

# A Study to Evaluate the Effectiveness of Structured Teaching Programme (STP) on Knowledge Regarding Side Effects of Chemotherapy and its Coping Strategies among the Patients Admitted in Cancer Units of Selected Hospitals

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## Abstract

A study was conducted to evaluate the effectiveness of structured teaching programme on the knowledge regarding side effects of chemotherapy and its coping strategies among the patients admitted in cancer units of selected hospitals, hubli, Karnataka. Totally 45 cancer patients who were undergoing chemotherapy are selected by non-probability purposive sampling technique. The knowledge was assessed by using structured interview schedule. The study results revealed that in the pretest 30(66.66%) had average knowledge & 8 (17.77%) had poor knowledge and 7 (15.66%) had good knowledge on the side effects of chemotherapy and its coping strategies. Whereas in the post test, 37 (83.33%) had good knowledge and 8 (17.77%) had average knowledge. The calculated paired 't' value ( $t_{cal} = 20.866$ ) is greater than the tabulated value ( $t_{tab} = 1.960$ ) at  $p < 0.05$  which reveals that there was a gain in knowledge after administration of STP. Probability values of  $X^2$  contingency table revealed that the gain in knowledge and socio demographic variables is independent. This means that gain in knowledge & practice scores has nothing to do with socio-demographic variables of patients with chemotherapy. The study findings concluded that planned teaching programme on side effects of chemotherapy and its coping strategies is effective in improving the knowledge of patients.

**Keywords:** Structured Teaching Programme (STP); Chemotherapy; Side Effects; Coping Strategies.

## Introduction

The magnitude of the problem of non communicable diseases in our society is only partially reflected by statistics on mortality and morbidity. Cancer is one among the major killing disease in the beginning of the 20<sup>th</sup> century, cancer was the 6<sup>th</sup> cause of death in industrialized countries, and today it stands as second leading cause of death in the world [1].

In 2005, 7.6 million people died of cancer out of 58 million deaths worldwide. More than 70% of all cancer death can occur in low and middle income countries. Based on projection, cancer deaths will continue to rise with an estimated 9 million people dying from cancer in 2015 and 11.4 million dying in 2030 [2].

Many management options for cancer exist including: chemotherapy, radiation therapy, surgery, immunotherapy and other methods. Which are used depends upon the location and grade of the tumor and this stage of the disease. Most of the physician practice chemotherapy due to the easy availability and the advantage of the chemotherapy over the other therapy. Chemotherapy is the specific treatment of disease by the administration of chemotherapeutic agents administered by the oral, intramuscular and

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intravenous routes occasionally directly into the body cavity, used to arrest the progress of or eradicate a specific pathological condition in the body without causing irreversible harm to healthy tissue [3].

The chemotherapy leads to side effects which generally depend on the type of therapy being offered. Most chemotherapy side effects cease after treatment. Although uncommon, some treatments may produce long-term effects. The most common side effects of chemotherapy are, anemia/low red blood cell counts, diarrhea and constipation, fatigue, fertility issues, hair changes, infection, memory loss, menopause and menopausal symptoms, mouth and throat sores, nail changes, neuropathy (problems with hands and feet), taste and smell changes, vomiting, weight changes bone loss/osteoporosis, heart problems, vision/eye problems, flu-like symptoms, fluid retention [3,4].

#### *Objectives of the Study*

1. To assess the knowledge regarding side effects of chemotherapy and its coping strategies among the patients admitted in cancer units.
2. To evaluate the effectiveness of structured teaching programme (STP) on knowledge regarding side effects of chemotherapy and its coping strategies among the patients admitted in cancer units.
3. To find out an association between pre-test knowledge scores and selected demographic variables.

#### **Methodology**

##### *Research Approach*

Evaluative research approach

##### *Research Design*

Pre-experimental; one group pretest post test design.

##### *Sampling Technique & Sample Size*

Non probability; purposive sampling technique and 45 Samples

##### *Setting of the Study*

Selected Cancer Hospitals of Hubli.

##### *Tool Used*

1. Structured interview schedule to assess knowledge regarding side effects of

chemotherapy and its coping strategies.

Section I : Socio-demographic variables of subjects

Section II : Knowledge items on side effects of chemotherapy and its coping strategies.

##### *Procedure of Data Collection*

The formal permission was taken from the Chief Executive Administrator of Cancer Hospitals of Hubli and the written consent was obtained by the subjects. The pre-test includes structured interview schedule to assess knowledge of subjects regarding side effects of chemotherapy and its coping strategies. Structured teaching programme (STP) was administered at the end of the pre-test. The post-test of the study was carried out 7 days later, using the same tool as the pre-test. Data collected was then tabulated and analyzed.

#### **Results**

##### *The Findings Related to Socio-Demographic Variables of Subjects*

The majority of the subjects 15 (33.33%) belonged to age group 30-45 years, while minimum number 7 (15.55%) belonged to the age group of 25-35yrs. In terms of gender, the maximum number of subjects 30 (66.67%) were females where as the minimum number 15 (33.33%) were males.

Majority of the subjects 21 (46.67%) were hindu where as the minimum number 9 (20%) were christian. Majority of the subjects 15 (33.33%) had non formal education where as the minimum number 4 (8.88%) had completed graduation. Majority of the subjects 16 (35.55%) were housewife's where as the minimum number 4(8.88%) had business as their occupation.

Majority of subjects 26 (57.7%) were vegetarian and minimum of subjects 19 (42.22%) were having mixed diet. The majority of subjects 27(60%) reside in rural area and minimum number 18(40%) reside in urban area. Majority of the subjects 33 (73.34%) received information from health team and where as the minimum number 4(8.88%) received information from mass media. Majority of the subjects 20 (44.45%) received 5-10 cycles of chemotherapy, where as the minimum number 7 (15.55%) received more than 10 cycles of chemotherapy.

##### *Analysis and Interpretation of Knowledge Scores of Subjects Regarding Side Effects of Chemotherapy and its Coping Strategies*

**Table 1:** Pre-test and post-test percentage of knowledge scores of subjects regarding side effects of chemotherapy and its coping strategies n=45

Sl. No	Items	Total score	Mean % of knowledge scores of subjects		
			Pre-test(x)	Post-test(y)	Gain in knowledge
1.	Structured Interview Schedule	2205	39.72	60.92	30.20

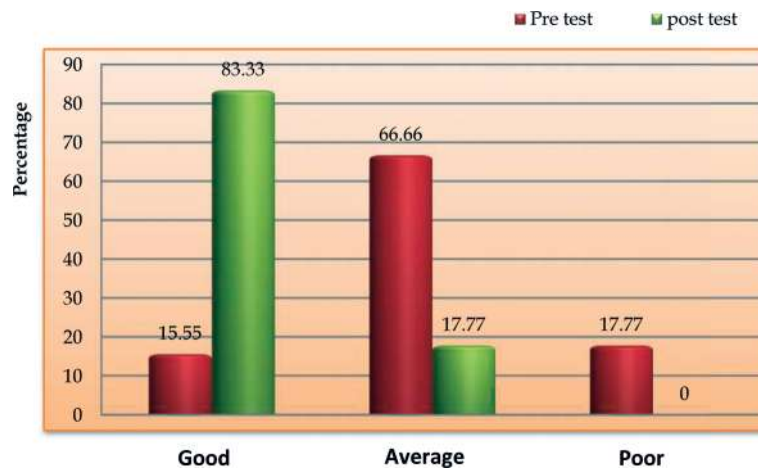
**Table 2:** Frequency and percentage distribution of knowledge scores of subjects regarding side effects of chemotherapy and its coping strategies n= 45

Knowledge score	Pre test		Post test	
	Freq	%	Freq	%
Good	7	15.55	37	83.33
Average	30	66.66	08	17.77
Poor	8	17.77	00	00

Table 1 reveals that the percentage of gain in knowledge scores in the area of side effects of chemotherapy and its coping strategies 30.2%.

Table 2 reveals that in pre-test majority of subjects 30 (66.66%) had an average knowledge; 8(17.77%)

had poor knowledge and 7 (15.55%) had good knowledge, where as in post test 37 (83.33%) had good knowledge and 8 (17.77%) had average knowledge.



**Graph 1:** Percentage distribution of knowledge scores of subjects regarding side effects of chemotherapy and its coping strategies.

*Testing Hypothesis for Evaluation of Effectiveness of Structured Teaching Programme (STP).*

$H_1$  : The mean post test knowledge score of patients admitted in cancer units on side effects of

chemotherapy and its coping strategies, who have undergone the structured teaching programme will be significantly higher than the mean pretest knowledge score at 0.05 level of significance.

**Table 3:** Mean difference (d), standard error of difference (SED) and paired 't' values of knowledge scores of subjects n=45

Mean Difference	Standard error of Difference(SED)	Paired 't' Values	
		Calculated	Tabulated
14.42	4.63	20.866	1.960

Table 3 revealed that the calculated paired't' value ( $t_{cal} = 20.866$ ) is greater than tabulated value ( $t_{tab} = 1.960$ ). Hence  $H_1$  is accepted. Hence this indicates that gain in knowledge scores is statistically

significant at  $p < 0.05$  levels. Therefore the structured teaching programme on chemotherapy and side effects and its coping strategies is effective to improve the knowledge of patients.

$H_2$  : There will be statistical association between the pretest knowledge scores of patients admitted in cancer units on side effects of chemotherapy and its coping strategies and their selected demographic variables at 0.05 level of significance.

Since  $c^2_{cal}$  value  $<$   $c^2_{tab}$  value. Hence there is no association between pre-test knowledge and selected demographic variables. Hence  $H_2$  was rejected. This means that gain in knowledge & practice scores has nothing to do with socio demographic variables of patients.

## Conclusion

Based on the findings of the study, the following conclusions are drawn.

1. Overall pre-test knowledge scores about side effects of chemotherapy and its coping strategies was average.
2. There was a need for planned teaching programme on side effects of chemotherapy and its coping strategies.
3. Post test results showed significant improvement in the level of knowledge scores on side effects of chemotherapy and its coping strategies. Thus, it can be concluded that structured teaching programme (STP) was effective tool for patients to increase, improve and update knowledge side effects of chemotherapy and its coping strategies.
4. The results revealed no association between pre-test knowledge and sociodemographic variables.

## Implications

The findings of the study have varied implications in different areas of nursing practice, nursing administration, nursing education, and nursing research.

## Nursing Practice

Since the present study showed that most of the patients had average knowledge regarding side effects of chemotherapy and its coping strategies, this present study will enable them to become aware of importance of the treatment and side effects of chemotherapy and how to cope up with the side effects.

## Nursing Administration

The nurse administrator should take interest in

providing information on specialization area like cancer, its meaning and concept and causes of cancer, signs and symptoms, treatment available and about chemotherapy side effects and coping strategies.

## Nursing Education

Findings of the study can be used by the nurse educator to highlight the importance of side effects of chemotherapy and its coping strategies in patients suffering cancer to the budding nurses. This STP can be used as reference material by the student nurses.

## Nursing Research

Based on the findings, nursing professionals and student nurses can conduct the further studies on knowledge regarding side effects of chemotherapy and its coping strategies. The present study conducted by the investigator can be a source of review of literature for others, who are intending to conduct studies on side effects of chemotherapy and its coping strategies.

## Recommendations

1. A similar study on large and wider sample for a longer period of time would be more pertinent in making broad generalizations.
2. A study can be done with an experimental research approach having a control group.
3. A survey can be done to determine the interest among nurses in educating cancer patients on chemotherapy side effects and its management.
4. A study can be conducted to evaluate the effectiveness of SIM on knowledge and practice regarding side effects of chemotherapy and its coping strategies.

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