

Introduction

The incidence rate of cancer reflects the number of new cases occurring in a specified population during a year, expressed as the number of cancer diagnoses per 100,000 people. For the year 2007, about 1,445,000 new diagnoses of cancer are expected in United States (**Black, & Hawks, 2009**). More than half of all people with cancer are treated with radiation therapy, a type of cancer treatment that is used to shrink tumors and stop the growth of cancer cells (**Patton, 2011**).

Radiation therapy (RT) can be given in a number of ways. Sometimes radiation is given more than one way at the same time, or different types of radiation may be given one after the other it is common treatment for brain tumors where surgery or radio surgery can not be utilized. RT affects both normal and tumor cells, but normal cells are thought to be more capable of repairing themselves. As the therapy continues, the tumor cells should die and eventually shrink. Radiation therapy does not remove the tumor (**International Radiosurgery Association (IRA), 2011**).

Side effects of radiation therapy will depend on the type of radiation received, the amount of the surface of the brain targeted, the site targeted, and the total dose of radiation. In general, there will be hair loss, skin irritation, possible hearing problems, nausea, vomiting, loss of appetite, and neurological effects. The most prevalent side effect is fatigue which may last through treatment and for many months afterwards. The neurological effects most affecting quality of life is eventual permanent memory and speech problems. These are just a few of the problems that can develop (**IRA, 2011**).

The face of health care, including scientific knowledge and care delivery systems, is ever changing. Likewise, the experience of cancer is changing for our clients and families. Today, a person confronted with a new cancer diagnosis often knows someone who has survived cancer; yet cancer remains a frightening unknown for many. Some clients, especially older ones, still associate the word with death. Cancer nursing requires a clinical knowledge of the disease and its treatment as well as the skills to care for and support clients and their families (**Smith, 2009**).

Quality of life (Qol) has been defined as "contentment with every day life: the degree of enjoyment and satisfaction experienced in every day life" as apposed to financial or material well being. Many other definitions are available, but each centers on the theme of satisfaction with every life as at whole (**Marquis & Alexia, 2009**). As QOL is influenced by subjective and objective aspects, adjustment to an illness can limit a person's sense of freedom and security. Feelings, understanding, attitudes and behaviors that developed due to illness can also affect QOL (**Chang & Curtis, 2002**).

Nurses play an important role in helping patients to attain better QOL. The most important responsibilities of the oncology nurse is to help patents to deal with those distressing side effects of radiotherapy. Nursing intervention has a crucial role in the radiation management of patients with cancer. The nurse will help to allay the fears and apprehensions of patients In addition, their role will involve health education about purpose, method of administration, prevention of complication& management of unavoidable local or systemic toxicity (**Newton & Hickey, 2009**).

Significant of the study

Several studies reported that cancer patients receiving radiotherapy are practicing poor health behaviors as a result of severity of side effect, versus inability to manage side effect. Previous researches emphasized the need for patient education, and the clarification of instructions to each individual patient (*Ayoub, 2006*). The ability of patient with cancer to control radiotherapy side effects and maintain reasonable quality of life is limited due to lack of knowledge, guidance, and instructions from health care provider, who usually refrain from transferring responsibility for the treatment to the patient. So, this health educational program will be designed to provide the patient with information, instructions, and guidance needed to enhance their self - care abilities to overcome the problems and enhance the quality of life.