

THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF NURSING SCIENCE

**QUALITY OF LIFE AND SPIRITUALITY OF WOMEN WITH CERVICAL CANCER
AT CANCER DISEASES HOSPITAL**

BY

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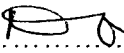
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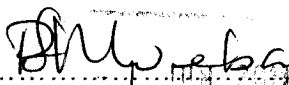
AIDS	Acquired immune Deficiency Syndrome
CCPP	cervical cancer prevention program
CDH	Cancer Diseases Hospital
CIDRZ	Centre's for infectious disease research in Zambia
GLOBOCAN	Global Cancer
GHP	General Health Perception
HIV	human immune virus
HPV	Human Papiloma Virus
IAEA	International Atomic Energy Agency
IARC	international agency for research on cancer
ICO	Institute' Catala d'Oncologia
QOL	Quality of life
SD	Standard Deviation
SIWB	Spirituality Index of Well Being
UTH	University Teaching Hospital
WHO	world health organization
ZDHS	Zambia Demographic Health Survey

DECLARATION

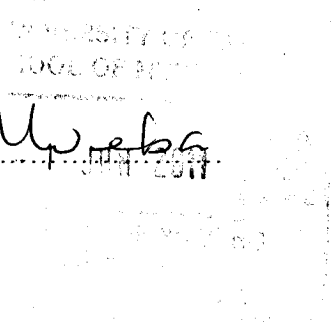
I hereby declare that the work presented in this study for a Bachelor of Science Degree in Nursing has not been presented either wholly or in part, for any other degree and is not being currently submitted for any other degree.

Signed..... 

Date..... 01/06/2011

Approved by..... 

Date..... 01/06/2011



STATEMENT

I hereby state that this study is entirely the result of my own independent investigations. The various sources to which I'm indebted are clearly indicated in the text and references.

DEDICATION

This research is dedicated to my Lord and Saviour Jesus Christ without his grace I would not have made it.

My husband Dr. Jairos Mulambya and my children Salipa and Subilanji who were denied of my presence at the time they needed me most.

To my mother Mrs. A.M Langa and my late father Mr. K.M Langa.

To the Mulambya, Kabonde, Mwale and Mbangweta family for their self less support

To my Sister Jessie Langa and all the women who died due to Cancer, may their souls rest in eternal peace.

ABSTRACT

According to the 2007-2009 annual report of the Cancer Diseases Hospital, cervical cancer has been the commonest cancers among women in Zambia with increasing incidence and accounting for the highest attendances at the hospital with 25.2 % of the total cases in 2007 to 33.2% of the total cases in 2009. Despite the increase, there has been no published literature on the quality of life and spirituality of these women.

The study was aimed at determining the relationship between Quality of Life and spirituality among women with Cervical Cancer at Cancer Diseases Hospital Lusaka. The hypothesis for the study was there is a relationship between Quality of Life and Spirituality among women with cervical cancer.

A cross sectional descriptive study design was used. A sample of fifty respondents was selected using the convenient sampling method. Data were collected using an interview schedule over a period of 21 days in October and November, 2010. Data were analyzed using Statistical Package for Social Sciences version 17.0.

The results revealed that almost two thirds (64%) of the respondents had good quality of life. The results also showed that majority (74%) of the respondents had good general health perception. The results on the General Health perception show that there is a relationship between overall Quality of Life and General Health perception. The results also revealed that majority of the respondents (96%) had good Spirituality. Only 4% of the respondents had poor Spirituality and poor quality of life. However, despite some of the respondents having poor quality of life, they had good Spirituality.

The major implication is that there is to train more nurses in oncology nursing so that nurses can provide holistic nursing care to the cancer patients. The training of more nurses will improve staffing levels hence give nurses more time to give that holistic care to the patients and hence improve psychological quality of life. There is also need to allocate student nurses to the cancer diseases hospital for their clinical experience so that they can learn more about

cancer as they interact with the patients. There is also need to carry out more studies on the subject to add to the existing body of knowledge.

Furthermore, Ministry of health should scale up cancer screening to rural parts of Zambia in order to increase early diagnosis thereby improve Quality of Life. Finally, information education and communication should be done in all languages so that as many people as possible can have access to information.

CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND

According to the World Health organization 2010, Cancer is a leading cause of death worldwide; it accounted for 7.9 million deaths around 13% of all deaths in 2007. About 72% of these deaths occurred in low income countries. Lung, liver, stomach, colon and breast cancer cause the most number of deaths (WHO, 2008). Tobacco use has been cited as the single most important risk factor to cancer. Cancer arises from a change in one single cell which may be started by external agents or inherited genetic factors (WHO, 2010). Cancer refers to a general term to describe malignant growths in tissue of which carcinoma is of epithelial and sarcoma is of connective tissue (Weller, 2007).

The World Health Organization (WHO, 2008) report states that cancer of the cervix is one of the leading causes of death among women world-wide. Cancer of the cervix is the second common cancer among women to cancer of the breast. The annual diagnosis of cancer worldwide is 510,000 cases per year which puts the global incidence of cervical cancer at 80% (WHO, 2009). Although the incidence has reduced in developed countries, cervical cancer still remains a significant cause of morbidity and mortality. Cervical cancer is a malignant tumor of the uterine cervix (neck of the uterus) (Weller, 2004). Almost all cervical cancers are caused by HPV (human papiloma virus). HPV is the most common virus that is spread through sexual intercourse. There are many different species of HPV however, type 16 and 18 cause 70% of cervical cancer cases. Increased risk of cervical cancer is associated with low socioeconomic status, early sexual activity, multiple sexual partners and infection with the human papilloma virus (HPV) immune suppression and smoking (Lewis et al, 2007:1400). Cervical cancer is an important public health problem among adult women in developing countries in South and Central America, Sub Saharan Africa and South East Asia where it is the most common or second commonest cancer among women. About 231,000 or more deaths occur due to cancer of the cervix worldwide (Ferlay et al, 2000). In 2008, it was estimated that 529, 409 cases were reported annually while 274,883 deaths occurred due to cancer of the cervix (International

Agency for Research on Cancer GLOBOCAN, 2008). About 86% of cervical cancer cases occur in the developing countries which represents 13% of female cancers. GLOBOCAN, 2008 stated that cancer of the cervix was the second most common cancer among women worldwide and the most common cause of death among middle aged women, accounting for 288,000 deaths and 510,000 new cases per year respectively(WHO, 2010). Three quarters of the world's burden occurred in developing countries including Zambia and that despite the fact that cancer was a significant public health problem, there were no effective prevention programmes in most of the countries, hence the risk of disease and death from cervical cancer remained large.

In Eastern Africa, the incidence of cancer cervix is at 33.6% of the women general population. The cervical cancer cases seem to decrease with age; this is seen in the number of new cases reported by age. There were 539 new cases in the 15-44 years while the 45-54 reported 406 new cases per year. According to the World Health Organization, Zambia has the second highest cervical cancer incidence in the Eastern Africa region with a rate of 50.8 cases/100 000 second to Tanzania and Malawi with an incidence of 52.8 respectively (WHO/ICO HPV information centre, 2010).

Zambia has a population of 3.21 million women aged 15 years and older who are at risk of developing cancer of the cervix. The women in the child bearing age account for 22.14% of the Zambian population (WHO, 2010). Every year, 1839 women are diagnosed with cancer 1276 die from the disease in Zambia (WHO/ICO information on cancer of the cervix, 2010). Most of the women affected by cancer of the cervix are in the child bearing age (15-49 years). This same age group is marked by high HIV/AIDS incidence due to increased sexual activities and other risk factors. There has been an increase in the incidence of cervical cancer secondary to HIV infection, with about 90% of HIV positive women having abnormal cells (Bourke, 2007). Some of the women are diagnosed with cancer before they bear a child which makes future fertility almost impossible. The peak age of cervical cancer diagnosis in Zambia is between 30 and 50 years compared to the developed countries where diagnosis is mostly above the age of 50, this age commonly coincides with the most productive time of one's life.

The health sector in Zambia is faced with many challenges of which Cancer treatment and care is one. The sector has undergone various changes which included health reforms which were

implemented in 1991 under the auspices of the Central Board of Health. In 2006, Ministry of Health once again assumed the central role in the health care management system. A lot of restructuring work has been going on until now to ensure adequate staffing levels in the health facilities.

Not until 2006, did Zambia have a specialized cancer treatment facility and relied on South Africa and neighbouring Zimbabwe for chemotherapy and radiotherapy. However, this was rather a costly and cumbersome venture for the Government and the patients. The government had to cover all the costs, while patients had to wait patiently to be sent for the treatment such that some would end up dying before accessing treatment.

In 2004, the government with the help of the Oil Producing Energy Countries (OPEC) and International Atomic Energy Agency (IAEA), and other cooperating partners, the multimillion dollar Cancer Diseases Hospital was constructed. The construction of the hospital was completed in 2005 and the hospital was officially opened in 2007. The hospital caters for patients from various health facilities nationwide to access treatment and diagnostic services as it is the only facility in Zambia. The cancer diseases hospital is equipped with diagnostic and treatment facilities as well as specialized personnel to attend to the patients. The hospital has helped to reduce government expenditure on cancer treatment abroad at the same time it has increased patient access to treatment. The hospital is located within the grounds of the University Teaching Hospital it does not have admission wards but rather cancer patients are admitted to the cancer ward and other general wards in the university teaching hospital.

Zambia has continued the fight against cervical cancer through health education and free screening tests and other cancer awareness programs. The politicians in the country have also shown interest in the matter by building and supporting cancer control measures, building the hospital as well as procuring state of the art equipment to aid in accurate diagnosis and staging. In 2005, the Centers for Disease Research in Zambia (CIDRZ) a partner and non-governmental organization, started a screening program where both HIV positive and non- HIV positive women are being screened for cervical cancer. The program is using a technique known as visual inspection with acetic acid (VIA) to diagnose cervical cancer. CIDRZ has also intensified training of nurses who are the frontline health workers in cervical cancer diagnosis techniques

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which makes cancer diagnosis possible even where there is no laboratory (Wong, 2009). Since the introduction of VIA screening programme in Zambia by CIDRZ and the World Health Organization cancer prevention project more than 28,000 women with precancerous lesions had been treated (WHO, 2010). However, there is need for scaling up effective interventions to ensure nationwide access to services for early detection and treatment as a way to safeguard lives of women and contribute to the attainment of the Millennium Development Goal on maternal health.

Quality of life (QOL), a subjective assessment of one's emotional and physical well-being has become increasingly important for patients as treatment advances extend the length of survival (Watanabe et al, 2010). Quality of life typically involves the assessment of several dimensions: physical well-being, emotional well-being, social well-being, and functional well-being (WHO, 1997).

The effects of cervical cancer include physical changes including loss of ovarian function, hot flashes, vaginal dryness, hair and skin changes, and mood changes. Changes in bowel, bladder, and hormonal, sexual and reproductive function are common. Apart from that effects also include the many manifestations of psychological and emotional stress inherent in dealing with a cancer diagnosis and treatment. These touch on the numerous, interrelated physical factors such as pain, fatigue, sleep disorders, nutrition, cognitive functioning. Other, more immediate concerns may include finances concerning medical coverage, ability to work, or even meeting daily living expenses. During cancer therapy, family members may begin to suffer from the stress of dealing with chronic illness (Pearson 2003, Rosebaum and Rosebaum, 2010).

Numerous challenges exist in treating gynecologic malignancies. Often, there are few, if any, symptoms until the tumor is in an advanced stage. Further, these symptoms are often non-specific and may consist of abdominal distention, vaginal bleeding, abdominal or low back pain, often leading treating professionals to misinterpret early signs or defer further investigations. Treatment for cervical cancer is often quite morbid and may involve multiple modalities (surgery, radiation and chemotherapy) making it all difficult for patients to cope. In addition, Cancer of the cervix as a chronic condition mostly brings little hope to the diagnosed patients especially that most women are diagnosed in late stages where palliation is often difficult and

death from a slow, obstructive, intra-abdominal process is not unusual. Cancer robs people of their hopes and dreams and not only threatens the physical body but also the spirit. People with cancer experience disbelief, fear, isolation, shock, spiritual distress, and uncertainty (Villagomez, 2005). This gives patients little hope for survival and threatens their reason for existence which further takes them to spirituality. Spirituality has been seen to be at the centre of all aspects of a person's life (Dombeck, 1995). A person's health depends on a balance of physical, psychological, cultural, developmental, and spiritual factors (Potter and Perry, 2006). The WHO, states that "health is a state of complete physical, mental, psychological and social wellbeing and not merely the absence of disease or infirmity" (WHO, 1948). This definition further emphasizes the balance of the factors influencing health. Spirituality restores a feeling of connectedness with the universe or an idea beyond oneself. People may seek this liaison through prayer and renewed devotion to God and our religion, through ritual exercise such as meditation, or by immersion in the natural world. Whether private or shared with family and community, the nurturing of our spirituality is a vital component of coping with the unfamiliar and uncertain circumstances associated with cervical cancer (Rosebaum and Rosebaum, 2010)

Spirituality has been taught at all levels of nursing to constantly remind nurses of this resource in the patients well being. Spirituality has also been emphasized in nursing models such as Henderson's "Activities of Daily Living" model of nursing as part of the fourteen activities of daily living in which activity number eleven states "worship according to ones faith"(Alligood and Tomey, 2006:57). Nurses are able to recognize the patients requiring spiritual care as those at the end of life or those with chronic illness such as cancer. Spirituality has been an important factor in the provision of holistic care to the patients and this is shown through the office of the hospital chaplain in most hospitals. As health care providers, we are challenged to improve delivery of services to our clients by systematically incorporating spirituality as a means of improving care and the quality of life of our clients.

1.2 STATEMENT OF THE PROBLEM

Despite all the efforts made to include spirituality in health care delivery, very little has been done to explore spirituality among patients with chronic illnesses such as cervical cancer. Several studies have been done in Zambia concerning cervical cancer but an intensive search did not reveal any published studies on spirituality and or quality of life of cervical cancer patients.

Cervical cancer still remains a major and common cancer among women in Zambia. It accounts for the highest number of patients seen at the cancer diseases hospital and an increasing incidence (CDH Annual report, 2009). In 2007, cervical cancer accounted for 25.2% of the total attendances while it accounted for 32% in 2008 and 33.2% in 2009 and the cases are still on the rise. Cervical cancer affects middle aged and older women. Despite these statistics and efforts made to curb the disease, there has been no published study on the Quality of Life and spirituality of the cervical cancer patients. This means that it is necessary to carry out the study to determine the quality of life as well as find best ways to improve. Cervical cancer has an effect on an individual's perception of health and life in general. Since it is an "incurable disease" one becomes hopeless and it's at such times of extreme vulnerability, that one tends to pay more attention to our innate spirituality and seek to restore a feeling of connectedness with the universe or an idea beyond ourselves (Rosebaum and Rosebaum, 2010)

Quality of life diminishes very quickly as a result of fear, fatigue, pain and also while enduring therapeutic side effects or contemplating the possibility of treatment failure and death. Chemotherapeutic drugs do not only target abnormal cells but normal cells as well and the effects can be acute such as hypersensitivity reactions, delayed such as or chronic such as anaemia. These side effects range from anaemia, loss of appetite, alopecia etc which affects their day to day quality of life (Lewis et al, 2007). Cervical cancer threatens their socioeconomic status as they do not know whether they will return for work or not.

The service delivery is affected by the high cost of chemotherapy and pain control medication, and maintenance of equipment for smooth running of the services which are all necessary in cancer disease management.

1.3 ANALYSIS OF INFLUENCING FACTORS

1.3.1 FACTORS INFLUENCING SPIRITUALITY AND QUALITY OF LIFE OF CERVICAL CANCER PATIENTS

1.3.1. Social cultural and economic factors:

These factors include age, marital status, education, occupation etc. these may have an impact on the quality of life.

1.3.1.1 Socioeconomic status: People in a low economic class because of poverty are unable to access health services while those in medium and high class have an opportunity to information and services. Financial status may also play an important role in determining Quality Of life, developing a chronic illness or having a spouse with chronic illness like cervical cancer would mean loss of that income, and incoming of extra expenditures that influence many aspects of life. The socio economic status also affects the access of women to information in that they are unable to purchase radio, televisions to help them access information on cancer through the media. Finances may also affect accessibility to health services, for example patients may be unable to travel to the Cancer Diseases Hospital on time.

1.3.1.2 Age: the age at which the diagnosis of cervical cancer is made may affect the quality of life of the patients. Postmenopausal women may have a better quality of life as they may not be affected by worries of infertility. Women younger than 50 years may report a lower quality of life than those older than 50years. However, studies have shown that the elderly tend to have lower perception in prevention and early detection program with health care providers and health systems due to lack of cultural sensitivity, lack of outreach efforts and low priority given to prevention practices and health education which results in late presentation and lower quality of life. (Kearnley, 2006)

On the other hand they may be hopeless and see death to be near so they turn to spirituality. The young woman on the other hand may have poor quality of life due to many worries such as infertility etc. young women may also turn to spirituality and find new hope and meaning to life which may in-turn give them a better quality of life. Older adults who engage in religious and

spiritual practices often cope better psychologically and have better health than those who do not.

1.3.1.3 Level of education: women with high level of education may have a higher quality of life score compared to those with low level of education as they may have a better understanding of the disease process and treatment option and also adhere well to appointments. Those with low education level may have problems understanding the condition.

1.3.1.4 Cultural beliefs: These include beliefs about cause of the illness, treatments and other cultural beliefs associated with cancer and health services. Culturally there is a tendency to associate illness to witch craft, bad air, curses and many more. When a person feels unwell, the first place to go to is a witch doctor which contributes to late health seeking and presenting in late stage. Others may seek health care early which may result in better quality of life. Secondly after the treatment such as radiotherapy and chemotherapy, the reproductive organs are affected and culturally it is demeaning for a woman not to conceive. This in turn brings about hopelessness and one can only turn to spirituality for solace.

1.3.1.6 Religious beliefs: religious beliefs and practices may affect the quality of life of cervical cancer patients. Some of the beliefs may give the patients strength to continue to fight which may result in a better quality of life. For example the Zionist who do not believe in modern medicine may have poor quality of life as a result of their religious beliefs.. However, in some cases, religious beliefs may have a negative effect on a person which may result in poor quality of life. Patients, whose religious beliefs do not allow blood transfusion, may refuse to be transfused when they are in anaemic states resulting in poor quality of life and death. While those who believe only in prayer may fail to adhere to treatment which may result in poor quality of life.

1.3.2 Service related factors:

Service related factors are those factors influencing the problem from the service delivery perspective. The service related factors include, information education and communication, staffing levels and distance to the health facility.

1.3.2.1 Information Education and Communication (IEC): The information given to the patients also has an influence on the quality of life of the patients. It is said that knowledge is power, if patients have not been given adequate information about the disease, it will be difficult for them to develop a positive attitude about their existence and life in general hence their quality of life may be affected. On the other hand, those with adequate information about cervical cancer, will be empowered hence a better quality of life.

1.3.2.2 Distance to the health facilities: the physical proximity to a health facility influences how soon a client may reach the health facility after deciding to seek care. Most of the patients attending the cancer diseases hospital are referred from other health facilities around the country. Firstly they may delay to seek care in their respective locations and a further delay may be experienced to reach the cancer Hospital which is located in Lusaka. This may affect their quality of life as they may reach the facility when the disease is in advanced stage.

1.3.2.3 Referral system: The referral system has an effect on the quality of life of cervical cancer patients, for example, patients referred from other towns have to be admitted or seen as out-patients at the UTH in order to secure bed space. This results in delays as they are given appointments in the gynaecology department. Moreover examination of biopsy samples is carried out centrally at UTH, resulting in delay of results as the pathology laboratory is overwhelmed with samples and at times there are no reagents. Patients have to wait for over one month for the results. However in some cases patients are not delayed especially when tests are done in other laboratories or when reagents are readily available.

1.3.2.4 Staffing: affects quality of life in that adequate staffing helps nurses to provide the much needed psychological care to cancer patients and this helps them have a better quality of life, while inadequate staffing levels negatively affect quality of life as nurses are overwhelmed with work and are unable to provide a listening ear and offer adequate pain control and psychological care to the patients.

1.3.3 Disease related factors

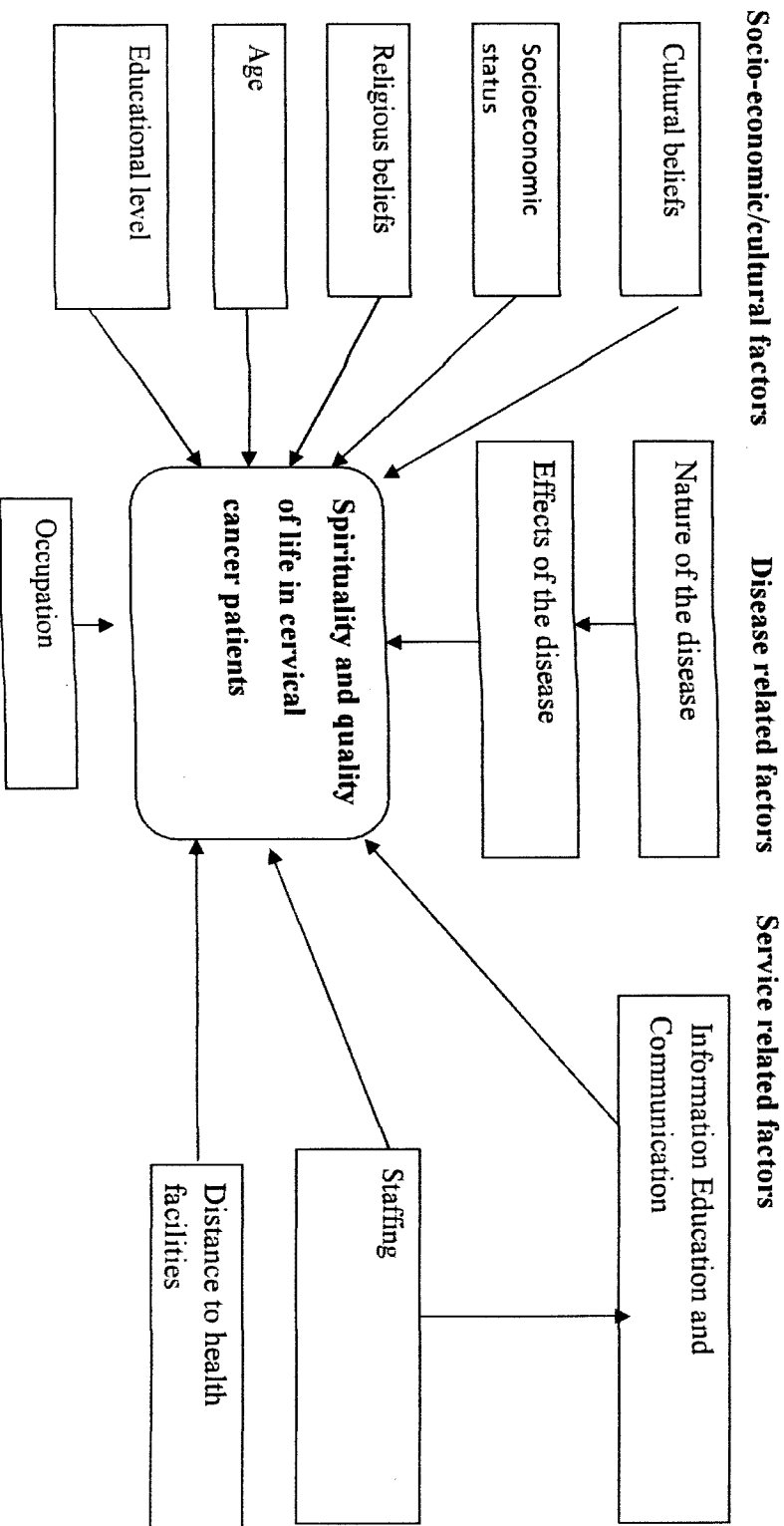
These are factors related to the effects of the disease and they include the nature of the disease, its impact on physical functioning of the patient.

1.3.3.1 Nature of the disease: the nature of the disease whether chronic or acute may affect the quality of life of an individual patient. Cervical cancer is a chronic disease of which most sufferers are not usually aware of its onset such that they notice the symptoms and signs when the disease is advanced. These may in turn affect the treatment plan which may include surgery, radiotherapy and chemotherapy or a combination which in turn impacts on their quality of life.

1.3.3.2 Effects of the disease: long –term disease such as cervical cancer may lead to emotional changes, changes in physical appearance, anxiety and withdrawal. Other effects such as chronic pain especially during the terminal stages also affect patients' ability for normal physical function. The women's sexual relationships are also affected due to the sequelae of the treatment such as loss of elasticity and dryness of the vagina. The European cancer organization (2007) reported an increases risk of divorce with cervical and testicular cancer. These two cancers affect intimacy resulting in decreased sexual desire, enjoyment and fertility. Other effects on quality of life include physical appearance such as weight loss and hair loss secondary to chemotherapy.

1.3.2 ANALYSIS DIAGRAM: FACTORS INFLUENCING QUALITY OF LIFE OF CERVICAL CANCER PATIENTS

Figure 1.1



1.4 THEORETICAL /CONCEPTUAL FRAMEWORK

The interaction model of client health behaviour was used to guide this study and examine client singularity variables that might explain relationship between quality of life and spirituality among cervical cancer patients at Cancer Diseases Hospital. The model was also used by the Cox and others to study child cancer survivors at St Jude Hospital, (Cox et al, 2010)

The Interaction Model of Client Health Behavior was proposed in 1982 by Cheryl Cox as a prescriptive nursing framework. Cox developed the model believing that motivation is multi-dimensional. The model was developed to direct and document nursing assessment plan of care and evaluation of that care as well as explain and document nursing interventions. The model is useful for examining the process of client health care including client professional interaction and relationships among client's needs interventions and client outcomes. Cox, (1982) assumed that clients are capable of making informed independent and competent choices about their health care behaviours and that they should be given the maximum amount of control in health care decisions about health behaviour influenced by the singularity of the client relationship between the client and the care giver. The interaction model of client health behaviour is comprised of elements of client singularity, client professional interaction and health outcome. Client singularity and health outcomes were the aspects of the model which were used in the study.

Client singularity is determined by background variables intrinsic motivation cognitive appraisal of the health problem and effective responses. Background variable include; demographic characteristics, social influence, previous experience, a sense of competence and self determination in her health behaviour. Client singularity was represented by demographics such as; age, marital status, number of children, educational level, income levels, occupation and religious denomination. It was also represented by spirituality which is an important variable influencing quality of life.

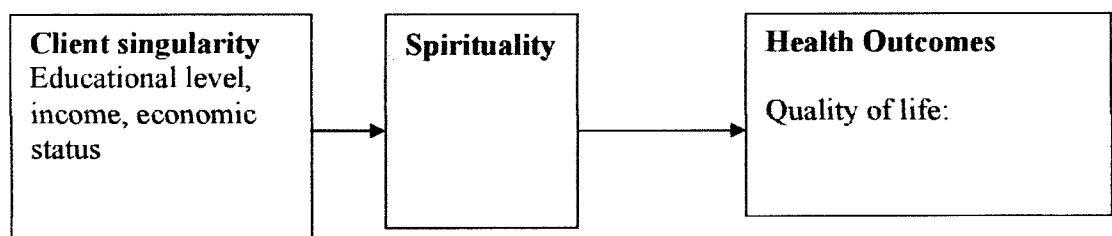
Client professional interaction: the model reflects the relevance of health behaviour research by systematically including the client professional relationship which is considered

by nurses to be the major influence on health care behaviour. The model also reflects the philosophy of nursing practice that the client is holistic and unique capable of actively relating with health professionals in making decisions.

Health outcomes include utilization of health care services, clinical health status indicators severity of health care problems, and adherence to the recommended care regime and client satisfaction. Health outcomes were represented by Quality of life which was viewed as both a health status indicator and health outcomes.

1.4.2 DIGRAM OF THE THEORETICAL FRAMEWORK

Figure 1.2.



(Villagomez, 2007)

1.5 JUSTIFICATION

The study on spirituality and quality of life among cervical cancer patients at cancer diseases hospital will be very useful in the care of the cervical cancer patients. Since there is no published study in Zambia on the quality of life of cervical cancer patients, data generated from the study will provide baseline data for future studies on the same subject. It will also stimulate nurses and other health care professionals to carry out more studies on the subject. The study will also influence policy makers on the issues which can help improve the Quality of life of cervical cancer patients. These policies include: pain control in cancer patients, staffing levels which when revised can provide adequate pain control to cancer

patients thereby improving their physical functioning as well as improving their quality of life. Improved staffing levels on the other hand will allow the nurses to have more time with the patient meaning that they can provide holistic care. The study will help provide evidence which can help the nurses' practice evidenced based nursing care to the patients. The study will also remind the nurses on the importance of the spiritual dimension in fostering oncology care.

1.6.0. RESEARCH OBJECTIVES

1.6.1. GENERAL OBJECTIVE

To determine the relationship between spirituality and the quality of life of cervical cancer patients

1.6.2 SPECIFIC OBJECTIVES

- a) To assess spirituality among cervical cancer patients
- b) To determine the quality of life of cervical cancer patients

1.7 HYPOTHESIS

The working hypothesis for this study is stated in alternative terms in order that testing of the hypothesis may show if a relationship does exist between the study variables.

There is a relationship between spirituality and quality of life in cervical cancer patients at Cancer Diseases Hospital.

1.8 CONCEPTUAL DEFINITIONS

Conceptual definition refers to the abstract or theoretical meaning of the concept being studied (Polit and Beck, 2008).

1.8.1 Cervical cancer: Cervical cancer is a malignant tumor of the uterine cervix -neck of the uterus (Weller, 2004).

1.8.2 Spirituality: is the quality of being concerned with religion or the human spirit

(Hornby, 2006)

1.8.3 Quality of life: WHO (1997) defines Quality of Life as individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.

1.9 VARIABLES AND CUT-OFFS

A variable is an attribute or characteristic that can have more than one value such as height, weight and blood pressure (Basavantapa, 2007).

1.9.1 Types of variables

1.9.1.1 Dependent variable is the variable that changes as the independent variable is manipulated by the researcher; sometimes called the criterion variable (Basavantapa, 2007). The dependent variable in this study is **Quality Of Life**.

1.9.1.2 Independent variable: the variable that is purposely manipulated or changed by the researcher; also called the manipulated variable (Basavantapa, 2007). The independent variable in this study is Spirituality, educational level, age, marital status, staffing levels, location of the hospital.

Table 1.1**1.9.2 Indicators and cut offs**

Variable	Indicator	Cut off point	Questions
Dependent variable	Good	87 – 120	Section B
Quality of life	Poor	55 – 86	13-38
Physical domain	Poor	5 – 20	13 - 38
	Good	21 – 35	
Psychological domain	Good	18 – 30	13 - 38
	Poor	5 - 17	
Social domain	Good	11 – 15	13 - 38
	Poor	5 – 10	
Environmental domain	Good	23 - 40	13 – 38
	Poor	5 – 22	
Independent.	Good	44-60	Section C
Spirituality	Poor	27 -43	40 -51
Self efficacy	Good	21 – 30	40 – 45
	Poor	11 - 20	
Life scheme	Good	22 – 30	46 – 51
	Poor	13 - 21	

CHAPTER TWO

2.0 LITERATURE REVIEW.

2.1 INTRODUCTION

Literature refers to the critical summary of research on a topic of interest, often prepared to put a research problem in context (Polit and Beck, 2008). This chapter is essential to the researcher as it helps to discover what has already been done and other gaps on the subject.

In this study the researcher reviewed literature on quality of life and spirituality of women with cancer from published abstracts and articles of studies conducted on the subject. The studies were accessed on-line through the internet. There were few studies focusing on spirituality and QoL of cervical cancer patients so the researcher reviewed literature on the quality of life of gynaecologic cancer patients which includes cervical cancer, breast cancer patients. This review is tackled in relation to the study variables but starting with a general overview on cervical cancer. The study variables are Quality of Life and spirituality and it ends with literature on the relationship between the two variables.

2.2 Overview of cervical cancer

Cervical cancer is a malignant tumour of the cervix uteri or cervical area (Weller, 2004). It may present with vaginal bleeding but symptoms may be absent until the cancer is in its advanced stages. Treatment consists of surgery (including local excision) in early stages and chemotherapy and radiotherapy in advanced stages of the disease. Human papilloma virus (HPV) type 16 and 18 infection is a necessary factor in the development of nearly 70% of cases of cervical cancer. Other predisposing factors include: Having sex at an early age, Multiple sexual partners, Sexual partners who have multiple partners or who participate in high-risk sexual activities, Women whose mothers took the drug DES (diethylstilbestrol) during pregnancy in the early 1960s to prevent miscarriage, Weakened immune system, and Poor economic status (may not be able to afford regular Pap smears).

The American Cancer Society provides the following list of risk factors for cervical cancer: human papilloma virus (HPV) infection, smoking, HIV infection, Chlamydia infection,

dietary factors, hormonal contraception, multiple pregnancies, exposure to the hormonal drug diethylstilbestrol (DES) and a family history of cervical cancer.

The early stages of cervical cancer may be completely asymptomatic vaginal bleeding, contact bleeding or rarely a vaginal mass may indicate the presence of malignancy. Also, moderate pain during sexual intercourse and vaginal discharge are symptoms of cervical cancer. In advanced disease, metastases may be present in the abdomen, lungs or elsewhere.

Symptoms of advanced cervical cancer may include: loss of appetite, weight loss, fatigue, pelvic pain, back pain, leg pain, single swollen leg, heavy bleeding from the vagina, leaking of urine or feces from the vagina, and bone fractures.

2.3 Quality of life

Quality of life is defined by World Health Organization (1997) as an individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. There has been consensus in literature that quality of life is subjective meaning that it can only be rated by the individual concerned. It is multidimensional or composed of a number of key areas or domains of a persons' life (Kearnly and Richardson, 2006). The term 'quality of life' extends not only to the impact of treatment and side-effects, but to the recognition of the patient as an individual, and as a whole person, body, mind and spirit.

In a study conducted on African American breast cancer survivors' quality of life, the results showed that Women affected by breast cancer experience an array of quality-of-life issues that affect their daily living in both short-term and long-term survivorship. Survival disparities exist between African American, white, and other ethnic women breast cancer survivors. Race has been found to play a role in quality of life. These differences are attributed to a range of factors ranging from biological to behavioral factors. Russell et al 2008, found that although white women have a higher incidence of breast cancer compared to African American women after the age of 40 years, they enjoy more favorable 5-year mortality rates across all stages of disease and, more often, undergo breast-sparing treatments and reconstructive procedures after surgery. African American women have a

higher incidence rate of breast cancer compared to white women before the age of 40 years, and mortality rates for all age ranges remain consistently higher in African American breast cancer survivors than for other racial and ethnic groups (Russell et al, 2008).

Tan and Sloan, 2008, in the study on quality of life of cancer patients concluded that the quality of life of an individual translated to survival. Quality of life is an independent factor of survival in that patients with higher scores on the quality of life scale lived longer than those with poor quality of life however; it is determined by many factors including ones' will to live. The researcher also believes that ones will to live contribute a great deal to better quality of life. Lance Armstrong a cancer survivor and winner of Tour de France: "Anything is possible. You can be told you have a 90 percent, or a 50 percent, or a 1 percent chance. But as long as you take that chance and believe in yourself and are a brave person and then want to live and want to be better than before I'm living proof that you get a second chance, and the second time around is better than the first" (Rosenbaum and Rosenbaum, 2007).

On the other hand, Russell et al, 2008 found that receiving social support from family and friends provided African American survivors with meaningful ways to cope and reduce the stress associated with their breast cancer. In addition to receiving support from family, friends, and support groups, including avoiding negative people, developing a positive attitude, and having the will to live help improve quality of life.

Wenzel et al, (2005) studied the quality of life of Gynaecological patients with cervical cancer in California. The study sample consisted of fifty (50) cervical cancer patients and fifty (50) age matched controls in a descriptive cross sectional study design. The participants were predominantly married, non-Hispanic White, with a mean age at diagnosis of 37 years and a mean age at interview of 45 years. This disease-free sample enjoys a good Quality Of Life, with physical, social, and emotional functioning comparable to or better than comparative norms. However, certain psychological survivorship sequelae and reproductive concerns persisted in most participants. Participants reporting good QOL were less likely to report ongoing coping efforts related to having had this illness and were more likely to

report greater social support, greater sexual pleasure, and less cervical cancer-specific distress.

Fifty-nine percent of respondents expressed that they would likely participate in a counseling program to discuss psychosocial issues raised by having had cervical cancer, and 69% stated that they would have attended a support group program during the initial treatment if it had been offered. The researcher thinks that it is imperative for cervical cancer patients to belong to support groups soon after they are diagnosed to improve their Quality of Life and also for them to understand some of the psychological and physical sequelae of cervical cancer and how to cope with them.

Another study was conducted by Frumovitz et al (2005) to assess the quality of life and sexual functioning of women with cervical cancer under different treatment forms of treatment in Huston Texas. A total of 114 patients were assessed of which 37 had undergone surgery, 37 radiotherapy and 40 were controls. The investigators concluded that treatment options also have an effect on Quality of Life. The results showed that radiotherapy patients had a poor quality of life and worse sexual functioning compared to those who had undergone surgery.

Safae et al, (2008) studied the quality of life of women with Breast cancer and on chemotherapy, at Namazi hospital in Iran. The study was conducted on 119 patients who were admitted on chemotherapy. The authors concluded that the study demonstrates the strength of the relationship between clinical, social demographic factors and Quality of Life of cervical and breast cancer patients. Psychosocial support and financial support may also improve quality of life. However, other demographic variables such as age were found to confound the findings on quality of life were post menopausal women had a higher quality of compared to the premenopausal women. However, grade of tumour, financial difficulties and occupation negatively affected quality of life.

Awadalla et al (2007), studied Sudanese cervical and breast cancer patients' quality of life and their caregivers, it was found that both groups of patients had a lower quality of life two to three years after diagnosis. The same study also reviewed that there was no statistical difference in quality of life of patients both on chemotherapy and radiotherapy although

patients on radiotherapy had high scores on certain domains such as physical health, psychological health and social relations and spiritual with a significance value of $p < 0.01$. The researchers concluded that socio-economic factors have an influence on quality of life. The authors also found that education level, duration of illness and employment played a role in determining quality of life of Sudanese cervical and breast cancer women. Women with higher education, better employment and longer duration of the illness had higher quality of life.

An extensive search showed no published studies on Quality of Life of cancer patients in Zambia. However studies on quality of life of men and women infected with the HIV virus have been carried out and published. However, Mweemba and others (2008) assessed the quality of life of 160 persons living with HIV in both urban and rural Zambia. The respondents were adults of different ages but the majority between 18 to 45 years (84.4%). A clear majority of participants had good or very good quality of life. A low percentage of participants reported very poor quality of life. The authors concluded that the quality of life, Spirituality Religion personal Beliefs (SRPB) and medication dependency were all above average for the Zambia sample.

The researcher in this study seeks to find out the quality of life of women with cervical cancer and find out the relationship between spirituality and quality of life.

2.4 SPIRITUALITY

Spirituality is the quality of being concerned with religion or the human spirit (Hornby, 2006). Spirituality is rooted in an awareness which is part of the biological make up of the human species. Spirituality is present in all individuals and it may manifest as inner peace and strength derived from perceived relationship with a transcendent God or a reality or whatever an individual values as supreme. Meraviglia, 1999 in Scarinci (2009), considered spirituality as a search for meaning in life, a life force that leads individuals to seek connection within themselves and others, and also a connection to existence outside of the self. Similarly, Spirituality is a multidimensional word that does not have a single definition. In the health context, spirituality is viewed as an aspect of the holistic understanding of the person. The holistic notion holds the premise that an individual as a whole person, the

integration of body, mind and spirit, which are inseparable. Spirituality is a universal phenomenon in which all human beings have the need to seek meaning and acceptance in their lives through their relationships with themselves, with others, and the sacred (Como, 2007). In the past issues of spirituality were restricted to refer to Christianity and Islam, however in times of distress, illness and suffering, emotional distress, both religious and nonreligious persons such as atheists and agnostics may express spiritual needs, in the sense of a need for meaning and purpose, identity, or a sense of harmonious interconnectedness.

Hamilton and others, 2007, carried out a study on spirituality among African American cancer survivors; having a relationship with God. The study sample comprised 28 African American cancer survivors of which 15 were women with breast cancer and 13 were men with prostate cancer. Their spirituality was described by 3 major themes: a personal relationship with God, the types of support believed to come directly or indirectly from God, and repaying God through acts of service to Him and others. Participants in this study were given fictitious names to protect their identity. The participants in this study showed a positive relationship with God by acknowledging dependency on God. Some said God kept their cancer from spreading, God will do his will, God gives support by sending someone, and God takes away worries.

Wallace, 2007, studied 26 older long term residents of faith based nursing homes for the purpose of investigating their spiritual perceptions. The investigator used descriptive statistics to analyze participant's perceptions. The two samples in this study received a mean score of 51.36 (SD = 5.99) with a range of 43 to 68, indicating moderately high views of aspects of spirituality and spiritual care among the sample, supporting spirituality as a framework for life. The investigator concluded that religious coping and spirituality significantly predicted health outcomes.

Gioiella et al, 2010, in the study of eighteen women with gynaecologic cancer found the patients with gynecologic cancers other than ovarian to have reported a better QOL and a higher degree of spiritual, existential, and religious well-being. Older patients consistently reported higher degrees of spiritual well-being and QOL than did younger patients. Married

patients consistently reported higher degrees of spiritual well-being than patients who were not married (never married or separated). Catholic patients scored higher in degrees of religious and spiritual well-being as well as in Functional Living Index: Cancer (FLIC) scores than other patients. This finding could be so because most catholic women are dedicated to religious activities and gatherings.

Weinert and Hampton 2006, in their exploration of spirituality of rural women with chronic illnesses, found spirituality to be an important tool in management of illnesses as acknowledged by many health professionals. The study was conducted on 15 women and 280 computer generated conversations with respondents. The sample comprised women with chronic illnesses such as cancer, diabetes mellitus, arthritis and sclerosis. The investigators concluded that spirituality was an important tool to deal with family issues experienced with chronic illnesses. These women appeared to use spiritual connection to transcend illness and to find meaning in their present lives. The participants described how their faith had contributed to their ability to transcend their illness and find meaning in their lives.

Shahid et al (2009) in the study on the use of bush medicine in treating cancer among Aboriginals in Western Australia concluded that spiritual beliefs and holistic health approaches and practices play an important role in the treatment choices for some patients. The investigators interviewed 37 participants.

Kimberly et al (2009) in their study on the Religiosity/spirituality of Latina breast cancer survivors and the influence on health related quality of life, found Latina Breast Cancer Survivors to have very high levels of Religiosity /Spirituality and generally good Quality Of Life. Latina Breast Cancer Survivors had very high levels of Religiosity/Spirituality, which were significantly, positively correlated with dimensions of Health Related QOL. Further, these high levels of Religiosity/Spirituality predicted better functional well-being and satisfaction with the patient-doctor relationship while controlling for potentially confounding variables.

Dyer 2007, studied through literature evidence based on the period 2000 -2007 how spirituality affects physical health. The investigator concluded that there was a strong correlation between physical health and spirituality. The most striking finding of research examining the connection between spirituality and health is the consistent evidence that being a member of a religious group and having higher levels of self-reported religiosity are associated with lower mortality during follow-up periods. However, further investigation reveals a range of lifestyle factors that could account for this increase in life expectancy. Religious groups often advocate lifestyles that incorporate many health behaviors, and when mortality rates for most reviewed studies were adjusted for known health risk factors, the correlation between mortality and religiosity was markedly reduced. Thus, most effect sizes were relatively small and known risk factors were viewed as confounds. However, as the religious beliefs of particular groups motivate their health behavior, these confounds may alternatively be seen as mediators that explain the association of religiosity with health, rather than invalidate it. The possibility of an interaction between various healthy behaviors to produce lower mortality was not acknowledged in any of these studies. The adjustment for risk factors typically took into account the individual effects of a handful of recognized lifestyle traits that influence health, and the subtleties of an overall healthy lifestyle may have a greater impact than can be predicted by a few factors. An increased level of stress is also recognized to be detrimental to physical health, and it has been suggested that indicators of religiosity are inversely related to psychological distress, yet because of the lack of empirical evidence connecting religiosity directly with stress-related health improvements, this relationship remains unclear.

Similarly to Dyers finding, a study conducted on Latina American breast cancer survivors have shown that there may be a negative effect on health if the need to uphold religious beliefs while in crisis causes anxiety and/or causes one to delay or refuse medical treatment. On the other hand it was found that among Latinas with cervical cancer, spiritual, familial, and cultural factors promoted well-being and coping but may also delay seeking treatment.

Contrary to the findings of Dyer, Reynolds, 2006, in his study examining spirituality among women cancer patients found that spirituality could have a negative effect on physical health. Breast cancer patients with high levels of spiritual faith may be less likely to receive breast cancer treatment, but have greater acceptance of the disease and are less motivated to understand the cause of their cancer. This attitude may negatively impact screening behaviors and underscores the need to perform a thorough religious/spiritual assessment on our patients.

Wenzel 2005, in a multiple-regression model, cancer-specific distress, spiritual well-being, maladaptive coping, and reproductive concerns were found to affect the patients especially where spirituality was low. Wenzel's study shows that low spirituality has an effect on general health.

Hamilton et al, (2005) highlighted spirituality is an inherent component of being human, and is subjective, intangible, and multidimensional. Spirituality and religion are often used interchangeably, but the two concepts are different. Spirituality involves humans' search for meaning in life, while religion involves an organized entity with rituals and practices about a higher power or God. Spirituality may be related to religion for certain individuals, but for others, such as an atheist, it may not be. Researchers have found that religious people have better general health, lower blood pressure, fewer psychological symptoms, and a longer survival rate. They also have greater life satisfaction, marital satisfaction, well-being, altruism, fellowship, coping skills, and self-esteem compared with non-religious people. These are important characteristics because they lead to decreased stress and anger and improved psychoneuroimmunologic pathways, which help fight disease within the body (Kloosterhouse and Ames 2005)

According to Boscaglia, Clarke, Jobling, and Quinn (2005) in their study of patients with gynaecologic cancer wanted to determine whether, after accounting for illness and demographic variables, spiritual involvement and beliefs and positive and negative spiritual coping could account for any of the variation in anxiety and depression among women within 1 year's diagnosis of gynecological cancer. One hundred patients from outpatient

Gynaecology clinics at two Melbourne-based hospitals completed a brief structured interview and self-report measures of anxiety, depression, spirituality, and spiritual coping. Their conclusion was that younger women with more advanced disease, who used more negative spiritual coping, had a greater tendency towards depression and that the use of negative spiritual coping was associated with greater anxiety scores. Although not statistically significant, patients with lower levels of generalized spirituality also tended to be more depressed. However, the site of disease and phase of treatment were not predictive of either anxiety or depression. The conclusion of the study was that spirituality and spiritual coping are important to women with cervical and other gynaecological cancers and that health professionals in the area should consider these issues.

Awadalla et al (2007) in their study assessed spirituality of Sudanese cervical and breast cancer survivors and their caregivers using the psychological domain of the WHOQOL measurement. The investigators had a sample of 181 respondents of whom 46 were cervical cancer survivors, 117 breast cancer and 18 ovarian cancer survivors 181 caregivers who comprised of 113 men and 68 women. The score of the patients on this domain was high indicating high spirituality and spiritual well being.

Mweemba et al (2008) in their study of people living with HIV; they concluded that the Zambian sample was 90% Christian and that Zambia was declared a Christian Nation in 1990. A large number of patients with illness turn to spirituality for support. The investigation found high scores on the SRPB tool for spirituality.

Similarly, Parham, a gynecologist and head of the adult centre of excellence cervical cancer screening program in Zambia. He looks at cancer as a complex disease in which the environment inside the body must be considered as all those things interplay, the genetics, food, stress, emotions, and spirituality. Parham realized that cancer is “a wound that never healed” and so a person’s spirit must be looked at as well. Poor spiritual well-being or a broken spirit can cause immune suppression and make one more susceptible to infection and cancer causing processes.

Nelems and Kalolo (2010) noted in their study to improve palliative care that enhancing spirituality in Cancer patients would make treatment more effective even if patients may not be cured.

2.5 Relationship among Quality of Life and Spirituality.

Health care research now shows an association between spirituality and health (Potter and Perry, 2006). There may be beneficial health outcomes when an individual is able to engage his or her beliefs in a higher power and sense a source of strength and support to their physical health. The literature below demonstrates the relationship.

Gioiella et al, 2010, in the study to determine the spirituality and quality of life of gynaecologic cancer patients found a correlation between quality of life and spirituality. They found their respondents to have high degrees of spirituality as well as better quality of life.

Safaei et al (2008) reported a correlation between spirituality and quality of life in their study on 95 study participants. The respondents who scored highly on the spirituality scale also had a better quality of life.

Other more recent studies in oncology literature have shown that spirituality, defined as the combination of existential and religious well-being is related to both emotional well-being and quality of life. Indeed, spirituality may be particularly important in coping with the potential life threat of the disease. In a study carried out on patients diagnosed with cancer, spirituality was associated with less distress and better quality of life regardless of perceived life threat.

Thaker and others 2006, in their study equally found their respondents to have a significant correlation between spirituality and quality of life. They used both the multivariate and bivariate statistics. The study consisted of sample of 142 breast cancer patients and 782 men and women with various types of cancers.

Quality of life is significantly related to spirituality as this was demonstrated in the study conducted by Mweemba et al, 2008, on people living with HIV in both rural and urban areas

of central and southern Zambia. The study results correlated with the study conducted in Georgia, USA which showed significant results. The researchers concluded that spirituality and quality of life are strongly associated.

2.7 Conclusion.

Although literature on this subject has been difficult to find particularly local literature, accessible literature has revealed variations in the quality of life of women with cervical cancer. In most of the literature, cervical cancer patients have been grouped as gynaecologic cancer patients owing to the fact that there are relatively small numbers of gynecologic cancer patients seen at any one cancer center due to dwindling cases in the developed countries. However, in this study respondents have been grouped by diagnosis due to the high numbers of cervical cancer cases in Zambia.

There has been conflicting findings in the quality of life of women with cervical cancer, however most studies have reported a better quality of life. However, in studies where Quality of life of Gynaecologic Cancer patients has been compared with that of women with breast cancer, it has been the opposite.

Since very little investigation has been carried out in Zambia on the subject despite having high cases of cervical cancer, the authors of this review suggest that more studies should be carried out and even be compared with women with other cancers such as breast cancer. The author also feels that the study findings will serve as baseline for future studies.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

According to Polit and Beck (2008) a research design is the overall plan for addressing a research question, including specifications for enhancing the study's integrity. The design provides answers to the research questions or the research hypothesis. It is a structural framework within which the study will be implemented. In this research, a non interventional cross sectional quantitative study design was used. A descriptive study design is one in which data are collected, recorded and analyzed to define or describe some group or phenomena (Wood and Haber, 2006). The study was descriptive because it describes the quality of life and spirituality of the respondents who were required to answer some questions concerning spirituality and quality of life then the responses were analyzed and used to explain the relationship between the two. A non interventional study is where the researcher describes and analyses researchable objects or situations but does not intervene (Polit and Beck, 2008). A non interventional study design was selected because there was no manipulation of study variables. The study was carried out in the natural setting with no manipulation and control of the population under study.

3.2 SETTING

According to Polit and Beck, 2006:510 "A research setting is a physical location and conditions in which data collection takes place in the study". This study was conducted at the Cancer Diseases Hospital situated within the grounds of the University Teaching Hospital (UTH) in Lusaka along nationalist road. The Cancer Diseases Hospital is the only cancer treatment facility in the country. The hospital was opened in 2006 by the third republican president Dr Levy Patrick Mwanawasa. The services offered include: - consultation and out-patient clinics, chemotherapy, radiotherapy, diagnostic, laboratory, pharmacy and palliative care services. The diagnostic services include MRI (Magnetic Resonance Imaging, computed tomography scan, mammography and laboratory

Resonance Imaging, computed tomography scan, mammography and laboratory services. The departments at the CDH include: - administration, therapeutic, medical physics and general maintenance, pharmacy, nursing and diagnostic departments. The cancer diseases hospital has no catchment population but rather caters for cancer patients nationwide. The Cancer Diseases Hospital was selected for this study because it offers cancer treatment services to patients with various cancers including cervical cancer. The hospital was easily accessible to the researcher at minimal cost making it easy to find the required number of participants and the results can be generalized since the sample was representative of a cross section of patients from different parts of the country.

3.3 STUDY POPULATION

A study population is a population with all the elements that meet certain criteria for the inclusion in a given universe (Burns and Grove, 2005). It can also be described as a group of individuals or units in a study. In this study the study population comprised women with cervical cancer being attended to at Cancer Diseases Hospital.

3.3.1 TARGET POPULATION

A target population refers to the entire population in which the researcher is interested and to which he/she would like to generalize the study results (Polit and Beck, 2006:510). In this study the target population comprised women aged above 18 years with cervical cancer receiving treatment and care at the Cancer Diseases Hospital.

3.3.2 ACCESSIBLE POPULATION

The accessible population is the portion of the target population to which the researcher has reasonable access (Burns and Groove, 2005). In this case, the accessible population included all the women with cervical cancer who were being attended at Cancer Diseases Hospital during the research data collection period.

3.4 SAMPLE SELECTION

A sample is a subset of a population, selected to participate in a study (Polit and Beck, 2006). Sample selection is the process of selecting a sub-set of a population in order to obtain information regarding phenomena in a way that represents the entire population (Basavantapa, 2007). Sampling involves selecting a group of people, events, behaviours or other elements with which to conduct a study. In this study, non probability sampling was used to select a sample. The sampling method used was convenient sampling as the researcher selected the respondents who were available during the data collection process of the study. This sampling method was selected upon checking the average clinic attendance which ranged between 20 and 25 per clinic day and approximately 56 per week. The respondents included 25 patients on chemotherapy and radiotherapy and 25 patients not yet on treatment in order to have a representative result.

3.4.1 Inclusion criteria: defined as the criteria that specify the characteristics of the population under study (Burns and Grove, 2005). The inclusion criteria included all women with cervical cancer from 18 years and above.

3.4.2 Exclusion criteria: The criteria that specifies characteristics that a population does not have (Polit and Beck, 2006). In this study the sample excluded all women with other types of cancer other than cervical cancer. Patients with severe side effects of chemotherapy and those who were critically ill were excluded from the study.

3.5 SAMPLE SIZE

According to Polit and Beck, 2006:509 “Sample size, is the total number of study participants participating in a study. In this study the sample size comprised of fifty (50) participants. The reason for selecting this sample size is due to the limited time of data collection as well as limited financial resources to carry out the study. The other reason is that the standard requirement for the Department of Nursing Sciences is 50 respondents.

3.6 OPERATIONAL DEFINITIONS

3.6.1 Operational definitions refers to the definition of a concept or variables in terms of the procedures by which it is to be measured (Polit and Beck, 2008)

3.6.1.1 Quality of life: Quality of life: WHO (1997) defines Quality of Life as individuals perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.

3.6.1.2 Physical Domain: concerned with an individuals' energy, fatigue, pain and discomfort, sleep and rest.

3.6.1.3 Psychological Domain: the domain concerned with an individuals' ability to accept his/her own appearance, positive and negative feelings, self esteem, thinking, learning, memory and concentration.

3.6.1.4 Social Domain: involves individuals' personal relationships, social support and sexual functioning.

3.6.1.5 Environmental Domain: the domain concerned with where we live and the condition of that area air water soil, determine how we live, what we eat, the disease agent to which we are exposed our state of health and our ability to adapt (Murray and Zentner, 2000 in Potter and Perry 2006).

3.6.2 Spirituality: search for meaning in life, a life force that leads individuals to seek connection within themselves and others, and also a connection to existence outside of the self (Megraviglia, 1999, in Scarinci 2009)

3.6.2.1 Life scheme: is the positive all-encompassing way of viewing the world and one's life in it (Frey, 2005)

3.6.2.2 Self efficacy: Bandura 1997 in Potter and Perry 2006 defined self efficacy as an individuals' perceived ability to successfully complete a task.

Data collection tools are instruments used to collect data needed to address research questions (Polit and Beck, 2008). In this study, data collection was done using the interview schedule. An interview schedule is the formal instrument that specifies the wording of all questions to be asked of respondents in structured self report studies (Polit and Beck, 2008). This tool was selected to cater for both the literate and the illiterate respondents. The tool enabled the researcher to capture as much information as possible from the respondents. It was also easy to administer and wherever the respondent was not clear, the interviewer could clarify. The tool comprised of three sections A, B and C. Section A comprised 12 questions which elicited demographic data. The demographic data included age, marital status, level of education, occupation monthly income number of children number of pregnancies and number of children. These data were necessary to help the researcher understand the characteristics of the subjects under study. Section B and C measured the main study variables which are Quality of Life and Spirituality respectively. Section B had 27 of which 26 questions on a five point linkert scale and one open ended question. Quality of life has four domains namely the physical, psychological, social and environmental domain. However, the questions are not arranged in order of the domains. Section C had 13 questions of which 12 questions on a five point linkert scale and one open ended question. The section has two domains which are life scheme and self efficacy. The first six questions are on the Self efficacy domain while the last six are on the life scheme domain

3.7.1 VALIDITY

Validity refers to a criterion referring to the degree to which inferences made in the study are accurate and well-founded; in measurement, the degree to which an instrument measures what it is intended to measure (Polit and Beck, 2008). Validity can either be internal or external in broad terms however, other types of validity include statistical conclusion and construct validity.

3.7.1.1 External validity: refers to the extent to which the results of the study can be generalized to settings or samples other than the one studies (Polit and Beck, 2008). A pilot study was conducted in Gynaecology wards and clinic of the University Teaching

statistical conclusion and construct validity.

3.7.1.1 External validity: refers to the extent to which the results of the study can be generalized to settings or samples other than the one studies (Polit and Beck, 2008). A pilot study was conducted in Gynaecology wards and clinic of the University Teaching Hospital and analyzed to ensure it was measuring what it was meant to measure. The instrument was also used in other studies in which it was found to be a valid tool (Daaleman and Fray, 2007, Scarinci et al 2008, Awadalla et al, 2007, Chase et al, 2010). The instrument was pretested to determine if desired information would be achieved this helped to eliminate unnecessary questions and amendments were done.

3.7.1.2 Internal validity: internal validity is the degree to which it can be inferred that the independent variable, rather than uncontrolled, extraneous factors, caused effects (Polit and Beck, 2008). Internal validity seeks to find out the effect of the dependent variable was due to the action of the independent variable. It also seeks to find out whether the effect was due to an extraneous variable or not.

In this study, internal validity of the data collection tool was maintained by ensuring that the same questions were asked to all the respondents.

3.7.2 RELIABILITY

Reliability is defined as the extent to which an instrument yields the same results on repeated measures (Basavantapa, 2006) Reliability refers to accuracy or inaccuracy rate in a measurement device. According to Polit and Beck (2006), a reliable measure is one which maximizes the true score and minimizes the error component of an obtained score. The three main attributes of reliability in quantitative research these are: - stability, internal consistency and equivalence. The stability of an instrument refers to instruments ability to produce the same results. While homogeneity of an instrument means that the tool is measuring same concepts or characteristics. Homogeneity also refers to the internal consistency of a measure. Equivalence refers to an approach to estimating reliability used primarily with observational instruments. It determines the consistency or equivalence of the instrument by different observers or raters (Polit and

consistency or equivalence of the instrument by different observers or raters (Polit and Beck, 2006). Reliability will be upheld by using the same instrument and the same procedure on all the respondents. The results from the pilot study will be used as a baseline data to test reliability.

3.8 DATA COLLECTION TECHNIQUE

Data collection technique is the actual method of how the data will be collected (Polit and Beck, 2006). The interviews were conducted at Cancer Diseases Hospital from 26th October, - 18th November, 2010. The researcher obtained permission from the head of department at the University Of Zambia Department Of Nursing Sciences. The researcher also sought further permission from the Executive Director Cancer Diseases Hospital for the main study and the senior Medical Superintendent University Teaching Hospital for the pilot study. The interviews using an interview schedule were conducted in a private room away from disturbances. The researcher greeted the respondents at the beginning of each interview and introduces herself by title and name. Then each respondent was invited to the interview room where she was offered a seat and then the researcher explained the purpose of the interview and the consent would be signed when the individual agrees to take part in the study. During the interview process, the researcher would read the questions on the interview schedule and whenever necessary, the interviewer would repeat the questions for clarity. The researcher would then fill in the responses without changing the respondents' opinion. At the end of the interview, the researcher thanked the respondent. The questionnaires and the consent form were stored in a lockable bag to maintain confidentiality. The consent forms were kept in bag separate from the questionnaires.

3.9 PILOT STUDY

A pilot study is a small scale version, or trial run, done in preparation for a major study (Polit and Beck, 2006). The primary objective of a pilot study is to test as many elements of the research proposal as possible, in order to correct any part that does not work well. In this study, the pilot study was conducted at University Teaching Hospital

obstetrics and gynaecology department ward Co2, C01 and B02 from the 18th to 19th October, 2010. The pilot study was conducted on 10% of the total sample, meaning that 5 women (10% of 50) were interviewed and the findings were used to test the validity and reliability of the data collection tool and to make necessary changes to the data collection tool.

3.10 ETHICAL AND CULTURAL CONSIDERATIONS

Ethical considerations involve an understanding of the ethical codes and guidelines for protecting the rights of the research subjects (Basavantapa, 2007). The researcher obtained a written consent from the study participants after giving them sufficient information about the study so that they can decide whether or not to participate in the study since participants have the right to self determination. The participants also have the right to withdraw from the study at any time and without penalty. The participants will be protected from physical, emotional, spiritual, economical social harm and discomfort by explaining the benefits and risks of participating in the study. The participants also have the right to justice which was upheld by maintaining confidentiality and assuring the respondents that the questionnaires would be kept nameless instead serial numbers were used. The researcher also sought permission from the head of department, Nursing sciences, Medical superintendent University Teaching Hospital, executive Director Cancer Diseases Hospital, the Nursing officer cancer diseases hospital to facilitate cooperation from the authorities. The researcher also sought permission from the respondents using the informed consent which they signed after getting full and clear information about the study.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 DATA ANALYSIS

Definition: data analysis is the systematic organization and synthesis of research data and in quantitative studies, the testing of hypothesis (Polit and Beck, 2008). The main purpose of data analysis is to derive meaning and interpretation from the research findings. In this study, both quantitative and qualitative Data were collected using an interview schedule. The interview schedules were counted and checked for completeness and entered on the computer software Statistical Package of Social Scientists (SPSS) version 17.0.

4.1.2. Quantitative Data

Quantitative data is defined by Polit and Beck (2008) as information collected in the course of a study that is quantified in numeric form. Quantitative data were entered on a data set spread sheet created on SPSS version 16.0. The data were checked for completeness and consistency and entered in numeric form. The data were coded and the negatively phrased questions were reversed. Then the data were categorized, and computed to arrive at the domain scores. The quantitative data in this study included the social demographic variables as well as the quality of life scales and spirituality scale. The data were checked for completeness and entered on an SPSS spread sheet. Descriptive statistics (mean, standard deviations) were conducted to describe the variables under study.

4.1.3 Qualitative Data.

According to Polit and Beck, 2008, qualitative data are information collected in narrative or non numeric form such as the transcript of an unstructured interview. Qualitative data were derived from open ended questions which included suggestions on how the Spirituality and Quality of Life of cervical cancer patients can be enhanced. Content analysis was used for qualitative data analysis. Content analysis is the process

Content analysis was used for qualitative data analysis. Content analysis is the process of organizing and integrating narrative, qualitative information according to emerging themes and concepts (Polit and Beck, 2008). The responses were written down and read as they were expressed by the respondents in order to derive meaning from the data. Similar opinions were grouped to lessen the number of opinions obtained from the respondents and were coded for easy analysis. Qualitative data were then categorized and quantified. Finally qualitative data were presented in frequency tables.

4.2 Presentation of Findings

Presentation of findings involves display of the results of the data collected (Polit and Beck, 2006). It is a systematic process by which study results are documented in a way that explains the conceptual model and makes clear any uncertainties by the reader (Wikipedia, 2004). The findings of the study are presented using frequency tables (15), graphs (11), and one pie chart and cross tabulations. Frequency tables give summary of the study results thus ensuring understanding of the findings by the reader. Pie charts are used for easy interpretation of findings by the reader. Cross tabulation of variables helps to explain the relationship between variables and therefore, helps the reader to draw meaningful inferences. Cross tabulations show the relationship between quality of life and spirituality and also the relationship between some of the socio demographic variables and quality of life and spirituality. The cross tabulations also show the relationships between the various domains of quality of life and demographic characteristics of the respondents. Findings in the study are presented according to study variables involved which were demographic, Quality of life and spirituality.

4.3.1 Social Demographic Characteristics.

In this section the variables chosen were age, marital status, religion, number of pregnancies, parity, education level, income level and form of employment, referral duration and where patients were referred from. These were chosen as they had an influence on both Quality of Life and Spirituality. The section has one table showing the social demographic characteristic of the respondents.

TABLE 4.1
SOCIAL DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE (N=50)

VARIABLE	FREQUENCY	PERCENTAGE
Age		
28-41	14	28
42-55	20	40
56 and above	16	32
Total	50	100
Marital Status		
Married	30	60
Divorced	3	6
Widowed	13	26
Separated	4	8
Total	50	100
Number of Pregnancies		
2-6	23	46
7-11	23	46
12-15	4	8
Total	50	100
Number of Children		
0-5	26	52
6-10	23	46
11-14	1	2
Total	50	100
Religion		
Christianity	49	98
Islam	1	2
Total	50	100
Denomination		
United church of Zambia	4	8
Roman catholic church	13	26
Seventh day Adventist	8	16
Pentecostal	7	14
Jehovah's witness	5	10
Baptist	4	8
New Apostolic church	4	8
Others	5	10
Total	50	100

Table continues on next page

Table 4.1 continues

Education level		
None	3	6
Primary	30	60
Secondary	15	30
College	2	4
Total	50	100
Employment		
Not employed	17	34
Employed	5	10
Self employed	12	24
Farmers	16	32
Total	50	100
Monthly Income		
Below 150,000	19	38
K 150,000 – 250,000	8	16
251,000 – 500,000	4	8
K501,000 – 999,000	12	24
K1,000,000 and above	7	14
Total	50	100
Where respondents were referred from		
Central province	8	16
Copperbelt province	8	16
Eastern province	6	12
Luapula province	3	6
Lusaka province	17	34
Northern province	2	4
Northwestern province	1	2
Southern province	5	10
Total	50	100
Referral duration		
1-12 weeks	33	66
13 – 24 weeks	16	32
25 – 36 weeks	1	2
Total	50	100

Age ranged from 28 to 72 years with a mean of 49.80 (SD 10.97). More than half of the respondents were aged between 42 and 55 years old. Two thirds, 60% were married. Majority of the respondents 46(92%) had 2-6 and 7 -11 pregnancies while about half of the respondents 26(52%) had 0-5 children. Almost all the respondents 98% were

the respondents 26(52%) had 0-5 children. Almost all the respondents 98% were Christians belonging to more than ten religious denominations however, the Roman Catholic Church represented more than a quarter (26%). Two thirds 60% of the respondents attained primary education while only one sixth had attained secondary education and only 4% tertiary education. Three quarters 38(76%) fell in the low income group with a monthly income below the stated minimum wage of K268, 000 per month. Slightly more than one third of the respondents were referred from Lusaka province. All the provinces were represented in the sample except Western province. Half of the cervical cancer patients were referred to the Cancer Diseases Hospital within 1-12 weeks while it took more than thirteen weeks for a third of the respondents.

4.3.2 QUALITY OF LIFE

This section presents Quality of Life of the respondents. The first table shows descriptive of the domains of Quality of Life (physical, psychological, social and environmental) and overall Quality of life and general health perceptions. This section presents findings on items of each of the domains in frequency tables while the categories of each domain are presented in graphs. Cross tabulations between Quality of Life domains are presented

Table 4.2
Distribution of Quality of Life Variables (N=50)

variable	minimum	maximu m	Range	mean	Standard deviation
Physical domain	7	20	7-20	13.81	3.557
Psychological domain	5	20	5 – 20	16.01	2.350
Social domain	7	20	7 – 20	15.09	2.26
Environment domain	12	20	12 – 20	15.03	2.016
Quality of life	55	120	55 – 120	89.56	12.034
General Health perceptions	3	10	3 – 10	7.50	1.832

Quality of life ranged from 55 – 120 (mean =89.56 and SD 12.034), Physical domain ranged from 7-20 (Mean =13.81, SD 3.557), Psychological domain ranged from 5 – 20

(mean=16.01 SD 2.350), Social domain range 7-20 (mean = 15.09 SD 2.26), environmental domain ranged from 12-20 (mean=15.03 SD 2,016) and general perceptions range from 3 – 10 (mean=7.50 SD 1.832).

4.3.2.1 Physical Domain

Responses to seven questions on the physical domain are presented in one table. The domain findings were then categorized and the categories presented in one graph. Cross tabulations between physical domain and demographics were not done due to lack of variability in physical domain. Physical domain had seven questions. There is one table on physical domain responses and one figure on the level of physical domain

Table 4.3

Physical Domain

(N=50)

Questions	Frequency	Percent
To what extent do you feel physical pain prevents you from doing what you need to do		
Not at all	18	36
A little	8	16
A moderate amount	8	16
Very much	8	16
An extreme amount	8	16
Total	50	100
How much do you need any medical treatment to function in your daily life		
Not at all	18	36
A little	7	14
A moderate amount	10	20
Very much	8	16
An extreme amount	7	14
Total	50	100
Do you have enough money for everyday life?		
Not at all	3	6
A little moderately	5	10
Moderately	18	36
Mostly	17	34
Completely	7	14
Total	50	100

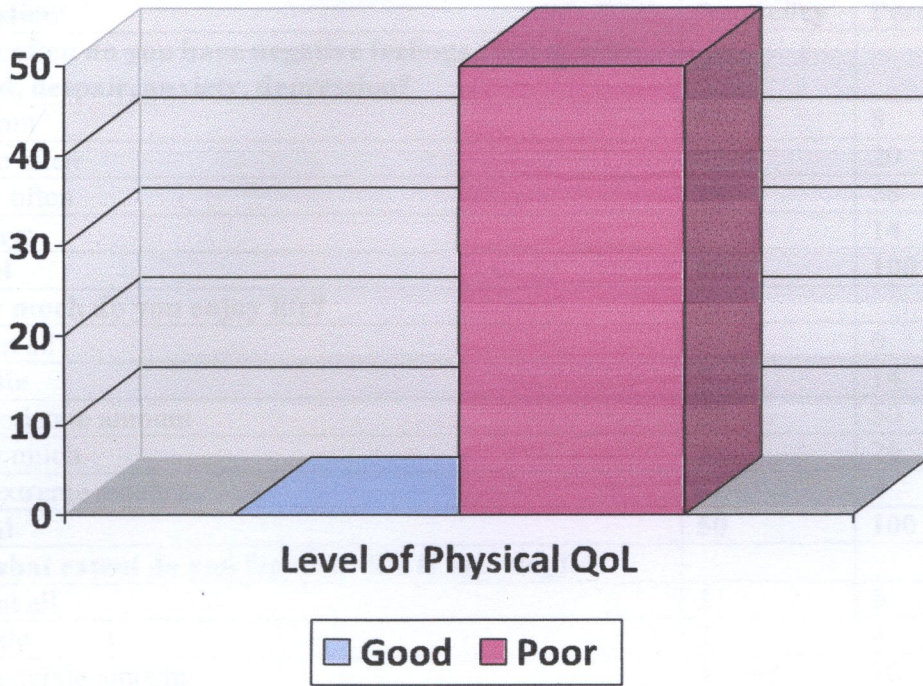
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Table 4.3 continues

How well are you able to get around?		
Very poor	1	2
Neither poor nor good	8	16
Good	17	34
Very good	24	48
Total	50	100
How satisfied are you with your sleep?		
Very dissatisfied	1	2
Dissatisfied	8	16
Neither satisfied nor dissatisfied	9	18
Satisfied	12	24
Very satisfied	20	40
Total	50	100
How satisfied are you with your ability to perform daily living activities?		
Dissatisfied	4	8
Neither satisfied nor dissatisfied	17	34
Satisfied	14	28
Very satisfied	15	30
Total	50	100
How satisfied are you with your capacity for work?		
Dissatisfied	7	14
Neither satisfied nor dissatisfied	18	38
Satisfied	9	18
Very satisfied	16	32
Total	50	100

Nearly one third (32%) of the respondents felt physical pain prevented them from doing what they needed to do from very much to an extreme amount while more than one third 36% were not affected by pain. Slightly less than one third needed medications from very much to an extreme amount while one third didn't need medication. Another 14% were dissatisfied with their capacity to work while close to a third were very satisfied.

Figure 4.1: Level of Physical Quality of Life N=50



All the respondents had poor physical quality of life as the graph shows 100% poor physical quality of life.

4.3.2.2. PSYCHOLOGICAL DOMAIN

Responses to six questions on the psychological domain are presented in one table. The domains were then categorized, and the categories are presented in one graph. Cross tabulations between psychological domain and demographics were not done due to lack of variability in the psychological domain.

Table 4.4

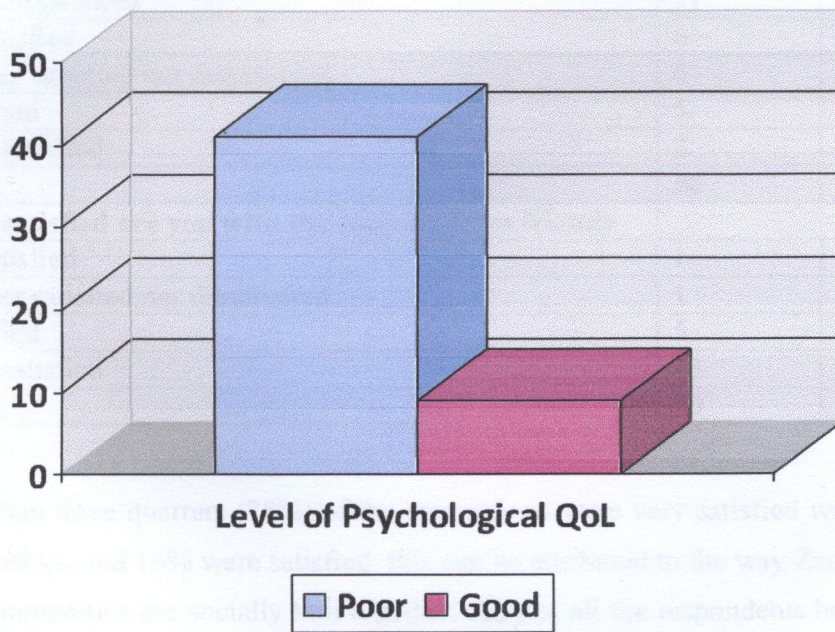
Psychological domain

(N=50)

Question	frequency	Percent
How often do you have negative feelings such as blue mood, despair, anxiety, depression?		
Seldom	4	8
Quite often	10	20
Very often	29	58
Always	7	14
Total	50	100
How much do you enjoy life?		
Not at all	3	6
A little	7	14
A Moderate amount	25	50
Very much	13	26
An extreme amount	2	4
Total	50	100
To what extent do you feel your life is meaningful?		
Not at all	3	6
A little	2	4
A moderate amount	5	10
Very much	19	38
An extreme amount	21	42
Total	50	100
How well are you able to concentrate?		
Not at all	2	4
A moderate amount	3	6
Very much	5	10
Extremely	40	80
Total	50	100
Are you able to accept your bodily appearance?		
Not at all	1	2
A little moderately	1	2
Moderately	2	4
Mostly	6	12
Completely	40	80
Total	50	100
How satisfied are you with yourself?		
Very dissatisfied	1	2
Dissatisfied	1	2
Neither satisfied nor dissatisfied	16	32
Satisfied	20	40
Very satisfied	12	24
Total	50	100

More than half (58%) of the respondents often had negative thoughts while only 8% seldom had negative thoughts. Half of the respondents moderately enjoyed life while 6% could not enjoy at all. More than one third (38%) of the respondents found life to be very meaningful while 42% found it to be extremely meaningful which gives a cumulative frequency of 80%. Majority (80%) of the respondents were able to concentrate and accept their bodily appearance. About 40% were satisfied with themselves.

Figure 4. 2: Level of Psychological Quality of Life of respondents



Majority of the respondents (82%) scored poorly on the psychological domain due to negative thoughts where most of them were anxious about total cure. Only 18% had good quality of life.

4.3.2.3 Social Domain

Responses to three questions on the social domain are presented in one table. The domain findings were then categorized, and the categories are presented in one graph. Cross tabulations between social domain and demographics were not done due to lack of

variability in the social domain.

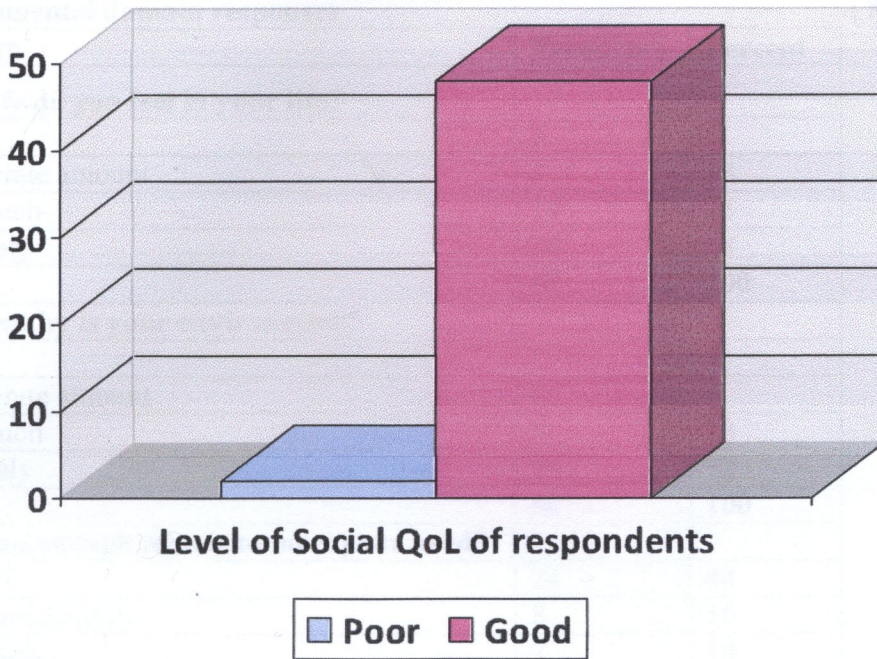
Table 4.5

Social domain Responses (N=50)

Question	frequency	Percent
How satisfied are you with your personal relationships		
Dissatisfied	1	2
Neither dissatisfied nor satisfied	2	4
Satisfied	8	16
Very satisfied	39	78
Total	50	100
How satisfied are you with your sex life?		
Very dissatisfied	31	62
Dissatisfied	6	12
Neither satisfied nor dissatisfied	6	12
Satisfied	5	10
Very satisfied	2	4
Total	50	100
How satisfied are you with the support from friends		
Dissatisfied	1	2
Neither satisfied nor dissatisfied	1	2
Satisfied	5	10
Very satisfied	43	86
Total	50	100

More than three quarters (78%) of the respondents were very satisfied with their social relationships and 16% were satisfied, this can be attributed to the way *Zambian* families and communities are socially knit together. Almost all the respondents had good social support from friends. Close to two thirds (62%) of the respondents were dissatisfied with their sexual functioning. This attributed to the effects of the cancer and the treatment.

Figure 4.3 Level of Social Quality of Life



Almost all the respondents 96% had good quality of life on the social domain which shows high social support among the Zambians.

4.3.2.4 Environmental Domain

Responses to seven questions on the environmental domain are presented in one table. The domain findings were categorized, and the categories are presented in one graph. Cross tabulations between environmental domain and demographics were not done due to lack of variability in environmental domain.

Table 4.6:

Environmental domain responses

(N=50)

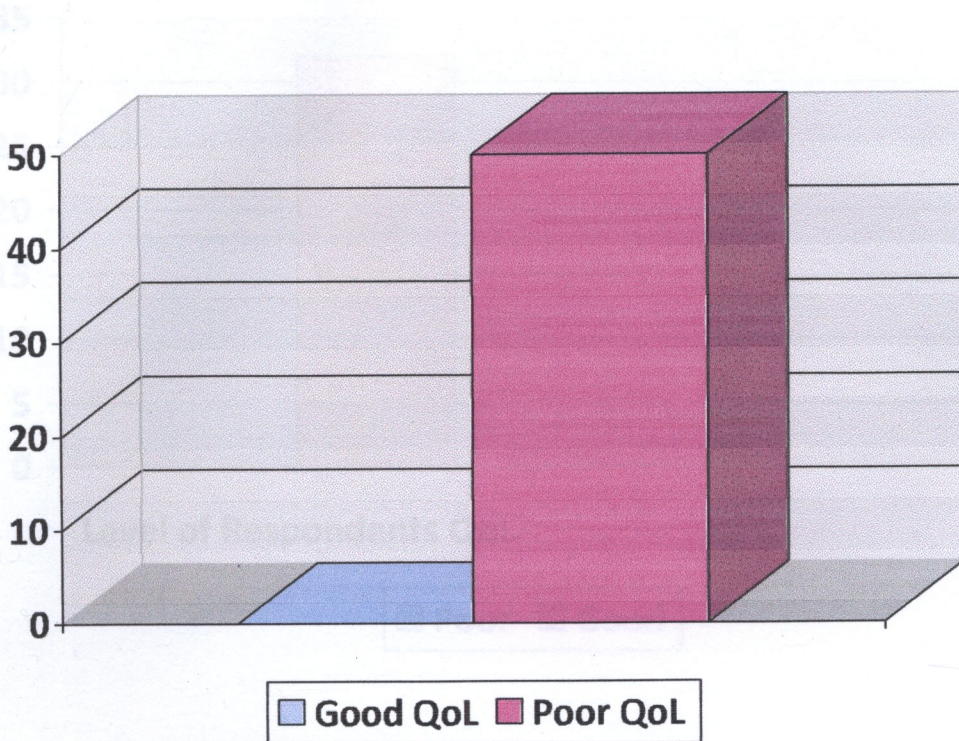
Question	Frequency	Percent
How safe do you feel in your life?		
A little	3	6
A moderate amount	9	18
Very much	14	28
Extremely	24	48
Total	50	100
How healthy is your environment?		
A little	1	2
A moderate amount	4	8
Very much	9	18
Extremely	36	72
Total	50	100
Have you enough money to meet your need?		
Not at all	24	48
A little moderately	8	16
Moderately	7	14
Mostly	6	12
Completely	5	10
Total	50	100
How available to you is the information that you need in your day-to-day life?		
Not at all	2	4
A little moderately	18	36
Moderately	21	42
Mostly	6	12
Completely	3	6
Total	50	100
To what extent do have the opportunity for leisure activities?		
Not at all	7	14
A little moderately	19	38
Moderately	12	24
Mostly	6	12
Completely	6	12
Total	50	100

Table 4.6 continues

How satisfied are you with the conditions of your living place?	frequency	percent
Dissatisfied	1	2
Neither satisfied nor dissatisfied	3	6
Satisfied	4	8
Very satisfied	42	84
Total	50	100
How satisfied are you with your access to health services?		
Neither satisfied nor dissatisfied	8	16
Satisfied	10	20
Very satisfied	32	64
Total	50	100
How satisfied are you with your transport?		
Very dissatisfied	1	2
Dissatisfied	1	2
Neither satisfied nor dissatisfied	8	16
Satisfied	9	18
Very satisfied	31	62
Total	50	100

Almost half (48%) of the respondents felt safe and almost three quarters (72%) were in a health environment. Slightly less than half (48%) had inadequate money to meet their needs. Concerning leisure, 14% had no opportunity for leisure activities. Almost all the respondents were satisfied with conditions of their living place. About information, slightly above one third (36%) of the respondents had a little access to information while only 6% had access to information completely. Close to two thirds were satisfied with their access to health and transport.

Figure 4. 4: Level of Environmental Quality of Life of respondents (N=50)



All the respondents had poor environmental quality of life most likely due to inadequate information, finances and effects of cancer.

4.3.3 Overall Quality of Life

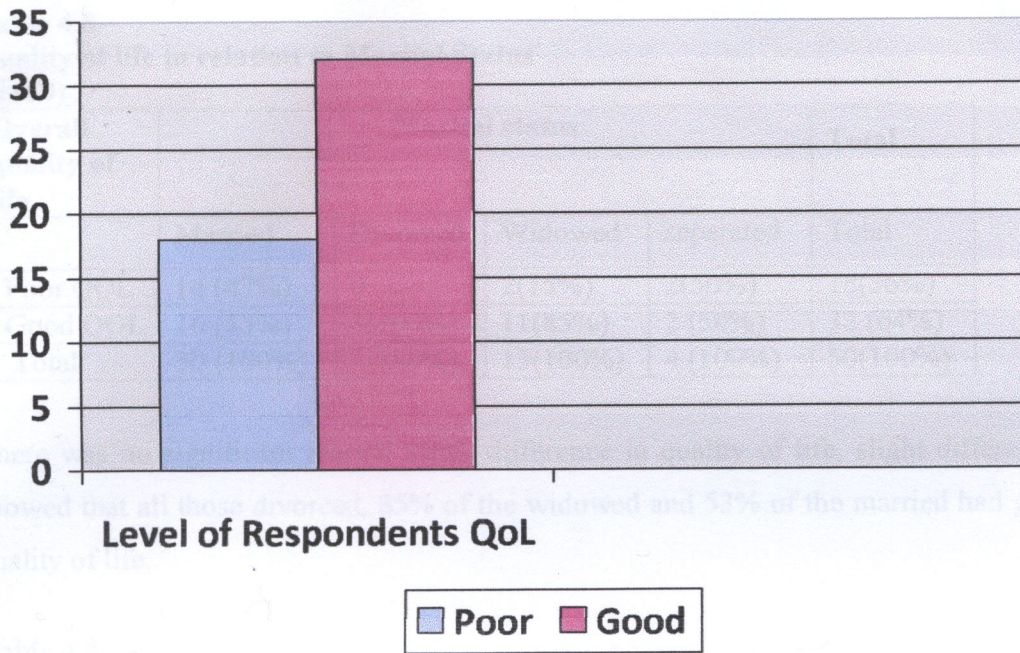
Responses to all questions on the four domains of Quality of Life were summed up and categorized and the categories are presented in one graph below. Cross tabulations between overall Quality of Life and demographics are presented.

Overall quality of life	Age	Gender	Total
Poor	14(28%)	14(28%)	14(28%)
Good	14(28%)	14(28%)	14(28%)
Total	14(100%)	28(100%)	14(100%)

p-value=0.05

There was a significant age difference (Chi-square= P=0.05), majority of the respondents (85%) aged 36 and above had good quality of life while less than half of

Figure 4.5: Overall Quality Of Life



The overall quality of life scores indicate that almost two thirds of the respondents had good quality of life on the overall quality of life scale.

Table 4.7:

Quality of life in relation to Age

(N=50)

Overall quality of life	AGE			Total
	28-41	42-55	56 and above	
Poor	6(43%)	10(50%)	2(12%)	18(36%)
Good	8(57%)	10(50%)	14(88%)	32(64%)
Total	14(100%)	20(100%)	16(100%)	50(100%)
				p-value0.05

There was a significant age difference (Chi-square= P=0.05). Majority of the respondents (88%) aged 56 and above had good quality of life while less than half 6

(43%) of the women aged 28-41 had poor quality of life.

Table 4.8
Quality of life in relation to Marital Status
(N=50)

Overall quality of life	Marital status				Total
	Married	Divorced	Widowed	separated	Total
Poor QOL	14 (47%)	0	2(15%)	2(50%)	18(36%)
Good QOL	16 (53%)	3(100%)	11(85%)	2 (50%)	32 (64%)
Total	30 (100%)	3(100%)	13(100%)	4 (100%)	50(100%)

There was no significant marital status difference in quality of life, slight differences showed that all those divorced, 85% of the widowed and 53% of the married had good quality of life.

Table 4.9.
Quality of life in relation to number of pregnancies
(N=50)

Overall quality of life	Number of pregnancies			Total
	2 – 6	7 – 11	12 - 15	
Poor QOL	10 (43%)	7(30%)	1(25%)	18 (36%)
Good QOL	13 (57%)	16 (70%)	3 (75%)	32 (64%)
Total	23 (100%)	23 (100%)	4 (100%)	50 (100%)
p-value				0.6

There was no significant difference in quality of life and number of pregnancies, slight differences showed that about three quarters of the respondents with 12-15 pregnancies (75%), 7-11 pregnancies (70%), and about two thirds 13(57%) of women with 2-6 pregnancies had good quality of life.

Table 4.10.
Quality of Life in relation to Number of Children (N=50)

Overall Quality of Life	Number of children			Total
	0 – 5	6 – 10	11 -14	
Poor QOL	10(38%)	8(35%)	0	18(36%)
Good QOL	16(62%)	15(65%)	1(100%)	32(64%)
Total	26(100%)	23(100%)	1(100%)	50(100%)
				P-value 0.7

Almost two thirds of women with 6-10 children had good quality of life while 10(38%) had poor quality of life.

Table 4.11.
Quality of life in relation to Referral duration
N=50

Overall quality of life	Referral duration category			Total
	1-12	13-24	25-36	Total
Poor QOL	13(39%)	5(31%)	0 (0%)	18(66%)
Good QOL	20(61%)	11(69%)	1(100%)	32(64%)
Total	33(100%)	16(100%)	1(100%)	50(100%) P-0.6

There was no significant difference in quality of life and referral duration, slight differences showed that about all those women referred after 25 weeks, over two thirds (61%) of the women referred within 1-12 weeks and those referred between 13-24 weeks (69%) had good quality of life .

Table 4. 12
Quality of life in relation to level of Education (N=50)

Overall quality of life	Level of education				Total
	None	primary	secondary	College	
Poor QOL	1(25%)	12(30%)	5(33%)	0	18(36%)
Good QOL	3(75%)	28(70%)	10(66%)	2 (100%)	32(64%)
Total	4(100%)	40 (100%)	15 (100%)	2 (100%)	50(100%)

There was no significant education difference in quality of life, slight differences showed that about three quarters of those with no formal education and all those with college education had good quality of life. (Chi-square=P value 0.7.)

Table 4.13**Quality of life in relation to Monthly income.**

N=50

Overall quality of life	Monthly income					Total
	Below 150,000	150,000-250,000	251,000 - 500,000	501,000 – 999,000	Above 1,000,000	
Poor QOL	8(42%)	2(25%)	2(50%)	4(33%)	2(29%)	18(36%)
Good QOL	11(58%)	6(75%)	2(50%)	8(66%)	5(71%)	32(64%)
Total	19(100%)	8(100%)	4(100%)	12(100%)	7(100%)	50(100%)

There was no significant difference in quality of life in relation to monthly income, slight differences showed that about over half of the respondents with an income below K150,000.00 (58%) and over two thirds those with an income above K1,000,000.00 (66%) had good quality of life

Table 4.14.**Quality of life in relation to Form of Employment**

(N=50)

Overall Quality	Form of employment				Total
	Not employed	Employed	Self employed	Farming	
Poor QoL	7(41%)	1(25%)	6 (50%)	4 (25%)	18(36%)
Good QoL	10(59%)	4(75%)	6 (50%)	12 (75%)	32(64%)
Total	17(100%)	5(100%)	12(100%)	16(100%)	50(100%)

There was no significant difference in quality of life and form of employment (chi square = P value 0.17), slight differences showed that three quarters of the formally employed respondents and the farmers had good quality of life

4.3.5 RELATIONSHIP AMONG THE QUALITY OF LIFE DOMAINS

Two cross tabulations between overall Quality of Life and two domains of social and psychological are presented in the next two tables. However, cross tabulations between overall Quality of Life and other two domains (Psychological and environmental) were not done due to lack of variability.

Table 4.15
Social domain in relation to overall Quality of Life. (N=50)

Overall Quality of Life	Social Domain			P value
	Poor	Good	Total	
Poor QOL	1(50%)	17(35%)	18(36)	
Good QOL	1(50%)	31(65%)	32(64)	
Total	2(100%)	48(100%)	50(100)	0.7

There was a non significant quality of life difference among different social domain categories (Chi square =, P = 0.7). More than two thirds of the respondents with good quality of life (64%) also had good social domain while half of the respondents with poor quality of life also had poor social domain quality of life.

Table 4.16
Overall Quality of Life in relation to Psychological domain (N=50)

Overall Quality of Life	Psychological Quality of Life		Total
	Poor	Good	
Poor	18(44%)	0	18(36%)
Good	23(56%)	9(100%)	32(64%)
Total	41(100%)	9(100%)	50(100%) P- 0.01

There was a significant quality of life difference among different psychological domain categories (Chi square = P = .01). All the respondents with good quality of life also had good psychological domain while half of the respondents with poor quality of life also had poor psychological domain.

4.3.6 General Health Perceptions.

The general health perceptions; consists of two questions. These questions deal with an individual's overall perception of quality of life and overall perception of their health. The table below shows responses to questions on general health perceptions and a graph on the category.

Table 4.17**Responses to general health perceptions (N=50)**

Questions	frequency	Percent
How do you rate your quality of life		
Very poor	2	4
Poor	3	6
Neither poor nor good	11	22
Good	23	46
Very good	11	22
Total	50	100

Almost half (46%) of the respondents perceived themselves to have good Quality of Life while 6 and 4% perceived themselves to have poor or very poor quality of life.

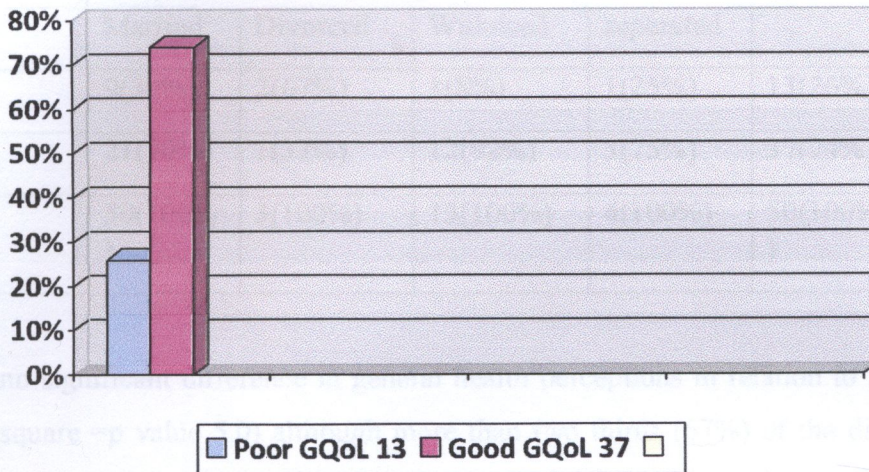
Table 4.18**Responses to General Health Perceptions N=50**

Questions	frequency	Percent
How satisfied are you with your health		
Very dissatisfied	1	2
Dissatisfied	5	10
Neither satisfied nor dissatisfied	9	18
Satisfied	26	52
Very satisfied	9	18
Total	50	100

General health perception ranged from 3-10 with a mean score of 7.50, SD 1.832. Slightly less than half of the respondents (46%) had good general health perceptions 4%-had very poor general health perceptions. More than half of the

respondents were satisfied with their health, while 10% were dissatisfied with their health.

Figure 4.6 level of General Health Perceptions



Almost three Quarters (74%) of the respondents stated that their general health perceptions were good. This almost correlates with the finding on the overall quality of life where almost two thirds of the respondents had good quality of life.

Table 4.19.

General Health Perception in relation to Age. (N=50)

General health perception	Age			Total
	28-41	42-55	56 and above	
Poor	7(50%)	5(25%)	1(6%)	13(26%)
Good	7(50%)	15(75%)	15(94%)	37(74%)
Total	14(100%)	20(100%)	16(100%)	50(100%)

Three quarters of the respondents (75%) aged 42-55 and majority (94%) of those aged 56 and above had good general health perception.

Table 4.20**General Health Perception in relation to Marital Status. (N=50)**

General health perception	Marital status				Total
	Married	Divorced	Widowed	separated	
Poor	9(30%)	2(67%)	1(8%)	1(25%)	13(26%)
Good	21(70%)	1(33%)	12(92%)	3(75%)	37(74%)
Total	30(100%))	3(100%)	13(100%)	4(100%)	50(100%))

There was no significant difference in general health perceptions in relation to marital status (chi square =p value 5.0) although more than two thirds (67%) of the divorced respondents perceived their general health poor. Majority 70% (21) of the married had good general health perception.

Table 4. 21.**General Health Perception in relation to Number of Pregnancies. (N=50)**

General Health perception	Number of Pregnancies			Total
	2-6	7-11	12-15	
Good	13(57%)	20(87%)	4(100%)	37(74%)
Poor	10(43%)	3(13%)	0	13(26%)
Total	23(100%)	23(100%)	4(100%)	50(100%)

There was no significant difference in general health perception and number of pregnancies although almost half (43%) of those with 2-6 pregnancies had poor health perception.

Table 4.22**General health perceptions in relation to Number of children (N=50)**

General health perception	Number of children			Total
	0-5	6-10	11-14	
Good	17(65%)	19(83%)	1(100%)	37(74%)
Poor	9(35%)	4(17%)	0	13(26%)
Total	26(100%)	23(100%)	1(100%)	50(100%)

Majority of the respondents with 6-10 and the respondent with 11-14 children had good general perception of Health.

Table 4.23**General Health in relation to Level of Education. (N=50)**

General health perception	Level of education				Total
	None	Primary	Secondary	College	
Good	3(100%)	22(73%)	10(67%)	2(100%)	37(74%)
Poor	0	8(27%)	5(33%)	0	13(26%)
Total	3(100%)	30(100%)	15(100%)	2(100%)	50(100%)

Two thirds (67%) of the respondents with secondary education, all those with college education had good general health perception.

Table 4.24**General Health Perceptions in relation to form of Employment N=50**

General health perception	Form of employment				Total
	none	Employed	Self employed	farmer	
Good	11(65%)	4(80%)	8(67%)	14(87%)	37(74%)
Poor	6(35%)	1(20%)	4(33%)	2(13%)	13(26%)
Total	17(100%)	5(100%)	12(100%)	16(100%)	50(100%)

Majority (87%) and (80%) of the respondents who were employed and self employed had good perception of health and quality of life. More than one third of the respondents none employed had poor perception of health and quality of life.

Table 4.25**General health in relation to religion (N=50)**

General Health perception	Religion		Total
	Christian	Muslim	
Good	37(76%)	0	37(74%)
Poor	12(24%)	1(100%)	13(26%)
Total	49(100%)	1(100%)	50(100%)

There was a significant difference in general health perception and religion among Christians with more than three quarters having good general health perception. The Muslim had poor general health perception.

Table 4.26**General health perception in relation to referral duration (N=50)**

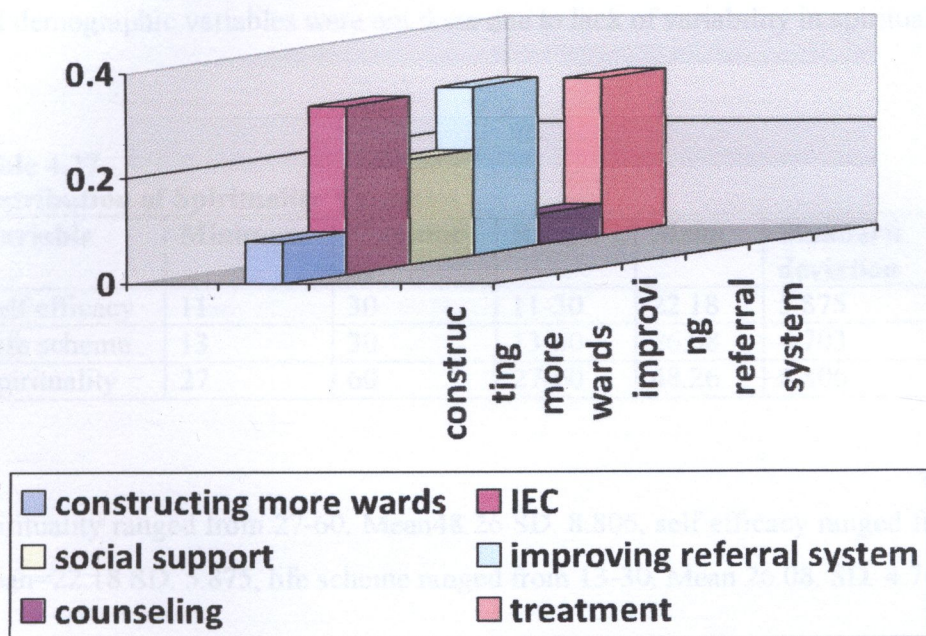
General health perception	Referral duration			Total
	1-12	13-24	25-36	
Good	25(76%)	11(69%)	1(100%)	37(74%)
Poor	8(24%)	5(31%)	0	13(26%)
Total	33(100%)	16(100%)	1(100%)	50(100%)

More than three quarters of women referred within 1-12 weeks had good perception of general health and quality of life. Almost one third (31%) had poor general health perception.

4.3.7 Suggestions.

Below is a table showing categories of some suggestions from the respondents on how their Quality of Life can be enhanced. The responses were from 50 respondents however, each respondent gave more than one suggestion.

Figure4. 7: Bar chart showing suggestions of respondents



4.3.8 Self Efficacy

Almost one third (32%) of the respondents suggested that their quality of life can improve through information education and communication. They also suggested that their quality of life could also improve if referral systems are improved so that patients can be diagnosed early and reach cancer hospital in the shortest possible time. More than a quarter (30%) suggested through treatment. About 15% recommended decentralizing the testing services as they have to wait for a long time for biopsy results. A small percentage (8%) suggested that more wards should be belt for cancer patients.

4.3.3: SPIRITUALITY

This section represents Spirituality. The first table shows descriptive of two domains of spirituality and overall Spirituality. This is followed by two tables on the responses on the spirituality index of well being scale with twelve questions and the first six are on self efficacy and the last six are on life scheme. The frequency tables represent responses and the graphs represent the categories. Cross tabulations between spirituality and demographic variables were not done due to lack of variability in spirituality.

Table 4.27.
Distribution of Spirituality Variables

Variable	Minimum	Maximum	Range	Mean	Standard deviation
Self efficacy	11	30	11-30	22.18	5.875
Life scheme	13	30	13-30	26.08	4.703
Spirituality	27	60	27-60	48.26	8.806

Spirituality ranged from 27-60. Mean 48.26 SD. 8.806, self efficacy ranged from 11-30. Mean=22.18 SD. 5.875, life scheme ranged from 13-30. Mean 26.08. SD. 4.703.

4.3.3.1: Self Efficacy

Responses to six questions of self efficacy domain are presented in one table. The domain findings were then categorized, and the categories are presented in one graph. Cross tabulations between self efficacy domain and demographics were not done due to lack of variability in the self efficacy domain.

Table 4.28

Responses to self efficacy

(N=50)

Questions	Frequency	percent
There is not much I can do to help myself		
Strongly agree	5	10
Agree	11	22
Neither agree nor disagree	6	12
Disagree	7	14
Strongly disagree	21	42
Total	50	100
Often there is no way I can complete what I have started		
Strongly agree	1	2
Agree	7	14
Neither agree nor disagree	10	20
Disagree	9	18
Strongly disagree	23	46
Total	50	100
I can't begin to understand my problem		
Strongly agree	4	8
Agree	7	14
Neither agree nor disagree	9	18
Disagree	13	26
Strongly disagree	17	34
Total	50	100
I am overwhelmed when have personal difficulties and problems		
Strongly agree	2	4
Agree	12	24
Neither agree nor disagree	12	24
Disagree	9	18
Strongly disagree	15	30
Total	50	100
I don't know how to begin to solve my problems		
Strongly agree	2	4
Agree	14	28
Neither agree nor disagree	4	8
Disagree	7	14
Strongly disagree	23	46
Total	50	100

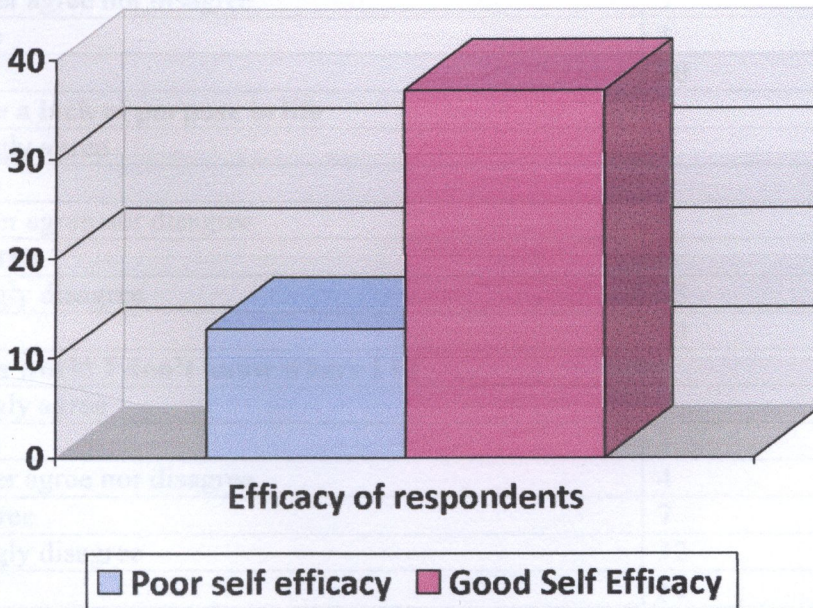
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Table 4.28 continues

There is not much I can do to solve to solve my problems		
Strongly agree	3	6
Agree	10	20
Neither agree nor disagree	3	6
Disagree	7	14
Strongly disagree	27	54
Total	50	100

Most of the respondents, above one third (42%) felt there was something they could do to solve their problems while 22% felt the opposite. Almost half (46%) of the respondents had good self efficacy as they felt they knew were to begin to solve their problems. Almost a quarter felt they were overwhelmed when they face personal difficulties.

Figure 4.8 respondents self Efficacy



More than a quarter of the respondents had poor self efficacy. However, almost three quarters (74%) of the respondents had good self efficacy.

4.3.3.2: Life scheme Domain of spirituality

Responses to six questions on life scheme domain are presented in one table. The domain findings were then categorized, and the categories are presented in one graph. Cross tabulations between life scheme domain and demographics were not done due to lack of variability in the life scheme domain.

Table 4.29
Life Scheme responses. N=50

Questions	Frequency	Percent
I haven't yet found my life's purpose		
Strongly agree	1	2
Agree	8	16
Neither agree nor disagree	4	8
Disagree	9	18
Strongly disagree	28	56
Total	50	100
I don't know who I am, where I came from or where I am going		
Strongly Disagree	39	78
Disagree	5	10
Neither agree nor disagree	3	6
Agree	3	6
Total	50	100
I have a lack of purpose in life		
Strongly agree	1	2
Agree	3	6
Neither agree nor disagree	4	8
Disagree	9	18
Strongly disagree	33	66
Total	50	100
In this world I don't know where I fit		
Strongly agree		
Agree	7	14
Neither agree nor disagree	4	8
Disagree	7	14
Strongly disagree	32	64
Total	50	100

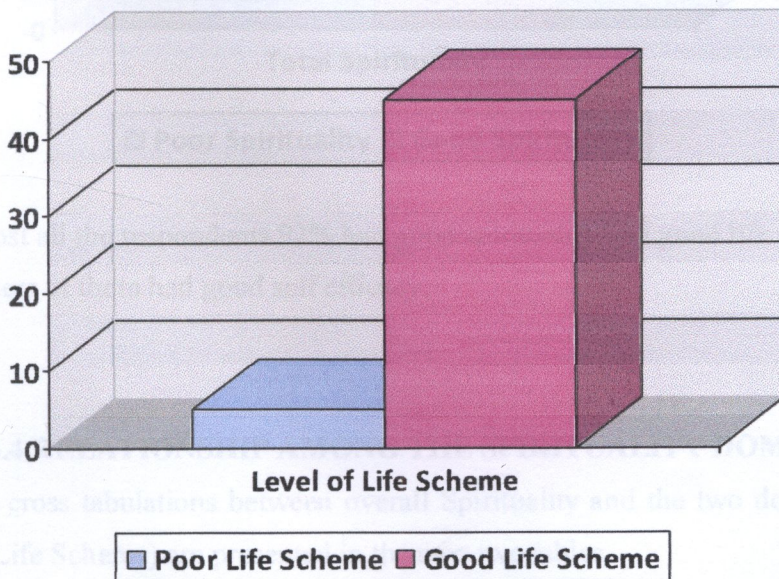
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Table 4.29 continues

I am far from understanding the meaning of life		
Strongly agree	1	2
Agree	8	16
Neither agree nor disagree	2	4
Disagree	6	12
Strongly disagree	33	66
Total	50	100
There is a great void in m life		
Strongly agree	1	2
Agree	4	8
Neither agree nor disagree	4	8
Disagree	3	6
Strongly disagree	38	76
Total	50	100

More than half (56%) of the respondents have found their life's purpose while 2% have no purpose. Majority (78%) of the respondents know themselves, where they come from and where they are going. Two thirds of the respondents (66%) have found their life's purpose while a cumulative of 8% had no life purpose. Most of the respondents have found meaning in life and more than three quarters of the respondents (76%) had no void in their lives.

Figure 4.9: Respondents level of Life Scheme

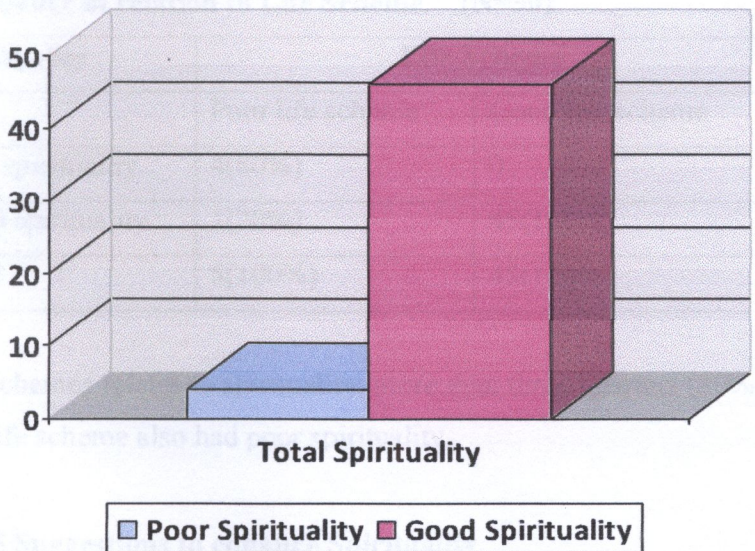


Majority of the respondents (90%) had good life scheme, this corresponds with the overall spirituality. only 10% of the respondents had poor life scheme.

4.3.3.3 OVERALL SPIRITUALITY

Responses to all questions on the two domains of spirituality were summed up and categorized and the categories are presented in one graph below. Cross tabulations between overall Spirituality and demographics are presented.

Figure 4. 10: Respondents level of Spirituality



Almost all the respondents 92% had good spirituality and good life scheme, three quarters of them had good self efficacy.

4.3.3.4 RELATIONSHIP AMONG THE SPIRITUALITY DOMAINS

Two cross tabulations between overall Spirituality and the two domains (self efficacy and Life Scheme) are presented in the next two tables.

Table 4.30
Spirituality in relation to Self efficacy (N=50)

Spirituality	Self efficacy		Total
	Poor self efficacy	Good self efficacy	
Poor spirituality	4(31%)	0	4(8%)
Good spirituality	9(69%)	37(100%)	46(92%)
Total	13(100%)	37(100%)	50(100%)

More than two thirds (69%) of the respondents with poor self efficacy had good spirituality. all the respondents with good self efficacy also had good Spirituality.

Table 4.31.
Spirituality in relation to Life Scheme. (N=50)

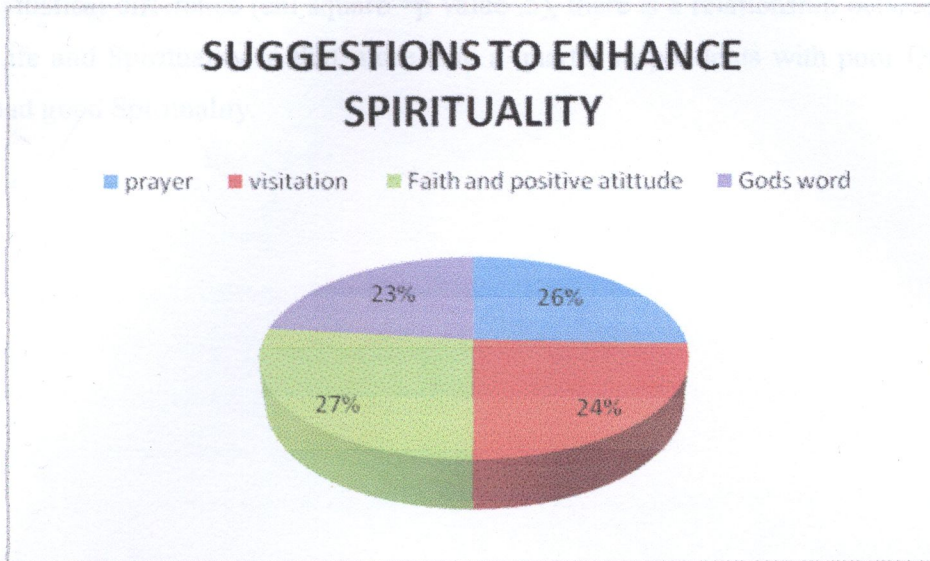
Spirituality	Life Scheme		Total
	Poor life scheme	Good life scheme	
Poor spirituality	4(80%)	0	4(8%)
Good spirituality	1(20%)	45(100%)	46(92%)
Total	5(100%)	45(100%)	50(100%)

Life Schemes relates to spirituality, more than three quarters (80%) of respondents with poor life scheme also had poor spirituality.

4.3.3.5 Suggestions to enhance Spirituality.

The respondents were asked to give suggestions of how their spirituality can be enhanced; the responses were categorized as in the table below.

Figure 4.11



The figures above show different totals from the N=50 because the respondents gave more than one suggestion. Slightly less than half (21) respondents suggested that spirituality can be enhanced through prayer while others suggested that it can be enhanced through the reading and sharing of God’s word. Almost half said through having faith and a positive attitude towards life.

4.3.5 RELATIONSHIP AMONG QUALITY OF LIFE AND SPIRITUALITY

A cross tabulation between overall Quality of Life and Overall Spirituality is presented below.

Table 4.32
Relationship among Quality of Life and Spirituality

Quality of Life	Spirituality		Total
	Poor spirituality	Good Spirituality	
Poor QOL	2(50%)	16(35%)	18(36%)
Good QOL	2(50%)	30(65%)	32(64%)
Total	4(100%)	46(100%)	50(100%)

p-value 0.5

Almost two thirds (65%) of the respondents with good spirituality had good quality of

life which indicates that spirituality influences Quality of life. Although there was no statistical difference (chi square = p value .5), there is a relationship between Quality of Life and Spirituality in that more than a quarter respondents with poor Quality of life had good Spirituality.

CHAPTER FIVE

5.0 DISCUSSION OF FINDINGS AND IMPLICATIONS FOR THE HEALTH CARE SYSTEM

5.1 Characteristics of the Sample

The study sample comprised women with cervical cancer who were receiving care at Cancer Diseases Hospital. The ages ranged from 28 -72years, although 40 percent were aged between 42 to 55 years (table 4.1). Our patients were relatively younger with a cumulative frequency of 68percent in the below 55 age group, the mean age was 49.80 and standard deviation of 10.96. The age presentation in this study is in line with well known international trends of women with cervical cancer where the average age of subjects in developing countries is less than in developed countries where the incidence is common generally in women over 54years (Canada et al, 2006) and (GLOBOCAN, 2008)

The respondents were predominantly married about 60 percent of the sample while 13 percent were widowed, 6percent divorced and 8percent were separated respectively these findings are similar to the results of the study conducted among Sudanese women where 62% were married (Awadalla et al, 2006). Although it was found in some studies that it likely for cervical cancer patients to be divorced, none of the divorced women in the sample attributed the divorce to the disease.

The women had an average of 7.3 pregnancies, almost the same as the predicted average of rural women in the ZDHS 2007 report. The results of the study show an average more inclined to the rural women despite the sample having a mixture of both rural and urban women. The average for rural women was 7.5 and 4.3 for the urban. The average number of children was 5.74 for the sample slightly less than the 2007 ZDHS report.

Majority of the respondents were Christian and only 2% were Muslim which is in line with the fact that Zambia is a Christian nation. Similarly the results of a study

conducted by Mweemba et al 2008, revealed all respondents to be Christians. The respondents belonged to various religious denominations 26 percent were Roman Catholic, 16 percent Seventh Day Adventist, 14 percent Pentecostal, 8percent UCZ, 10 percent Jehovah's witness, 8 percent Baptist and new Apostolic church while 10 percent belonged to other denominations which included the Mosque, Church of Central Africa Presbyterian and Reformed Church in Zambia.

Most of the respondents had primary education 60%, only three percent had no education (Table 4.1). According to the ZDHS of 2007, most of the Zambian women have some education, though only 10percent have completed secondary education. The findings in the study are similar to the ZDHS as almost two thirds of had primary education, 15percent secondary and 4percent college. Other studies such as conducted in Africa, for example the study by Awadalla et al 2007 among Sudanese gynaecologic cancer patients, have also showed a similar pattern of education level of cervical cancer patients.

Concerning employment only 10 percent of the respondents was in formal employment, 34percent were not employed (Table 4.1). There are two reasons to this, the first being that others were beyond the retirement age, while others were younger but not in employment. In this study, slightly more than one third (34%) of the respondents were either not employed or housewives, while 24% were self employed .This is similar to Awadalla who found that more three quarters 82% of the respondents were not employed. This finding is a true picture of what is obtaining in the Zambian economy today that the informal sector is growing fast due to effects of structural adjustment program and liberalization of the economy (CSO, 2007).

Regarding income levels,(Table 4.1) more than half of the respondents fell in the less than K250,000 category which is less than the stated minimum wage of 268,000 (Republic of Zambia, 2002). The other 46 percent had monthly income above the minimum wage. This finding is true in most studies on cervical cancer patients including this one. Chase, Watanabe and Monk, 2010, also found their patients to be of low economic status and presented with unique social and emotional challenges.

The respondents were representative of all the provinces except Western province (Table 4.1). However, slightly above one third (34%) of the respondents were from Lusaka, followed by Copperbelt and Central province. The high number of referrals from Lusaka province can be attributed to the cervical cancer screening programs currently going on in most of the health facilities in conjunction with CIDRZ and shorter distances compared to other provinces where cervical cancer screening and awareness has not yet been scaled out. This has an effect on Quality of life as people are diagnosed late.

Concerning referral duration (Table 4.1), it took between 1-12 weeks for most of the women to be referred to cancer Hospital once diagnosis was made while others took between 13 – 24 weeks. It took an average of 11 weeks for most of the respondents to be referred to Cancer Diseases Hospital. Most of the respondents had financial constraints to travel to Lusaka, while others had no money to pay for the tests and others delayed receiving information about their results.

5.2. Quality of Life

The quality of life of women with cervical cancer will be discussed according to the various domains of Quality of Life. The domains include, physical, psychological, social and environmental domain.

5.2.1 The physical domain of QoL

The physical domain of QoL looks at the individual's ability to provide for the necessities, perform activities of living cope with pain and discomfort and maintain well being. The results of this study revealed a poor physical QOL on all the respondents. The poor score on the physical domain is attributed to the nature of the disease which causes chronic pain in most of the patients especially when it is advanced. Pain prevented 16% of the respondents from performing activities of living while 48% had no problem with getting around (Table 4.3). The patients interviewed were both receiving chemotherapy and radiotherapy; there was no significant difference in the physical QOL of these patients. This is similar to the finding by Awadalla et al 2007,

which showed no statistical difference in QOL between those receiving chemotherapy and radiotherapy.

5.2.2 Psychological Domain of QoL

The psychological domain of QOL looks at how individuals perceive their body appearance, the ability to concentrate and any negative feelings. The current study has reviewed a poor psychological QOL for more than three quarters (82%) of the sample, slightly less than a quarter (18%) had good quality of life (Table 4.4). Most of the respondents accepted their physical appearance, contrary to Russell et al 2008, who found body image and appearance issues to be of prevalent concerns among African American breast cancer patients', however this was not the case in this study as most of the patients 80% were able to accept their bodily appearance while only 4% could not accept. The poor score on this domain is not attributed to appearance but due to other psychological concerns such as finances and support. Safaee et al, found that psychological support and financial support may improve QoL. This relates to the respondents suggestions in this study (fig 4.7).

5.2.3 Social domain of QoL

The social domain of QoL deals with how an individual perceives her relationship with self, family friends and ability to carry out her role. The study results showed a positive QoL on the social domain with only 4% having poor QoL. This finding can be attributed to the way Zambia families stay knitted together in times of difficulty. Most respondents had good social support from friends and family. The study also found 62% of the patients to be very dissatisfied with their sexual functioning. This can be attributed to the effects of the treatment which results in dryness of the vagina. The other reason is the pretreatment symptoms were patients experience pain, post coital bleeding and foul smelling vaginal discharge. However in some respondents poor sexual functioning was confounded by age. Similarly Wenzel et al 2005, and Frumovitz et al 2006 in the study of women with gynaecologic cancer, found cervical cancer patients to have had the worst sexual functioning compared to women with breast cancer. However contrary to Wenzel and Frumovitz, who found breast cancer patients

to have better sexual functioning, Russell's found that African American breast cancer patients had poor sexual functioning as well (Russell et al, 2008)

5.2.4 Environmental domain of QOL

Environmental domain of QOL is an individual's perceptions of his/her financial ability, safety of physical and home environment. It is also concerned with the individuals' accessibility to health and social services. All the respondents had a poor QOL on the environmental domain. Almost half felt safe in their day to day lives and 28 percent felt very safe. However about 12 percent did not feel safe in their lives. Some of these findings are attributable to the conditions of their living place and other co morbidities. Almost three quarters felt their environment was healthy and the remaining one quarter felt the opposite.

On the issue of finances most of the patients did not have enough money to meet their needs as they had low monthly income. Only 22percent had adequate money for their day to day needs. They had no opportunity to participate in leisure activities due to the symptoms of the disease such as pain. The poor environmental domain can also be attributed to lack of financial support and Safaee et al 2005, found that improved financial support may improve Quality of life.

5.2.5 Overall Quality of life

The results of this study have shown 64% of the respondents to have good overall Quality of life while 36% had poor overall Quality of Life. The study has revealed that elderly women (88%) have a better quality of life compared to young women about 43% (Table 4.7). Gioiella, Berkman and Robinson (2010), Safaee et al, 2010, found Patients with gynecologic cancers other than ovarian reported a better QOL, they also found older women with better quality of life compared to young women, and this is in line with the findings of this study. The results can be attributed to a number of reasons which may include availability of treatment at the Cancer Diseases Hospitals which has given an opportunity of many Zambian women to access treatment unlike in the past when they had to go abroad. The other reason for good quality of life is the increase in

screening services which is helping women in whom cancer of the cervix is suspected to be screened. The poor quality of life in younger women is due to various psychological and social concerns that young women have, these include the desire to have more children while the older women are not concerned with that as they have reached menopause. There was no significant difference in monthly income and quality of life, slight differences showed that about over half of the respondents with an income below K150,000.00 (58%) and over two thirds those with an income above K1,000,000.00 (66%) had good quality of life. Out of 36% of the respondents with poor quality of life, half of them were of low income. Respondents with good Quality of Life were well educated and with a monthly income above K500, 000 (Table 4.11 and 4.13). This implies that socioeconomic status influences QoL as well. These findings are similar to the study conducted in Sudan which showed that women with higher education, better economic status had good QoL (Awadalla et al, 2007). The respondents also made suggestions of how Quality of Life of cervical cancer patients can be enhanced. Their suggestions included that patients should seek supportive counseling and education about self-care and adherence to treatment and follow-up plans, continue cervical cancer screening. QoL can also be enhanced by improving referral system so that they can access care as early as possible. These suggestions agreed with the findings of Herzog and Wright, 2007. Other agreed with Russell as they suggested that having a positive attitude towards life can also improve quality of life. Others suggested an improvement in referral system to play a role in enhancing Quality of Life. This was suggested because it would reduce the referral duration from the current average of eleven weeks to a shorter duration.

5.2.6 General Health Perception

Three quarters (74%) of the respondents had good General perception of Health. This finding is good and almost correlates with the overall Quality of Life where 64% of the respondents had good Quality of Life (fig. 4.6 and fig. 4.5). However, 26% of the respondents had poor general health perception. These findings reveal that there is a relation between the way an individual perceives their health and overall Quality of Life

as demonstrated by the small differences in percentages (10% and 18%) of overall Quality of life and General Health perceptions.

5.2.2 Spirituality

Spirituality was measured using the spirituality index of well being scale which has two domains. The self efficacy scale and the life scheme scale. The self efficacy scale is concerned with the way an individual's belief in the capacity to organize and perform activities that are required for a prescribed goal. While life scheme is concerned with the way an individual views the world and one's life in it, lending elements of comprehensibility manageability and meaningfulness. The results (Table 4.30) of the study have shown that all the respondents who had good self efficacy also had good spirituality, although 69% of those who had poor self efficacy also had good spirituality. This implies that self efficacy plays a role in spirituality as 31% of those who had poor self efficacy also had poor spirituality. While 80% of the respondents with poor life scheme also had poor spirituality and 20% of those with poor life scheme had good Spirituality. This means that life scheme has a great influence on spirituality. Gioiella, Berkman and Robinson (2010) in their study found that Patients with gynecologic cancers other than ovarian reported a higher degree of spiritual, existential, and religious well-being. In this study the investigator equally found the women with cervical cancer to have good spirituality 96 percent while only 4% had poor spirituality. Gioiella et al 2010 further found their older patients to have higher degrees of spiritual well-being than did younger patients. Married patients consistently reported higher degrees of spiritual well-being than patients who were not married (never married or separated). Contrary to the findings of this study, all the younger women had good spirituality compared to 13% of the older women who had poor spirituality. Marital status influenced spirituality to a minor extent as only 7% of the married women had poor spirituality and all the widows, divorced and separated women had good spirituality. The only Muslim had good spirituality and only 8% of the Christians had poor spirituality. Catholic patients scored higher in degrees of religious and spiritual well-being in a study conducted by Gioiella et al. In this study, there were more

Catholics than other religious denominations and 7% had poor spirituality while all the Jehovah's witnesses, Pentecostal and Baptist had good spirituality.

The respondents also suggested ways of enhancing spirituality which included visitation, prayer, reading the word of God, fellowship, having positive attitude and faith. These are similar to the spiritual practices cited in the study by Scarinci et al, 2009 in which they found a correlation between spiritual practices and spiritual well being.

Table 4.32, shows that although 92% of the respondents had good spirituality, 35% of them also had poor quality of life. While despite 4% of the respondents having poor spirituality, 50% of them had good QoL and the other 50% had poor quality of life. The investigator has concluded that, Spirituality influences QoL positively as it has shown that out of the overall 32% of the respondents with good Quality of Life; only 2% had poor spirituality.

5.3 Implications to the Health Care System

The health care system plays an important role in the dissemination of information about cervical cancer. Information education and communication is a key issue in the improvement of Quality of life of cervical cancer patients. Since cervical cancer ranks number one among cancers affecting women in Zambia, women should be sensitized about the risk factors and symptoms of cervical cancer and should be encouraged to have routine screening for early diagnosis and treatment. Although the findings show 64% of the respondents to have good quality of life, the number can be increased by employing interventions. The study has implications on various branches of nursing namely Practice, education, research and administration.

5.3.1 Nursing Practice

The findings of the study have provided preliminary information about the QoL and spirituality of women with cervical cancer. While two thirds(64%) of the respondents reported good quality of life and 18% poor Quality of Life and almost all them had good spirituality. All the respondents had poor environmental Quality of Life (fig. 4.4.)

and majority had poor psychological QoL (fig. 4.2). Quality of life enables clinicians and nurses to assess an individual in a more holistic manner and to plan care addressing areas where they performed poorly. Since respondents performed poorly on the environmental and psychological domain, nurses should focus on interventions to help improve of these domains. Nurses should acknowledge the vital role that psychological well being plays in relation to physical health, quality of life and focus on such. Nurses should maintain an environment that promotes good QoL by giving health education to patients and maintain a clean environment since most of the patients stay in hospital during intensive treatment.

The study also reviewed good spirituality and that it relates to QoL. so nurses should acknowledge patients' spirituality and promote spiritual well being by promoting spiritual practices which are not detrimental to health hence maintain good Quality of life.

5.3.2 Nursing Education

Although Oncology/cancer nursing is beginning to gain recognition in the health sector, the system has not paid attention to the tenets of oncology care such as QoL. There is need to include QoL in the curricular not only for nurses but also for the other members of the health care team in order for the patients to receive quality and holistic care. Nurses, Doctors and paramedics need to learn how to utilize and assess QoL of their clients in order to give evidence based interventions. There is need to also allocate nurses to the Cancer Diseases Hospital so that they can learn more about Oncology Nursing and contribute to improve QoL. The curriculum for nurses should also be revised to include cancer nursing experience and also oncology nursing should be introduced as a new area of specialty. This will effectively help in improving or maintaining good quality of life and prolong cancer survivorship.

5.3.3 Implications to Administration

The results of this study imply that Quality of Life research should be given a priority especially as it contributes to the evaluation of care being given to the cervical cancer

patients. Nurse administrators play a vital role in policies related to quality patient care. So administrators will utilize the results to implement and evaluate policies related to cancer treatment and care.

5.3.4 Implications to research

Improvement of Quality of Life of cervical cancer patients is dependent on evidence based practice which is possible through Nursing Research to provide more information. Following this research study which was conducted on a small sample with few studies from Zambia, there is need for more research to be conducted on a larger sample whose results can be generalized. There is need to carry out more studies on QoL and publish findings which can help in the provision of evidence based nursing and medical practice which can influence health policy.

5.4 Conclusion

A non interventional descriptive study was conducted to determine the quality of life and spirituality of women with cervical cancer at Cancer Disease Hospital Lusaka. The sample consisted of fifty women with cervical cancer receiving treatment at Cancer Disease Hospital were conveniently selected for the interviews. An interview schedule questionnaire was used for data collection. Questionnaires were checked for completeness and accuracy and data were entered on the SPSS version 17.0. The data were then analyzed using this computer software.

The objective of the study have been met and the hypothesis proven. It was revealed that most of the patients with cervical cancer have good quality of life (64%) and one third (36%) had poor quality of life. It was also revealed that 82% of the respondents had poor psychological quality of life and all (100%) had poor environmental quality of life. The study also revealed that patients with cancer such as cervical cancer have high levels of spirituality as was seen in this study with majority of the respondents (92%) having good Spirituality and 8% having poor spirituality.

5.5 Recommendations

Based on the findings of this research study, the following recommendations have been made:

5.5.1 Cancer Diseases Hospital

Cancer Diseases Hospital should embark on more research to determine the quality of life of those patients with other cancers who were excluded from this study. Cancer hospital should consider bringing other partners on board to help cater for financial and social needs of the patients. For patient to access information on cancer, leaflets on cancer should be provided in other languages other than English as it has been shown that more than on 60% of the respondents have only attained primary education.

5.5.2 Ministry of health

The ministry should scale up cervical cancer screening programs so that patients can be diagnosed early and thus improve quality of life and survival period.

The Ministry should also allocate more funding to researches of this nature as they help to evaluate policies which they make. For example this study has provided a rough idea on how the quality of life is, so they can make necessary policies for further improvement.

From the suggestions in fig. 4.7, the ministry should allocate money for training of more nurses in cervical cancer screening to facilitate early diagnosis and improve quality of life. It should also facilitate scaling up of screening services so that people do not travel long distances to access screening. Screening services should be embedded in the already existing services such as family planning, PMTCT, ART clinics so that as many women as possible are reached.

The ministry should also embark on dissemination of information in local languages so that more women can be reached since our findings have shown most of the women with cervical cancer to have low education status. Other means such as radios, televisions programs should also be broadcast in local languages to reach many people.

Outreach screening programs should be planned for to reach women in the hard to reach areas.

5.6 Dissemination of Findings

Dissemination of research findings is the diffusion or communication of research findings by presentation and publication to a variety of audiences, such as nurses, other health professionals, policy developers and consumers (Burns and Grove, 2005). The findings of the study will be printed and bound into a research report which will be submitted to the Department of Nursing Sciences in the School of Medicine and another bound copy to the medical library. Executive summaries will be prepared and disseminated to the Cancer Diseases Hospital so that the staff can make use of the information in the care of women with cervical cancer. A copy of the summary will also be sent to the ministry as they can use the information in their plans to combat cervical cancer and improve quality of life of women. Information will be disseminated through discussions workshops with staff, respondents and other people who may be interested in the study.

5.7 Limitations of the study.

The study was the first of its kind, so there was limited data on the Zambian perspective. The only available data was on studies conducted on people living with HIV/AIDS. The results of the study were referred to in this study on the basis that cervical cancer is also a chronic disease.

The other limitation was translating the questionnaire into the language that the respondent was conversant with. There is a possibility that the researcher would have distorted the question in the process. However, the researcher made repetitions to clarify the questions and at the same time avoid distorting the meaning.

There was need to specify the cervical cancer stage for each respondent in the study to determine whether stage of the disease had an effect on QoL. However, the researcher did not do so in this study due to the limited time to collect data and it was also not part

of the objectives of the study. The researcher tried as much as possible to interview people at different stages.

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DATE OF INTERVIEW

INSTRUCTIONS

1. Introduce yourself to the interviewee
2. Explain the purpose of the interview
3. Obtain written consent from the interviewee
4. Assure the interviewee of confidentiality and anonymity
5. Do not write the name of the respondent on the schedule to ensure anonymity
6. Tick (✓) in the boxes provided closed ended questions
7. Fill in the space provided for open ended questions

APPENDIX I
THE UNIVERSITY OF ZAMBIA
SCHOOL OF MEDICINE
DEPARTMENT OF NURSING SCIENCES

INTERVIEW SCHEDULE

TOPIC: THE RELATIONSHIP BETWEEN SPIRITUALITY AND QUALITY OF LIFE OF CERVICAL CANCER PATIENTS

SERIAL NUMBER:

DATE OF INTERVIEW

INSTRUCTIONS

1. Introduce yourself to the interviewee
2. Explain the purpose of the interview
3. Obtain written consent from the interviewee
4. Assure the interviewee of confidentiality and anonymity
5. Do not write the name of the respondent on the schedule to ensure anonymity
6. Tick (✓) in the boxes provided closed ended questions
7. Fill in the space provided for open ended questions

SECTION A

DEMOGRAPHIC DATA

1. How old were you on your last birthday? _____ years

2. What is your marital status

A) Never married

B) Married

C) Divorced

D) Widowed

E) Separated

3. How many pregnancies have you had? _____

4. How many children do you have? _____

5. What is your religion?

a) Christianity

b) Islam

c) Zionist

d) Hindu

6. Which denomination do you belong to?

a) United church of Zambia

b) Roman catholic church

c) Seventh-day Adventist

d) Pentecostal

e) Reformed church in Zambia

f) Others specify _____

7. What is your highest level of education?

a) None

b) Primary

- c) Secondary
 - d) college
 - e) university
8. Are you in any form of employment, formal or informal?
- a) Not employed
 - b) Employed
 - c) Full-time housewife
 - d) student
9. What is your monthly income?
- a) less than K150,000
 - b) Between K150,000 and K250,000
 - c) Between K251,000 and K 999,000
 - d) K1,000,000 and above
-

10. When were you diagnosed with cancer? _____
 (Year and month)

11. Where were you referred from? _____

12. How long did it take for you to be referred to the cancer diseases hospital?
 _____ Weeks

SECTION B Quality of Life

WHOQOL-BREF

The following questions ask how you feel about your quality of life, health, or other areas of your life. I will read out each question to you, along with the response options. **Please choose the answer that appears most appropriate.** If you are unsure about which response to give to a question, the first response you think of is often the best one.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last four weeks.

		Very poor	Poor	Neither poor nor good	Good	Very good
1.	How would you rate your quality of life?	1	2	3	4	5

		dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2.	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last four weeks.

		Not at all	A little	A moderate amount	Very much	An extreme amount
3.	To what extent do you feel that physical pain prevents you from doing what you need to do?	5	4	3	2	1
4.	How much do you need any medical treatment to function in your daily life?	5	4	3	2	1
5.	How much do you enjoy life?	1	2	3	4	5
6.	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7.	How well are you able to concentrate?	1	2	3	4	5
8.	How safe do you feel in your daily life?	1	2	3	4	5
9.	How healthy is your physical environment?	1	2	3	4	5

The following questions ask about how completely you experience or were able to do certain things in the last four weeks.

		Not at all	A little Moderately	Moderately	Mostly	Completely
10.	Do you have enough energy for everyday life?	1	2	3	4	5
11.	Are you able to accept your bodily appearance?	1	2	3	4	5
12.	Have you enough money to meet your needs?	1	2	3	4	5
13.	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5

14.	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5
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		Very poor	Poor	Neither poor nor good	Good	Very good
15.	How well are you able to get around?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16.	How satisfied are you with your sleep?	1	2	3	4	5
17.	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18.	How satisfied are you with your capacity for work?	1	2	3	4	5
19.	How satisfied are you with yourself?	1	2	3	4	5

		1	2	3	4	5
21.	How satisfied are you with your sex life?	1	2	3	4	5
22.	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23.	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24.	How satisfied are you with your access to health services?	1	2	3	4	5
25.	How satisfied are you with your transport?	1	2	3	4	5

The following question refers to how often you have felt or experienced certain things in the last four weeks.

		Never	Seldom	Quite often	Very often	Always
26.	How often do you have negative	5	4	3	2	1

feelings such as blue mood, despair, anxiety, depression?					
---	--	--	--	--	--

27. Do you have any suggestion of how the Quality Of Life of cervical cancer patients can be improved _____ -

SECTION C: SPIRITUALITY

	Strongly disagree	disagree	Neither agree nor disagree	Agree	Strong agree
	1	2	3	4	5
28. There is not much I can do to help myself					
29. Often there is no way I can complete what I have started					
30. I can't begin to understand my problems					
31. I am overwhelmed when I have personal difficulties and problems					
32. I don't know how to begin to solve my problems					
33. There is not much I can do to solve my problems					
34. I haven't yet found my life's purpose					
35. I don't know who I am, where I came from or where I am going					
36. I have a lack of purpose in life					
37. In this world, I don't know where I fit in					
38. I am far from understanding the meaning of life					
39. There is a great void in my life at this time					

How can the spirituality of a person with cervical cancer be enhanced?

**END OF QUESTIONNAIRE
THANK YOU FOR YOUR PARTICIPATION**

APPENDIX II

CONSENT FORM

My name is Nelia Langa, a final year Bachelor of Science in Nursing student at the University of Zambia, School of Medicine, Department of Nursing Sciences. I am required to undertake research as partial fulfillment of this program. My research topic is *“spirituality and quality of life of women with cervical cancer at the cancer diseases hospital”*.

You have been selected conveniently to participate in this study. Since your participation in the study is voluntary, you are free to refuse to participate or withdraw from the study at any point without suffering any denial of care. During the study you will be asked questions about your quality of life and spirituality. Your name will not be written on the interview schedule and the information you will give will be treated as confidential.

Your participation in the study will not benefit you in terms of financial and material gains. However, the information that you will give will help in the implementation of measures to improve the quality of life in women with cervical cancer. If you agree to take part in the study please sign below.

I..... understand the essence of this study and I am ready to participate in the study.

Signature/ thumb print of participant.....

Date:

Signature of interviewer.....

APPENDIX III

GANTT CHART

MONTH	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR
Task to be performed	Person responsible										
Literature review	Researcher	↓								↑	
Compiling research proposal		↓		↑							
Clearance from school	Researcher			↔	↔						
Pilot study	Researcher			↔	↔						
Data collection	Researcher/assistant			↔	↔						
Data analysis						↔	↔				
Report writing							↔	↔			
Draft report submission	researcher								↔	↔	
Final report submission	Researcher									↔	↔
Monitoring and evaluation	Researcher and supervisor	↓									↑
dissemination											↔

APPENDIX IV

WORK PLAN

	Task to be performed	Dates	Key person	Person days required
1	Literature review	Continuous	Researcher	
2	Finalize the research proposal and submit to my supervisor	July -9 th October, 2010	Researcher	90days
3	Clearance by the department of nursing sciences	11 th October, 2010	Researcher	1day
4	Conduct pilot study	13 th 15 th October, 2010	Researcher	3days
5	Refine the data collection tool and methodology	5 th – 11 th October, 2010	Researcher	6 days
6	Data collection	18/10/10 – 18/11/10	Researcher/assistant	30 days
7	Data processing and analysis	19/11/10 – 19 - 12-10	Researcher	30days
8	Report writing and submission of draft to my supervisor	20/12/10 – 25/03/11	Researcher	3months
9	Correction and binding of report	04/2011	Researcher	14days
10	Defense of the report	03/2011	Researcher	1day
11	Dissemination of results	03/2011	Researcher	3 days

APPENDIX V

RESEARCH BUDGET

ITEM	UNIT	UNIT COST IN KWACHA	TOTAL COST IN KWACHA
STATIONARY			
Reams of paper	3	35,000	105,000
Pens(box)	5	1,000	5,000
Rubber	2	1,500	3,000
Note book	2	5,000	10,000
Tip-ex	1	15,000	15,000
Stapler	1	25,000	20,000
Perforator	1	50,000	50,000
Scientific calculator	1	150,000	150,000
Flip charts	1	50,000	50,000
Makers	5	6,000	30,000
Staples (box)	1	10,000	10,000
Small folders	5	2,000	10,000
Field bag	1	55,000	55,000
Folder clips	10	250	2,500
Paper glue	1	10,000	10,000
Bostick	1	3,000	3,000
Memory stick	2GB	130,000	130,000
Diary	1	80,000	80,000
Manila paper	2	5,000	10,000
Sub total			748,500
SECRETARIAL SERVICES			
Questionnaire typing	7 pages	3,000	21,000

Research proposal typing and printing	50pages	3,500	175,000
Questionnaire printing	7pages	1,000	7,000
Typing of research reports	60 page	3,000per page	180,000
Binding of research report	2	150,000	300,000
Research report photocopying	1	250,000	250,000
Subtotal			933,000
PERSONNEL			
Lodging for researcher	15days	25,000	375,000
Lunch allowance for the researcher	14days	50,000	700,000
Snacks for the respondents	50	10,000	100,000
Subtotal			1,175,000
INFORMATION DISSEMINATION			
Dissemination workshop			2,000,000
Total			4,856,500
Contingency fund 10%			456,650
Grand Total			5,342,150

BUDGET JUSTIFICATION

The budget for this proposal has been divided into four parts namely; stationary, personal costs and secretarial services. This is so because the sections highlighted in the budget are cardinal for the research to be carried out successfully.

Stationary

The reams of paper will be used for printing and photocopying the research proposal, interview schedule, research report and letters for permission. The other stationary include the scientific calculator which will be used during analysis of data. Other items are required for routine data collection. The flip chart will be used for drawing up the data master sheet as well as during

dissemination of information. Markers, pens, pencils erasers will be used during collection and processing of data. The memory stick will be used for storage of data.

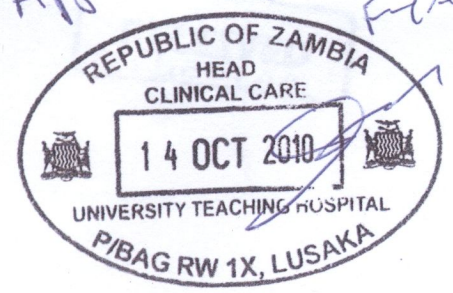
Secretarial Services

Secretarial services will be used for typing, printing and photocopying the research proposal and the research report with the appendices as well as binding of the final research report.

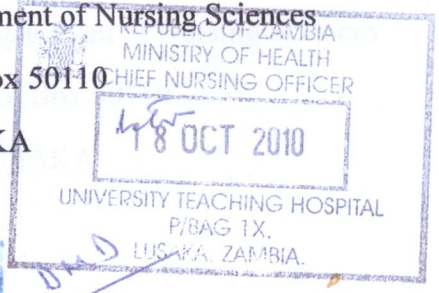
Personnel

Since the research will be conducted in Lusaka, the researcher will require accommodation during the data collection period. The researcher will be paid lunch allowance as data collection may last the whole day. 10% of the budget is intended to cover up for unforeseen costs, other circumstances and inflation.

Approved CNO FYA

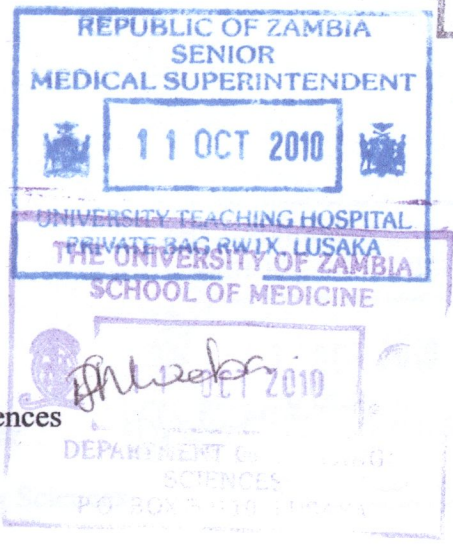


The University of Zambia
School of Medicine
Department of Nursing Sciences
P.O. Box 50110
LUSAKA



11th October, 2010.

The Medical Superintendent
University Teaching Hospital
P/B RW 1X
LUSAKA.



u.f.s. The Course Coordinator
Department of Nursing Sciences
P.O. Box 50110,
LUSAKA

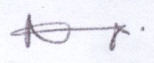
Dear Sir,

RE: PERMISSION TO CONDUCT A PILOT STUDY

I am a fourth year Bachelor of Science in Nursing student at the School of Medicine, University of Zambia. In partial fulfillment for the award of the degree, I am required to undertake a research project. My topic is "**Spirituality and Quality of Life of Women with Cervical Cancer**".

I write to request your office for permission to conduct a pilot study in C01 and C02 on five patients from 13th - 15th October, 2010. Main study will be conducted at the Cancer Diseases Hospital. Attached are copies of my questionnaire and consent form. Your favourable consideration of my request will be highly appreciated.

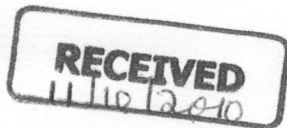
Yours faithfully,



Langa Nelia. (4th year student BScN)

*Sister incharge
C01 and C02*

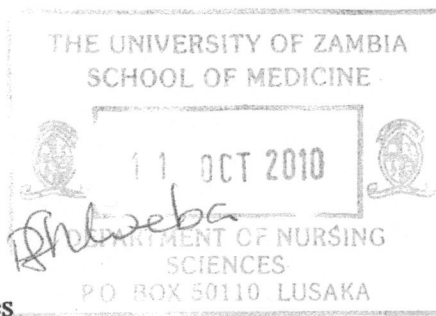
*Permission is
granted
12/10/10
L. Nwaka*



The University of Zambia
 School of Medicine
 Department of Nursing Sciences
 P.O. Box 50110
 LUSAKA

11th October, 2010.

The Executive Director
 Cancer Diseases Hospital
 P.O. Box 51337
 Lusaka



u.f.s. The Course Coordinator
 Department of Nursing Sciences

Dear Sir,

RE: PERMISSION TO CONDUCT A RESEARCH PROJECT

I am a fourth year Bachelor of Science in Nursing student at the School of Medicine, University of Zambia. In partial fulfillment for the award of the degree, I am required to undertake a research project. My topic is **“Spirituality and Quality of Life of Women with Cervical Cancer”**.

I write to request your office for permission to conduct research at your institution on a minimum of fifty patients with cervical cancer from 18th October to 18th November 2010, 2010. Attached are copies of my questionnaire and consent form.

If you need further details and clarifications please contact my supervisor, Dr. P. Mweemba, at the Department of Nursing Sciences. Your favourable consideration of my request will be highly appreciated.

Yours faithfully,

Langa Nelia. (4th year student BScN)

Sister Maliki this student may be confused, what is her study population pre or post treated? Please clarify & let me know

