



## Effectiveness of Structured Teaching Program for Nurses Regarding Intravenous Administration of Chemotherapy

Nilam Kumari<sup>a</sup>, Jatan Singh Gurjar<sup>b</sup>, Narsingh Malav<sup>c</sup>, Suman Lata<sup>d\*</sup>, Tanima Verma<sup>e</sup>, Sarita Dubey<sup>f</sup>

<sup>a</sup> Lecturer, Sardar Patel Institute of Nursing, India

<sup>b</sup> Professor, RL Nursing College, India

<sup>c</sup> Professor, Child Health Nursing RL Nursing College, India

<sup>d</sup> Professor, Clinical Instructor, KGMU College of Nursing, India

<sup>e</sup> Clinical Instructor, KGMU College of Nursing, India

<sup>f</sup> Clinical Instructor, KGMU College of Nursing, India

### ABSTRACT

**Introduction:** Cancer prevalence in India has been projected to increase because of population growth, urbanization, industrialization, and lifestyle changes. The World Cancer Report said that according to the estimated cancer burden in India in 2018. One group pre test- post test quasi experimental design was selected for the present study.

**Material & Method:** The design was selected to explain the relationship between chemotherapy to assess the knowledge of staff nurses. The study was conducted in staff nurses posted in medical oncology was, Cancer hospital Gwalior. Purposive sampling technique was used for the present study. Total sample selected were 32 in number.

**Results:** Distribution of nurses according to their level of knowledge on intravenous administration of chemotherapy shows that in pre-test 28 nurses ( 87.5%) had moderately adequate knowledge, 3 nurses ( 9.37%) had adequate knowledge and only 1 nurses ( 3.1%) had inadequate knowledge. In posttest 22 nurses (68.75%) had adequate knowledge and 10 nurses (32.25%) had moderately adequate knowledge after the implementation of structured teaching program.

**Discussion:** The majority of the staff nurses have moderate knowledge with good practice. Distribution of nurses according to their level of knowledge on intravenous administration of chemotherapy shows that in pre-test 28 nurses ( 87.5%) had moderately adequate knowledge, 3 nurses ( 9.37%) had adequate knowledge and only 1 nurses ( 3.1%) had inadequate knowledge. In post test 22 nurses ( 68.75%) had adequate knowledge and 10 nurses ( 32.25%) had moderately adequate knowledge after the implementation of structured teaching program.

Keywords: Structured teaching Program, Intravenous administration of chemotherapy, Nurses

### 1. Introduction

Cancer is second leading cause of fatality among adult worldwide. In India, the international agency for research in cancer has indirectly estimated that about 635,000 people have died from cancer in 2008, representing about 8% of all estimated global fatalities from cancer and about 6% of all death in India. Cancer prevalence in India has been projected to increase because of population growth, urbanization, industrialization, and lifestyle changes. The

\* Corresponding author

E-mail address: [lata.suman83@gmail.com](mailto:lata.suman83@gmail.com)

World Cancer Report said that according to the estimated cancer burden in India in 2018, there are about **1.16 million** new cancer cases, **784,800** cancer deaths, and **2.26 million** 5-year prevalent cases in India's population of 1.35 billion.

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> Since chemotherapy also affects normal actively dividing cells as those in the bone marrow, the gastrointestinal tract, the reproductive system and in the hair follicles, most patients may experience some degree of side effects, which may include the following; pain, nausea and vomiting, fatigue, hair loss, anxiety, susceptibility to infections, decrease in blood cell count, mouth sores and ulcers, other side effects may include fluid retention, rashes, irritated bladder, swelling and numbness and aching of the joints, hands and feet and may be associated with significant cognitive impairment.<sup>4</sup> Many cancer patients will delay or refuse future chemotherapy treatments and contemplate stopping chemotherapy altogether because of their fear of experiencing further side effects.<sup>5</sup> Most patients do not want to take more drugs and are looking for safe, health promoting solutions from Natural Medicine. Maintaining quality of life and a sense of control over one's experience and daily life is vital to traversing such difficult terrain. Chemotherapy side effects may last months after treatment has been completed. When cancer patients and cancer survivors attending hospitals, must aware about safe and natural remedies including herbal medicines, nutritional supplements.

## 2. Material and Method

One group pre test- post test quasi experimental design was selected for the present study. The design was selected to explain the relationship between chemotherapy to assess the knowledge of staff nurses. The study was conducted in staff nurses posted in medical oncology was, Cancer hospital Gwalior. Purposive sampling technique was used for the present study. Total sample selected were 32 in number. Ethical permission was taken from Principal of R.L. Nursing College.MP, India

Results

**Table -1 Frequency and percentage distribution of demographic variable of staff nurses**

Demographic Data	Frequency(f)	Percentage (%)
<b>Age (In years)</b>		
21-25	29	90
26-30	3	9.3
Above 30	0	0
<b>Educational Status</b>		
B.SC. Nursing	32	100
G.N.M.	0	0
<b>Years of experience</b>		
Less than 2 years	24	75
2-3 years	6	18.7
Above 3 years	2	6.2
<b>Training Program enrolment in chemotherapy</b>		
Yes	4	12.5
No	28	87.5

Thirty two nurses were selected for the study, among them 29 (90.6%) were between the age group of 21 -25 years, and least 3 (9.3%) were from 26-30 years. In years of experience 24(75%) staff nurses have less than 2 years of experience , followed by 6 (18.7%) of them having 2-3 years of experience and least 2(6.2%) members have above 3 years of practical experience . 28(87.5%) nurses have not attended any training program regarding IV administration of chemotherapy and only 4 (12.5%) have undergone chemotherapy training sessions at Cancer Hospital Gwalior.

**Table -2 Frequency and percentage distribution of pre testpost test knowledge score regarding IV administration of chemotherapy**

Knowledge Score	Pre-Test		Post-Test	
	Frequency	Percentage	Frequency	Percentage
Adequate Knowledge	3	9.3	22	68.74
Moderate Knowledge	28	87.5	10	31
Inadequate Knowledge	1	3.1	0	0

Distribution of nurses according to their level of knowledge on intravenous administration of chemotherapy shows that in pre-test 28 nurses (87.5%) had moderately adequate knowledge, 3 nurses (9.37%) had adequate knowledge and only 1 nurses (3.1%) had inadequate knowledge. In post test 22 nurses (68.75%) had adequate knowledge and 10 nurses (32.25%) had moderately adequate knowledge after the implementation of structured teaching program.

**Table -3 The effectiveness of Structured teaching program on knowledge of nurses regarding intravenous administration of chemotherapy**

Variables		Mean	SD	W DOXH		P value
				Calculated Value	Tabulated Value	
Knowledge Score	Pre Test	16.75	3.1	10.55*	2.04	0.00001
	Post Test	23.03	3.23			

Statistically significant  $T p < 0.05$  Level

The effectiveness of structured teaching program on administration of intravenous therapy was 10.55 and the tabulated value 2.040 at the level of ( $p < 0.05$ ), this shows that there is a significant improvement in the knowledge of staff nurses after the implementation of structured teaching program.

### 3. Discussion

Thirty two nurses were selected for the study, among them 29 (90.6%) were between the age group of 21-25 years, and least 3 (9.3%) were from 26-30 years. In years of experience 24(75%) staff nurses have less than 2 years of experience, followed by 6 (18.7%) of them having 2-3 years of experience and least 2(6.2%) members have above 3 years of practical experience. 28(87.5%) nurses have not attended any training program regarding IV administration of chemotherapy and only 4 (12.5%) have undergone chemotherapy training sessions at Cancer Hospital Gwalior. The study finding supported by a descriptive study conducted to assess knowledge and practice of prevention and management of extravasation among 60 staff nurses in Uttar Pradesh, India in 2016. The result of study showed that 23.3% had adequate knowledge, 66.7% had moderate knowledge and 10% had inadequate knowledge with mean knowledge score 13.43 and standard Deviation 2.62. The majority of the staff nurses have moderate knowledge with good practice. Distribution of nurses according to their level of knowledge on intravenous administration of chemotherapy shows that in pre-test 28 nurses (87.5%) had moderately adequate knowledge, 3 nurses (9.37%) had adequate knowledge and only 1 nurses (3.1%) had inadequate knowledge. In post test 22 nurses (68.75%) had adequate knowledge and 10 nurses (32.25%) had moderately adequate knowledge after the implementation of structured teaching program.

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