

Cancer Chemotherapy and its Side Effect Management

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A study to evaluate the effectiveness of PTP regarding cancer chemotherapy and its side effect management on knowledge, attitude and practice.

Cancer is one of the second largest killer diseases next to the heart disease. The worldwide incidence of cancer is estimated at seven million with an annual mortality of about five millions. It is projected that by the year 2015, two-third of all cancer cases will occur in the developing world (SEARO-98)

Management of cancer consists of surgery, radiation & chemotherapy. Among these chemotherapy is the commonest treatment modality. Chemotherapy controls the uncontrolled cell division which is capable of metastases and invading adjacent organs.

Nurses spend more time with the patients than other members of team; a nurse has a better opportunity to know that patient with his physical and emotional condition on a daily basis.

Maltia A. et al reported that those who handle antineoplastic drugs can be exposed to low doses of drugs by direct contact, inhalation and ingestion. Scientific literature shows that many cancer chemotherapy agents are associated with the secondary formation of cancer and chromosomes abnormalities. The increased use of antineoplastic drugs in the treatment of cancer particularly in the out patient setting has resulted in the need for properly trained nurses to deliver the treatment safely and provide the continuity of care. The nurses administering antineoplastic drug need to be technically

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skilled and knowledgeable about the preparation and administration of drugs by intravenous route.

Nursing staff giving cancer chemotherapy in some institutions are not well trained in the administration of chemotherapy. There are no such guidelines on how to administer the chemotherapy. There is a need for developing PTP and test effectiveness in helping nursing personnel to develop confidence, increase knowledge and modify attitude which will help in effective management of cancer patients receiving chemotherapy.

Objectives of the study:

Develop and evaluate a planned teaching programme regarding chemotherapy and side effect management.

Assess and evaluate the knowledge, attitude and practice of nursing personnel before and after the administration of planned teaching programme on chemotherapy and side effect management.

Seek relationship between:

- Knowledge attitude
- Attitude and practice
- Knowledge and practice.

Methodology:

The study utilized an evaluative research approach with one group pretest and post test design. The population comprised nursing personnel working in a cancer hospital. A Simple Random Technique was utilized for selecting a sample.

Independent variable was PTP and the dependent variable comprised knowledge, attitude and practices scores of nursing personnel

regarding cancer chemotherapy and its side effect management.

Tools used for data collection were knowledge questionnaire, attitude scale and observation checklist.

Reliability of the structured questionnaire, attitude scale and observation checklist was established by Kuder Richardson 21 formula, Cronbac Alpha and inter-observer method respectively. The reliability was found to be $r = 0.87$ for knowledge questionnaire $r = .72$ for attitude scale and $r = .90$ for observation checklist.

A pilot study was conducted for checking the feasibility of the study and establishing reliability of the tools in a selected hospital at New Delhi.

Final data was collected from 30 nursing personnel administering chemotherapy. The collected data was organized and analyzed according to objectives of study using descriptive and inferential statistic.

Findings:

The significant findings of the study were: -

- * Position wise, 93.3 percent of nursing personnel were staff nurses whereas only 6.7% were ward sisters.
- * Age wise 96.6% nursing personnel were in the age group of 20-29 years and 3.33% belonged to the age group of 30-39 years.
- * General education status indicates that all the nursing personnel (100%) were SSC i.e. (10+2).
- * As regards professional edu-

cation status, the break up shows that 83.3% had B.Sc. Nursing whereas 16.7% had G.N.M. Diploma.

- * 80% of nursing personnel had experience below two years followed by 16.7% with 2 to 4 years experience, whereas only 3.3% had more than 6 years experience.
- * As regards special training on cancer chemotherapy none of the sample subject had attended any training programme on cancer chemotherapy administration.

Findings related to knowledge, attitude, practices:

- * Mean post test knowledge score (39.46) of Nursing personnel were found to be significantly higher than their mean pretest knowledge score (32.93) as evident from 't' value (29) = 10.9 $p < 0.05$ level. This suggested the effectiveness of PTP in increasing the knowledge of nursing personnel on cancer chemotherapy administration and its side effects management.
- * The mean post test attitude score (49.13) of Nursing personnel was found to be significantly higher than their mean pre test attitude scores (48.8) 't' value (29) = 6.15, $p < 0.05$. This suggested that PTP was effective in modifying the nursing personnel's attitude towards the cancer chemotherapy administration and its side effects management.
- * The mean post test practice score (44.2) of Nursing personnel was significantly higher than their mean pre test practice scores (26.4) as evident by 't' value (29) = 26.47 $p < 0.05$. This suggested the development of correct practices regarding administration

of cancer chemotherapy.

- * The coefficient of correlation between post-test knowledge score and post-test attitude score of nursing personnel indicates a positive relationship which was found to be significant $r(28) = 0.56$ $p < 0.05$.
- * The coefficient of correlation between post-test attitude score and post-test practice score of nursing personnel indicates a low positive relationship which was found to be significant.
- * The coefficient of correlation between post-test knowledge score and post-test practice score of nursing personnel indicates (0.03) relationship which was not found to be significant.

Conclusion:

- * PTP was to be effective in increasing knowledge, developing favorable attitude and improving correct practices regarding cancer chemotherapy administration and its side effects management.
- * A positive significant correlation existed between post test knowledge score and post test attitude score regarding cancer Chemotherapy administration and its side effects management.
- * A low positive but non-significant correlation existed between post test attitude score and post test practice score. There was no significant relationship between post test knowledge score and post test practice score. This shows that although PTP was effective in increasing the knowledge of nursing personnel but did not develop favorable attitude and improve correct practice as regards cancer chemo-

therapy administration and its side effect due to safe resources available in hospital setting like gloves etc.

Implications:

Findings of the study imply that since chemotherapy is associated with several side effects, Nursing personnel need to have adequate knowledge, favorable attitude and correct practices to deal with them effectively. Hence it is imperative for nursing personnel working in a cancer hospital to provide supportive and educative services.

Recommendations:

On the basis of the findings, the following recommendations were made:

- * A similar study may be replicated on a large sample for making broader generalization.
- * A similar study can be conducted by utilizing other teaching strategies.

References:

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