Chapter 1

INTRODUCTION

Human body is made up of basic unit called cell. Normally most of the tissues in the human adult contain a population of predetermined, undifferentiated cells known as stem cells. Cell proliferation originates in the stem cells and this process begins when the stem cell enters the cell cycle. The rate of normal cellular proliferation differs in each body tissue. In some tissues like bone marrow, hair follicles, and epithelial lining of the gastrointestinal (GI) tract, the rate of proliferation is rapid. Cellular differentiation is normally, an orderly process that progresses from a state of immaturity to a state of maturity. Genes that are important regulators of normal cellular processes are proto-oncogenes (Black, 2002).

The Proto-oncogene has been described as the genetic lock that keeps the cell in its mature functioning state. When this genetic lock is “unlocked” the proto-oncogene may be changed into oncogenes. This change may be one of the causes for the development of tumours. Tumors can be classified as benign or malignant. In general, benign neoplasms are well differentiated, and malignant neoplasms range
from well differentiated to undifferentiated. Cancer is a group of many
diseases of multiple causes that can arise in any cell of the body, and
capable of evading regulatory control over proliferation and
differentiation (Black, 2002).

The economic and social liberalization taking place in India will
lead to improvement in living standards and control of communicable
diseases. Cancer, cardiovascular and other chronic diseases will emerge
as major public health problem in developing countries like India.
Reports from the National Cancer Registry Programme of India reveal
that the rate of occurrence of cancer is low in India compared to
Western countries, but the huge population in India will generate
substantially large number of cases. The pattern of cancer is also
different with a predominance of tobacco related cancer (Kishore,
2002).

Each year, the American Cancer Society (ACS) estimates the
number of new cancer cases and deaths expected in the United States
in the current year and compiles the most recent data on cancer
incidence, mortality, and survival based on incidence data from the
National Cancer Institute, Centers for Disease Control and Prevention,
and the North American Association of Central Cancer Registries and
mortality data from the National Center for Health Statistics. This report considered incidence data through 2003 and mortality data through 2004. Incidence and death rates were age-standardized to the 2000 US standard million population. A total of 1,444,920 new cancer cases and 559,650 deaths for cancers were projected to occur in the United States in 2007. Notable trends in cancer incidence and mortality rates include stabilization of the age-standardized, delay-adjusted incidence rates for all cancers combined in men from 1995 through 2003; a continuing increase in the incidence rate by 0.3% per year in women; and a 13.6% total decrease in age-standardized cancer death rates among men and women combined between 1991 and 2004. This report also examined cancer incidence, mortality, and survival by site, sex, race/ethnicity, geographic area, and calendar year, as well as the proportionate contribution of selected sites to the overall trends. While the absolute number of cancer deaths decreased for the second consecutive year in the United States (by more than 3,000 from 2003 to 2004) and much progress has been made in reducing mortality rates and improving survival. Cancer still accounts for more deaths than heart disease in persons under the age 85 years. Further progress can be accelerated by supporting new discoveries and by applying existing cancer control knowledge across all segments of the population.
Cancer can occur in any part of the body: head to foot; any system of the body from GI system to Nervous system.

Head and neck cancer includes many different malignancies. The way a particular head and neck cancer behaves depends on the site in which it arises (the primary site). For example, cancers that begin on the vocal cords behave very differently than do those that arise in the back of tongue, just an inch or less from the vocal cords. The most common type of cancer in the head and neck is squamous cell carcinoma, which arises in the cells that line the inside of the nose, mouth and throat. Other less common types of head and neck cancers include salivary gland tumors, lymphomas and sarcomas.

Cancers of the head and neck are further identified by the area in which they begin. Cancers of the oral cavity, salivary glands, paranasal sinus and nasal cavity, pharynx, larynx and upper part of the neck are included in the category of head and neck cancer.

Cancers of the brain, eye, and thyroid usually are not included in the category of head and neck cancers. Cancers of the scalp, skin, muscles, and bones of the head and neck are also usually not considered cancers of the head and neck.
Upper aerodigestive tract cancers account for 3 percent of all cancers in the United States. These cancers are more common in men and in people over age 50. It was estimated that almost 38,000 men and women in this country would develop head and neck cancers in 2003 (WHO, 2004).

Squamous cell carcinoma of the head and neck is said to be an umbrella term for cancers of the Pharynx, larynx and oral cavity and it accounts for 90% malignant oral tumors. Oral cancer is diagnosed in 30,100 Americans annually and it is estimated that 7800 persons yearly die from the disease. It is more common after 40 years of age with 60 years being the average age at onset of oral cancers in ethnic group. It is more common in men (male – female ratio 2:1) than women. Mortality rates have been decreasing since the early 1980's. The five years survival rate for all stages of cancer of the oral cavity and pharynx combined is 53% and the 10 year rate is 43%. Individuals who smoke have a 7-10 times higher risk of developing oral cancer than non-smokers (Lewis, 2004).

The incidence of head and neck cancer varies throughout the world. In a study of 150 cases at the Ohio State University Hospital, it was found that 72 percent of the primary cancers could be visualized
in the oral cavity. It is important that the oral cavity be examined regularly in an effort to detect cancer in its earlier form (Lewis, 2004).

Cancer continues to be a menace despite advances in diagnosis and treatment protocols. In India also Head and Neck cancers constitute a major health problem accounting for 23 percent of all cancers in males and 6 percent in females (Indian Council of Medical Research, 2002). Majority of head-neck cancers were preventable cancers. Tobacco and alcohol play an important role in aetiopathogenesis of these cancers. Estimates for the annual number of tobacco habit in mid eighties included 1,08,000 annual incident cases of cancer (Indian Council of Medical Research, 2005). The highest incidence of oral cancer is found in developing world where oral cancer combined with pharynx was the third commonest site of cancer. In India, Bangladesh, Pakistan and Sri Lanka, it is the most common and accounts for third of all cancers (WHO, 2004). Cultural differences in the use of tobacco lead to the variation in the geographic and anatomic incidence of oral and pharyngeal cancers in accordance with dose principle (Kishore, 2002).

Jenifer (2000) also had reported that head and neck cancer is one of the sixth most common cancers in the world and it includes cancers
of the oral cavity, pharynx and larynx. Its high frequency in central and South-East Asian countries (e.g. India, Pakistan, Sri-Lanka, Thailand, Indonesia and Bangladesh) has been well documented. Each year, about 5,75,000 new cases and 3,20,000 deaths occur worldwide. In India it accounts for 50-70% percent of all cancers diagnosed, compared to 2 to 3 percent in UK and USA.

In males, the four most frequent cancers are mouth, oropharynx, oesophagus, stomach and lower respiratory tract (Trachea, bronchus, lungs). For women, cancers of the cervix, breast, mouth, oropharynx, and esophagus are the most frequent. It is estimated that 91 percent of oral cancers are directly related to the use of tobacco (Park, 2000). Oral cancer, although uncommon in the western world, accounts for up to 40 percent of all malignancies in parts of India and South-East Asia. Recognized aetiological agents of oral cancer include tobacco and alcohol (Kishore, 2002).

A diagnosis of head and neck cancer, like any cancer diagnosis, is often accompanied by much fear and uncertainty. In addition, patients with head and neck cancer face difficulties in eating, chewing, drinking, breathing, speaking, as well as changes in appearance. Simultaneously, the burden of head and neck cancer is often
manifested in psychosocial dysfunction, which can have a negative impact on quality of life. Although a phenomenon well recognized, little is known about many factors that influence or impact psychosocial dysfunction in individuals with head and neck cancer. Even less is known about the effective management of psychosocial dysfunction. To date, there are evidences to suggest that psychosocial interventions generally provide an overall positive effect. Moreover, some intervention studies, such as education alone, have failed to achieve the desired results. In addition, some studies suggested an advantage of cognitive-behavioral therapy over other forms of psychological treatment. With the growing impetus to investigate factors associated with psychosocial dysfunction, and considerable advancement in the development and validation of many global and disease-specific measures, there is an opportunity for further research to develop an appropriate clinical intervention program for such patients (Margiotta, 2001).

Kohara (2004) conducted a study on combined modality treatment of aromatherapy, foot soak, and reflexology to relieve pain and fatigue on patients with cancer. Fatigue is one of the most distressful symptom experienced by patients with advanced cancer. Aromatherapy, foot soak and reflexology were popular health care
modality treatment in Japan, however, the effectiveness of each treatment for cancer-related fatigue has not been fully established. To investigate the effectiveness of combined reflexology against fatigue, an open study was performed in 20 terminally ill patients received aromatherapy that was accompanied with foot soak in warm water containing lavender essential oil for 3 minutes, followed by reflexology treatment with Jojoba oil. Assessment was done with cancer fatigue scale (CFS) before, 1 hour after and 4 hours after treatment. Total CFS scores improved significantly after this treatment (from 25.6 ± 11.0 to 18.1 ± 10.0, p<0.001). Among three CFS subscales, physical and cognitive subscales scores were reduced significantly (11.3 ± 6.1 to 6.7 ± 6.1, P<0.001, 4.5 ± 3.2 to 2.4 ± 2.4, P<0.001). No adverse effects were experienced. Because all patients desired to continue this treatment, they received treatment eight times on average. Combined modality treatment consisting of aromatherapy, foot soak, and reflexology appears to be effective. To confirm safety and effectiveness of this combined modality treatment, further investigation including randomized treatment assignment is warranted.

A study conducted by Steginga (2005) evaluated the impact of a cancer nursing education courses on Registered Nurses at Urban, non-government, cancer control agency in Australia, Quasi - experimental,
longitudinal pretest / post test design, with a follow up assessment six weeks after the completion of the nursing education course was done on 53 RNs, of whom 93% were female, with a mean age of 44.6 years and a mean of 16.8 years of experience in Nursing. Eighty six percentages of the nurses resided and worked in regional areas outside of the state capital. Scales included the intervention with psychosocial needs perceived importance and skill level scale, palliative care quiz for nurses, breast cancer knowledge, preparedness for cancer nursing and satisfaction with learning. Data were analysed using multiple analysis of variance and paired ‘t’ tests. Cancer nursing - related knowledge, preparedness for cancer nursing and attitudes toward and perceived skills in the psychosocial care of patients with cancer and their families. Compared to nurses in the control group nurses who attended the nursing education course improved in their cancer nursing related knowledge, preparedness for cancer nursing and attitudes toward and perceived skills in the psychosocial care of patients with cancer and their families. Improvements were evident at course completion and were maintained at the six week follow-up assessment. The nursing education course was effective in improving nurses scores on all outcome variables. Continuing nursing education courses that use intensive mode time tabling, small group learning, and
a mix of teaching methods, including didactic and interactive approaches and clinical placements are effective and have the potential to improve practice.

Improving pain control is an area where nurses have the clinical expertise to make a significant difference to the quality of patient care. The inhaled analgesic 50% nitrous oxide and 50% oxygen is ideal for use when undertaking short, potentially painful procedures as it is a safe and effective method of pain relief. Pain accompanies many investigations and treatments undertaken in a range of healthcare settings. The pain patients experience during these procedures may be of short duration but it can be intense and for many patients this can cause a great deal of distress (Pediani, 2003).

As a non pharmacological therapy, music therapy is used to promote healing and enhance quality of life. It is a complementary therapy that is used along with other cancer treatments to help patients cope mentally and physically with their diagnosis. Music therapy may involve listening to music, creating music, singing, and discussing music, in addition to guided imagery with music.

The origin of music itself is unknown, but the use of music in healing ceremonies is an ancient practice. Music has been used
Music is the most powerful catalyst, bringing people together, breaking through isolation and generating positive social energy. Music therapy is the prescribed use of music by a well qualified person to effect positive changes in the holistic systems that is physical, psychological, cognitive, and social functioning of individuals with health, emotional or educational problems. It is used successfully with children, adolescents, adults and the elderly with mentally ill-health disorders.
Music therapists assess physical well being, emotional stability, social functioning, communication abilities, and cognitive skills through music.

Oncology and critical care patients have unique and complex problems. With the explosion of technology and advances in medicine, many intensive care units are seeing an increase in oncology patients. Intensive care units are stressful and frightening environment for the patients. Music therapy is a non-invasive therapy which can bridge the gap between oncology patients and intensive care units.

**NEED FOR THE STUDY**

Today's health care arena poses many challenges. Nurses need creativity and critical thinking skills to make decisions while caring clients. Complexity in nursing care has increased as it is in challenge to meet the needs of diverse population in rapidly evolving and high technical health care settings. Nurses are finding it more challenging to meet the demands of the society. Cancer patients need more care than other patients. Therefore it is imperative that nurses need to update their knowledge and develop skills in the care of patients with cancer. Cancer is not a single disease with a single cause; rather it is a group of distinct diseases with different causes, manifestations, treatments, and prognoses. Many people associate cancer with pain and death.
So holistic approach is most important for caring patients with cancer. Among all types of cancer, head and neck cancer is common and music therapy helps in alternative measures of symptoms reduction and improvement of quality of life.

A study conducted by Marchionni (2006) on cancer related problems has revealed that people suffering from cancer-related problems not only need specific therapies, but also an adequate psychological support. Due to their specific function, nurses are in a position to comprehend these needs, whether they are expressed or not: this is a result not only of their technical and theoretical preparation, but also of their predisposition to a global approach to patients. This leads to a trusting relationship that allows the nurse to be supportive in dealing with one of the most frequent problems affecting cancer patients since better control of symptoms has been achieved.

Phyllis (2005) in his article incorporating holistic health perspectives, compared and examined relationships among meaning in life, spirituality perceived stress, and psychological distress in breast cancer survivors (Bcs) and healthy women. Standardized self report measures were completed once by all seventy eight participants.
Group comparison revealed statistically significant variances across the measures. Co-variate and greater stress and distress than Bcs with children and participants without cancer. Significant correlations (P>.001) between meaning in life and spirituality (r=.43), stress (r=-.39), and distress (r=-.41) were also identified. The study concluded personal factors were especially important in Bcs. Also, psychological and spiritual variables also helped in psycho-spiritual functioning. Holistic nursing interventions can facilitate self awareness, interpersonal connection, and living a meaningful life, particularly in vulnerable patients such as Bcs without children.

Yang (2001) conducted a cross-sectional study to examine holistic patient outcome for terminally ill cancer patients, as well as to examine whether different care patterns affect patient outcome differently. Holistic patient outcome was measured by the patients’ quality of life, satisfaction with care, and cost of care. A purposive sampling of 224 subjects including 123 patients and 101 nurses was drawn from four medical centers in Taiwan. Among these settings, various care patterns were adopted and categorized into 4 groups: hospice inpatients, hospice team consultations, home hospice care services, and a conventional care rendered to have the highest length of hospital stay. Home hospice care patients had better psychological
well-being than those with other care pattern. The study findings not only provide an instrument for evaluating the quality of care, but also contribute to identify the patterns of care that will influence the dying process, which can only be beneficial for patients. Given the wide variety of health care services available now, understanding and selecting the most effective care patterns to enhance patient outcome.

Healing with sound has become increasingly popular and well documented as an effective holistic treatment. There are seven glandular systems in the human body, seven colors in spectrum and seven notes in the musical scale. Every color and note has a unique vibration that stimulates the energy centers of the mind, and subsequently, the body. When exposed to pure vibrations, the neuroendocrine and immune systems are strengthened and purified. The pleasure center in the brain is also prompted to produce endorphins, the body's natural pain killer.

Stress suppresses the thymus gland and results in reduced life energy. By using color and music therapies to stimulate and enhance the functioning of the thymus gland, patients may gain energy and experience a greater sense of well-being.
Nurses can incorporate eight caring elements into nursing care for terminally ill patients. These caring elements can be described as compassion, competence, confidence, conscience, commitment, courage, culture and communication. The eight Cs of caring are comprised of Simone Roach's five Cs plus three further Cs, knowledge, skills and experience make caring unique. The report takes as its framework the concept of holistic care, which encompasses physical, psychological, emotional, spiritual and cultural aspects (Pusari, 1998).

The relevance of structured planning and documentation in caring for chronically ill patients within the framework of a holistic nursing approach is emphasized. The focus lies on the realization of planning and documentation in nursing on the ward, on the requirements in terms of co-operation and the consequences in terms of positive effects on a holistic approach towards patient care (Pitz, 1998).

To explore the role of the arts in spirituality and spiritual care and the importance of the arts and creativity in health care settings, particularly where individuals are confronting life-threatening illness, the arts are now viewed as an integral component of holistic care for patients and families. By offering opportunities to engage in the arts and creative expression, persons with cancer can be enabled to mourn,
grieve, celebrate life, be empowered to endure their situation and find healing and meaning. Comprehensive supportive care for cancer patients requires the efforts of an interdisciplinary team. Oncology nurses must be knowledgeable of the role of the creative expression in the provision of care to patients with cancer and how to incorporate the arts into the cancer care setting (Bailey, 1997).

The patient those who are in the treatment either chemotherapy or radiation therapy or surgery or combined therapy may have symptoms such as physiological, psychological, and spiritual. Commonly they develop physiological as well as psychological manifestations.

Guillermo (2000) conducted a study on non-pharmacological interventions with chronic cancer pain in adults. Pain is often poorly controlled in cancer patients. Chronic pain affects adult patients at all stages of cancer management. Optimal pain management may require attention to psychosocial variables and the inclusion of non-pharmacological techniques. Three nonpharmacological strategies that are effective in reducing pain caused by cancer: psycho-education, supportive psychotherapy, and cognitive-behavioral interventions are reviewed. Recommendations for physicians to facilitate a mental health
referral are also discussed. Effective treatment of cancer pain begins with assessing the severity, characteristics, and impact of pain. Emotional distress (especially anxiety, depression, and belief about pain) has emerged as predictive of patient pain levels. Appropriate pain management may require a multidisciplinary approach. Patient psycho-education has empowered patients to actively participate in pain control strategies. Supportive psychotherapy can assist patients in managing the stressors associated with cancer, and cognitive-behavioral therapy helps patients to recognize and modify the factors that contribute to physical and emotional distress.

Coming to the home front, in the proposed study setting itself, at any given time, there are 30 – 35 patients hospitalized for head and neck cancer management (Table 1).

The researcher's two years experience in the oncology department made to think about holistic approach and its planning.

More over head and neck cancer patients express themselves that they are affected psychologically because of their disfigurement. These observations have posed a question to the investigator’s mind whether implementation of music therapy will reduce holistic symptoms, do help in alternative pain management and increase
duration of sleep along with other pharmacological treatment. The study result can be used in the proposed study setting and that will improve the prognosis of the patients with head and neck cancer. This intended the investigator to do a research on the particular topic to evaluate the outcome.

**TABLE - 1: SITE - WISE DISTRIBUTION OF CANCER PATIENTS TREATED FOR THE YEAR - 2006 AT INTERNATIONAL CANCER CENTRE, NEYYOOR**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Site</th>
<th>New cases</th>
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<th>Repeat cases</th>
<th></th>
<th>Grand Total</th>
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<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
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<td>431</td>
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STATEMENT OF THE PROBLEM

A Study to Assess the Effectiveness of Selected Interventions on Reduction of Holistic Symptoms and Prognosis of Patients with Head and Neck Cancer in a Selected Hospital, Kanyakumari District.

OBJECTIVES

1. to assess the holistic symptoms and quality of life of patients with head and cancer in Group I and Group II before interventions.

2. to assess the effect of counselling, financial support and oral care in patients of Group I.

3. to assess the effect of music therapy, counselling, financial support and oral care in patients of Group II.

4. to compare the holistic symptoms and quality of life of patients between Group I and Group II after interventions.

5. to associate the holistic symptoms and quality of life with demographic and clinical variables of patients with head and neck cancer.

OPERATIONAL DEFINITIONS

Assess

The estimation of selected intervention or decide the value of the intervention (Dictionary).
In this study assess means the measurement of holistic symptoms of the patients with head and neck cancer by symptoms check list, pain assessment scale, sleep and physiological parameter assessment scale, modified university of Washington quality of life questionnaire, and radiation mucositis scale.

**Effectiveness**

Different studies have defined effectiveness in different ways. Ultimately it is the quality of something or activities to produce an expected result.

In this study effectiveness refers to the improvements in the patient’s holistic symptoms after administration of the music therapy, counselling, oral care and introduction of financial support and it is measured by symptoms check list, sleep and physiological parameter assessment scale, pain assessment scale, modified university of Washington quality of life questionnaire, and radiation mucositis scale before and after interventions.

**Holistic Symptoms**

It means symptoms assessed from physiological, psychological, and spiritual aspects.
In this study holistic symptoms refer to the symptoms taken into consideration on physiological, psychological, and financial crisis. Physiological symptoms include restlessness, difficult to swallow, loss of sleep, loss of speech, disfigurement, difficulty in chewing, palpitation, fatigue, oral mucositis, loss of appetite, loss of weight, and loss of hair. Psychological symptoms include impaired concentration, irritability, anxiety, forgetfulness, worry and spiritual symptom is spiritual distress.

**Reduction of Symptoms**

It means the symptoms reduced because of the treatment.

In this study it refers to the difference between the initial score and final score on the assessment tools.

**Prognosis**

In this study prognosis refers improvement of pain, sleep, quality of life, and oral mucositis after interventions.

**Selected Intervention**

In this study it refers to interventions such as music therapy, counselling, introduction of financial support group for financial assistance and oral care.
Music Therapy

It refers to standardized instrumental music which is given to patients through headphones to listen for half an hour every day between 8.30 – 9.00 p.m. after finishing their routine care.

Counselling

It refers to face to face interaction by the investigator with the patients with head and neck cancer on the day 1 and day 7.

Financial Support

In this study financial support refers to the support by religious financial support group called as Pallathakin Leeli, considering patient’s financial viability in the form of diet and money for treatment such as radiation therapy and chemotherapy.

Oral Care

It refers cleansing or rinsing the oral cavity with Tantum solution (5%) every two hourly when the patient is awake.

Group I

Group I includes patients with head neck cancer who are receiving counselling, financial support and oral care.
Group II

Group II includes patients with head and neck cancer who are receiving music therapy, counselling, financial support and oral care.

Assumptions

- Reduction of holistic symptoms will improve the quality of life of the patients with head and neck cancer.
- Music therapy will decrease pain and improve sleep pattern of the patients with head and neck cancer.
- Counselling will influence psychological symptoms and reduce holistic symptoms and increase satisfaction of the patients with head and neck cancer.
- Financial support will minimize financial related anxiety and improve socialization.
- Oral care enhances healing of oral mucositis.

Limitations

- The study is limited to patients with head and neck cancer admitted at International cancer centre, Neyyoor.
- The study is limited to patients who are conscious and interested to listen music.
- The study is limited for 7 days.
Hypotheses

H1 : The patients who receive music therapy will have more reduction in holistic symptoms than the patients who do not receive music therapy at 0.05 level of significance.

H2 : The patients who receive music therapy will have more reduction in pain than the patients who do not receive music therapy at 0.05 level of significance.

H3 : The patients who receive music therapy will have better sleep than the patients who do not receive music therapy at 0.05 level of significance.

H4 : The patients who receive music therapy will have better prognosis than the patients who do not receive music therapy at 0.05 level of significance.

H5 : The patients who receive oral care will have reduced oral mucositis score at 0.05 level of significance.

Conceptual Frame work

Conceptualization refers to the process of developing and defining abstract ideas (Polit and Hungler, 1998). A conceptual model provides logical thinking for systematic and interpreting the observed data. The model also gives direction to relevant questions on phenomena and points out solutions to practical problems. The
conceptual framework adopted for the present study is based on Lydia Hall’s theory of Core, Care, Cure Model (1994).

Hall’s theory consists of three major tenets. Nursing aspects functions differently in the interlocking circles in the constituting different aspects of the patient. These three circles are inter-related and are influenced by each other. The three circles are the Patient’s Body, the Disease affecting the body and the Person of the patient, which is being affected by each of the circles. Nursing operates in all three circles in appropriate role.

In this study ‘Core’ parts of the system are the holistic symptoms and prognosis of the patients with head and neck cancer. During this process commonly few factors are influenced. They are alteration in holistic symptoms (i.e.) physiological symptoms such as restlessness, difficulty to swallow, loss of sleep, loss of speech, disfigurement, difficulty in chewing, palpitation, fatigue, oral mucositis, loss of appetite, loss of weight and loss of hair. Psychological symptoms such as impaired concentration, irritability, anxiety, forgetfulness, worry and spiritual symptom include spiritual distress. In head and neck cancer patient’s body, these factors are imbalanced and disturbed in state. So all these symptoms can be perceived by the patients with head and neck cancer.
The ‘Care’ part of the system is directed towards nursing actions. Nursing actions such as music therapy, counselling, financial support and oral care are planned to provide to reduce the holistic symptoms and improve prognosis.

The ‘Cure’ part of the system determines the process of improvement in holistic symptoms and prognosis. That is evaluated through universal pain assessment scale, sleep and physiological parameter assessment scale, modified university of Washington quality of life questionnaire, and radiation mucositis scale.
FIG: 1 CONCEPTUAL FRAME WORK BASED ON LYDIA HALL’S CORE CARE CURE MODEL (SOURCE: ANN, 1994. NURSING THEORIST AND THEIR WORK)

Core

- Head & Neck Cancer Patients with holistic symptoms

Care

- Music therapy
- Counselling
- Financial support
- Oral care

Cure

- Reduction of holistic symptoms
- Increase quality of life score
- Increase sleep duration
- Pain reduction
- Oral mucositis score reduction
ORGANIZATION OF THESIS

Chapter 1 discusses about the background, need for the study, statement of the problem, objectives, operational definitions, hypotheses, assumptions, limitations and conceptual framework and chapter organization of the thesis are forming part of this chapter. The conceptual framework of the study based on Lydia Hall's Core, Care, Cure model also forms part of this chapter.

Chapter 2 presents the studies / literatures on Physiological, Psychological, Social and Spiritual symptoms as well as related studies conducted on pain and sleep, qualify of life, music therapy and counselling.

Chapter 3 describes the research methodology adopted, design, population, sample, sampling technique, content validity, reliability and data collection procedure.

Chapter 4 explains the detailed analysis made on the collected data and the interpretations made on the results obtained.

Chapter 5 covers the details of the discussion based on socio-demography, physiological, psychological, spiritual, pain, sleep,
quality of life and oral mucositis. It also includes the inferences derived out of them.

Chapter 6 Summarises the results of the research and the implications, conclusions and recommendations. Chapter 6 is succeeded by references and appendices.