Journal of Advanced Zoology
ISSN: 0253-7214
Volume 43 Issue 1 Year 2022 Page 1265-1267

A Study to Assess the Knowledge Regarding Safe Handling of the Chemotherapy Drugs Among Staff Nurses Working at Selected Cancer Hospital

Mrs. Komal Gosavi*

**M.Sc. Nursing (Medical Surgical Nursing), Assistant professor, SMBT college of Nursing, Dhamangaon, Nashik, Maharashtra, India*

Abstract

Cancer is the second leading cause all around the world population, and is responsible for an estimated 9.6 million deaths in 2018. Approximately 70% of death from cancer occur in low and middle income countries. Cancer is a genetic term for a large group of diseases that affect any part of the body. One defining feature of cancer is the rapid creation of abnormal cells that grow beyond their usual boundaries, and which can then invade adjoining parts of the body and spread to other organs, the latter process is referred to as metastasizing. Metastases are a major cause of death from cancer. Chemotherapy as a treatment modality was introduced in the late1950s and became established in medical practice in the 1970s. Chemotherapy is a systematic treatment rather than localized therapy. Chemotherapy drugs interfere with a cancer cell's ability to divide and reproduce. A single drug or a combination of drugs is used. These can be delivered either directly into the bloodstream, to attack cancer cells throughout the body, or they can be targeted to specific cancer sites. Chemotherapy is an invasive treatment that can have severe adverse effects. This is because the drugs often target not only cancerous cells but also healthy cells. The toxicity of chemotherapeutic agents has been well known since 1940s because these agents are nonselective in their mechanism of action and affect non-cancerous as well as cancerous cells, resulting in chromosomal damage, necrosis of comprised skin rashes, itching, and dyspnea.

INTRODUCTION

Cancer is the second leading cause all around the world population, and is responsible for an estimated 9.6 million deaths in 2018. Approximately 70% of death from cancer occur in low and middle income countries. Cancer is a genetic term for a large group of diseases that affect any part of the body. One defining feature of cancer is the rapid creation of abnormal cells that grow beyond their usual boundaries, and which can then invade adjoining parts of the body and spread to other organs, the latter process is referred to as metastasizing. Metastases are a major cause of death from cancer. Chemotherapy as a treatment modality was introduced in the late1950s and became established in medical practice in the 1970s. Chemotherapy is a systematic treatment rather than localized therapy. Chemotherapy drugs interfere with a cancer cell's ability to divide and reproduce. A single drug or a combination of drugs is used. These can be delivered either directly into the bloodstream, to attack cancer cells throughout the body, or they can be targeted to specific cancer sites. Chemotherapy is an invasive treatment that can have severe adverse effects. This is because the drugs often target not only cancerous cells but also healthy cells. The toxicity of chemotherapeutic agents has been well known since 1940s because these agents are nonselective in their mechanism of action and affect non-cancerous as well as cancerous cells, resulting in chromosomal damage, necrosis of comprised skin rashes, itching, and dyspnea.

BACKGROUND OF THE STUDY

With the constant increase in the number of people affected by cancer – according to the WHO, there will be a 70% increase in the number of new cases over the next two decades – nursing staff are required to treat a growing number of cancer patients, notably with chemotherapy. This type of treatment uses medicines that prevent the rapid growth and division of cancerous cells. these medicines, known as cytotoxic or antineoplastic agents, also damage healthy cells and therefore pose a serious health risk to the people who prepare them, transport them, administer them to patients, carry out certain cleaning duties and dispose of any waste. Anti-cancer drugs can irritate skin, eyes and mucous membranes, and cause nausea, vomiting, diarrhea, dizziness, hair loss, etc. They have serious effects on the health of fetuses, including miscarriage, congenital defects and low birth weight. As a result, pregnant workers or those trying to conceive must not carry out any tasks that involve handling anti-cancer drugs.

PROBLEM STATEMENT

"A study to assess the effectiveness of structured teaching programme on knowledge regarding safe handling of the chemotherapy drugs, among staff nurses working at selected cancer hospital".

OBJECTIVES

1. To assess the existing level of knowledge regarding safe handling of the chemotherapy drugs among, staff nurses working at selected cancer hospital.
2. To assess the effectiveness of structured teaching programme on knowledge of staff nurses regarding safe handling of the chemotherapy drugs in selected cancer hospital.
3. To find out the association between the pre-test knowledge scores of staff nurses with their selected demographic variables.

MATERIAL AND METHOD

The pre-experimental study was conducted on knowledge regarding safe handling of the chemotherapy drugs among staff nurses working at selected cancer hospital. The main objective of the study was to evaluate effectiveness of Structured Teaching Programme on safe handling of the chemotherapy drugs among staff nurses. One group pre-test post-test research design was used to achieve the objective. Total 60 Staff nurses were selected for the study by non- probability Purposive sampling technique. Data was collected using structured knowledge questionnaire on safe handling of the chemotherapy drugs. On first day pre-test was conducted by administering knowledge questionnaire after the pre-test on the same day Structured Teaching Programme session was carried out. Structured Teaching Programme was administered through lecture cum discussion method in English language. After 7 days of teaching session again knowledge questionnaire was administered to Staff nurses to assess the post-test knowledge. Collected data transferred to a master sheet prepared for each section of the tool. The descriptive (frequency and percentage) as well as inferential statistics (Paired't' test and chi-square test) was used.

RESULT

The demographic variable with their result comprised majority of 76.67% of Staff nurses were of 21-30 years of age, 21.66% of Staff nurses were of 31-40 years of age, and only 1.67% of Staff nurses were above from 40 years' age. Majority of 3.33% Staff nurses were female and 16.66% Staff nurses were male. Majority of the Staff nurses i.e. 41.66% has completed Professional education in GNM, 33.33% staff nurses has completed P.B.B.Sc.Nursing, 16.66% has completed Basic B.Sc. Nursing and 8.33% staff nurses completed master degree in nursing. Staff nurses had different year of working experience in cancer hospital. Maximum staff nurses about 58.33% having 0-3 years of working experience in cancer hospital, 31.66% were having 3-5 years of working experience and 10% staff nurses having above 5 years of working experience in cancer hospital. 56.66% of staff nurses had received formal training on safe handling of chemotherapy drugs and 43.34% of staff nurses not received any formal training on safe handling of chemotherapy drugs. 44.12% staff nurses had received training by certificate course, 38.23% staff nurses had received training by seminar or workshop and 17.64% staff nurses had received training by short term course regarding safe handling of the chemotherapy drugs.

In present study, pre-test 13.33% of staff nurses had Average knowledge regarding safe handling of the chemotherapy drugs, 78.34% of them had good knowledge regarding safe handling of the chemotherapy drugs and 05% had very good knowledge regarding safe handling of the chemotherapy drugs. In post-test 56.67% of Staff nurses had very good knowledge regarding safe handling of the chemotherapy drugs, 41.67% of them had excellent knowledge regarding safe handling of the chemotherapy drugs and only 1.66% of them had Good knowledge regarding safe handling of the chemotherapy drugs. The pre-test mean score is 15.21 and the post-test mean score is 24.23. There is a significant difference between pre-test and post-test knowledge score. Calculated 't' value that is 39.44 at 59 degree of freedom was much higher than the tabulated value at 5% level of significance that is 2.0009. Hence it was significantly interpreted that H_{01} is rejected which states that the Structured Teaching Programme was effective. Hence it was proved that Structured Teaching Programme on safe handling of the chemotherapy drugs among staff nurses was effective in increasing the knowledge of the Staff nurses. In pre-test the obtained chi-square values for Demographic Variables age (in years) of staff nurses, gender, professional qualification, working experiences in years, receiving any formal training, and type of formal training programme regarding safe handling of the chemotherapy drugs are 9.791, 2.138, 16.8, 7.636, 2.518 and 7.323 respectively. Among this the chi-square value 9.791, 16.8, 7.636 and 7.323 are having significant association of age, professional qualification, experience year and type of formal training programme. Hence it was statistically interpreted that there was a significant association of pre-test knowledge scores with selected demographic variables as chi-square values i.e. 9.791, 16.8, 7.636 and 7.323 were higher than the table value at 5% level of significance which was statistically accepted.

CONCLUSION

From the study findings it was concluded that before administration of Structured teaching programme to Staff nurses were have insufficient knowledge about safe handling of chemotherapy drugs, all staff nurses had not undergone training for topic of safe handling of chemotherapy drugs. Staff nurse's response was good regarding safe handling the chemotherapy drugs and found to be beneficial for them and staff nurses express that this will able to handling chemotherapy drugs in cancer hospital. It was found that knowledge level of Staff nurses was between Average to Good knowledge level during pre-test but after administration of Structured Teaching Programme Knowledge level has improved to, Very Good and Excellent knowledge regarding safe handling of the chemotherapy drugs at selected cancer hospital. Overall response was found to be good and knowledgeable from Staff nurses.