

**A study to assess the effectiveness of self-instructional modules on the adverse effects of chemotherapeutic drugs and their home care remedies among patients receiving chemotherapy at medical oncology ward, SVIMS, tirupathi**

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**Abstract:** 1. To determine the level of awareness among chemotherapy patients about the side effects of chemotherapeutic medications and how to treat them at home. 2. To see how efficient a self-educational module is in teaching patients about the side effects of chemotherapeutic treatments and how to deal with them at home. 3. To examine the relationship between knowledge levels and demographic characteristics among chemotherapy patients. The null hypothesis formulated were: **H01:** There is no significant difference on level of knowledge on adverse effects of chemotherapeutic drugs and its home care remedies among patients receiving chemotherapy. **H02:** There is no significant association between the level of knowledge on adverse effects of chemotherapeutic drugs and its home care remedies with their selected demographic variables. A wide variety of literature was provided by investigator with back ground for the development of questionnaire and tool for data collection. The research method was pre-experimental, and the research design was a "one group pre-test and post-test design," which entails a pre- and post-assessment of knowledge about the negative effects of chemotherapeutic medications and home remedies. The study was conducted in medical oncology ward, SVIMS, Tirupati. The sample of the study was chosen by purposive sampling technique, which included 60 clients who have taken chemotherapy drugs. Analysis of data was executed in terms of frequency, percentage distribution, mean, standard deviation, chi-square test and mean variance for the evaluation of knowledge about the side effects of chemotherapy medications and how to treat them at home. The study findings revealed that 50(83.3%) were having inadequate knowledge, 7(11.7%) were having moderate knowledge in pre-test and 38(63.3%) have adequate knowledge, 18(30%) have moderate knowledge and 4(6.7%) have inadequate knowledge in the post test. The pre-test mean scores was 5.42 and had increased mean score of 9.92 in post test, which indicates that self instructional module was effective in increasing knowledge levels on adverse effects of chemotherapy drugs and its home remedies among patients receiving chemotherapy. In a pre-test analysis of demographic characteristics and levels of knowledge among chemotherapy patients, it



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was discovered that age, gender, occupation, and awareness of home remedies have significant associations at  $p0.05$ , while education has significance at the  $p0.01$  level. The results of the post-test indicated that age, gender, and religion are significant factors at the  $p0.05$  level, whereas occupation is significant at the  $p0.01$  level. The results of a comparison of mean variation among demographic variables with knowledge levels on the harmful effects of chemotherapeutic medications and home remedies revealed that age, gender, and religion were significant at the 0.05 level. At the  $p0.01$  level, occupation was significant. The finding implies that following the self-study, the majority of patients had received sufficient knowledge about the side effects of chemotherapy medications and their home cures.

**Keywords:** chemotherapeutic drugs, home care remedies, chemotherapy, medical oncology.

**Introduction:** Chemotherapy medications are designed to target rapidly dividing cells. When they reach cancer cells, they slow down their growth, ultimately leading to cell death. Chemotherapy targets actively dividing cells, which include those in the bone marrow, gastrointestinal tract, reproductive system, and hair follicles. As a result, most patients may experience various side effects. These can include fluid retention, rashes, an irritated bladder, swelling, numbness, and aching in the joints, hands, and feet. Additional side effects may include pain, nausea, vomiting, fatigue, hair loss, anxiety, increased susceptibility to infections, a decrease in blood cell count, and mouth sores or ulcers. Furthermore, chemotherapy may be linked to significant cognitive impairment in some patients.

### **NEED FOR STUDY**

Every year, 1.5 million new cancer cases are estimated to be diagnosed in India's population. Despite the fact that the United States has a population of 295 million people, 1.5 million people will be diagnosed with cancer. Every year, about 7 lakh new instances of cancer are reported in India, with an estimated 806,000 cases around the turn of the millennium. Annually, it is predicted that 35,000 incident cancers occur in Andhra Pradesh, India's Southern most state, with roughly 1,50,000 cases of prevalent cancer. More than one-third of these cancer cases are thoroughly examined and treated at the SVIMS Medical Oncology Department.

### **Chemotherapy**

It is described as the science or practise of utilising chemicals, particularly toxic chemicals, to kill disease-causing bacteria or cancerous tissue.

### **ADVERSE EFFECTS OF CHEMOTHERAPY**

The following are the negative effects: Gastrointestinal toxicity, myelosuppression –such as neutropenia and thrombocytopenia –as well as additional side effects include alimentary lymphoma, cutaneous lymphoma, tumour lyses syndrome, and CNS.

### **HYPOTHESIS:**

There will be significant differences in the knowledge of adverse effects of chemotherapeutic drugs and their home remedies among patients receiving chemotherapy who receive self-instructional modules than those who do not. There is no significant association between knowledge of the adverse effects of chemotherapeutic drugs and home remedies among patients receiving chemotherapy, considering their selected demographic variables.

### **ASSUMPTION**

Oncological patients may have inadequate knowledge regarding adverse effects of Chemotherapy. Participants will co-operate and respond appropriately to the structured questionnaire. Knowledge improves the quality of life.

### **OBJECTIVES OF THE STUDY**

- To determine the extent to which patients receiving chemotherapy are aware of the side effects of

chemotherapeutic medications and how to treat them at home.

- To assess the effectiveness of a self-instructional module on the knowledge of the adverse effects of chemotherapeutic drugs and home care remedies for patients receiving chemotherapy.
- To find out the association between level of knowledge with selected demographic variables among patients receiving chemotherapy.

## **OPERATIONAL DEFINITION**

**Assess :** It refers to the gathering of information on chemotherapy patients' side effects.

**Effectiveness :** It is a type of self-teaching module for developing knowledge about negative impacts of chemotherapy.

**Self Instructional Module :** It refers to a pamphlet that contains information about the side effects of chemotherapy medications as well as home treatments for them. **Patients** Those who have been diagnosed with cancer and are undergoing chemotherapy.

### **Cancer**

It refers to a group of disorders characterized by malignant tumors or other tissue deterioration that can spread locally or through the lymphatic and vascular systems.

## **DELIMITATIONS:-**

The study is limited to patients receiving chemotherapy.

The study is limited to only educated patients who are receiving chemotherapy and admitted in Medical Oncology ward, SVIMS, Tirupathi.

The period of study is limited to 6 weeks.

The study is delimited to patients who are in the age group >18 years of age.

## **METHODOLOGY**

### **RESEARCH APPROACH:**

The Research approach adopted was Pre -experimental to achieve the objectives of the study, which was felt to be most appropriate in the field of education for its practicability in real life situations.

### **RESEARCH DESIGN:**

The research design selected for the study was “**One group pre-test-post-test design**”. The research design includes comparison and evaluation of knowledge and interpretation, before and after self instructional module on unfriendly impacts of chemotherapeutic medications and its home cures among patients getting chemotherapy.

### **VARIABLES OF THE STUDY:**

**Independent variables :-** Independent variables is providing information by self- instructional module on adverse effects of chemotherapeutic drugs and its home remedies among patients receiving chemotherapy.

**Dependent variables:-** Dependent variables include knowledge levels on adverse effects of chemotherapeutic drugs and its home remedies.

**Extraneous variables:-** Considered by the investigator are the age, sex, marital status, education, occupation, family income, type of family, type of work, family history of cancer, habits, exposure to knowledge on adverse effects of chemotherapy and home remedies.

**SETTING OF THE STUDY:** The study was conducted in the Medical Oncology Ward, Sri Venkateswara Institute of Medical Sciences, Tirupati.

**SAMPLE SIZE:** Sample comprises of 60 patients receiving chemotherapy who fulfil the inclusive criteria, admitted in Medical Oncology Ward, SVIMS, Tirupati.

**RELIABILITY OF THE TOOL:** Reliability of the tool was established by introducing test-retest method in the morning and evening to the same group of 10 patients who receives chemotherapy, who were not included in the pilot study. The reliability of the score obtained was  $r=0.89$  which shows high reliability of scores in both the tests. Hence, the tool was considered reliable for proceeding with the pilot study.

## DISCUSSION

The pre-test was taken by using structured knowledge questionnaire designed by researcher and validated by the various experts in the specific field. The overall mean pre-test knowledge score of cancer patients was  $(9.41 \pm 1.25)$  which reveals that cancer patients had satisfactory level of knowledge. Area wise pre-test highest mean percentage was (54%) in the area of home management of ill effects of chemotherapy and the lowest mean percentage was (25%) in the area of introduction regarding cancer. No significant association was found between pre-test knowledge scores with their demographic variables. The findings of the study concluded that cancer patients were having less knowledge regarding ill effects of chemotherapy drugs. Thus the null hypothesis  $H_0$  which states that there is no significant difference between mean pre and post test knowledge score of adverse effects of chemotherapeutic drugs & home remedies among patients receiving chemotherapy was **rejected**.

In comparison of mean variance among demographic variables with knowledge levels on adverse effects of chemotherapy drugs & home remedies, age, gender, education, marital status shows significant association at  $p < 0.05$  level, occupation shows significant association at  $p < 0.01$  level.

**Conclusion :** The study findings concluded that self instructional module on adverse effects of chemotherapy drugs & its home remedies among patients receiving chemotherapy is effective. The patients have gained sufficient knowledge about the adverse effects of chemotherapy drugs and their home remedies.

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