

## **Suicide Prevention in Kerala: The need to focus on middle-aged and aged men**

P. Jayakumar & P.O. George, Maithri Suicide Prevention Centre, Kochi

### *Abstract*

A basic analysis has been carried out to identify the most suicide prone segments of Kerala's society, classified on the basis of age and gender. Official data on suicide incidence along with population figures from the Census have been used to calculate suicide rates for different age-gender groups for the year 2001. As expected, rate of suicide among males is found to be greater than those of females. The analysis also reveals that the suicide rate prevalent among males aged above 30 years is significantly higher than the state's average. Even among them, the suicide rate found among males aged between 45 and 59 years is very high and exceeds 100 /100,000 of population level. To know thus that one in every one thousand senior men in Kerala is likely to exercise the option of ending life, emphasizes the needs to evolve effective suicide prevention strategies addressing such specific population groups.

### **Overview**

Kerala has the highest rate of suicide in India. For several years together, the suicide rate of Kerala has remained high at around three times the national average. A summary of official suicide statistics on Kerala is readily available from Maithri Website (Maithri, 2004). Between the years 1995 and 2003, the total number of suicidal deaths that have occurred is reported to be 82,267. For these nine years, the composite suicide rate for males and females varied between 26.5 and 29.5 (mean 29.1, SD 1.63). The average suicide rate for the period was 42.3 for males and 16.7 for females. Compared to females, more males die by suicide in Kerala and the mean male-female ratio for completed suicides for these years is 71:29.

Trends of suicide statistics of Kerala for the recent years have been reviewed by George (2004a). It is widely believed that rapid social changes in the recent years heralding unbridled consumerism, ruthlessly competitive life styles and disintegration of traditional family support systems have contributed to the prevalence of high suicide rate in Kerala (Kumar, 1995). Additional factors such as mounting divorce rates, increased alcohol consumption rate and possible media influences have been mentioned by John (2000). Patterns in female suicides during 1995-2002, along with possible risk-causing and protective factors have been analysed by George (2004b).

The high suicide proneness of Kerala society has been a matter of great concern, prompting responses from both governmental and non-governmental agencies (Krishnakumar, 2000). Despite this, the annual official reports on suicidal deaths bring little comfort – there is no indication that the suicide rate in Kerala is declining.

Along with age, variations in suicidal behaviour are often linked with gender also (Hawton, 2000). Differences in suicide proneness between men and women exist, as is reflected in the male-female ratio of 71:29 as per NCRB data available for 1995-2003. For both males and females, suicidal risk appears to be more pronounced with seniors contributing significantly to overall suicide incidence (George, 2004c). Variations in suicide proneness are apparent between the young and aged, among both men and women. Identifying those segments that are more suicide prone can help in formulating appropriate strategies for suicide prevention and to initiating focussed research into risk factors. This motivates us to analyse the suicide proneness of

various segments of Kerala's society, classified on the basis of age and gender, by calculating suicide rates for each segment.

### Age and gender specific suicide rates for Kerala (Year: 2001)

Table 1: Age & Gender specific Suicide Rates with Male-Female ratio of Completed Suicides for Kerala (Year: 2001)

Age (years)	Suicide Incidence			Population (in 100,000s)			Suicide Rate <sup>1</sup> (per 100,000 of population)			Male Female Ratio
	Male	Female	Total	Male	Female	Total	Male	Female	Composite	
0 to 14	43	48	91	42.29	40.67	82.96	1.02	1.18	1.10	47 : 52
15 to 29	1109	794	1903	42.21	45.32	87.54	26.27	17.52	21.74	58 : 42
30 to 44	2107	798	2905	33.00	36.33	69.34	63.83	21.96	41.89	72 : 27
45 to 59	2240	666	2906	22.18	22.75	44.93	100.97	29.27	64.67	77 : 23
60 +	1288	479	1767	14.84	18.51	33.35	86.78	25.87	52.97	73 : 27
Unknown				0.14	0.12	0.26				
<b>Total</b>	<b>6787</b>	<b>2785</b>	<b>9572</b>	<b>154.68</b>	<b>163.72</b>	<b>318.41</b>	<b>43.88</b>	<b>17.01</b>	<b>30.06</b>	<b>71 : 29</b>

<sup>1</sup> Suicide Rate of a group (per 100,000 of population) = (No. of suicides in the group x 100,000) / Population in that group

The analysis carried out to identify the most suicide prone segments of Kerala's society for the year 2001 is presented in Table 1. Age and gender specific suicide rates calculated from suicide incidence and population figures, together with male-female ratio for completed suicides, are given in the Table.

The data on completed suicides in India for the year 2001 is available from the latest report by National Crime Records Bureau (NCRB 2004). The population figures for the analysis are obtained from the Census of India for the year 2001 (Census 2001). Gender specific population counts in age-steps of 5 years from that reference has been collated to match 15-year age-step data on suicide incidence available from NCRB.

#### The most suicide prone groups:

The analysis clearly indicates that men past middle age were highly suicide prone in 2001. The suicide rate of 100.97 (per 100,000) for men of age group 45-59 years is alarming. Even though men of that age group form only 6.9% of the total population; they contribute to 23.4% of the total suicidal deaths. Elder men (past 60 years) also register a high suicide rate of 86.78. For men at their most productive age (30-45 years), the suicide rate observed is 63.83, which is higher in comparison with women's figures. The composite suicide rate for all men past 30 years is calculated to be 80.45. Thus, men in Kerala appear to be at considerable suicidal risk once they cross 30 years of age.

### **Variation of suicide rates with age:**

For both males and females, the highest suicide rates are calculated for the age group of 45-59 years. The composite suicide rate for this age group, 64.67, is more than double the average suicide rate of the population. In general, the onset of suicidal behaviour appears to happen around 30 years, peaks during the middle age (45-59 years) and thereafter declines only marginally at old age. The acute suicide proneness of adult men is particularly pronounced in the age group of 45-59 years.

### **Female Suicide rates:**

Female suicide rates, though lower than male suicide rates, are serious on their own. The highest female suicide rate (of 29.27) is demonstrated by the age group of 45-59 years, as in the case of males. Importantly, among young females of the age group (15-29 years) the men-women ratio is 58:42, revealing that, among young persons, the proportion of women who die by suicide is greater compared to that among older persons.

### **Discussion:**

The very high suicide rates prevailing among men older than 30 years revealed through this rudimentary analysis of official data raises grave concerns. The suicide scenario of Kerala is serious and the existence of such high suicide rates among adult men call for thoughtful responses. Below, we take up for discussion just three issues of concern, namely, possible stressors on aged and middle aged men in Kerala, implications for future suicide prevention strategies, and the need to carry out further suicide related research work.

### **Why men past thirty are so suicidal?**

It is evident that social factors that cause acute stress on adult men are very much active in Kerala's society. Identifying these social factors on a formal basis can be a specialized task. Nevertheless, it can be said that the male member continues to hold the leadership of the present day Kerala nuclear family – that has largely delineated itself into isolation from extended relations of the yore. Along with this leadership come heavy responsibilities with regard to children's education, health, employment and marriage. The family head's own wellness is very often at stake – he has to face uncertainties on employment front, failing health and impending drying up of existing means of income. As the family head ages, he becomes increasingly weakened, fails to satisfy expectations, faces disappointments owing to unemployed sons and unmarried daughters. All this heightens his stress levels and suicide proneness, pushing matters to reach a stage where he finds it difficult to cope up and continue living.

Apart from these considerations specific to Kerala social life, traits common to men in general should also be expected to be coming into play. Males have been recognized to carry greater suicidal intent, aggression, knowledge regarding violent means and less concern for bodily disfigurement. It has been noticed that men's desire for independence and decisiveness discourages them from taking help when needed (Murphy, 1998). Increased alcohol consumption in Kerala should be viewed in the

light of opinions from recent studies done in Chennai that alcoholics are more easily pushed to suicide when faced with stressors (Lakshmi 2003). Several organised support systems available to women in Kerala, such as the Women's Commission, family courts, Kudumba Shree etc., have been mentioned by George (2004b). In contrast, it is to be noted that similar systems for men are either inadequate or do not exist at all in Kerala.

### **Future Suicide Prevention Strategies:**

Perhaps the key matter that evolves from the age-gender based analysis of Kerala suicides for 2001 is this: Sixty percent of all suicidal deaths occurred among males aged more than 30 years who form just 22% of the population. Therefore, a strong case emerges for focusing suicide prevention efforts on adult males and can in turn result in the reduction of overall suicide mortality in Kerala.

Mental illness is known to be a prominent predictor of suicidal behaviour. Improved detection and treatment of psychiatric disorders is undoubtedly a key factor in taking care of suicidal behaviour in both females and males. Studies have indicated that there is a two per thousand prevalence of schizophrenia in Kerala (Krishnakumar, 2000). Consequently, the role of general practitioners and psychiatrists in suicide prevention in Kerala is of vital importance. Given their acute suicide proneness, it is to be scrutinised whether there is reluctance on the part of adult men in Kerala in seeking treatment and / or continuing the follow-up while under treatment. Research done in the UK has found that the risk of suicide for patients treated after an act of deliberate self-harm was higher in males (Hawton *et al*, 2003). Age and gender differences in cooperating with treatment for suicidal behaviour clearly merit more attention. It must be examined whether an age-gender perspective will assist clinical practitioners in extending better care to the more suicidal segments of Kerala's population.

Volunteer run non-governmental organisations that provide emotional support to persons in distress have been providing exemplary service to the cause of suicide prevention in Kerala. Following the inception of the first such organisation, Maithri in Kochi in 1995, similar organisations have started working in other places also. Even though a definite relationship with Maithri's functioning is not established, it has been noticed that suicide rates in Kochi have dropped from 22 in 1995 to 15 in 1997 (Mallika 2003).

Apart from centre based emotional support to distressed individuals, a key activity of these organisations is to create awareness in the society about suicide, in order to encourage individuals to give and seek help. These out-reach programmes can draw fresh guidance from this analysis pointing to the severe suicide proneness demonstrated by adult men. To cite a few examples, employees about to retire, parents of failed or difficult children, persons unable to repay loans from lending institutions etc., can be trained in life skills and assisted to cope up. There are indications that senior and aged men are rather reluctant to seek help (Murphy, 1998). In Maithri, Kochi, for example, males above 65 years formed a mere 0.3% of the total contacts in 2001 (Maithri 2001). It should be expected that a focus on adult males in the awareness programmes will encourage them to approach suicide prevention centres, bringing forth a reduction in overall suicide rates.

### **Need for life saving research on suicide related matters:**

Identification of social, economic or psychological factors that contribute to suicidal behaviour, followed by analyses to establish correlations with suicide incidence of the past years, is a matter of high priority. It should be enquired whether projections of suicidal behaviour in Kerala for the immediate future can be made, if studies are done taking into account the dynamics of demographic components.

Research has to be undertaken to verify the accuracy of official data on suicide incidence. Limitations of data collected through police records are well known. Studies making use of the method of verbal autopsy have recently been conducted to estimate suicide rates in the Kaniampady region of Tamil Nadu (Joseph et.al. 2003). Similar studies can be taken up in appropriate locations of Kerala also.

Thirdly, in places where a high prevalence of suicide risk is experienced, field studies mple should be employed to single out possible reasons for such risk. Programmed, preset study modules should be designed along with easy-to-use software so that non-specialist persons can follow them and arrive at reasonable conclusions. Results made known from such quick studies will go a long way in disentangling the true reasons from the maze of assumptions and exaggerated claims that often overcast unfortunate suicide episodes.

### **Conclusion**

Calculation of age and gender specific suicide rates for Kerala for 2001 reveal that men of the age group of 45-59 years are the most suicide-prone, registering an alarming suicide rate of 100.97 per 100,000. High suicide rates are observed for (i) men above 60 years (86.78) and (ii) men in the age group of 30-44 years (63.83). Men in Kerala appear to be at considerable suicidal risk once they cross 30 years of age. For both males and females, the highest suicide rate is obtained for persons in the age group of 45-59 years. In general, the onset of suicidal risk seems to happen at around 30 years, peaks during the middle age (45-59 years) and thereafter declines only marginally at old age.

That adult males are the most suicide prone segment in Kerala's society prompts for a reassessment of suicide prevention strategies. Volunteer-based befriending services might enhance their overall effectiveness by working for additional suicide awareness among adult males. Similar concerns emphasize the need to carry out further research to systematically unravel suicide patterns and identify factors that induce suicidal risk.

\*\*\*\*\*

### **References:**

**Census of India (2001)** *Age-Wise Data – Kerala*, (on compact disc), Directorate of Census Operations, Thiruvananthapuram

**George, P.O. (2004a)** Suicides in Kerala – An analysis, *Official website*, Maithri Suicide Prevention Centre, Kochi. <http://www.maithrikochi.org/>

**George, P.O. (2004b)** Suicides among Women in Kerala – An analysis, *Official website*, Maithri

Suicide Prevention Centre, Kochi. <http://www.maithrikochi.org/>

**George, P.O. (2004c)** Those Likely to Commit Suicide and the Means They Use, *Official website*, Maithri Suicide Prevention Centre, Kochi. <http://www.maithrikochi.org/>

**Hawton, K. (2000)** Sex and Suicide – Gender Differences in Suicidal Behaviour, *British Journal of Psychiatry*, 177, pages: 484-485

**Hawton, K., Daniel Z. and Weatherall R. (2003)** Suicide following Deliberate Self Harm: Long term follow up of patients who presented to a general hospital, *British Journal of Psychiatry*, 182, pages: 537-542

**John, C. J. (2000)** Family Murder Suicides in Kerala, *Crisis*, 21/3, pages 105–107

**Joseph A., Abraham S., Muliyl J. P., George K., Prasad J., Minz S., Abraham V. J. and Jacob K.S. (2003)** Evaluation of Suicide Rates in Rural India using Verbal Autopsies, *British Medical Journal*, 326, pages: 1121-1122

**Krishna Kumar, R. (2000)** State of Despair, *Frontline*, vol.17, issue 08

**Kumar, K. A. (1995)** Suicide in Kerala from a Mental Health Perspective, In G. Joseph, P.O. George (Eds.), *Suicide in Perspective with special reference to Kerala*, CHCRE-HAFA Publication.

**Lakshmi Vijayakumar (2003)** Psychological Risk Factors for Suicide in India, In Lakshmi Vijayakumar (Ed.), *Suicide Prevention – Meeting the Challenge Together*, Orient Longman Pvt Ltd., Hyderabad, India

**Maithri Suicide Prevention Centre (2001)** *Caller Statistics*, Maithri Suicide Prevention centre, Kochi, India

**Maithri Suicide Prevention Centre (2004)**

*Official Website*, <http://www.maithrikochi.org/>, accessed in December 2004.

**Mallika, G. (2003)** Befriending in Developing Countries, In Lakshmi Vijayakumar (Ed.), *Suicide Prevention – Meeting the Challenge Together*, Orient Longman Pvt Ltd., Hyderabad, India

**Murphy, G. E. (1998)** Why women are less likely than men to commit suicide, *Comprehensive Psychiatry*, Vol 21, Issue 4, pages: 165 – 175

**National Crime Records Bureau - NCRB (2004)** *Accidental Deaths and Suicides in India – 2001*, National Crime Records Bureau, New Delhi

**Qin P., Agerbo E. & Mortensen B. P. (2003)** Suicide Risk in Relation to Socioeconomic, Demographic, Psychiatric and Familial factors. A National Register based study of all Suicides in Denmark. *American Journal of Psychiatry* 160:4, pages: 765-772