Chapter 1

Introduction

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INTRODUCTION

“There is no mystery greater than misery” says the celebrated English philosopher novelist Oscar Wilde. Some suffer the pernicious consequences of their own evil deeds while there are many others whom a hostile destiny has thrown into throes and are made to suffer for no fault of theirs. None below the exalted eminence of a self-renounced Rishi can accept pain and pleasure dispassionately. Man, being what he is often finds himself unable to stand the stress and strain of adversity all by himself. Here comes the relevance of society, friendship and love divinely bestowed upon man. Every human being worth his salt has an unshirkable obligation to be of service to his fellowmen in times of misfortune. This research study is inspired by an earnest desire to make an honest endeavour to arouse the conscience of individuals and institutions world wide so that through concerted action the agonies and distress of cancer patients diagnosed terminally ill, can be ameliorated.

Apart from the humanitarian aspect pointed out above this affliction has many more dimensions. Sound health is a prerequisite to human productivity and “development” process. It is essential for economic and technological development too. A healthy community is the infrastructure upon which an economically viable society can be built. The progress of society greatly depends on the quality of its people. Unhealthy people can hardly be expected to make any valid contribution to
developmental programmes. Health is man’s greatest possession, for it lays a solid foundation for his happiness. Charaka, the renowned Ayurvedic physician is known to have said: “health was vital for ethical, artistic, material, and spiritual development of man”. The Buddha has said that of all the gains, the gain of health is the highest and the best. Health is not only basic to leading a happy life for an individual but also necessary for all productive activities in the society.

Whatever one may say to the contrary a disease stricken society can hardly hope to extricate itself from the clutches of poverty and ignorance that keep it backward and underdeveloped in all areas of life. A nation can become truly healthy only when it succeeds making up all the deficiencies stemming from cultural, social, economic and other factors. A nation that is ill-fed can hardly exhibit efficiency in any field. In fact, an epidemic or endemic disease in one part of the world can pause a potential danger to all mankind and even a challenge to modern science. To quote Herophilas, C, 300 B.C

“When health is absent
Wisdom cannot reveal itself
Art cannot manifest
Strength cannot fight
Wealth becomes useless
And intelligence cannot be applied”

Cancer is responsible for 20% of all deaths in the industrialized countries and technical report reveals an alarming
of over 2,00,000 cancer cases in India, collected during a two year period from 105 centers. Habayeb S.J, Varghese Cheriyan, (2006)\textsuperscript{1}.

Health, which was originally considered merely as an individual concern has now assumed the proportion of a global issue and the sine qua non of the quality of life. The new concept of health encompasses the bio-medical, ecological, psychological, holistic, aspects projecting a new dimension of total well-being. Sebastain Onsepparambil (2004)\textsuperscript{2} Health is the basis of all health care programmes but it is not perceived the same way by all the members of the society, which has given rise to considerable confusion. A really sound concept of health is bound to emerge based on the newly acquired knowledge in the field of human welfare.

**TERMINAL ILLNESS**

Terminal illness is a state in which an individual lives with a chronic illness which leads to death within a very short span. Robert.G.Twycross, (2004)\textsuperscript{3} There are different categories of terminal illness. They are cancer, heart failure, emphysema, cirrhosis of liver, kidney failure, advanced dementia, the intellectual degeneration caused by massive strokes and neurological conditions such as Alzheimer's disease and Acquired Immune Deficiency Syndrome.

Cancer is an emotive word and for many it spells grief, despair, bewilderment, fury, frustration and indeed the whole
range of human emotions. Cancer patients are not merely individuals with a diseased body; they are persons with a throbbing heart, a thinking mind, a stirring soul who live in a secluded world of their own, within the confines of their family and friends.

Although cancer affects individuals, its baneful effect extends into the families of patients and into the community at large. Loss of job, economic dependency, emotional problems like depression, hopelessness, helplessness, isolation, feeling of unwanted- ness, neglect etc aggravates their condition. Strained social relationship and family tensions persist. Ms. Rosalyn Staveley, (2002). The terminally ill patient gradually leaves to accept the situation by adopting a coping up strategy. The terminally ill patient during his last days surrenders himself to divine providence by being religious or plunges into depression. Each individual once he comes to know there are no chances of recovery, passes through the following stages – Denial, bargaining, anger, dependency and finally isolation. Averil Stedeford, (1992).

Holland, (1993) have summed up the implications of cancer in five D’s: Death, Disability, Disfigurement, Dependence and Disruption of relationships. A study made at The Regional Cancer Center, Trivandrum, India, Latha P.T, (1996) has revealed that the thoughts evoked in person on first hearing that they have cancer are fear of physical dependence (98%), fear of
treatment process (80%), fear of death (64%), fear of pain (62%), fear of recurrence (62%).

According to Elizabeth Kubler Ross, the stages every human being passes through as he draws near to death are Shock, Denial, Anger, Bargaining, Depression and Acceptance. Psychologists believe that people die when they will to die. This may sound strange but the fact is that in a sizable number of cases it is a developmental crisis.

**CANCER AS TERMINAL ILLNESS**

Cancer is a major public health problem as well as the most dreaded of diseases. It ranks only second to heart disease as a major cause of death. Cancer is often called “the silent killer”, because in its early stages, the disease normally gives little or no warning of its presence. Sway, Robert L, (2000)

The spread of cancer is through metastasis. Cancer cells metastasize, or spread, in the body in three ways: (1) by entering the blood vessels and traveling through the blood stream to distant parts of the body; (2) by being carried in the lymph, the watery fluid that bathes the body tissues; and (3) by direct contact with another organ. The route of dissemination depends on the location of the original infection and on its type.

**Possible causes for cancer**

No single causative factor is yet identified to explain the onset of cancer. The emergence of cancer is attributed chiefly to the living condition. It may be social in origin, and may be due to
change in physical environment and the life style, lack of awareness about the external carcinogenic agent etc.

**External factors responsible for causing cancer:**

Physical, for example, solar radiation, initiates skin cancer, and ionizing radiation, induces lung cancer.

Chemical: for example, vinyl chlorine can result in liver cancer and beta-naphtha lamine, can induce bladder cancer.

Biological: for example, hepatitis B virus infection is a cause for liver cancer and human papilloma virus infection, may lead to cervix cancer.

Beyond the discrete physical, chemical and biological agents that cause many cancers, diet is a life style factor that appears to be responsible for substantial number of cancers cases in the world. Several studies indicate that excessive fat in the diet increases the risk of colon-rectal and breast cancer. Some studies point to the involvement of nitrates in stomach cancer Jain, M. et al. (1980). In Japan, recent increase in fat consumption has been associated with a striking increase in the rate of colon cancer Willet, W.C and B. Mac Mohan, (1984). Dietary fat is believed to increase the secretion of bile acids in the bowels which are then metabolized by bacterial flora into carcinogens or co-carcinogens Franmenti J.F, (1982) and the evidence of this fact is convincing and irrefutable.

A positive correlation between per capita consumption of dietary fat and breast cancer rates has also been noted. A
reduction in dietary fat may alter the risk of breast cancer (Miller A.B et al.)\textsuperscript{12} perhaps by increasing estrogen production or protection relax (Wynder E L Lancet).\textsuperscript{13}

Micronutrients may also have a protective influence, since cancer of the lung and of several other sites have been associated with a low intake of Vitamin A Burkitt, D. P, (1979)\textsuperscript{14}. The risk of stomach cancer has been related to a deficiency of Vitamin, which may inhibit the formation of carcinogenic nitrosamines in the stomach (Hoover R. N, et al).\textsuperscript{15}

Food additives and contaminants (e.g. preservatives, artificial colour, artificial sweetners, pesticide, flavouring substances and anti-oxidants have always been under suspicion as possible carcinogens in their long-term effect. Food processing involves exposure to high temperature, oxidation.

Polymerization and production of nitrosamines are responsible for certain types of gastric carcinoma (Mac Mohan, B. et al. (1981)\textsuperscript{16}; coffee intake has been associated with bladder cancer and recently with pancreatic cancer too Rothma, K. J, (1980)\textsuperscript{17} but causal relationship has not been established. Heavy drinking increases the risk of liver cancer. It is estimated that alcohol contributes to about 3% of all cancer. Deepika’s India Health, (2004).\textsuperscript{18} Some recent studies have suggested that beef consumption may be related to rectum cancer, but the association has not be confirmed.
The miscellaneous factors highlighted are obese individuals have a slightly greater cancer mortality rate than normal persons, and underweight individuals have a lower mortality rate. This is true of cancer of the Uterus. Breast cancer is more common in the higher economic group. Uterus cancer is found among women of lower economic group and in women who have borne children.

**Cancer statistics**

The worldwide incidence of Cancer is significant and growing. In the year 2000, worldwide, there were well over ten million people with an increasing number in symptomatic stage. More than six million people died of the disease in that year. 

_Health & Quality of life outcomes, (2003)_19 The Surveillance, Epidemiological and End Results (SEER) 2002 estimate the Incidence (annual) of Cancer to be 1,248,900. The incidence rate is approx 1 in 217 or 0.46% or a aggregate number of 1.2 million people in USA. The lifetime risk for Cancer is about 1 in 3; 38% of women and 43% of men. (National Cancer Institute of Canada, 2004).20

increase in the incidence rates by 0.3% per year in women and 13.6% total decrease in cancer standardised cancer death rates among men and women combined between 1999-2004. It has been reported that the number of cancer deaths decreased in the second consecutive year in the United States by more than 3000 from 2003-2004 and much progress has been made in reducing mortality rates and improving survival. Cancer still accounts for more deaths than heart disease in person under the age of 85.

The Canadian Cancer Statistics 2007(CCS)\textsuperscript{22} shows that significant progress is being made in the fight against cancer. However, a growing and aging population means that the incidence of cancer is likely to rise. It’s believed that 2007 will see an additional 6,800 new cases of cancer diagnosed in Canada, bringing the total number of new diagnoses to 1,59,900. If the current incidence rates continue, 39% of Canadian women and 44% of Canadian men will develop cancer. Approximately 1 in 4 Canadians will die of cancer. The good news for Canadian women is that the incidence rate of breast cancer, the most common cancer among females, has stabilized and the mortality rate continues to decline. The death rate from breast cancer in 2003 was the lowest since 1950.

Cancer is a major public health problem and it is responsible for 20% of all deaths in the industrialized countries. Habayeb S.J, Varghese Cheriyan, (2006)\textsuperscript{23}. At present over 25,000 new patients get registered and over 15,000 patient are

**TABLE 1.1 INCIDENCES OF CANCER CASES (2001 – 2002)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>3773</td>
<td>3336</td>
<td>7109</td>
</tr>
<tr>
<td>2002</td>
<td>4665</td>
<td>4243</td>
<td>8908</td>
</tr>
</tbody>
</table>

Ten leading sites of Cancer (2001-2002)

**Males:** Lung-12.5, Mouth-9.6, Tongue-5.8, Thyroid-3.0

**Females:** Breast -28.1, Cervix Uterus -11.6, Thyroid- 9.0

**INTERNATIONAL COMPARISON OF AAR WITH THAT OF PBCRS IN INDIA ALL SITES (ICD – 10: C00-C96) MALE**26

![FIGURE 1.1]

Key words: AAR :Age adjusted incidence rate, PBCRs Population based cancer registries
INTERNATIONAL COMPARISON OF AAR WITH THAT OF PBCRs IN INDIA ALL SITES (ICD – 10: C00-C96) FEMALE

**FIGURE 1.2**

PROFILE OF THRISSEUR DISTRICT (2001 CENSUS)

**TABLE 1.2**

<table>
<thead>
<tr>
<th>Area (in sq. kms.)</th>
<th>3,032.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decadal Growth Rate (1991-2001)</td>
<td>8.70%</td>
</tr>
<tr>
<td>Literacy Rate</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>95.47%</td>
</tr>
<tr>
<td>Females</td>
<td>89.94%</td>
</tr>
<tr>
<td>Sex Ratio (females per 1000 males)</td>
<td>1092</td>
</tr>
<tr>
<td>Density (persons per sq. km)</td>
<td>981</td>
</tr>
</tbody>
</table>

**FIGURE 1.3: MAP OF INDIA HIGHLIGHTING KERALA STATE,**
Chapter 1

FIGURE 1.4: MAP OF KERALA STATE HIGHLIGHTING THRISSUR DISTRICT

CENTREWISE DISTRIBUTION OF CANCERS [NUMBER (#) AND RELATIVE PROPORTION (%)]

TABLE 1.3

<table>
<thead>
<tr>
<th>Centre (with code in parentheses)</th>
<th>2001</th>
<th>2002</th>
<th>2001 - 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Amala Cancer Hospital, Thrissur (96)</td>
<td>768</td>
<td>36.8</td>
<td>710</td>
</tr>
<tr>
<td>Government Medical College, Trichur (53)</td>
<td>762</td>
<td>36.5</td>
<td>696</td>
</tr>
<tr>
<td>HBCR-Thiruvananthapuram (1006)</td>
<td>949</td>
<td>16.7</td>
<td>442</td>
</tr>
<tr>
<td>Sudharama Laboratory (82)</td>
<td>174</td>
<td>8.3</td>
<td>242</td>
</tr>
<tr>
<td>Elite Mission Hospital, Thrissur (96)</td>
<td>0</td>
<td>0.0</td>
<td>116</td>
</tr>
<tr>
<td>The Polyclinic Pvt. Ltd., Thrissur (93)</td>
<td>0</td>
<td>0.0</td>
<td>63</td>
</tr>
<tr>
<td>All Other Centres</td>
<td>36</td>
<td>1.7</td>
<td>39</td>
</tr>
<tr>
<td>Total Cancers</td>
<td>2088</td>
<td>100.0</td>
<td>2308</td>
</tr>
</tbody>
</table>
SALIENT FEATURES OF CANCER INCIDENCE

TABLE 1.4

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Population</td>
<td>14,21,889</td>
<td>15,51,737</td>
<td>14,32,768</td>
<td>15,64,557</td>
<td>28,54,637</td>
<td>31,16,294</td>
</tr>
<tr>
<td>Total Cancers (All sites)</td>
<td>1,110</td>
<td>978</td>
<td>1,246</td>
<td>1,062</td>
<td>2,356</td>
<td>2,040</td>
</tr>
<tr>
<td>Min. Crude IR</td>
<td>78.1</td>
<td>63.0</td>
<td>87.0</td>
<td>67.9</td>
<td>82.5</td>
<td>65.5</td>
</tr>
<tr>
<td>Min. Age Adjusted IR</td>
<td>91.9</td>
<td>67.7</td>
<td>101.9</td>
<td>71.8</td>
<td>97.0</td>
<td>69.8</td>
</tr>
<tr>
<td>Min. Truncated IR</td>
<td>168.4</td>
<td>148.7</td>
<td>182.1</td>
<td>156.5</td>
<td>175.4</td>
<td>152.8</td>
</tr>
</tbody>
</table>

Min. = Minimum; IR = Incidence Rate / 100,000

TEN LEADING SITES OF CANCER (2001-2002) (MINIMUM AGE ADJUSTED INCIDENCE RATES GIVEN IN PARENTHESES) – FEMALES

FIGURE 1.5
Cancer danger signals

The American Cancer Society has prepared a list of seven danger signals, any one of which may indicate the presence of cancer. A person should see a doctor promptly if any of these symptoms occurs. The seven danger signals of cancer are a sore that does not heal, a lump or thickening in the breast or elsewhere, unusual bleeding or discharge, any change in a wart or mole, persistent indigestion or difficulty in swallowing, persistent hoarseness or cough or any change in normal bowel habits.
Cancer control

Rhoadas C.P, (2001) Modern research has produced valuable tools to aid in the early detection of cancer. At the present rate, one out of every four people will experience some form of cancer during their lifetime. Only one out of three cancer victims will survive for five years. The problem of cancer is so complex that there will probably, never be a single simple remedy that will serve as a cure for all kinds of cancer. Something more important than merely finding a cure, especially for a disease that will, probably leave the patient maimed or handicapped consist of creating awareness of how to prevent cancer in the first place. About 90% of cancer results from predisposing factors in the environment. If only some control can be put on these factors, at least half the usual number of cancer can be prevented (You and your health).

Cancer tends to advance steadily to a fatal termination, but its duration varies in different cases according to the part affected, and according to the specific category of the disease. Soft cancer affecting important organs of the body often proves fatal in a few months. Where as hard or epithelial cancer may sometimes prolong for several years; no precise duration can be fixed for any category of the disease. In some rare instances growths exhibiting all the signs of cancer may exist for a great length of time without making any progress, and may even subside and disappear altogether. This is called “spontaneous cure”. Cancer has been the subject of observation from time
immemorial, and of the most elaborate investigation by innumerable scholars in recent years. But the exact nature of its origin and causative and aggravating factors have hitherto defied detection. Cancer research, (2000)\textsuperscript{37}

**CANCER ASSOCIATED HEALTH PROBLEMS**

**Physiological Health**

The physical dimension of health implies the notion of perfect functioning of every cell and organs at optimum capacity and in perfect harmony with the rest of the body. Impairment in one of the organs has an adverse effect on the total functioning of the body which induces mental health problems, for man is a psycho-somatic organism. Emotional disturbance and coping with the illness is a major factor in illness, which dooms the patient into severe depression unless an efficient coping up strategy is adopted by him.

Pain remains a major concern for cancer patients and it brings great stress and strain to their families and those who work with them. Dorrepaal et. al. 1989; Patt, (1993).\textsuperscript{38} It is estimated that 50-80\% of the patients with metastatic cancer experience severe pain and many studies have confirmed that a significant number of cancer patients suffer inordinately from the side effects, improper use of analgesic medication and other ineffective interventions. Cleeland et. al. (1994)\textsuperscript{39}

Researches have shown that when people react positively to life situation new healthy cells capable of fighting against malignant
cells are formed. In a study conducted by a gynaecologic oncology Fellow at the University of Michigan Comprehensive Cancer Centre, and reported in the Hindu News paper of May 7th (2006)\textsuperscript{40}, it was observed that Ginger causes Ovarian cancer cells to die.

Moreover, the researcher has found that ginger causes two types of cell death. While one is known as apoptosis, a mode of cancer cells essentially committing suicide, the other type of cell death called autophagy, caused from being digested or attacked.

**Mental Health**

Many people experience, occasional gloominess caused by a sense of frustration, but this is not identical with clinical depression. According to the National Institute of Mental Health (NIMH) depression is a whole body illness – one that affects the body moods and thoughts. There are several problems, which are associated with a person having illness especially terminal illness. They are mainly physical, psychological & social. Deterioration of health status can disrupt what might be considered normal stable life style. When that occurs and is confined by a diagnosis of cancer, the sense of security is certainly threatened and often replaced by fear and frustration.

The World Health Organization stresses on the provision for palliative care as the best possible quality of life for cancer patients and their families. Palliative care provides relief from pain and other distressing experiences by incorporating
psychological and spiritual elements in patients care. It offers a support system to help patients live an active life until death. It affirms life and regards dying as a normal process and offers a support system to help family to accept realities, both during the patient’s illness and in bereavement. WHO, (2004).41

**PSYCHO -SOCIAL FACTORS INVOLVED IN THE DISEASE**

**Social Factors**

The social factors involved in the disease are poverty which is the result of low income and lower resistance to all diseases. Poverty is the root cause of unhygienic environmental situation, which in turn induces a high rate of morbidity and mortality. Migration from the rural to urban areas makes the migrants fall an easy victim to environmental pollution. Change in life style and dietary habits, may invite an attack of cancer. Personal habits have a bearing on the disease. Even though the habit of taking food late or excessive drinking, may not act as a direct source of any ailment, it can definitely pave the way to make a person an easy prey to infections by lowering his natural immunity. Owing to low level of intelligence, low educational backwardness and ignorance many people are unable to understand the causative and accelerating factors in cancer infection and so fail to adopt precautionary measures. Working conditions in unhealthy environment lead individuals to be victims of various types of terminal illness. Even social stigma is attached to cancer. The society isolates these patients due to misconceptions. Besides some cultural factors arising from the
impact of western culture such as eating out and drinking in company have made people more vulnerable to infection and carriers of disease. Many other factors such as urbanization and industrialization, availability of and easy accessibility to health services, superstitions traditional beliefs, drug addiction, and alcoholism induce the out break of a number of diseases and the need to enlarge the treatment mechanism.

**Psychological Factors**

Emotional problems are no less responsible for the causation of many diseases. Most people in this world want to live and take precautions for survival. But there are some patients in whom the ‘will to live’ is not strong. They face formidable emotional stress, which makes them think about ending their life. Death is more welcome to them than the intensive suffering and emotion stress. Thus a mind, which is pre-disposed to death, hastens the deterioration of the body which, in turn, drives the mind to greater despondency. Thus the patient finds him in a vicious circle. Anxiety and tension are experienced by almost every patient. But those who are victims of terminal illness suffer from a higher degree of anxiety and tension. A fatalistic attitude makes most of the people to curse the destiny or succumb to it, feeling they have nothing to do in this matter. This attitude generates lethargy and inertia in them. It is found that this attitude on the part of individuals as well as the community acts as a stumbling blocking the part of recovery leaving the malady a free hand in diffusing destruction.
The illness not only disrupts the ordinary pattern of living, but affects the victim’s self-estimation as well. Emotion is usually considered to be a feeling about or reaction to certain unusual event or thought. The unpleasant emotional factors involved in the disease are loneliness, worry, grief, anger, fear, sadness, non acceptance, disgust, surprise, curiosity, shock and denial, hospitalization induced worries, coping with illness, a sense of guilt, moody and gloomy, insomnia, anxiety, irritability, helplessness, hopelessness, suicidal ideations, etc. Maladjustment and changed physical state would make the individual irritable and pessimistic. According to perception emotions result from people’s interpretation of the situation after they have been physiologically stimulated.

**CONCEPT OF A CANCER PATIENT AS A PERSON**

Minna Field (1958) is one of the pioneers in the field of medical social work who have shed light on the psychological aspects of chronic illness and the need to perceive the patient as a ‘person’ and as ‘a whole’. Minna Field’s views in this regard have paved the way, for a better understanding of prolonged illness and have been receiving increased attention in recent years as useful hints for resolving many of the medico-social problems of our times.

The crux of the perception of treating the ‘patient as a person’ is the need to consider the victim, as a normal person in spite of having sick role. The patient is supposed to get involved in family affairs as well as to attend social functions. These
functions may include participation in decision-making in family matters, carrying out responsibility pertaining to family economy and child care, listening to psycho-social problems of other family members and expressing sympathy in their misfortune, giving or receiving respect to or from others, showing solidarity for community welfare etc.

When a patient is admitted to the hospital, many things, including the rudeness of the hospital staff, often create emotional stress in the life of the patient. Patients find it difficult to adjust to the hospital environment on account of the pungent smell of medicines; the unsympathetic response of the nursing staff, irregularity in the doctor’s visit, unhygienic condition of the ward, sub-standard food, fear created from watching the suffering of other patients and frequent deaths. etc. Family members and neighbours should understand their psycho-social problems and extend them adequate emotional support and should not keep them isolated considering them as ‘patients’ i.e. discarded elements. A medical social worker labours to reduce the burden of the impact of a disease on the patient without unduly stressing on the patients sick role, giving him relieving activities, giving him due respect, tries to understand his psycho-social problems, apart from the disease and also suggest referral services towards their solution. What he needs is empathy and not sympathy.
NORMAL RESPONSE OF PATIENTS TO CRISIS ENCOUNTERED WITH CANCER. HOLAND, J.C(1993)

**TABLE 1.5**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Symptoms</th>
<th>Time Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I Initial response</td>
<td>Disbelief or denial or Despair</td>
<td>Usually less than a week</td>
</tr>
<tr>
<td>Phase II Dysphoria</td>
<td>Anxiety, depressed mood, anorexia, poor concentration, inability to function, insomnia.</td>
<td>Usually 1-2 weeks, but varies.</td>
</tr>
<tr>
<td>Phase III Adaptation</td>
<td>Patient accepts validity of information and begins dealing with the options available. Finds reason for optimism and resumes usual activities</td>
<td>Usually by 2 weeks but continues over months; may or may not be successful.</td>
</tr>
</tbody>
</table>

**A PSYCHO-SOMATIC MODEL OF CANCER DEVELOPMENT**

Even experienced doctors think that the way to treat disease is through the mechanical, stereo-typed method that they have been taught. In their view, there is little or nothing that can be done to influence the course of the disease. This is a pathetically mistaken notion.

The emotional states can trigger off physical reactions. When you’re angry, your face turns red. When you’re nervous, your hands sweat, your tummy gets upset. When you’re embarrassed, your cheeks blush. When you’re excited, your
heart beats faster. When you’re confused or anxious, you feel dizzy. If these mind-body connections, are acknowledged. Then it is not difficult to accept the fact that the creation of right attitude in the patient will hasten his recovery. Indeed, science itself is now researching the influences of psychological and social events on illness and recovery. Modern research on the mind-body connection has enriched our knowledge of how the immune system works and embellished our ability to measure immune function.

Recognizing the solution to every problem is contained within the problem itself, will help one address it. Cancer is a condition in which the normal orderly pattern of cell reproduction goes out of gear and invades its host body. Where once there was order, there is now dis-order; where once there was natural harmony, there is now anarchy.

The way to respond to the problem is to restore order. Cancer is not an invasion by an alien enemy; it is a state of internal unrest. If this fact is recognize the core of treatment becomes an all-out effort to restore order. Spontaneous remissions and miracles do not happen. Sensible doctors know this, even when they are reluctant to acknowledge this openly. They also know that a change of attitude in and towards the patient brings about a difference in the outcome. One’s psychological response is a key factor in ones of survival.
Psychological Stress

→ Depression

→ Limbic System

→ Hypothalamic activity

→ Pituitary activity

→ Immune system (contains anti-cancer mechanisms)

→ Suppression of immune activity

→ Increase in abnormal cells

→ Cancerous growth

A Mind-Body model of cancer recovery

Psychological intervention

(It creates in perception of ourself and our problem)

→ Hope, anticipation

→ Limbic system

→ Hypothalamic activity

→ Pituitary activity

→ Immune system

→ Endocrine system

→ Increase in immune activity

→ Decrease in abnormal cells

→ Cancer regression

Kidwai Oncology Institute, (2006)
### FACTORS WHICH DETERMINE PSYCHOLOGICAL ADJUSTMENT TO CANCER HOLLAND, (1993)

#### TABLE 1.6

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Society –derived</strong></td>
<td>Open discussion of diagnosis Vs unrevealed secret knowledge of</td>
</tr>
<tr>
<td></td>
<td>treatment options, prognosis and participation as partner.</td>
</tr>
<tr>
<td></td>
<td>Popular beliefs (stress causes cancer)</td>
</tr>
<tr>
<td><strong>Patient derived</strong></td>
<td>Interpersonal – Patients’ coping ability; emotional maturity at</td>
</tr>
<tr>
<td></td>
<td>the time of cancer. Developmental stage at the time of occurrence</td>
</tr>
<tr>
<td></td>
<td>of cancer and the meaning of curtailed goal (e.g. marriage,</td>
</tr>
<tr>
<td></td>
<td>children) Interpersonal – spouse’s family, friends, (social</td>
</tr>
<tr>
<td></td>
<td>support).</td>
</tr>
<tr>
<td><strong>Cancer derived</strong></td>
<td>Site, stage, symptoms (especially pain) and prognosis. Treatment</td>
</tr>
<tr>
<td></td>
<td>required (surgery, radiation, chemotherapy) and squeal (immediate</td>
</tr>
<tr>
<td></td>
<td>and delayed). Altered body structure or function: rehabilitation/</td>
</tr>
<tr>
<td></td>
<td>restoration. Psychological management by the treating staff.</td>
</tr>
</tbody>
</table>
The various emotional reactions mentioned above, not only occur following the breaking of the news of cancer diagnosis, but recur with every new crisis like treatment initiation, recurrence of symptoms, becoming resistant to treatment. Stedeford, (1992)\textsuperscript{46}

The concept of coping is the central aspect of various contemporary theories about stress, its reduction and removal. Coping refers to a person’s effort to manage, minimize, reduce, master or tolerate the internal and external demands of the person’s environment, those which are viewed as taxing or exceeding the persons’ resources.

The protective function of coping behaviour can be exercised in three ways by eliminating or modifying conditions giving rise to problems, by perceptually controlling the experience in a manner that neutralizes its problematic character and by keeping the emotional consequences of problems within manageable bounds.

Coping is viewed as a stabilizing factor that may help individuals maintain psychological adaptation during stressful periods Folkman & Lazarus, (1980).\textsuperscript{48}

There are different ways of coping with problematic experiences. They can be classified under three main categories,

- Problem focused coping
- Appraisal focused coping
• Emotion focused coping

Further it can be classified as logical analysis, cognitive redefinition, cognitive avoidance seeking information or advice, taking problem solving action, seeking alternate reward, affective regulation, resigned acceptance and emotional discharge. Miller, S.M. (1995)\textsuperscript{47}

**THE FACTORS INDUCING HOPE IN TERMINALLY ILL. HERTH K. FOSTERING, (1990)\textsuperscript{48}**

Hope is an expectation greater than zero of achieving a goal. Setting realistic goals jointly with a patient is one way of restoring and maintaining hope. In patients close to death, hope become refocused on “being” rather than doing and emphasizing relationship with others and with God or a “higher being”. It is possible for hope to increase when close to death, provided care and comforts are of a “good enough” standard.

**TABLE 1.7**

<table>
<thead>
<tr>
<th>Decrease</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Devaluation of personhood</td>
<td>* Affirmation of worth</td>
</tr>
<tr>
<td>* Abandonment and isolation</td>
<td>(reminiscence)</td>
</tr>
<tr>
<td>* Lack of direction</td>
<td>* Meaningful relationship</td>
</tr>
<tr>
<td>* Uncontrolled pain and discomfort</td>
<td>humor</td>
</tr>
<tr>
<td></td>
<td>* Realistic goals</td>
</tr>
<tr>
<td></td>
<td>* Pain and symptoms</td>
</tr>
</tbody>
</table>
PSYCHO-SOCIAL IMPACT OF TERMINALLY ILL CANCER PATIENTS.

The ending of life attitude of terminally ill cancer patients has focused on suicidal ideation and death wishes or the view of those who requested assistance to end their lives from their physicians. In psychosocial problems, an individual may present with physical or psychological complaints, which may generally be vague, ill-defined and may not resemble any known physical disease. Rita Beck Black, (1986).49

The centrality of social work in cancer care follows directly from the fundamentally psycho-social nature of a cancer diagnosis. Examination of the concept suggest that there are three major psycho-social characteristics of cancer that form what might be described as psycho-social core of cancer diagnosis

- Cancer is a chronic illness
- Cancer as a family diagnosis
- Cancer as a fatal diagnosis

Black R.B, Dornan D, Allegrante J, (1986).50 Psycho-social problems of patients vary, depending on the stage of illness. It is the severe disruption caused to the individual by cancer problems, which exceeds the coping capacity of the individual, physical, psychological and socio-economic. Helping cancer
patients and their families with the decision-making process can be viewed as a central element in social work’s comprehensive effort for empowerment.

A fundamental need of our times is a truly human perspective that will take into account the meaning and purpose of human life, its origin and destiny, which give it unique dignity and sacredness and use science to serve man and mankind.

- Psychological factors can influence the onset and progress of cancer.
- Stress and negative mental state can affect the function of the immune system, a pathway through which the psycho may influence cancer growth.
- Depression and depressive tendencies are among those characteristics that favour cancer.

The incidence of depression in terminally ill cancer patients varies from study to study depending on the population and the diagnosis criteria employed. Breitbart et. al, (1995).81

**PROFESSIONAL INTERVENTION**

The study aims at giving professional intervention which is essential in the following areas:

- Strengthening the ego of the patient.
- Strengthening family ties.
- Giving psychological support through counselling.
• Help patients to accept reality.
• Adding life to their days and not days to their lives.
• Clarification of doubts and misconception which would otherwise leads them to a pool of depression.
• Actively participating the spouse in the care and rehabilitation process.
• To understand the various dimension of depression namely physical, social, economic and psychological.
  To give appropriate treatment when
• Shock and numbness progresses to psychotic breakdown or hysteria.
• Denial persists and interferes with planning for future, with the acceptance of treatment.
• Anger is displaced upon the family or staff, tending to alienate those who want to give care.
• Paranoid state occurs.
• Inappropriate guilt and low self-esteem indicating that grief has moved towards depression.
• Anxiety and depression are often part of the response to facing death itself.
• Communication problem between patient, staff and family.
• Problem related to disease and treatment.
Problem in role adjustment.

Other problems which are present before the onset of illness.

Addressing any of these problems may relieve anxiety and depression more effectively than medication. Anxiolytics and anti depressants are sometimes necessary adjuncts to psychological and social measures. Treatment should enable the patients to live at peace during the illness and to prepare for death if the patient so wishes and to retain individuality and self respect to the end.

**a) Cancer Treatment**

Various psychological interventions may increase longevity of cancer patients. The various primary methods in cancer treatment are surgery, radiation therapy, chemotherapy, adjuvant therapy, Brach therapy, intensity modulated therapy. Metronomic chemo, gene therapy, hormone therapy, capsule endoscopy, vaccine, image guided radio therapy(IGRT), stem cell therapy, palliative care, psychological and social therapy, etc.

Oncologist Praveen Garg says that these new procedures are beneficial in conserving the organ clinically and cosmetically. This is the most important break through in oncology. Initially a breast had to be removed in the case of breast cancer, but now that is not the case. The newest form of anti cancer therapy is called ‘target therapy’ because these treatments tend to target specific abnormalities present within cancer cells, leaving
normal, healthy cells alone. It also aims at receptors that are on the outside of the cell known as monoclonal antibodies. Anti-angiogenesis drug target the blood cells that supply oxygen to abnormal cells to starve and die. More targeted therapies are under, development and may one day be available for use as adjuvant therapy. Another innovation that makes radiation most effective is Intensity Modulated Radiotherapy. Here, a software scan produces a three dimensional image of the body by dividing it into blocks of 2.55mm each. The software charts the spread of tumour and streamlines radiation to the affected areas, leaving other organs unaffected. This is most useful in head and neck cancer. For instance it prevents dry mouth in case of oral cancer, thus allowing the patient to maintain normal food intake. Adjuvant therapy is an advanced form of chemo therapy administered after surgery to kill remaining cancer cells and Brach therapy is administered for implanting small radioactive needles into the tumour bed to kill cancer cells. Metronomic chemo (MC) targets endothelial cells rather than the cancerous cells. It kills endothelial cells and cuts off the supply of blood to cancerous cells. In gene therapy it attacks the cancer cells. In hormone therapy, it attacks hormones dependent tumours of the breast and prostrate in two ways. Firstly it cuts off hormone supply to the cancerous cell and secondly synthetic hormones can block the cancer hormone receptor’s ability to get the hormones it needs. In capsule endoscopy, the patient is made to swallow a capsule which contains a micro chip and a tiny camera to scan the body for tambour. Vaccine is administered
for the prevention of cervical cancer. Cervical cancer accounts for 34 percentage of all cancers in India. The cause is an infection of the Human Papilloma Virus. Vaccine Gardasil for females in the 9-26 age group is found to be most effective if given to younger girls; it is ineffective once the patient is infected. The latest of the series is image guided radiotherapy. Unlike in earlier versions where any movement of the patient affects the accuracy of the procedure, IGRT works well even if the affected part of the body moves during radiation. Vijay Pushkarana,(2007). 52 Several new therapies are practiced now, giving patients a new lease of life. But affordability is the major hurdle. The injection costing around 1.5 lakh has to be given once in three weeks for a period of one year, which will increase the life of a person by six months. The new procedures are slightly more expensive; therefore mostly government officials and Army personnel who are enjoying perks are going for these. Due to financial constraints the lower middle class is still opting for traditional methods. Payal Saxena, (2007)53

Bio medical advances are improving the prognosis of cancer but still cancer continues to evoke greater anxiety than most other disease diagnosis and result in enormous personal and economic hardship for many patients and their families.

Even when cancer has entered upon its invasive course, treatment can be effective in the arrest and cure of some case through removal of the cancer cell by surgery or their destruction by radiation or chemotherapy.
b) Function of Oncology Social Worker (general)

The major goals of oncology social worker are delivering palliative care services to the patients. Following are the general functions of an oncology social worker.

- To provide relief for patients from pain and other distressing symptoms.
- Integrating psychological, social and spiritual aspects of care so that patients may come to terms with their own death as fully and constructively as they can.
- Offering a support system to help the patient live as actively and creatively as possible until death.
- Offering a support system to help families cope during the patient’s illness and in bereavement.


The specific functions of oncology social worker fall under three broad categories: clinical, educational and research.

The first two functions are already well developed within the field of oncology social work. The oncology social worker traditionally have assisted patients in coping with stresses of cancer diagnosis, treatment, rehabilitation and terminal illness.
(Abrams, 1976). Psychosocial interventions are aimed at supporting patients not only at times of acute crisis but during long periods of chronic illness as well.

In his clinical role, oncological social worker provides a broad range of practical and financial assistance services. Counsel patients and families and help them with the complex plans and decisions that often must be made during times of extra ordinary stress.

Preparing the patient for death is a major task of a social worker. The support of family helps survival, well-being and outcome in chronic illness because it helps them find meaning in the days they live without feeling insecure and burdensome to their social circle. Psychological, social and behavioural factors are important in understanding, the prevention and treatment of cancer. Coping and social support form two major pillars of sustenance of any individual, particularly in cancer patients and their families.

It is often believed that it is not appropriate to talk about the fact that someone is going to die, and that mentioning death will in some way hasten it. However, for those who wish to discuss death, open discussion, ideally from early diagnosis, can help dying persons to feel that their concerns are heard, that their wishes are followed, and that they are not alone. Sometimes it is easier for patients to express their feelings and concerns with a counsellor rather than their family, especially initially. Support groups can provide great comfort and relief; many patients are
helped by talking to other people who are terminally ill. *Health Dialogue*, (2004)\textsuperscript{56}

Psychosocial distress has long been identified as a significant issue for patients diagnosed with cancer Linda E Carlson (2003).\textsuperscript{57} The field of psychosocial oncology is dedicated to relieving suffering and improving the quality of life in individuals with cancer and their families. Efforts have been successfully directed towards identifying and treating symptomatic distress and improving adjustment at all stages of the disease. *Journal of Psychosomatic Research* (2003).\textsuperscript{58}

The investigator aims at assessing the various dimensions of depression, chiefly the psycho-social factor leading to depression in the terminally ill cancer patients. This study also aims at collecting the patients’ viewpoint on euthanasia, social support extended, the coping strategies used by patients, effect of spirituality on end of life, despair and family burden experienced on having a terminally ill patient.

**CONCLUSION**

The word terminal brings about fear in an individual’s life because the patient is sure he is on the verge of death but does not know for certain how long he can be in this universe with his kith and kin. It is said that agony of expectancy is worse than death. Dying brings in two-fanged fear: fear of the unknown and fear of reducing to nothing. It’s a transition from the world of the known to the world of the unknown. Secondly the fear of death is
a one time experience. Purposeful intervention by experts in this field of ‘death and dying’ can only help a patient to give up his self and die a peaceful death.

Cancer is a terminal illness which spells doom to the patient and deals a heavy blow at his family member. The treatment expense is so high that it is likely to impoverish the patient and cause great financial strain to his family which may last long after his death. In many cases the financial constraint is so high that suicidal ideation creeps into the minds of the patients. Almost all patients have at least once has thought of ending their lives but the religious faith did not allow them to carry out the wish. Many families have committed suicide en bloc, being unable to face the consequences of the bread-winner.

The diagrammatic representation on the incidence of cancer in the population will highlight the significance of the present study with terminally ill cancer patients. Even though concrete causes are yet un-known, this dreadful disease is taking a heavy of human lives. Early detection and treatment alone can act as an effective check on this tough enemy. At the present rate, one out of every four people is affected with some form of cancer during their life time. Cancer tends to advance steadily to a fatal termination but its duration varies in different cases according to the part affected and according to the type of cancer.

Cancer entails formidable health problems. The physical health and mental health of the patient is totally ruined. The
oncology social worker can assist the patient with his empathetic attitude, first hand knowledge of the various implications of the disease, and through his rich experience in social work intervention, in adopting a healthy attitude towards the adverse circumstances, in accepting the reality, mustering adequate courage to face the situation with equanimity and above all, maintaining an optimistic approach towards the inevitable suffering, pinning hope in the life beyond life.
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