INTRODUCTION

P.N. Suresh Kumar “Life events, social support and coping strategies in attempted suicide”, Department of Psychology, University of Calicut, 2006
CHAPTER I

INTRODUCTION
INTRODUCTION AND STATEMENT OF THE PROBLEM

Contents

Introduction

Historical, Religious, Philosophical and Cultural Background

Classification of suicide

- Hendin’s Classification of Suicidal Behaviour
- Schneidman and Farberow’s Classification
- Classification based on the strength of suicidal thought and the determination/decision taken towards ending the life

Epidemiology

Global Situation

National Scenario

Kerala Scenario
- District-wise break up
- Employment status
- Educational break up
- Mode of attempt
- Causes

Socio-demographic pattern

Age

Sex

Race

Religion

Marital status

Occupation

Health
- Psychiatric Illness
- Depression
- Schizophrenia
- Alcoholism
- Drug dependence
- Personality disorders
- Previous suicidal behaviour
- Family history of suicide

**Psychological factors**

**Life stress**

Conceptual models
Methodological aspects
Life events and suicide
Life events in the suicide process

**Social support**

General Concepts
Conceptualization of social support
Operational models of social support and stress
Direct effect model
Buffering effect model
Social support and suicide

**Coping styles or strategies**

Psychoanalytical background
Coping traits and Coping styles
Classification of coping responses
- Appraisal focused coping
- Problem focused coping
- Emotion focused coping

Coping and outcome
Coping and suicidal behaviour
Quality of life
The concept and definition
Quality of life and suicide
Present study
Objectives of the study
Hypothesis
CHAPTER 1

INTRODUCTION AND STATEMENT OF THE PROBLEM

INTRODUCTION

The word 'suicide' was first used by Sir Thomas Browne in his Religio Medice in 1642 and subsequently by Walter Charleton in 1961. Prior to the introduction of the word suicide, self-destruction, self-killing and self-murder was in currency conveying the same meaning (Schneidman, 1976). Suicide has been defined variously for psychological, legal, social and administrative purposes. Schneidman (1976) defined suicide 'as the human act of self-inflicted, self-intentional cessation”. It is an act committed out of constricted thinking, tunnelled logic and acute anguish. Currently in the Western world suicide is a conscious act of self-induced annihilation, best understood as a multi-dimensional malaise in a needful individual who defines an issue for which suicide is perceived as the option (Schneidman, 1985). The concept of suicidal behaviour has been extended by Meninger (1938) to include states that he terms as partial and chronic suicide, namely drug addiction, alcoholism, self-mutilations, refusal of treatment for serious illness and indulging in dangerously adventurous behaviour. As a concept, suicide is not difficult to expound. The World Health Organization (1968) defines suicide act as “the injury with varying degrees of lethal intent and that suicide may be defined as a suicidal act with fatal outcome.” However, such definitions are inherently difficult for use in clinical work. It is difficult to determine whether a particular death was a suicide, since any definition of suicide requires that injuries leading to death should be self-inflicted. This may be obvious in most cases but in many others it is impossible to ascertain. Durkheim
(1951) defined suicide as “death resulting directly or indirectly from a positive or negative act of the victim himself, which he knows will produce this result”. This excludes those who survive the attempt. Menninger (1938) implied that in committing suicide, the individual kills himself, murders somebody and also fulfills his wish to die. However, Stengel (1964) restricted the term suicide to all the fatal acts. The non-fatal acts of self injury, undertaken with more or less conscious self-destruction intent were termed as “attempted suicide”. Later some workers included suicides and suicide attempts characterized as self-destructive intention., and all the self damaging behaviour, not consciously aimed at death can be designated as “Para suicide” (Rao, 1992)

Para suicide, a coinage by Kreitman, Philip, & Green (1969) includes events like self-mutilation, excessive dosage of drugs and other similar events, which are mostly non-suicidal attempts. The “attempted suicide” terminology is now recommended to be used only to denote events in which there has been a failure of conscious efforts to end life (Schneidman, 1985). These are the people who are committed to end their lives through suicide but some how survive. Para suicide, on the other hand, represents a non-suicidal cry for help, conscious or unconscious manipulation, unplanned impulsive act or just the wish to ‘opt out’ for a while. The same author has also out-lined the differences between Para suicide and suicide. The common stimulus for suicide is an endurable psychological pain, which is quantitatively different in Para suicide. The purpose of suicide is to seek solution to an overwhelming problem while it is to evoke response in Para suicide. Suicide is conclusive, Para suicide evocative. Suicide is autistic while Para suicide is enacted on an interpersonal stage. The goal of suicide is stopping life and in Para suicide it is changing of life. Hopelessness and helplessness are the dominant emotions in suicide, where as disconnectedness and disenfranchisement
mark Para suicides. Subject’s attitude in suicide is one of ambivalence to live or die; whereas in Para suicide it is trivalent: “living, suffering and dying”. The cognitive state in suicide is one of intellectual and perceptual constriction, whereas in Para suicide there is obsessive and ruminative painfulness. In suicide, the communication consists of the decision while in parasuicide, it is one of states of unhappiness, a call for rescue. The action in suicide is an escape, one of leaving life whereas in Para suicide it is towards emotional linking. In clinical situation it is difficult to differentiate suicide from attempted suicide because of more overlap than differences.

**Historical, Religious, Philosophical and Cultural Background**

Suicide has been an act of condemnation and commendation through the ages. The philosophers approach hinges on the central query that whether man can decide to take off his life? However, people have been killing themselves from the beginning of recorded history. The Epicureans upheld man’s right to kill himself. The Stoic supported the same view. Cata, Pling and Seneca have also found suicide acceptable. However, Plato condemned suicide, as did Virgil, Ovid and Cicero. Kant viewed suicide as “an insult to humanity (Grollman, 1971)

When Saul the first king of Israel committed suicide to avoid mockery and torture by his enemy it was considered as an act of courage by the Jews. A Jewish community in 73AD committed mass suicide in the fortress of Masada when their capture by Romans became inevitable. Mass suicide in Jones Town, in recent history is another instance (Kilduff & Javers, 1978). The Talmund decreed that suicide victim was to be buried apart and was to receive no eulogy or public mourning. Early in the Christian era, suicide was acceptable, but later disapproval came when St.
Augustine (354 – 430AD) called it a sin. Thomas Aquinas (1224 – 1274 AD) also opposed suicide upholding the same view.

In the seventieth century, John Donne reacted against the Church attitude when he argued that suicide was neither a violation of law nor of reason. David Hume, Voltaire and Rousseau defined suicide under certain circumstances (Grollman, 1971). David Hume decriminalized suicide and extricated it from the inventory of sins. He argued that suicide was neither a crime nor a sin against god. In modern times, many clergymen view suicidal behaviour not only from the theological angle but also against the psychosocial background.

Suicide is forbidden in Koran. Suicide is lowest during Ramadan month of fasting. Ramayana and Mahabarata have reported instances of suicide. Bhagavad-Gita is against self-torture and self-killing. Brahmnical view was that any one who tries to kill one self but fails should fast for a stipulated period. During Vedic and Upanishadic times, apart from Sati, death from drowning at the confluence of rivers to achieve ‘punya’, the self destruction for incurable diseases, ascetics undertaking a great journey towards the last year of life (Mahaprasstan), were allowed. Vedic and Upanishadic period penalized suicide in general but with the above exceptions. Some studies have shown that in comparison to Jews and Catholics, the Protestants have a higher rate of suicide.

Classification of Suicide

The first major contribution to the study of social and cultural influences on suicide was made at the end of the last century by the French sociologist Durkheim (1897). In an attempt to explain statistical patterns, Durkhiem divided suicides into three social categories- egoistic, altruistic and anomic. Egoistic suicide applies to those who are not strongly
integrated into any social group. Lack of family integration can be used to explain why the unmarried are more vulnerable to suicide than the married. Altruistic suicide applies to the group whose proneness to suicide stems from their excessive integration into a group, with suicide being the outgrowth of this integration. Anomic suicide applies to those persons, whose integration into society is disturbed, thereby depriving them of the customary norms of behaviours. Anomie can explain why those whose economic situation has changed drastically are more vulnerable than they are before their change in fortune.

**Hendin's Classification of Suicidal Behaviour**

Hendin (1961) classified suicides into five different types, depending on how death is viewed, based on variables like patient’s age, beliefs, mental mechanisms and affectivity.

1. **Retaliatory abandonment**: Death is viewed as an act of leaving or abandonment. This concept is derived during childhood. Most often children view the dead people as someone who left voluntarily. Sometime they view death as a violent act inflicted on the dead. Children who have lost their parents react as though he/she has chosen to abandon them.

2. **Retroflexed murder**: Suicide is considered as a murderous rage, which is turning in and is not repressed. Usually in young, disturbed, and seriously suicidal patients, suicide can be the outcome of a severe struggle with the overt desire to murder. These patients can be basically aggressive and violent with an overt desire to murder.
3. **Reunion**: Death is viewed as a pleasurable act and is incorporated into the fantasy of reunion with the parental figures, with life partners, loved ones, and siblings who are already dead and gone.

4. **Self-punishment**: Suicidal self-punishment occurs in men over failure at work, failure at fulfilling their duty to the class or country. Some women, who have inability to love and look after the child, have a self-expectation and expectation by others that she should feel what she is not feeling. This expectation and their inability in combination produce self-hatred, with the consequent need for self-punishment.

- **Seeing oneself as already dead**: This is manifested as strong feelings of detachment, repressed aggression and affectivity, which has gone into a frozen state and is perceived by some patients as their emotional death. Clinical manifestation of this is apathy rather than depression. They see suicide as a way out, a solution to their torture.

**Schneidman and Farberow's Classification**

Farberow & Schneidman (1961) have classified suicide into four groups:

1. Patients who conceive suicide as a means to better life.

2. Patients who commit suicide as a result of psychosis, with associated delusions and hallucinations.

3. Patients who commit suicide out of revenge against a loved person.
4. Patients who are old and infirm for whom suicide is said to be a relapse. Schneidman classified suicidal behaviour into parasuicide and suicide, which have been explained before.

**Classification based on the strength of suicidal thought and the determination/decision taken towards ending of the life**

Suicide ideators will have a wish for death. It can be just a thought that death could have been better than the psychological pain of living with certain situations in life. It may be expressed much more freely than the similar idea of an attempter or a completer. It may not be serious than the attempter’s or completer’s idea. It may or may not evolve into attempt or completion (Unni, 1999).

**Epidemiology**

**Global Situation**

Epidemiological studies for the identification of suicide risk factors include studying the prevalence and incidence and also the determinants of suicidal behaviour. One in every thousands of people commits suicide in the world. 4,00,000 people commit suicide every year around the world. Suicide is among the ten leading causes of death for all ages in most of the countries. Rates per year as high as one per 1,000 population (Falkland Islands) and 1 per 1, 500 population (Hungary) are reported. In some countries, it is among the top three causes of death for people between 15 and 34 years. Suicide is underreported by 20% to 100%, according to prevailing beliefs and consequent negative sanctions attached to it in different cultures of the world. Developed and developing countries with quite distinct cultural traditions (eg. Surinam, Srilanka, Switzerland and Japan) are affected by this social problem. Islamic countries may be
exceptional with low suicide rate (W.H.O., 1993). The world scenario is illustrated in Table-1.

Suicide accounts for 0.4 – 0.9% of all deaths. It accounts for 0.3-1% of all casualty admissions. According to a recent report of W.H.O. on Violence and Health (2002) about 8,15,000 people died from suicide in the year 2000, around the world. This represents an annual global suicidal rate of about 14.5 per 100000 population or one suicidal death about every 40 seconds.

The phenomenal increase in suicide during the last 5 decades had lead to the fact that today, it is one of the 3 leading causes of death in 15-44 years. The total global burden of suicides was estimated to be 1.8% in 1998. A significant observation has been the alarming increase of suicides among young adults in both high and low industrialized countries. Even though there has been an increase, the causes of suicide are still little understood within developing countries due to the complex interaction of social, health, economic, demographic and environmental factors. This diversity in its recurrence and causation has heralded the development – implementation and evaluation of intervention strategies.

Table 1
Suicide Rate per 100,000 in Different Countries

<table>
<thead>
<tr>
<th>Suicide rate by sex</th>
<th>Male</th>
<th>Female</th>
<th>Both sexes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hungary</td>
<td>58.0</td>
<td>20.7</td>
<td>38.6</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>48.8</td>
<td>22.3</td>
<td>35.8</td>
</tr>
<tr>
<td>Finland</td>
<td>48.9</td>
<td>11.7</td>
<td>29.8</td>
</tr>
<tr>
<td>Switzerland</td>
<td>34.3</td>
<td>11.6</td>
<td>22.7</td>
</tr>
<tr>
<td>Belgium</td>
<td>32.0</td>
<td>13.8</td>
<td>22.7</td>
</tr>
<tr>
<td>Austria</td>
<td>34.6</td>
<td>11.6</td>
<td>22.6</td>
</tr>
<tr>
<td>Suicide rate by sex</td>
<td>Male</td>
<td>Female</td>
<td>Both sexes</td>
</tr>
<tr>
<td>-----------------------</td>
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<td>------------</td>
</tr>
<tr>
<td>Denmark</td>
<td>30.0</td>
<td>15.1</td>
<td>22.4</td>
</tr>
<tr>
<td>France</td>
<td>29.6</td>
<td>11.1</td>
<td>20.1</td>
</tr>
<tr>
<td>Sweden</td>
<td>26.8</td>
<td>10.6</td>
<td>18.6</td>
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<td>17.9</td>
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<td>17.5</td>
</tr>
<tr>
<td>Japan</td>
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<td>11.8</td>
<td>16.1</td>
</tr>
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<td>8.0</td>
<td>15.5</td>
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<td>4.4</td>
<td>13.9</td>
</tr>
<tr>
<td>Singapore</td>
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<td>11.5</td>
<td>13.1</td>
</tr>
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<td>Canada</td>
<td>20.4</td>
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<td>12.7</td>
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<td>USA</td>
<td>19.9</td>
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<td>Puerto Rico</td>
<td>19.4</td>
<td>2.1</td>
<td>10.5</td>
</tr>
<tr>
<td>Uruguay</td>
<td>16.6</td>
<td>4.2</td>
<td>10.3</td>
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<tr>
<td>Portugal</td>
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<td>9.6</td>
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<tr>
<td>Ireland</td>
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<td>4.7</td>
<td>9.5</td>
</tr>
<tr>
<td>UK</td>
<td>12.4</td>
<td>3.6</td>
<td>7.9</td>
</tr>
<tr>
<td>Spain</td>
<td>11.6</td>
<td>3.9</td>
<td>7.7</td>
</tr>
<tr>
<td>Italy</td>
<td>11.2</td>
<td>4.1</td>
<td>7.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>4.5</td>
<td>4.5</td>
<td>5.8</td>
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<tr>
<td>Chile</td>
<td>9.8</td>
<td>1.5</td>
<td>5.6</td>
</tr>
<tr>
<td>Venezuela</td>
<td>7.8</td>
<td>1.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Greece</td>
<td>5.5</td>
<td>1.5</td>
<td>3.5</td>
</tr>
<tr>
<td>Colombia</td>
<td>5.1</td>
<td>1.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Mexico</td>
<td>3.9</td>
<td>0.7</td>
<td>2.3</td>
</tr>
</tbody>
</table>
National Scenario

The massive demographic, socio-economic, cultural, epidemiological transformation with some progress in control of communicable diseases has been resulted in the emergence of man-made, behaviour linked and multifactorial non-communicable diseases. "Suicides" considered to be "a thing of past", "a culture related syndrome" and "mental health problem" is slowly recognized as a public health problem.

The only source of information on suicides has been the "National Crime Record Bureau" (NCRB) reports under the Ministry of Home Affairs by Government on India. The Bureau compiles information from all states and union territories and publishes annual reports. With difficulties in reporting, notification, analysis, compilation and dissemination of suicide data due to complexities in underreporting, misclassification, lack of suitable and simple methodologies, the precise magnitude of the problem is not clearly understood. This report is also subject to variation in reporting practices and may not present a true picture of the entire nation. Nevertheless, it serves as a pointer of problems, changes, trends, variations and loss to the country.

Some facts from NCRB are a testimony to the increasing problem of injuries and suicides in India. During 1967 nearly 39 years back, 1,67,000 died due to accidental deaths and suicides. At the turn of century, during 1999, 3,82,000 died due to the same cause. These numbers are likely to be much higher considering the issues of non-reporting from several parts of the country, especially from rural areas. From 40,000 suicides in 1968, the numbers have risen to nearly 1,10,000 by 1999, an increase of 175%. Compared with the rate in 1998, suicides increased by 5.6% during 1999. The national suicide rate for India stands at 10.4 per 1,00,000 population.
(NCRB, 2003). It is stunning to learn that, Kerala ranks first in India for its suicidal rate (SCRB, 2004) for the seventh time (27.64 per 1,00,000), which is almost three times higher than the national average and many developed countries. Pondichery, A&N Islands, Tripura, Karnataka are other states top in the list of suicides.

It is assumed that the official suicide rates under-estimate the true rates by 20% to 100% (Issac, 2003). Applying this ratio the number of persons committing suicide in the country every year will be around 1,50,000-1,75,000 (incidence figures based on other earlier suicide incidence studies and recent injury under reporting studies), which is 1.5 times higher than the reported figures (Gururaj et al, 2000).

Like wise, there is no way of knowing the number of people who attempt suicide but do not succumb to it. Studies show that the number of people who attempt suicide is about eight to ten times the number of people who actually succeeds in their attempt. By applying this ratio there would be 88-110 per 1 lakh population attempting suicide in India every year. The National scenario is illustrated in Table- 2.

Table-2

<table>
<thead>
<tr>
<th>Suicide Rate in India per 1,00,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
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<tr>
<td>------</td>
</tr>
<tr>
<td>1987</td>
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<td>1991</td>
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<tr>
<td>1992</td>
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<tr>
<td>1993</td>
</tr>
</tbody>
</table>
Kerala Scenario

Increasing suicide rate has become an important public health problem in Kerala in recent years. In the print media, visual media as well as in seminars and conferences this problem has been discussed widely. Our state contributes 10.1 percent of all the suicides occurring in India, while our population forms only 3.4 percent of the nation’s populace. During the period 1991-2004 suicides peaked in the year 1999 (30.6/1,00,000) (Figure 1). According to latest reports (SCRB, 2004) Kerala ranks first in its rate of suicide (27.64 /1,00,000), which is almost three times the national average (10.4 /1,00,000; NCRB, 2003). Kerala stands first in the rate of suicide among the other states for the 8th time. The annual global suicidal rate is about 14.5 /1,00,000 population or one suicidal death about every 40 seconds.

On an average, there are 8,900 plus suicides in the state each year. In Kerala, on an average 26 people are committing suicides per day.
Majority of suicide victims are between the ages of 30 to 60 years. In western countries suicide is more common in older age groups. On a closer analysis it is clear that the proportion of young people committing suicide is increasing in Kerala over the years. Younger age for suicide victims has been reported by many studies from Kerala. It could be due to the difficulties in securing stable jobs, financial problems and problems arising out of marriages (suicide is high among the married in Kerala), which take place increasingly during the early phase of life, might have enhanced the suicidal risk in younger age group.

The male to female ratio in suicide in this state is 7:3. The dominance of male in suicide shown in western literature is not seen in Kerala. The diminishing gender difference in Keralite is quite interesting. For the last few years many studies from Kerala, India as well as from other developing countries have also reported an increasing female proportion in suicide.

Studies show that the number of people who attempt suicide is about eight to ten times the number of people who actually succeeds in their attempt. By applying this ratio there would be 221-276 per 1,00,000 population attempting suicide in Kerala every year. In absolute terms it is approximately 72,424 to 90,530 individuals in a year.

Another phenomenon that has attracted public attention in Kerala is increasing family suicide in which often husband and wife commit or attempt suicide after killing their children. Kerala also ranks first in the rate of family suicides. The despair and hopelessness related to family life arising out of severe financial crisis is reported and projected as the reason. 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. Mental health experts, social activists and others blame growing consumerism for this trend.

**Figure-1 Suicide rate in Kerala per 1,00,000 population from 1991-2004**

![Figure showing suicide rates from 1991 to 2004](image)

**District-wise Break up**

In the year 2004, Idukki district (42.34) had the highest suicide rate (per 1 Lakh population) followed by Kollam (41.07), Wayanad (36.49), Thiruvananthapuram (35.51), Palakkad (32.94), Pathanamthitta (32.92)
etc. For the last 10 years Idukki, Wayanad, Kollam, Palakkad, Pathanamthitta and Thrissur have reported higher suicide rates (above 30 /1,00,000) (Table 3). Interestingly in Thiruvananthapuram district the suicide rate had a steep increase from 17.2 in 1995 to 35.51 in 2004. In Pathanamthitta suicide rate was 23.5 in 1995, which rose sharply to 32.92 in 2004. Likewise there is a sharp rise in suicide rate in Kollam from 32.0 in 1995 to 41.07 in 2004. Similar hike is noticed in Alapuzha also (19.9) in 1995 to 22.53 in 2004. Some of the districts like Malappuram (12.0 in 1995 and 12.77 in 2004) and Kasargode (24.8 in 1995 and 22.75 in 2004) the suicide rate is more or less constant over the years.

The drastic fall in the price of agricultural products might be the reason for high rate of suicides in the farmers dominated districts. Ever increasing rate of alcohol dependence is another reason for this alarming rate. Another reason could be the increasing rate of mental illnesses particularly depression and the influence of migration of Keralite to the Middle East. 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.

During the last ten years, lowest suicide rate was reported from Malappuram (12.77 in 2004). Islam clearly forbids suicide, encouraging submission to God’s will in suffering and sickness. As a consequence Muslim patients do not readily talk about suicide. Often one finds in clinical practice, depressed Muslim patients, who divulge their suicidal ideas, quickly go on to state that they would not carry out their act because it is against their religion. It takes that much more for a Muslim to cross the bridge and therefore if a Muslim patient mentions suicidal plans he should be taken seriously.
Table 3
Districtwise Suicide Rate in Kerala per 100,000

<table>
<thead>
<tr>
<th></th>
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<td>Idukki</td>
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Employment Status

According to the recent SCRB report (2004), majority of suicide victims were housewives (16.7%) followed by unemployed (14%), farmers (10%), businessmen (4.3%), students (3.7%), private sector employees (2.7%), etc. An alarming finding is that over the last few years, housewives have occupied number one position in Kerala suicides. The proportion of farmers committing suicides is also very high in Kerala. Unemployment is another important factor in Kerala suicides. Kerala accounts for only 3.4% of India’s population but has nearly 16% of the unemployment status among the Indian States. Kerala has the highest rate of unemployment of the educated. It could be the frustrated, educated, unemployed youths who resort to suicide.

Married people (72.9%) out numbered unmarried (27.17%) among the suicide victims in Kerala. In Western countries, suicide is more common in unmarried and separated individuals. India in general as well as in Kerala marriage is a social obligation and is performed by elders irrespective of the individual’s fitness for it. Further, marriage is believed to be part of the treatment for mental illness and the mentally ill are more likely to get married sooner than the mentally healthy. Hence there could be several adjustment problems among the married mentally ill in India. In the West on the other hand, marriage is believed to be a measure of emotional stability and married people have lower rate of mental illness.

Suicides more common among married and housewives have been reported by previous Indian studies also. Suicides more common among women below 30 of Indian origin have been reported from Malaysia and Fiji. 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 loosing their husband’s sympathies with none to turn to. 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 the domestic conflicts and dowry related problems.

**Educational Break up**

In the recent statistics (2004) 58.8% were primary and middle class educated, 30.5% were matriculate and intermediate, 2.5 % were graduates or diploma holders and 0.2% were postgraduates and above. Only 8.0% were illiterates.

**Mode of Attempt**

2004 data shows that majority of suicide victims including males and females took their lives by hanging (43%), followed by consuming insecticides and other poisons (24%). Another note worthy point is that a significant proportion of females committed suicide by self-immolation (12.3%) and drowning (10.8%).

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 important when the suicidal act is impulsive in nature. In our state, majority of males being farmers, they have an easy accessibility to insecticides. Similarly for females because of limited mobility outside home as majority are housewives they have more accessibility to native
poisons, medicines, corrosives, kerosene etc. However in both genders stronger suicidal intention might have led them to choose more lethal method like hanging as sure means to commit suicide. It has been revealed in Indian studies 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. Burns in general have reported more in younger women.

CAUSES

The causes or the factors that are reported for suicidal attempts differ in police records and in clinical experience. In the clinical situation various problems in the family such as marital problems, difficulties in social life, love affairs, failure in examinations, financial difficulties etc. emerge as the reasons in that order.

According to SCRB data (2004), 22.4% of suicides were caused by family problems, 16% mental illnesses, 16% physical illnesses and 10% financial problems. Factors like unemployment, love failure, failure in exams and professional/career problems etc have contributed only to lesser extent in Kerala suicides.

Mental illness is identified as an important cause, accounting for 16% of suicides in Kerala, which is far higher than the all-India average of 5%. The prevalence of mental illness in Kerala is 283 per 1,00,000, which is two times higher than the national rate 132 per 1,00,000. Among the mental illnesses depression, alcoholism and schizophrenia score top in the percentage of suicide. Taken together physical and mental illnesses constitute 31% of total suicides in Kerala.

However, on a 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 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 are setting the stage for the suicidal behaviour. The influence of consumerism, the increasing prevalence of alcoholism, the ruthless and competitive life style, all collaborate to set the tragedy of the individual in the contemporary Kerala society. Aspirations and needs are quite high for an average Keralite but resources are limited. Many tend to buy things through installments. Migration adds to this. People who go abroad (especially to the Gulf) try to inculcate the same living standards and culture here. Moreover, the pampered child rearing practices, geographical over protection of the state from natural calamities, all have made a typical Keralite an individual without much fortitude or frustration tolerance and emotional immunity.

Media reporting and portrayals have been identified as having an important influence on suicides in Kerala especially copycat suicides. Young people and elderly people appear more vulnerable than those in their middles years to the media related suicide contagion. In adults, a form of social contagion may be operative whereby someone is more likely to harm himself/herself if exposed to someone who has done so. A crucial issue in the social contagion hypothesis is the influence of media. There is a steady and constant exposure to suicide in the television and cinema – often giving tasteless and lurid details of the actual process. The print media often highlights and justifies or even glorifies acts of suicide. Epidemics of suicide following sensational reporting of suicide in the media have been noticed in many parts of the world. Perhaps teenagers are
more vulnerable and impressionable than adults in the face of media influences.

**Socio-demographic Pattern**

**Age**

Suicide rate increases with age. Among men, suicide peaks after age 45 and among women, the greatest number of completed suicide occurs after age 55. Rates of 55 per 1 lakh are found in men aged 65 and older. The elderly attempt suicide less often than do younger people but are successful more often, accounting for 25% of suicides, although the elderly make up only 10% of the total population. The rate for those 75 or older is more than three times the rate of that among the young. A peak among males is also found in late adolescence (15-24yrs) when death by suicide is exceeded only by death attributed to accidents and cancer. The suicide rate for females in this age group showed only a slight increase (Unni, 1999).

**Sex**

Men commit suicide more than 3 times as often as do women, a rate that is stable over all ages. Women on the other hand, are three times as likely to attempt as men (Unni, 1999).

**Race**

Suicide rate among whites is recorded at nearly twice the rate as among non-whites, but these figures are increasingly called into question. Among the black, ghetto youth and certain Native American and Alaskan Indian groups, suicide rate greatly exceed the national rate. Two out of every three suicide are by white males (Unni, 1999).
Religion

Historically, suicide among catholic population has been recorded as lower than the rate among Protestants and Jews (Unni, 1999). It may be that the degree of orthodoxy and integration within a religion are more accurate measures of risk with this category than is simple institutional religious affiliation.

Marital Status

Marriage, reinforced by children seems to significantly lessen the risk of suicide. Among married persons, the rate is 11/1,00,000. Single, never married persons register an overall rate of nearly double the married rate. Previously married persons show sharply higher rates; 24/1,00,000 among the widowed; 40/1,00,000 among divorced person, with divorced men registering 69/1,00,000 as compared with 18/1,00,000 for divorced women (Unni, 1999).

Occupation

The higher a person’s social status is, the greater is the suicidal risk, but a fall in social status also increases the risk. Work, in general protects against suicide. Among occupational rankings, with respect to risk for suicide, physicians have traditionally been considered to stand out, and psychiatrists are considered to be at greatest risk followed by ophthalmologists and anesthesiologists. Special at risk populations are musicians, dentists, low enforcement officers, lawyers and insurance agents. Suicide is higher among unemployed persons than among employed persons. During economic recessions, depression, and at times of high unemployment, the suicide rate increases. During times of high employment and during war, the suicide rate decreases (Roy, 1995).
Health

The relationship of physical health and illness to suicide is significant. Prior medical care appears to be a positively correlated risk indicator of suicide. 32 percent of suicides have had medical attention within the six months of death. Postmortem studies show that a physical illness is present in some 25 to 75 percent of all suicide victims. Among the suicide attempters studied, more than one third of persons were actively ill at the time of attempt, and more than 90% of the attempters were influenced by some illness. In both groups, psychosomatic illnesses constituted the majority of diagnoses (Unni, 1999).

Factors associated with illness and contributing to both suicide and attempts were loss of mobility among persons for whom physical activity was occupationally or recreationally important. In addition to the direct effects of illness, investigators noted the secondary effects of illness—for example disruption of relationships and loss or required change of occupational status.

Psychiatric Illness

Psychiatric patients' risk for suicide is 3 to 10 times greater than that of non-psychiatric patients. The degree of risk varies according to age, sex, diagnosis and inpatient or outpatient status. Male and female psychiatric patients who have at some time been inpatients have five and ten times higher suicide risk, respectively than that for the general population. For male and female psychiatric patients who have never been admitted, the suicide risk is three and four times greater, respectively. Greater suicidal risk in inpatients is due to greater severity of illness necessitating hospitalization. Studies report that psychiatric patients who commit suicide tend to be relatively young. This is partly due to the fact that too early
onset, chronic psychiatric disorders like schizophrenia and recurrent mood disorders — accounted for just half of all these suicides. A small but significant percentage of psychiatric patients who commit suicide do so while they are inpatients especially in the first week after hospitalization in both sexes. Among psychiatric patients the period after discharge is a period of increased suicide risk. Patients attending emergency services, especially those with panic disorder also have an increased suicide risk (Roy, 1995).

**Depression**

Mood disorder is the diagnosis most commonly associated with suicide. The age adjusted suicide rate for patients suffering from either depression or dysthymia is 400 and 190 per 100,000 respectively for male patients and 180 and 90 for female patients. The chance of depressed patients killing themselves is increased by their being male, single, separated, divorced, windowed or recently bereaved. Suicide among depressed patients is more likely at the onset of or the end of a depressive episode (Roy, 1995).

**Schizophrenia**

The suicide risk is high among schizophrenic patients: up to 10 percent die by committing suicide. Since the age of onset of schizophrenia is typically in the adolescence or early adulthood, most schizophrenic patients who commit suicide do so during the first few years of their illness. Majority of schizophrenic suicide victims are unmarried, and depressive symptoms are closely associated with these suicides. Only a small percentage committed suicide because of hallucinatory instructions or to escape persecutory delusions. Up to 50 percent of suicides among schizophrenic patients occur during the first few weeks and months after
discharge from a hospital; only a minority commit suicide while inpatients. The risk factors for suicide among schizophrenic patients are young age, male sex, single marital status, a previous suicide attempt a vulnerability to develop depressive symptoms, and a recent discharge from a hospital (Roy, 1995).

**Alcoholism**

Upto 15 percent of alcoholics commit suicide. Alcoholic suicide victims tend to be male (reflecting the sex ratio of alcoholism), middle aged, unmarried, friendless, socially isolated, and currently drinking. Up to 40 present have made a previous suicide attempt. Studies show that many alcoholics who eventually commit suicide may be depressed at the time of attempt and many have experienced the loss of a close affectionate relationship during the previous year. It is likely that such interpersonal loss and other types of life events are brought out by alcoholism and contributes to the development of mood disorder symptoms (Roy, 1995).

**Drug Dependence**

Studies in different countries have demonstrated that there is an increased suicide risk among drug abusers. The suicide rate for heroin addicts is about 20 times greater than that for the general population. The availability of lethal amount of drugs, intravenous use, associated antisocial personality disorder, chaotic life style, and impulsivity are some of the factors that predispose drug dependent persons to suicidal behaviour, particularly when they are dysphoric, depressed or intoxicated (Roy, 1995).
Personality Disorders

A high proportion of suicide victims have serious associated personality difficulties or disorders. Having a personality disorder may be a determinant of suicidal behaviour in several ways; by predisposing to major psychiatric disorders like depression or alcoholism, by leading to difficulties in relationships and social adjustment, by precipitating undesirable life events, by impairing the ability to cope with a psychiatric or physical disorder, and by drawing persons into conflicts with those around them, including family members, physicians and hospital staff members. An estimated 5 percent of patients with an antisocial personality disorder commit suicide (Roy, 1995).

Previous Suicidal Behaviour

A past suicide attempt is perhaps the best indicator of future suicide. About 40% of attempters have made a previous attempt, and between 13 and 35% of attempters make another attempt during the next two years. During that time up to 7% make two or more attempts, and 1% make five or more attempts. Thus there appear to be a subgroup of repeaters: the very occasional repeater, the person who repeats several attempts within a short time period, and the chronic, habitual repeater.

Six factors may be helpful in identifying the person at risk of making another suicide attempt: problems with alcohol, the diagnosis of antisocial personality disorder, previous inpatient psychiatric treatment, a previous attempt that has lead to admission, and living alone (Roy, 1995).

Family History of Suicide

A family history of suicide significantly increases the probability of a suicide attempt, especially of a violent attempt, among the depressed
patients. One study reported that among 5,845 consecutive inpatients, 243 had a family history of suicide (4.2%, Quoted by Roy, 1995). A Belgian study found that 123 (17%) of 713 depressed inpatients had a first- or second-degree relative who had committed suicide (Quoted by Roy, 1995). Roy (1995) concluded that approximately 10% of depressed patients have a family history of suicide.

Psychological Factors

Life Stress

Extensive empirical research on life events and illness had demonstrated that life stress may result in problems in both physical and mental health (Cohen, 1980; Paykel & Dowlatshahi, 1988; Herbert & Cohen, 1993). Increasing knowledge strongly suggest that life events exposure is not random in the general population but is associated with certain environmental, socio-demographic, personal, psychopathological and genetic factors (Miller, Dean, Ingham, Kreiamn, Sashidharan & Surtees, 1986; Fergusson & Horwood, 1987; Sieevewright, 1987; McLeod & Kessler, 1990; Kendler, Neale, Kessler, Heath & Eaves, 1993). Life without stress cannot be imagined. Psychological Stress forms an inseparable part of life and up to a degree may be essential for normal personality development. However if these stressors become too severe or too numerous they may affect psychiatric equilibrium, producing maladaptive patterns of behaviour and possibly mental disorders. Selye (1956) in his classical work postulated that any type of life change could act as a stressor causing physiological arousal and enhanced susceptibility to illness. Stress operates via the autonomic nervous system and endocrine glands, though the precise relationship between neurogenic and hormonal regulation in normal and pathological conditions is not very clear. Stress is
not necessarily unpleasant. Essentially stress can be of two types: pleasant stress called as Eustress, and unpleasant stress called as Dystress (Bernad, 1968).

**Conceptual Models**

The exact nature of the casual link between life stress and psychiatric disorders is largely a matter of speculation. Various conceptual models have been proposed, some of which are as follows:

Rahe, Floistad & Bergon (1974) proposed a model by using the principle of optics. A series of lenses and filters are employed to indicate the various steps along the pathway between the subject’s exposure to recent life stress and his subsequent illness. A subject’s past experience may alter the significance of his recent life change. Defense mechanisms are employed which diffract away some of the life change events. Those not diffracted away stimulate a multitude of physiological processes. The subject may then ‘absorb’ some of the physiological reactions, e.g. lower blood pressure by relaxing large muscle groups. Prolonged, unabsorbed psycho physiological activations eventually lead to organ system dysfunction and bodily diseases.

The “Crisis Theory” proposed by Linderman and elaborated by Satin (1973) maintains that when an individual is faced with new situation (stress) he goes into a period of equilibrium (crisis). The outcome of crisis may be adaptive in terms of the enlargement of individuals experience and coping resources, and thus may be a part of maturation. It may be maladaptive in terms of development of a pathological state of avoidance of the adjustment problem, the development of displaced problem (such as physical illness) or the exhibition of symptoms of strain (emotional illness or reduced functional capacity).
Brown, Sklair & Harris (1973) have suggested two extreme positions regarding the causal role of events. The first emphasizes the importance of predispositional factors and, at most, the events are seen as triggering an illness, which may at most bring the onset forward by a short period of time and perhaps makes it more abrupt. The opposing position is that the events play an important formative role and the onset is either substantially advanced in time by the event or brought about by it altogether. Both triggering and formative factors may be either short term or long term. They are the opposite end of a continuum rather than qualitatively different processes.

Kagan & Levi (1974) have proposed a “Cybernetic model” in which the sequence of interactions is not a one-way process, but constitutes a part of cybernetic system with continuous feedback. The combined effect of psychosocial stressors and psychological programme (genetic factors and earlier environmental influences) determine the psychological or physiological reactions, which may lead to precursor of disease and/or disease itself. The sequence of events can be promoted or counteracted by intervening variables.

Methodological Aspects

Life event research is facing many methodological problems considering methods of data collection, reliability of reporting, distortions of recall, and fall-off in reporting during time course (Paykel, 1983; Creed, 1993; Saxean & Mohan, 1982; Sriram, 1987). In general, interview methods are superior to self-report questionnaires in accuracy and reliability in data collection. A “recent life event”, by definition, represents a change in the external social environment that can be dated approximately, in contrast to a chronic difficulty or problem, such as bad
marriage or chronic poverty (Paykel, 1989). The change is external and not just one of perception; some actual changes in the circumstances are essential. One “non-external life event” is physical illness, which is externally verifiable and carries major implications for change of life pattern.

**Life Events and Suicide**

Suicide attempts and completed suicide are separate phenomena, and those who have attempted and committed suicide represent different but overlapping groups. Of the suicides a proportion of 30-40% had previously attempted suicide (Maris, 1992), about 1-2% of the attempters die annually by suicide (Hawton, 1992), and 3-10% may do so eventually (reviewed by Gunnel & Frankel, 1994). Suicide attempts vary in terms of medical seriousness, suicidal intent, and motive from one case to another. Those attempters at high risk resemble completed suicide victims in many characteristics (Michel, 1987). The rate of suicide attempts has been estimated to be 10-50 times higher than that of fatalities (Hankoff, 1982; Ostamo, Lonnqvist, Heinnonen, Leppavouri, Liikkanen, Marttila. & Monkkonen, 1991).

Suicide attempters may have experienced a greater number of stressful life events in the months or weeks prior to the attempt than before (Papa, 1980; Power, Cooke & Brooks, 1985). Preceding the act, suicide attempters had experienced adverse events more often than general population controls (Cochrane & Robtson, 1975; Paykel, Prusoff, & Myers, 1975; O’Brien. & Farmer, 1980; Isherwood, Adam & Hornblow, 1982; Bronisch & Hecht., 1987; de Vanna, Paterniti, Milievich, Rigamonti, Sulich. & Faravelli, 1990). They had also experienced more commonly adverse vents than did depressive controls (Paykel et al, 1975;
Slater & Depue, 1981), or other psychiatric patients (Greer, Gunn & Koller, 1966; Luscomb, Clum & Patsiokas, 1980; Morano, Cisler & Lemerond, 1993). Suicide research literature (Heikkinen, Aro & Lonnqvist, 1994) has shown links between suicidal behaviour and a variety of stressful life events including interpersonal conflict, economic problems, school-related difficulties and legal or disciplinary problems. The events shown to precipitate suicide attempt may act as precipitating factors for suicidal behaviour only when they occur in individuals who are vulnerable to suicidal behaviour (Rich, Warsradt, Nemiroff, Flower & Yound, 1991). A particular problem in life event and suicide research lies in ascertaining the extent to which life events that precede suicidal behaviour are independent of, or caused by, antecedent factors including socio-demographic factors, personality factors, social support, coping styles and psychiatric disorders.

**Life Events in the Suicide Process**

Theoretically, the role of life events in the suicide process differs in important aspects from the role of life events in illness. Suicidal behaviour, unlike physical illness, is a self-inflicted act, often of short duration. Applying a systematic approach, suicide can be considered as a time advancing process that is affected by complex biological, psychological, social, cultural and societal factors (Blumenthal, 1990; Heikinen, Aro & Lonnqvist, 1993) (Figure-1: The suicide process model). Using this approach as a conceptual framework, separate research findings may be integrated into a hypothetic model. The suicide process model is applied to contemplate and organize the factors associated with suicide, not to create a new theory of suicide (Heikinen, 1994). In this threshold model of suicidal behaviour, certain predisposing risk factors such as family history of suicide and biological vulnerability can interact with risk/vulnerability
factors which develop later in life, such as psychiatric illness, exposure to suicide, or chronic difficulties, for example.

Precipitating or triggering factors such as adverse life events and other recent psychosocial stressors occur close to suicide; when a person with risk factors/vulnerability undergoes a humiliating life experience or other psychosocial adversity and when there is an available method for suicide, the threshold for suicidal behaviour may be lowered. In many cases, suicide may be seen as an escape from intolerable, although probably transient, period of emotional turmoil, triggered by recent adversity. Counteracting these provoking factors, by acting as a barrier to suicidal behaviour, protective factors such as strong social support systems, cognitive flexibility, hopefulness, and appropriate treatment for an associated psychiatric disorder operate at phases during the process. Lack of protective factors may indicate increased vulnerability. During an individual’s life course, the equilibrium between risk factors and protective factors varies from time to time. Suicidal intent is not constant with an individual person. It waxes, wanes, and disappears, and it may surface abruptly (Murphy, 1983). Recent life events may act as precipitant stressors, which make the person, take the step from suicidal thoughts to suicidal acts. The suicide process model may help to explain why some people do not become suicidal given certain conditions and why others do.
Figure 2: The Suicide Process Model

Social Support

General Concepts

Interpersonal networks may afford "social support" that provides assistance and encouragement to individuals with physical and emotional problems in order that they may better cope (Henderson, 1984; Veiel,
1988). Informal support is usually provided by friends, relatives or peers, while formal assistance is provided by churches, groups etc. Such support is thought to help to maintain emotional well-being and mitigate the effects of adverse life events. There is debate whether the effect of social support on mental health direct or indirect. Two different views have been proposed, and both have gained some support from the literature. Lack of social support may be stressful independently or it may indicate a lack of a buffer against psychosocial stress originating from life events (Aneshensel & Stone, 1982; Thoits, 1982; Cohen & Wills, 1985; Parry & Shapiro, 1986; Alloway & Bebbington, 1987; Galanter, 1988; Overholser, Normen. & Miller, 1990).

The term social support refers to the mechanisms by which interpersonal relationships protect people from deleterious effects of stress (Kessler, 1989). Social support has a very important role to play in maintaining an optimum level of efficiency and is necessary for feelings of physical as well as psychological well being (Broadhead, Kaplan, James, Wagner, Schoenbach, Grimson, Heyden, Tibblin & Gehlbach, 1983) A number of community surveys and case reports have shown that social support plays an important part in protecting against both onset as well as anticipation of psychopathology (Kessler, 1989)

Conceptualization of Social Support

Although definitions of social support vary, the underlying implication is that persons who are supported instrumentally and emotionally are healthier than those who are not supported. The view posited by Heller, Swindle Jr. & Dusenbury (1986) is that social support is involved in social activity if it is perceived by the recipient of the activity as esteem enhancing or if it involves the provision of stress related
interpersonal aid (emotional support, cognitive structuring, or instrumental aid). The first theme 'perception' refers to a subjective assessment of, and belief in (a) being cared for and valued by significant others (b) having significant others available in time of need and (c) being satisfied with these relationships. Mobilization of social support is conceptualized as an aid to coping 'refers to the provision of direct help or material aid.

Social support is considered as a personal experience as opposed to a set of objective circumstances. Social support as described by Coyne & DeLongis (1986) is a “cognitive appraisal or property of the person, rather than a reflection of a set of circumstances or of the transactional unit of a particular circumstance”. Some scientists have viewed social support as function of personality, for example some persons may “have the capacity to seek out and obtain support from any environment at all times and particularly when order stress” (Flaherty, Gaviria & Pathak, 1983) There is evidence that not all types or sources of support are equally efficacious in reducing stress. Harm may result from supportive actions that are not consistent with either the expectations or the personal coping style of the one in need of social support (Schilling, 1987).

Certain specific health- sustaining functions of social support can be reduced to (a) esteem support, or information that one is esteemed, accepted or affirmed (b) informational support, sometimes referred to as advice or coping support (c) affiliative support aimed at facilitating positive affective moods and (d) instrumental support, or the provision of either tangible or intangible aid. Despite the social support research that has accumulated over the last decade, the process by which social support accomplishes a health protective functioning is neither clearly understood nor adequately documented (Schilling, 1987). Some authors question whether the social support literature has relevance to intervention or if
social support is of any causal significance to mental health (Coyne & Delongis, 1986).

**Operational Models of Social Support and Stress**

Two general models of the influence of social support on stress have been proposed, each representing a different process through which social support can affect well-being. Neither hypothesized model has been strongly or consistently demonstrated.

**Direct Effect Model**

The direct (main) effect model of social support can prevent exposure to certain stressors, induce more benign appraisals of threat and/or boost morale and sense of well-being (Gottlieb, 1981). This effect influences the well-being in ways that do not necessarily involve improved means of coping with actual stressors or stressful events. In this model, social support is seen on its own as an important etiological variable, and is “conceptualized as a basic human need that must be satisfied in order for an individual to enjoy a sense of well-being”. Social support bears a direct relationship to measures of psychological disorders in this model and is a means of primary prevention. Emotional sustenance or esteem enhancing components of social support are more critical to health maintenance than are the more practical stress reducing functions of cognitive or instrumental aid (Shumaker & Brownell, 1984). Interestingly, on the basis of review of literature on social support (Cohen & Wills, 1985). It is concluded that there is a dearth of evidence to support the greater impact of emotional and informational support versus tangible support and companionship on well-being. The literature reviewed strongly supports the proposition that social support has a significant direct relationship on physical and psychological
well-being. However, the connections are “likely to be complex, reciprocal and contingent” (Coyne & DeLongis, 1983).

**Buffering Effect Model**

The buffering (interaction) effect model hypothesizes that social support mediates or ‘buffers’ the adverse effects of chronic or adverse life stressors (Cohen & Wills, 1985). This effect influences problem-solving coping directed at changing or managing the stress situation (Thoits, 1986). This is the most widely researched theory of social support buffering effect and it is claimed to offer a social model of mental disorder.

Stress arises when one appraises a situation as threatening or otherwise demanding and does not have the appropriate coping response. Characteristic effects of stress appraisal include negative affect, elevation of physiological response, and behavioural adaptations. Although a single stressful event may not place great demand on coping abilities of most persons, it is when multiple problems accumulate, persisting and straining the problem solving capacity of the individual, that the potential for serious disruption of neuroendocrine or immune system functioning, market change in health related behaviours (eg. Excessive alcohol use, poor diet or exercise patterns), or various failures in self-care)(Cohen & Wills, 1985). The psychological definition of stress closely links with appraisal stress with feelings of helplessness and the possible loss of self-esteem. Feeling of helplessness arises because of the perceived inability to cope with situation that demand effective response. Loss of esteem occur to the extent that failure to cope adequately is attributed to one’s own ability or stable personality traits as opposed to some external cause.

Following these propositions, the possible buffering mechanisms of social support are depicted in Figure 2. As indicated by Figure 1, support
may play a role at two different points in the causal chain linking stress to illness. First, support may intervene between the stressful event (or expectation of that event) and a stress reaction by attenuating or preventing a stress appraisal response. That is, the perception that others can and will provide necessary resources may redefine the potential for harm posed by a situation and bolster one’s perceived ability to cope with opposed demands, and hence prevent a particular situation from being appraised as highly stressful. Second, adequate support may intervene between the experience of stress and the onset of pathological outcome by reducing or eliminating the stress reaction or by directly influencing the physiological processes. Support may alleviate the impact of stress appraisal by providing a solution to the problem by reducing the perceived importance of the problem by tranquilizing the neuroendocrine system so that people are less reactive to the perceived stress, or by facilitating healthful behaviours (Cohen & Wills, 1985).

**Figure- 3 Two points at which social support may interfere with the hypothesized causal link between stressful events and illness**
The critical point of the buffering effect model is that social support modifies the effects of stress; specifically at the effect of stress on psychological adaptation. A major caveat in the testing of buffering hypothesis has been lack of attention given to the circumstances in which perception of support and adaptational consequences arise.

Although empirical validation of both models does exist, “overall the results are mixed”. More current research points to simultaneity between functioning of the two models as opposed to a mutually exclusive model (Ryan & Austin, 1989). Citing studies of social support in the mental health field, Flaherty et al (1983) concluded that ‘social support emerged as a better predictor of outcome than life events, causing speculation that there is a direct effect in addition to that of buffering stress.

Social Support and Suicide

A body of research in recent years has focused on social support in maintaining the emotional well-being and moderating the effects of adverse life events. The variables used in measuring social support include marriage, living alone, interaction between family members, recent moves, number of close friends, and other variables relating to change in social integration, especially when the interaction is positive. Social support can reduce the risk of mental disorder by buffering the adverse effects of stressful life events, or it can have a direct, independent effect on mental health irrespective of the presence or absence of stressful life events (Parey & Shapero, 1986; Overholser et al, 1990).

So far, little attention has been paid to the role of social support in suicide. Although considerable literature has linked social support and
suicidal ideation, few studies have considered the relationship between social support and suicidal behaviour with any specificity (Rudd, 1993).

Life events and coping styles can alter the situation and function of the social support system in terms of size, frequency of interaction, and stability and such changes may be associated with suicidal behaviour.

**Coping Styles or Strategies**

The word coping has two connotations in stress literature. It has been used to denote the way of dealing with stress, or the effort to "master" conditions of harm, threat or challenge when a routine or automatic response is not readily available (Lazarus, 1974). Coping behaviour or the things people do to reduce the stress has recently become the focus of research. How people cope with stress may be more important than the frequency or severity of stress.

Hamburg & Adams (1967) defined coping as the seeking and utilization of information". Lazarus (1974) has emphasized the key role of cognitive process in coping activity and the importance of coping in determining the quality and intensity of emotional reactions to stress. Freedman, Kaplan & Sadock (1979) described coping as "conscious and unconscious ways of dealing with stress without changing one’s goals. Pearlin & Schooler (1978) conceptualized it as “any response to situational life stressors that serves to prevent, avoid or control emotional distress”. All definitions imply that stressors are not passively received by the individual, but that he actively engages in certain thoughts and behaviours to mitigate and avoid their impact.
Psychoanalytical Background

Theoretical antecedents of coping can be traced back of psychoanalytic and egopsychology. Freud (1937) postulated that the ego mechanisms of defense described as habitual, unconscious and sometimes pathological processes that are employed to resolve conflicts between individual’s impulses and the constraints of external reality. Both these theories have provided the basis for formulating developmental perspectives that focused on the gradual accumulation of personal coping resources over an individual’s life span. Erikson (1963) described 8-life stages each representing a new challenge that must be negotiated successfully in order that the individuals cope adequately with the next stage of development.

Coping Traits and Coping Styles

Two different approaches to the study of coping have been perused by various investigators. One is general coping traits, styles or dispositions, while the other is active ongoing strategy in a particular stress situation. Coping traits refer to a disposition to respond in a specific way in situations. Coping styles imply a broader, more encompassing disposition. Traits and styles are fundamentally similar ideas. Both are characteristic ways of handling situation, they are stable tendencies on the basis of which inferences are drawn about how an individual will cope in some or all types of stressful situations.

Classification of Coping Responses

Although there are many ways to classify coping responses, most approaches distinguish between strategies that are active in nature and oriented toward confronting the problem, and strategies that entails an
effort to reduce tension by avoiding dealing with the problem. Most of the approaches to study coping behaviour are three broad perspectives a) ego processes b) traits and c) the special demand of specific situations. In terms of processes, Hann (1969) formulated a tripartite model of ego functioning comprising of 10 generic ego processes, expressing it in 3 modes; coping, defense and fragmentation. Based on this model, normative ratings, Q sorts and empirically derived questionnaires have been used to collect data on the processes. However, conceptualizing coping in terms of defenses has certain difficulties in that being unconsciously used by the individual, they have to be inferred.

Trait measures of coping have been comprehensively reviewed by Lazarus et al (1974). They are dispositional or personality attributes that lead to specific responses (e.g.: Repression–Sensitization). Trait measures taken alone however are poor predictors of coping behaviour as they assume that people are behaviourally consistent across situations.

Situation – oriented coping views coping behaviour in terms of special demands of specific kinds of situations such as illness (Hacket & Cassam, 1975) or bereavement (Parker, 1972). Although this method has virtue of studying comprehensively coping in relation to particular situations the finding found to be situation specific with limited generalisability.

Various paper pencil measures of coping behaviour have been developed to study specific things that people do when faced with stress. Moss & Billings (1982) have organized the dimensions of appraisal and coping in the measurement procedure into 3 dimensions.
Appraisal Focused coping

It involves attempts to define the meaning of a situation and includes such strategies as logical analysis and cognitive redefinition.

Problem Focused Coping

This seeks to modify or eliminate the source of stress to deal with the tangible consequences of a problem or actively change the self and develop the most satisfying situation.

Emotion Focused Coping

This includes responses whose primary function is to manage the emotions aroused by stress and thereby maintain effective equilibrium.

These categories are however, not mutually exclusive. Their primary focus is on appraising and reappraising a situation, dealing with reality of the situation, and handling the emotion aroused by the situations.

Maddi & Kobara (1984) have identified two forms of coping a) transformational and b) regressive. Transformation coping involves altering the life events so that they are less stressful. To do this one has to interact with the events and by thinking about them optimistically and acting towards them decisively, change them in a less stressful direction. Regressive approach is a strategy where when one thinks about the events pessimistically and acts evasively to avoid contact with them. There are certain resistance resources that increase the likelihood of meeting stressful events with transformational rather than regressive coping. Personality hardiness combines three tendencies, namely, toward "commitment" rather than alienation, toward "control" rather than powerlessness and toward "challenge" rather than threat. When stressful events occur, hardly people
do experience them as harmful, but as somewhat interesting and important (commitment), at least somewhat influential (control) and of potential value for personal development. The more of these resources one has, the greater is its buffering effect against stress.

Lazarus (1974) has suggested a classification of coping processes into two major categories namely direct actions and palliative modes. Direct actions include behaviours or action which when performed by the individual in the presence of a stressful situation is expected to bring a change in stress causing environment. The palliative mode of coping refers to those thoughts or actions whose purpose is to relive the individual of any emotional impact or stress. There is, however no clear consensus as to which coping strategies or modes of coping are most effective. Coping may either take the form of passive or avoiding the situation (reactive strategy) which is termed as "dysfunctional style" or confronting and approaching the realities of stress consciously, and taking some action to solve problem themselves or with the help of people (reactive strategy) which is termed as "dysfunctional style" (Pareek, 1983).

Approach or effective strategies of coping include efforts to increase physical and mental preparedness of coping (through physical exercise, yoga and meditation or diet management), creative diversions for emotional enrichments (music, art, theatre etc.) and strategies of dealing with the basic problems.

Plutchick & Conte (1989) have developed the Albert Einstein College of Medicine (AECOM) coping styles scale to assess various coping styles such as suppression (avoiding the problem), help seeking (asking for help) replacement (dealing with problems by finding alternative solutions), blame (blame others for the problems) substitution (engaging in
tension reduction activities such as sports), mapping (collecting information about the problem), reversal (acting opposite of the way one feels) and minimization (minimizing the importance of the problem). This scale measures above-mentioned 8 basic coping styles that are reducing stress and coping with life problems.

Coping and Outcome

Coping can have an effect on three kinds of outcome—Psychological, Social and physiological (Pestonjee, 1999). From a psychological prospective, coping can have an effect on the person’s morale (the way one feels about oneself and one’s life), emotional reaction (level of depression or anxiety, or the balance between positive trend and negative feelings), the incidence of psychiatric disorders and even performance. From a social prospective, one can measure its impact on functional effectiveness such as employability, community involvement and sociability, the effectiveness of interpersonal relationships or the degree to which useful social rules are filled (acting out, antisocial behaviours etc, are avoided). From a physiological prospective, outcome includes short-term consequences, such as the development and progression of a particular disease.

Coping and Suicidal Behaviour

Coping mechanisms serve as an internal source of emotional strength and mediates a personal reaction to any perceived stress whether internal or external. It appears that it is not the stressor alone that leads to serious outcome, but the way in which the person perceives and responds to it. It has been reported that individuals who attempt suicide have more difficulties in coping with interpersonal problems than do non-suicidal psychiatric patients of general population (Lineham, Chiles, Egan, Devine
Suicidal patients are less able to consider alternatives and they have less flexibility in thinking. It has been found that suicidal patients were less likely to use the coping style of minimization to deal with life problems (Kotler, Finkelstein, Moracho, Botsis, Plutchik, Brown & Van Prag, 1993) than do psychiatric controls. This coping style refers to a personal tendency to de-emphasize the burden and importance of a perceived stressful event. This may make them unable to buffer and neutralize the impact of stressors and that may “make mountains out of mole hills”. This may contribute to their exaggerated reaction to stressful situations, which results in suicide attempt as a last resort.

Suicidal patients also lack the coping style- mapping (Schneidman, 1982). Hence they lack the ability to obtain information and fail to look for alternative solutions. Because of this suicidal person is unable to differentiate between important and unimportant sources of pressure, and has difficulty in finding alternatives to the problems of every day life.

Three coping styles (blame, suppression and substitution) are reported to be excess in suicidal patients (Horesh, Rolnick, Dannon, Lepkifker, Apter & Kotler, 1996). It appears that blaming others for one’s problems, avoiding the problem or engaging in indirect tension reducing approaches, serve to augment suicidal behaviours. The coping styles like replacement and reversal were negatively correlated with suicidal risk. Learning about the situation and looking for alternative ways to solve it and bring to make best out of the situation decreases the suicidal risk, thus functioning as alternatives. Help seeking activities were not more frequent in suicidal patients. Because these patients did not seek help as frequently as non-suicidal patients, the detection of suicidal behaviour would be more difficult.
Some of the defense mechanisms like denial and repression also play a significant role in suicidal behaviour with coping styles of suppression and minimization operating at the cognitive level (Apter, Plutchik, Sevy, Korn, Brown & Van Prag, 1989). The existing literature evidence in the area of coping and suicide concludes that enrichment of repertoire of adaptive coping strategies of such individuals, with emphasis on their use of minimization, as well as mapping, might re-channel their typical pattern of self-destructive behaviour to more mature patterns of response in subsequent stressful situations (Horesh et al, 1996).

Quality of Life

Diseases affect human life in a profound way. They cause premature death resulting in decreased “quantity” of life, but more often they cause structural and functional limitations that may seriously affect the “quantity” of life. Death is easier to identify and record; hence morality has been a standard method for quantifying the impact of diseases. Quality of life (QOL) has been difficult to measure; hence its use in health care setting has been comparatively recent.

Assessment of QOL has several uses in health care. It provides a measurement of functioning and well-being rather than of diseases and disorders, hence is more comprehensive and compatible with the WHO’s concept of health (1948). It can guide appropriate management strategies (Gelber, Goldhirisch & Cavalli, 1991) and also act as one of the outcome measures for comparing them (Ganz, Lee & Siau, 1991) including drug trails (Saxena & Orley, 1997). QOL assessment focuses attention on aspects of a patients’ life beyond symptoms and signs. It thus sensitizes healthcare personnel to look for and correct direct and indirect effects of disease and treatment on individuals. QOL also helps in policy research
including programme evaluation and resource allocation (Patrick & Erickson, 1993).

Quality of life assessment has been widely used in behavioural medicine (Orley, Saxena & Herman, 1998). Most instruments used for assessing QOL were constructed in the developed countries and their cross-cultural compatibility has not been demonstrated. This makes their direct application in developing countries questionable.

QOL assessment has been extremely rare in India. One of the important reasons for this is non-availability of suitable instruments. WHOQOL developed by Saxena, Chandiramani & Bhargawa (1998) is an ideal tool for measurement of QOL in Indian set up.

The Concept and Definition

There has been a lack of clarity in the concept of QOL, with different group of workers using the term in widely different ways (Patrick & Erickson, 1993). There is also some overlap between functional status, subjective well being, health-related QOL and subjective QOL. WHO has defined QOL as individuals' perceptions of their positions in life in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (WHOQOL Group). It is a broad concept incorporating in a broad way in individual's physical health, psychological state, level of impendence, social relationships, personal beliefs and her/his relationships to salient features of the environment. The definition highlights QOL as a subjective self-report from the individuals, which is not based on reports or judgments from others (e.g. family members, clinicians). QOL is also multidimensional, incorporating positive (e.g. feeling happy, contented, energetic) as well as negative aspects (e.g. sadness, sexual difficulties).
Though consequences of diseases affect QOL in a major way, these are not themselves assessed while measuring QOL. Only the effects of symptoms on person’s life are assessed. This method of measuring QOL by generic questionnaires is conceptually sounder because a number of mediating factors determine how much and what kind of effects diseases will have on a person’s QOL. These factors include personal and environmental contextual variables. For example, a knee injury may limit a joint movement. For a young man whose aim in life is to become a professional football player, this disability seriously affects his QOL. But for another person whose profession involves mainly reading and writing, the same disability affects QOL to a lesser extent. Hence, a QOL questionnaire aims to assess the extent to which significant aspects of a person’s life has affected, rather than what symptoms and disabilities are present. This concept of measuring QOL also makes it easier to construct a generic instrument that can be applied to individuals suffering from illness of diverse nature and severity than to devise an instrument for each condition separately.

**Quality of Life and Suicide**

QOL is an important component in assessing the suicides risk. Since this is relatively a new area, only few studies have looked into this aspect in suicidology (Lester, 2001; Yang & Lester, 2001; Berlim, Mattevi, Papvanello, Caldieraro & Fleck, 2003; Sarfati, Bouchaud & Hardy-Bayle, 2003; Jarbin & Von Knorring, 2004). Most of the studies in this area have reported a negative association between QOL and suicide (Koivumaa-Honkanen, Honkanen, Vinamakai, Kaipro & Koskenvuo, 2001; Goldney, Fisher, Wilson & Cheok, 2001; Philips et al, 2002; Thatcher et al, 2002; Ponizovsky, Grinshpoon, Levav & Ritsner, 2003; Li et al, 2003; Blow et al, 2004).
PRESENT STUDY

As per the latest report (SCRB, 2004), the suicide rate in Kerala has shown a significant increase with recent a rate of 27.64 per one lakh (SCRB, 2004). Kerala ranks first in suicide rate consecutively for the 8th time among all other states in India. As per the latest report, everyday twenty-seven people are committing suicide in Kerala. Another trend recently noticed in Kerala is the increased number of family suicides. If this state of affair continues very soon our state may become the suicide capital of the world. The number of people who attempt suicide is 8-10 times the victim. By applying this ratio there would be 221-276 per 1,00,000 population attempting suicide in Kerala every year. Unfortunately no reliable data are available regarding suicide attempters because many of these are under reported fearing punishment, as it is a legal offence in our country.

The percentage of suicide by causes (SCRB, 2004) shows that majority is caused by family problems. Prolonged mental illness is the second most important cause accounting for 7% of suicides in Kerala, higher than the National average of 5%. Moreover it is alarming to note an increasing incidence of mental disturbance in the state. The problem of mental illness has been found to be severe especially in the “Gulf pockets” of the state. In Thrissur district, which has the highest number of migrants to the Middle East, almost every second member of family with a relative in the Gulf has a history of mental illness (Gulati, 2001). The worst victims seem to be women between 15 and 25 years of age. It would be their incompatibility with in-laws, which leads to psychological breakdown in woman.
Bankruptcy is another major cause of suicide in Kerala. It is interesting to note that the middle class and the salaried class of Kerala get into the debt trap owing to their "conspicuous consumption" habit. Those who spend beyond their means fall into debt trap with no way out and resort to suicide. The acute unemployment is said to be another important cause for mounting suicide rate in Kerala. Kerala accounts for only 3.4% of India's population. But has nearly 16% of usual status unemployed persons in India and registers the highest intensity of unemployment among the Indian states. Besides, Kerala has the highest rate of unemployment of the educated. It could be the frustration of the educated and unemployed youths resorted to suicide.

The ever increasing life stresses due to upward movement of our population, the lowering social supports, perhaps due to the change from joint family system to nuclear families compounded with the inadequate or non adaptive coping strategies to buffer the stress of everyday and unnatural life stresses may be the reason for the alarming rise of suicide rate in Kerala. Probably all these adverse factors might have led these vulnerable population to have poor quality of life and subsequent suicidal behaviour. Though there are thought provoking studies regarding suicides in Kerala (Kumar, 1998, 2000, 2003, 2004a,b,c, 2006; Kumar, Subramanian, Kunhikoyamu & Ranjakumar, 2001; Kumar, Abraham & Kunhikoyamu, 2002; Kumar, Abraham, Biju & Kunhikoyamu, 2003) systematic well-controlled studies exploring the interaction of life stress, social support, coping and quality of life are conspicuously absent. It is in this context the present study is planned. The study specifically reads as "Life events, social support and coping strategies in attempted suicide".
A review of current literature suggests that the influence of a host of other factors in causing suicide. Among them one unique factor seems to be the quality of life of the individuals. Hence an attempt is made to examine the quality of life in attempted suicide.

Objectives of the Study

- To analyze the type and severity of life events, coping strategies and social support of suicide attempters.
- To find the relationship of above factors with other psycho-socio-demographic variables.
- To identify the risk factors leading to suicide

Hypotheses

In order to attain the objectives the following hypotheses were formulated for the investigation.

- The quality and severity of life events differ in suicide attempters and normals.
- The quality and the amount of social support differ in suicide attempters and normals.
- The coping strategies differ in suicide attempters and normals.
- The quality of life differ in suicide attempters and normals.
- Suicide attempters can be differentiated from normals based on the unique psycho-socio-demographic profile, life events, social support, coping strategies and quality of life.
- In the suicide attempters as well as normals there is inter-relationship among life events, social support, coping strategies and quality of life.