12988	31326
Pepper	40839	12064
Ginger	3450	15164(cured)
Cardamom	4107	317
Cashewnut	1455	1283
Tapioca	1915	65180
Coconut	10947	51
Arecanut	7201	3237
Tea	6049	10983
Coffee	66973	52697
Rubber	6451	4753

(Source : Agriculture Statistics 2002-2003)

Health (Hospitals)

	Allopathy	Ayurveda	Homeopathy
Hospitals	41	24	20
Beds	811	120	25

Profession

Category	Persons
Non-Workers	472006
Workers	308613
Agricultural Labours	94139
Cultivators	51751
Household Industry workers	3600
Other Workers	159123

Psychological autopsy

The majority of studies on completed suicide are done by psychological autopsy method. The essential ingredients of psychological autopsy method include face to face interview with knowledgeable informants within the months after death, review of all records describing the deceased and comprehensive case formulation by one or more mental health professionals who have the required expertise. Psychological autopsy study is a powerful tool to disclose events, relationships and mental phenomenon behind suicide. For completed suicide, ideal comparison groups are difficult to obtain and hence most of the studies have refrained using controls.

Between 2003-06 there were flurry of reports about farmers suicide especially from Wayanad district. Variety of reasons has been put forward for the high rate suicide in this district. Unfortunately we do not have any scientific data to answer this public health hazard. Indian society especially farmers dominant places like Wayanad and Idukki is quite different from rest of the society and hence it is necessary to study the psychosocial factors in suicide which operate in this place for formulation of suitable remediable measures (SCRB, 2009). Considering this objective present study was undertaken to identify and understand the role of psychosocial factors like psychopathology, life events, and socio-economic factors leading to suicide in Wayanad district.

Method

All the suicides reported by District Crime Record Bureau of Wayanad during the study period were analyzed in detail using a specially designed questionnaire. This questionnaire was designed compiling the details used in the questionnaire for analyzing the causes of suicide in Karnataka conducted by NIMHANS and new items reported by experienced mental health professionals, agriculturalists and economists who are working in the concerned field with special reference to Wayanad district. After preparing the questionnaire one full day training on various aspects of suicide prevention was given to all the Medical officers, Junior Public Health Nurses and Health Inspectors of Wayanad District Health Services. Half day training on administration of questionnaire was also given to the same staff. Inter-rater reliability was calculated and it was fairly good. Random checking of administration of questionnaire by the health staff was also done by the medical officers. Wherever further evaluation was needed the medical officers visited the corresponding victim's houses.

Case Definition

Cases were individuals who committed suicide in the defined geographical area from 1st January to 31st March 2004.

Inclusion criteria:

1. All suicides in the defined time and defined geographical area
2. They must be lived in the defined area for at least 6 months
3. Certification of death must be made by the police or magistrate

Study sample

Cases

All suicides from 1st January to 31st June 2004 reported by Wayanad District Crime Records Bureau were analyzed in detail using the specially designed questionnaire. Two experienced psychiatrists (Suresh Kumar & Anithakumari) interviewed the relatives of victims and controls by visiting them at their residences. The interviews were carried continuously without any selection bias. However we could do an interview only if the deceased person had a family member or a relative who could provide suitable data. Out of 180 suicides reported, 14 cases could not be traced due to faulty address. Cases were traced through police stations. The homes of many suicide victims were visited between 30 and 90 days of the death. After establishing the necessary rapport with family members, a general explanation was rendered on the specific objectives of the study and an informed consent was obtained from them.

Controls

Controls were those living in the same neighborhood, of the same sex, marital status and within the same monthly income range (less than Rs2000, between Rs 2001-Rs 5000 and above Rs 5001).The age of the control was matched to that of the victim within the range of ±2 years. Controls were registered within three months for the corresponding cases.

Informants

The information about the victim and control was obtained from the key informant. The key informant was a close relative who had been living with the deceased or the control for a minimum of two years. The key informant's interview was the main interview and all instruments were used in the main interview. The spouse was the key informant in 50% and the control 49% of the cases, respectively. Mothers were key informants in 22% and controls in 24% of the cases. The key informants and controls had been living with the subject for more than 3 years in 90% cases and 89% cases, respectively. The other sources of information were other informants, police records, postmortem reports, medical and psychiatric reports, if available. If there was regular physical or mental health contacts, telephonic interviews were held with them. Changes in the behavior of the deceased in the weeks prior to death were explored with the informants; also whether there had been any reference to self-destructive behavior or plans during that time. Data about somatic disease was also obtained.

Instruments

1. Personal Data Sheet

A specially designed questionnaire semi-structured questionnaire was used for both victims and controls. The questionnaire was divided into 11 sections such as 1. Demographics 2. Socio-economic status 3. Marital issues 4. Family details 5. Type of house 6. Liabilities 7. Losses within one year 8. Physical problems 9. Psychological problems 10. Previous suicide attempts 11. Current suicide attempt (only for victims).

2. Presumptive Stressful Life Events Scale (PSLE)

This scale consists 51 life events commonly experienced by the normal Indian adult population(Sing et al. 1984). One hundred is the highest stress score and zero denotes no perceived stress. Scale items were further classified into (a) desirable, undesirable or ambiguous and (b) personal or impersonal (not dependent on the individual action). Reliability of PSLE scale (0.8) was found to be satisfactory. Life events were assessed within six months prior to the suicide or interview.

3. The structured clinical interview for DSM III R (SCID) Non-patient Version (Spitzer et al, 1992)

This was used for making the Axis I diagnosis. The principal diagnosis was arrived by using interference procedure when there was co-morbidity.

Summary of findings

TOTAL NUMBER OF SUICIDES FROM JAN 2004 - JUN 2004 – 169

MALES - 125 (74%)

FEMALES - 44 (26%)

- Total number of suicides from 1st January to 31st June 2004 is 169
- Males- 125 (74%), females-44 (26%); M: F-2.8: 1
- Majority were younger between 15-44 years (55.1%)
- Majority were married (65.1%)
- Majority had upper primary education only (48.2%)
- Majority were daily wages workers (42.6%) followed by farmers (22.5%) and house wives (12.5%)
- Majority had annual family income only less than 10,000 (47.3%)
- 29 % of victims belong to tribal community
- Majority were migrants from other districts (55.6%)
- Migrants from Kottayam constituted the major part (13%)
- 34.3% of victims had no land of their own
- 36.7 had cultivation
- 17.8% of victims were separated from the partner
- 25.4% had issues related to marriage
- 67.5% led nuclear family life
- In 63.9% house was only tiled and in 12.4% it was thatched only
- Majority had physical/psychiatric problems in the family (45.6%). Alcoholism was the commonest (29%) followed by suicide (17.8%) and mental illnesses (10.1%)
- Majority had various liabilities in the year of committing suicide (66.9%) - debt (55%), financial loss (52.1%), surety (41.2%), and default in payment (33.7%) were the frequent liabilities in descending order
- The main reason for financial liabilities was loss in agriculture (29.6%)
- 30.2% had loan from co-operative banks followed by nationalized banks (23.1%), and loan from individuals (22.1%)

- 23.1% had past history of suicide attempt
- However only 10.7% had received treatment for past attempt
- 38.5% had threatened suicide prior to attempt
- Most of the attempts were made at night between 6.00pm and 6.00am (41.4%) for keeping the act secretive and rescue unlikely
- Majority chose house/house compound for the attempt (75.7%)
- Majority committed suicide by hanging (49.7%) followed by poisoning (39.6%)
- Majority had alcohol intoxication at the time of attempt (30.2%)
- So much delay has occurred between detection and expert treatment (one hour-19.5%)
- In 14.8% the immediate precipitating factor was inability to clear debts
- The commonest psychiatric diagnosis was alcohol abuse (23.2%) followed by depression (17.9%)
- 18.9% had habit of taking alcohol on daily basis
- Psychological symptoms were very prominent in majority

Conclusion

Suicide was a major public health problem in Wayanad district with an alarming rate of 36 per 1 lakh population in the year 2004. The majority wre males, married, manual laborers, having low income and migrants. The commonest precipitating factors was financial problems especially loss from agriculture. Significant proportion had loans from various banks. Family history of psychiatric disturbance and past suicide attempts was common. Psychological disturbance was a significant factor behind many suicides with alcohol dependence and depression being commonest diagnoses. Hanging and insecticide poisoning were the common mode of committing suicide and so much delay has been occurred between detection and appropriate treatment. Probably long standing stressors of various natures might have produced severe psychiatric disturbances, which are well known to precipitate suicides in vulnerable individuals in Wayanad district.

Suicide prevention activities done in Wayanad

In response to the newspaper reports of increasing suicide rate in Wayanad in the year 2004, Thanal Suicide Prevention Centre based at Calicut conducted a home visit pilot Psychological autopsy study of three suicide victims and elicited the following findings.

a) K, 57 Yrs, Anagessery
Mode of attempt - Hanging
Leading cause – Major depression

b) J, 35 Yrs, Moodakilly
Mode of attempt – Hanging
Leading cause - Schizophrenia

c) M, 65 Yrs,
Mode of attempt – Hanging
Leading cause – recurrent depressive disorder

2. Conducted three suicide prevention classes and seminars along with the out reach mental health camps.
   1. Thariyode
   2. Pulpally
   3. Mepadi

These sessions were well attended by patients, care givers, public, NGO's and Kudumbasree members

3. Conducted 4 training programmes at Kalpetta for Medical Officers and Para-medical staff using training modules and pre and post training assessment schedules (developed by Thanal) on "Detection, Treatment and Prevention of suicides".
4. Public awareness programmes
   1. Kalpetta
   2. Meppadi
   3. Pulpally
   4. Meenangadi
   5. Porunannur
   6. Thariyode
   7. Panamaram
   8. Pozhuthana
5. Conducted a pilot study on suicides in Wayanad by compiling and analyzing statistics of suicide in Wayanad for the last 5 years with special reference to farmers' suicide.
6. Conducted a psychological autopsy study (January 2004 – June 2004) to find out the increasing rate of suicides in Wayanad utilising the health service staff of Wayanad district.

Continuing activities

We are still continuing suicide prevention activities in Wayanad with active support from various non-

Government organizations operating at Wayanad, IMA Kerala Chapter and IMA Wayand District. In the year 2010 we have started three suicide prevention centers at Kalpetta, Sultan Batthery and Mnanthavady for providing free counseling person in distress and in danger of suicide. Services are free. He/she may walk into these centers without prior appointment and find in the waiting volunteer a trustworthy friend who will listen to him/her without being judgmental. Callers to these centers are assured of complete confidentiality about what they share with the counselor. The volunteers will not divulge the problem to any one outside the centre, or even to their spouse or children.

Outcome of these activities

Suicides in Wayanad FROM 2000-2010

Year	Number	Rate per 1 Lakh
2000	367	48 .
2001	311	39
2002	320 41	
2003	367 45	
2004	302	36
2005	320	39
2006	344	40
2007	318	37
2008	338	33
2009	319	31

There is a steady decline in the suicide rate after the launching of suicide prevention programmes in the year 2004.

Remedial measures

- Appropriate remedial measures to solve financial difficulties
- Guidance for scientific cultivation
- Early detection and management of psychological problems especially depression and alcoholism
- Crisis intervention centers to counsel suicide prone individuals
- Restriction of availability of poisons only for agricultural purpose
- Limit the potency of poisons only for killing insects
- Add offensive odour to poison to vomit out in case of oral ingestion
- Start poison treatment centers in major hospitals
- Mobile poison management units
- Training for doctors in poisoning management
- Ensure consultation with mental health professional for all individuals admitted with suicide attempt
- Strict control over media against sensationalizing suicides
- More research for formulation of culturally specific suicide prevention strategies

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