



## **A PRE-EXPERIMENTAL STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE REGARDING MANAGEMENT OF COMMON SIDE EFFECTS OF CHEMOTHERAPY AMONG CANCER PATIENTS ADMITTED IN RADIATION ONCOLOGY OF SMHS HOSPITAL, GMC SRINAGAR**

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### **ABSTRACT:**

**Cancer** is the second leading cause of death worldwide, accounting for nearly 10 million deaths in 2020 or nearly one in six deaths. The estimated number of cases of cancer in India for the year 2022 was found to be 1461427 (crude rate 100.4/ 1 lakh population). The projected cancer burden in India for 2021 was 26.7 million & expected to increase by 2025. JK has reported an estimated number of 51,577 cancer cases between the year 2019 and 2022. A cursory look on these figures reveal that there is constant increase in cancer cases. Chemotherapy is the most specific treatment for cancer but it is associated with number of side effects. Therefore, it is crucial that cancer patients receive adequate knowledge regarding the management of side effects of chemotherapy immediately after the cancer is diagnosed. Considering this area of demand, this study was conducted with the aim of assessing effectiveness of structured teaching program on knowledge regarding the management of common side effects of chemotherapy among cancer patients admitted in radiation oncology of SMHS hospital, GMC Srinagar. Sixty (60) cancer patients were selected by using non-probability purposive sampling technique. Self-structured questionnaire was used to assess the knowledge of patients. Data was analysed by using descriptive and inferential statistics. The findings revealed that the post-test (Mean± SD) knowledge score (24.70±3.65133) was found to be higher than pre-test (Mean± SD) knowledge score (16.78±3.55629) which was found to be statistically significant at 0.05 level of significance. This indicates that structured teaching program was effective in improving the knowledge of patients.

**Key words:** Effectiveness, Structured teaching program, Knowledge, Cancer patients

## INTRODUCTION

Cancer is a global health concern characterized by uncontrolled cell proliferation that leads to invasion to the surrounding tissues & organs. According to World Health Organisation (WHO), cancer is a large group of diseases that can start in almost any organ or tissue of body, when abnormal cells grow uncontrollably, go beyond their usual boundaries to invade adjoining parts of the body and spread to other organs<sup>1</sup>.

Treatment for cancer usually includes surgery, radiotherapy and systemic therapy (chemotherapy, hormonal treatments, targeted biological therapies). Chemotherapy has become a cornerstone in the treatment & management of various cancers. Chemotherapy involves the use of drugs to kill or destroy cancer cells. The goal of chemotherapy is to inhibit cell proliferation and tumor multiplication thus avoiding invasion and metastasis. Chemotherapy being a systemic medication travels through whole body, it can damage healthy cells as well<sup>2</sup>. Chemotherapeutic agents are commonly associated with side effects. The most common side effects experienced during chemotherapy include nausea, vomiting, pain, muscle cramps, fatigue, diarrhoea, constipation, mouth and throat sores, bleeding gums, melana, nose bleed, anaemia, hair loss, infections, fertility issues, menopause & menopausal symptoms, taste and smell changes, weight changes, vision / eye problems etc. The deteriorating effects of chemotherapy are well documented, so is the need for the educative interventions in improving quality of life. The side effects of chemotherapy are a weakening & often unobserved clinical obstacle in cancer management. They can influence the continuation of treatment and have negative impact on patients quality of life. Therefore oncology health professionals need to recognize side effects experienced by their patients and help to resolve these problems<sup>3</sup>.

As per WHO report, India reported over 14.13 lakh new cancer cases & 9.16 lakh deaths in year 2022. As per the report conducted by union ministry of health from 2018-19 to 2023-24, a total of 80,017 cancer cases have been recorded in Jammu, Kashmir & Ladakh<sup>4</sup>.

The most common side effects as per National Centre for Biotechnology information (NCBI) were fatigue (87%), loss of appetite (71.4%) and diarrhoea (49.4%)<sup>5</sup>. A study conducted by Robert Benett in 2021 has shed light on the pervasive knowledge deficits among cancer patients regarding chemotherapy side effects. The patients lacked adequate understanding of these side effects and how to manage them effectively. By bridging the gap between research and practice, the researchers find it important to empower patients with the information they need to navigate during their treatment journey with confidence and resilience.

### Objectives of the study:

1. To assess the pre-test knowledge scores regarding management of common side effects of chemotherapy among cancer patients.
2. To assess the post-test knowledge scores regarding the management of common side effects of chemotherapy among cancer patients.
3. To evaluate the effectiveness of planned teaching program on knowledge regarding management of common side effects of chemotherapy among cancer patients by comparing their pre-test and post-test knowledge scores.
4. To determine the association between the pre-test knowledge scores of cancer patients with their demographic variables (i.e age, gender, genetic predisposition, duration of receiving chemotherapy, source of information).

### Research Methodology:

Quantitative research approach and pre experimental one group pre-test post-test was used in the present study.

### Data Collection Procedure:

Informed consent was obtained from the study subjects to confirm their willingness to participate. The data was collected individually from the subjects through administration of knowledge questionnaire which was translated into the local language.

## RESULTS

Table 1: Sociodemographic variables

SOCIODEMOGRAPHIC VARIABLES		Frequency(f)	Percentage (%)
Age in years	20-30	5	8.3
	30-40	5	8.3
	40-50	22	36.7
	Above 50	28	46.7
Gender	Male	40	66.7
	Female	18	30
	Other	2	3
Genetic Predisposition	Yes	20	33.3
	No	40	66.6
Duration of receiving chemotherapy	Weeks	16	26.7
	Months	33	55
	Years	11	18.3
Source of information	Family	18	30
	Friends	11	18.3
	Books	6	10
	Social Media	25	41.7

Table 2 : Comparison between pre - test and post - test knowledge scores

Knowledge score	Mean	SD	Mean difference	Paired 't' test	P value
PRETEST	16.7833	3.55629	7.91667	33.942	.000
POST TEST	24.7000	3.65133			

Table 3: Association of pre – test knowledge score of cancer patients regarding the management of common side effects of chemotherapy with their selected demographic variables

SOCIODEMOGRAPHIC VARIABLES		Inadequate	Moderately adequate	Adequate	P value	Result
Age in years	20-30	0	5	0	0.08	NS
	30-40	0	5	0		
	40-50	1	19	2		
	Above 50	4	18	6		
Gender	Male	1	31	8	0.036	NS
	Female	4	14	0		
	Other	0	2	0		
Genetic Predisposition	Yes	5	13	2	0.005	S
	No	4	30	6		
Duration of receiving chemotherapy	Weeks	4	12	0	0.000	S
	Months	1	28	4		
	Years	0	7	4		
Source of Information	Family	5	13	0	0.000	S
	Friends	0	11	0		
	Books	0	6	0		
	Social Media	0	17	8		

**Discussion:** Findings of the study revealed that the post –test (Mean± SD) knowledge score ( $24.70 \pm 3.65133$ ) was found to be higher than pre-test (Mean± SD) knowledge score ( $16.78 \pm 3.55629$ ) which was found to be statistically significant at 0.05 level of significance. The research reported that there was a significant association between the pre - test knowledge score with their selected demographic variables like genetic predisposition (p value =0.005), duration of receiving chemotherapy (p value= 0.000) and source of information ( p value= 0.000). These findings are consistent with the findings of the study conducted by Choenyi N, Kumari M, Choedon S, Kumari S, Indu K et al on assessment of knowledge regarding ill effects of chemotherapy and its home management among patients receiving chemotherapy.

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