

## Knowledge Regarding Ill Effects of Chemotherapy and Its Home Management among Patients Receiving Chemotherapy.

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**Abstract:** The incidence of Cancer has seen a remarkable increase in the recent times and chemotherapy occupies a pivotal role in the recovery process of the patient. A descriptive study was undertaken to assess the Knowledge regarding ill effects of chemotherapy drugs and its home management among cancer patients receiving chemotherapy in multi-specialty, teaching hospital in Uttarakhand. Total 60 cancer patients who were undergoing chemotherapy were selected by consecutive sampling technique. 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±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 pretest 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 so awareness programmes regarding ill effects of chemotherapy drugs should be organized for the cancer patients.

**Keywords:** Knowledge, Chemotherapy Drugs, Ill effects, Home Management, Cancer Patients.

### I. Introduction

The word cancer is derived from the Latin word “crab”, probably because of the way a cancer adheres to any part that it seizes upon in an obstinate manner like the crab. It is a popular, generic term because the actual medical term for cancer is “neoplasia” which, from the Greek, means new formation. Cancer cells are described as malignant neoplasm and are classified and named by tissue of origin. The failure of the immune system to promptly destroy abnormal cells permits these cells to grow too large to be managed by normal immune mechanisms. Certain categories of agents or factors implicated in carcinogenesis (malignant transformation) include viruses, physical agents, chemical agents, genetic or familial factors, dietary factors, and hormonal agents.<sup>1</sup>

Cancer prevalence in India is estimated to be around 2.5 million, with over 8, 00,000 new cases and 5, 50,000 deaths occurring each year to this disease in the country. The goal of the cancer treatment is cure, control or palliation. Factors that determine the treatment modality are the cell type of the cancer, the location and size of the tumor, and the extent of the disease, the physiological and psychological status and the expressed needs of the patient also have an important part in determining the treatment plan. These factors influence the modalities chosen for treatment and the length of time the treatment is administered.<sup>2</sup>

Chemotherapy is a kind of treatment that uses drugs to attack cancer cell. It is called as “systemic treatment” since the drug, entering through the blood stream, travels throughout the body and kills cancer cells at their sites. These drugs may rarely be intended to have a local effect, but in most cases, the intention is to destroy cancer cells wherever they may exist in the body. Chemotherapeutic drugs are chemically designed to target cells that are dividing and growing rapidly. Once they reach the cancer cells, they act to retard their growth eventually resulting in their destruction.<sup>3</sup>

The side effects from cancer chemotherapy depend on the type of drug, dosage, frequency and its duration of administration. According to American Cancer Society the most common side effects include nausea, vomiting, hair loss, fatigue, increased chance of bruising and bleeding, anemia and infection. However today most of the side effects associated with chemotherapy can be prevented or minimized. Cancer can have a serious impact on patient well-being and quality of life the international literature reports a higher existence of psychosocial problems among oncologic clients primarily problems associated with difficulties in the family, duties in the household, work and leisure, sexuality and finances and emotional distress. A considerable proportion of oncology patients experience significant levels of distress. This distressed patients also have unmet needs of psychosocial support<sup>4</sup>.

### **1.2 Need of Study:**

The most fatal cancer in the world is lung cancer, which has grown drastically since the spread of cigarette smoking in growing countries. Stomach cancer is the second leading form of cancer in men, after lung cancer. Another on the increase, for women, is breast cancer, particularly in China and Japan. The fourth on the list is colon and rectum cancer, which occurs mostly in older people.<sup>5</sup>

In the population of India it is estimated number of new 1.5 million cases of cancer diagnosed per year. The population of U.S is 295 million and yet. 1.5 million Cancer will be diagnosed. The estimated new cases of cancer in India per year are nearly 7 lacks and the start of the next millennium estimated 806.000. In Karnataka state in the southern part of India, it is estimated that annually there are 35,000 incident cancers, where at the prevalent cancer accounts to about 1, 50,000. More than one third of these cancer cases are seen and attended to Kidwai memorial institute of oncology.<sup>6</sup>

The ten million new cancer cases seen each year worldwide, 4.7 million are in the more developed countries and nearly 5.5.million are in the less developed of the developed world, more than half of all cancers occur in the developing countries. In developed countries, cancer id the 2<sup>nd</sup> most common cause of death and epidemiological evidence points to the emergence of a similar trend in developing countries.<sup>7</sup>

The goal of cure, control and palliation are achieved through the use of four treatment modalities for cancer; Surgery, Radiation therapy, Chemotherapy, Biologic therapy, and every treatment has got its own merits and demerits for the cancer patient who are at the receiving end. Being nurse one should be able to understand the condition of cancer patients who are undergoing the chemotherapy. As this treatment has an effect on both the physiological and psychological aspects of human life viz. pain, sleep disturbances, nausea, vomiting, stress, anxiety, and gastrointestinal disturbances etc.<sup>8</sup>

### **1.3 Statement of Problem:**

A study to assess the knowledge regarding ill effects of chemotherapy and its home management among patients receiving chemotherapy in a selected Hospital, Dehradun, Uttarakhand, India, 2013.

### **1.4 Objectives:**

- To assess the knowledge regarding ill effects of chemotherapy and management.
- To find association between knowledge scores of cancer patient admitted in cancer unit and their selected demographic variables.

## **II. Methodology**

The research design used in this study was descriptive in nature. The study was conducted at multi-specialty, teaching hospital in Uttarakhand, INDIA. The sample of 60 cancer patients who were undergoing chemotherapy was selected by using consecutive sampling technique. The tool used for the study was the structured knowledge questionnaire designed by the researcher consisting of section A (Socio- demographic variables such as age, sex, education, occupation, area of living and previous knowledge of chemotherapy and Section B (consisting of 20 items related to knowledge of side effects of chemotherapy and its home management related to three aspects i.e. Cancer, side effects of chemotherapy and its home management). The content validity of the tool was ensured by giving the tool to experts in the field of Nursing and Medical from Oncology and Medical Surgical Department.

## **III. Results and Findings**

### **3.1 Related to Socio-Demographic Profile of Cancer Patients:**

The data shown in table no.1 depicts the percentage and frequency of characteristics which shows that most 22 (37%) of cancer patients falls between the ages of 49 to 64 years; 19 (32%) fell between the ages group 33 to 48 years; 10 (17%) fell between the ages group 65 to 82 years and 9 (15%) were found between 17 to 32 years.

Regarding the gender, 30(50%) were female patients and 30(50%) were male patients. Among the sample of 60, 18 (30%) of cancer patients were having primary and higher secondary education; 17 (28%) were secondary educated and 7 (12%) of cancer patients had no formal education.

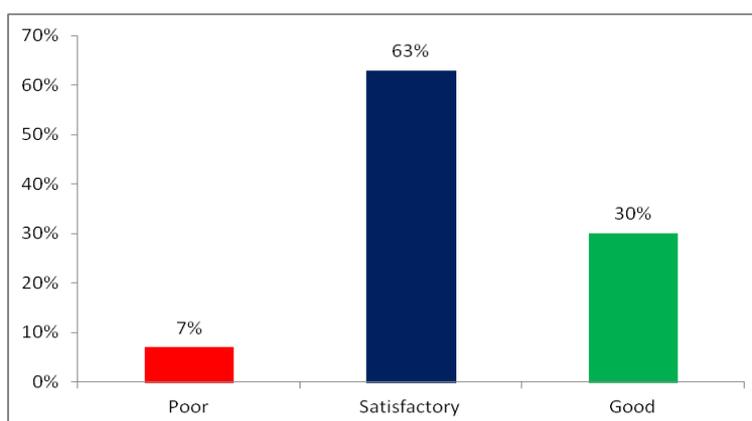
Regarding the area of living most of the cancer patients 35 (58%) belonged to rural area, 25 (42%) were from urban area. Regarding previous knowledge of chemotherapy and its home management 30 patients (50%) had previous knowledge and 30 patients (50%) didn't have any previous knowledge about it.

**Table No.1: Socio-Demographic Profile of the cancer patients**  
(n = 60)

| Demographic Variables                       | Frequency | Percentage |
|---|-----------|------------|
| <b>1.Age</b>                                |           |            |
| a)17-32 years                               | 9         | 15%        |
| b)33-48 years                               | 19        | 32%        |
| c)49-64 years                               | 22        | 37%        |
| d)65-82 years                               | 10        | 17%        |
| <b>2.Gender</b>                             |           |            |
| a)Male                                      | 30        | 50%        |
| b)Female                                    | 30        | 50%        |
| <b>3.Education</b>                          |           |            |
| a)Primary                                   | 18        | 30%        |
| b)Secondary                                 | 17        | 28%        |
| c)Higher secondary                          | 18        | 30%        |
| d)No formal education                       | 7         | 12%        |
| <b>4.Area of living</b>                     |           |            |
| a)Rural                                     | 35        | 58%        |
| b)Urban                                     | 25        | 42%        |
| <b>5.Previous knowledge of chemotherapy</b> |           |            |
| a) Yes                                      | 30        | 50%        |
| b)No  | 30        | 50%        |

**3.2 Comparing the knowledge of cancer patients according to grading at pre-test level:**

Data presented in figure no.1 depicts the grading of knowledge score at pretest level. In the pre-test majority of the cancer patients (63%) had satisfactory knowledge,30% patients showed good level of knowledge and only 7% patients had poor level of knowledge.



**Figure No.1: Percentage distribution of the cancer patients according to Grading.**

**3.3 Comparing knowledge score according to three aspects of ill effects of chemotherapy and its home management among cancer patients**

**Table No. 2 Knowledge score according to three aspects of ill effects of chemotherapy and its home management**

(n=60)

| Area of Knowledge                              | Pre-Test |                     |
|--|----------|---------------------|
|  | Mean ±SD | Mean Percentage (%) |
| Introduction about cancer                      | 0.5±0.6  | 25                  |
| Introduction about chemotherapy                | 1.91±0.8 | 38                  |
| Home management of ill effects of chemotherapy | 7±1.9    | 54                  |

Table no. 2 reveals that the mean percentage pre-test scores ranged between 25% to 54%. In pre-test the highest mean percentage score was in the area of home management of ill effects of chemotherapy (54%) and lowest pre-test was in the area of Introduction about cancer (25%). From the above data, it could be inferred that in all areas the level of knowledge was not adequate.

**3.4 Analysis of knowledge on ill effects of chemotherapy and its home management among cancer patients:**

**Table No. 3: Pretest knowledge score of cancer patients regarding ill effects of chemotherapy and its home management.**

| (n=60)          |              |             |      |        |
|-----------------|--------------|-------------|------|--------|
| Knowledge Score | Range scores | Mean ± SD   | Mode | Median |
| Pre-test        | 4-15         | 9.41 ± 1.25 | 8    | 9      |

Table no. 3 shows that the mean ± SD of pre-test knowledge score was (9.41 ± 1.25). The range score was 4-15, whereas the mode and median was 8 and 9. Hence the obtained mean, mode and median it can be inferred that group were not homogenous.

**3.5 Association between socio-demographic variables with knowledge of the cancer patients at pre-test level**

**Table No-4: Association between demographic variables with knowledge of cancer patients (n =60)**

| Demographic Variable                 | Knowledge score     |              |  | Chi-Square Value |
|--------------------------------------|---------------------|--------------|--|------------------|
|                                      | At and above median | Below Median |  |                  |
| 1.AGE                                | 17                  | 11           |  | 0.42             |
| a)17-48 years                        | 22                  | 10           |  |                  |
| b)49-82 years                        |                     |              |  |                  |
| 2.GENDER                             | 19                  | 11           |  | 0.073            |
| a)Male                               | 20                  | 10           |  |                  |
| b) Female                            |                     |              |  |                  |
| 3.EDUCATION                          | 35                  | 18           |  | 0.002#           |
| a)Educated                           | 4                   | 3            |  |                  |
| b)No formal education                |                     |              |  |                  |
| 4.AREA OF LIVING                     | 20                  | 15           |  | 2.27             |
| a)Rural                              | 19                  | 6            |  |                  |
| b)Urban                              |                     |              |  |                  |
| 5.PREVIOUS KNOWLEDGE OF CHEMOTHERAPY | 21                  | 9            |  | 0.659            |
| a)Yes                                | 18                  | 12           |  |                  |
| b)No                                 |                     |              |  |                  |

**df<sub>1</sub>=3.84 at the level of p< 0.05 \* Significant**

Table no.4 shows that no socio-demographic variables like age, gender, education, area of living and previous knowledge of chemotherapy having any association with pre-test knowledge score at the level p< 0.05.

**IV. Nursing Implications**

The findings of the study have implications for Nursing Practice, Nursing Education, Nursing Administration and Nursing Research.

**Nursing Practice:**

- Nurses are there for nursing, supporting and caring for their patients in every way possible and for that they need to have proper knowledge so as to properly understand the problems faced by the patients and help them to overcome them.

**Nursing Education:**

- Nursing education should be applied to assess the knowledge of the clients about the side effects of chemotherapy and its home management and thus provide interventions accordingly and create and awareness about the ill effects of chemotherapy and its home management among the oncology patients.

**Nursing Administration:**

- The Nurse administrators needs to take more initiatives in improving the knowledge of the oncology patients about the side effects of chemotherapy and its home management by providing information and conducting awareness programmes for the community people through nursing personnel.

**Nursing Research:**

- Research provides nurses needs credibility to influence decision making, policy and protocol formulation regarding interventional strategies to meet the specific need for educating cancer patients regarding ill effects of chemotherapy and its home management.

- Findings of the present study suggest that there is lack of adequate information among the patients regarding the ill effects of chemotherapy and its home management and thus a need to improve the present scenario. An experimental research can be conducted to assess the knowledge and attitude of the ill effects of chemotherapy and its home management among the oncology patients.

#### **V. Conclusion**

Based on the findings of the study, it is concluded that out of 60 cancer patients 30 had adequate knowledge regarding the ill effects of chemotherapy and its home management.

The following conclusions were drawn on the basis of the present study

1. From the findings of the study obtained mean, median and standard deviation it can be inferred that the group was not homogenous and they have given all responses according to their own understanding against the knowledge questionnaire.
2. From the findings of the study, it can be concluded that the maximum knowledge was in the area of home management of ill effects of chemotherapy.
3. From the findings of the study, it can be concluded that the selected variables viz. age, gender, education, area of living and previous knowledge of chemotherapy have no significant association with the knowledge about ill effects of chemotherapy and its home management.

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