"A descriptive study to assess the knowledge on importance on use of laminar bio safety cabinet for preparation of chemotherapy drugs among staff nurses working in Bombay hospital ,Indore."

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Abstract:

Background of the study: Cancer is the uncontrolled growth of abnormal cells in body. The treatment of cancer with chemotherapeutic drugs started in early 20th century. Since then chemotherapy begin to use to treat many types of cancer. Worldwide, anti-neoplastic drugs are used in the treatment of cancer. These drugs, which are administered as infusions or bolus injections, are usually prepared individually for each patient.

Methods: The study was designed as a descriptive survey. A questionnaire was prepared and distributed among staff nurses using convenient sampling technique from various work areas of the Bombay hospital. Research setting. The participant were 30 nurses who worked in Icu and Wards,. Percentage calculation ,descriptive and inferential statistics were used to see the general distribution and analysis of data.

Result: Total 30 Samples of staff nurses were obtained (23 female,7 male).The knowledge score mean of participants was 13.886 and standard deviation was 3.172.The P value is >4.932<2.391 and 70% of staff nurses were belong to 21-25 years age group,63.33% of staff nurses were Hindus ,53.32% of staff nurses were BSc nursing staffs,43.33% of staff nurses were having 2 years of experience and 66.66% of nurses did not attend the continuous training education.

Findings- The present study shows that 66.66 % of staff nurses didn't attend the continuous education training on preparation of chemotherapy drugs only 33.34% attended the training. The present study shows that overall mean and percentage of the knowledge score level under sub headings i.e. poor, average good. between 1-7 is 3.335% staff nurse and the knowledge score between 8-14 is 50% staff nurses the knowledge score between 15-21 is 46.67% staff nurses. 71

Conclusion- It is recommended that all nursing staffs should receive training and reinforcement should be done regarding importance on use of laminar bio safety cabinet for preparation of chemotherapy drugs among staff nurses.32

INTRODUCTION

Chemotherapy is broadly based upon the use of chemotherapeutic drugs with strong anti-cancer cytotoxic effects. To minimize occupational exposure to chemotherapeutic cytotoxic drugs, special department design and equipment are necessary as well as personal protective measures and safety practices during all procedures involving the use of these agents, such as transportation and storage, preparation and reconstitution, administration and care of patients and finally disposal. Nurses must be aware of the safe handling of the

chemotherapeutics, its classification, its action on cells and the safe handling and disposal to prevent the hazards. They must be conscious about their own health.

OBJECTIVES OF THE STUDY:

1.To assess the knowledge regarding importance on use of laminar bio safety cabinet for preparation of chemotherapy drugs among staff nurses.

2.To assess the knowledge score with area wise distribution regarding importance on use of laminar bio safety cabinet for preparation of chemotherapy drugs among staff nurses.

3.To find out the association between of the knowledge score regarding use of laminar biosafety cabinet with their selected socio demographic variables.

HYPOTHESES (AT 0.05 LEVEL OF SIGNIFICANCE)

$H0_1$- There is no significant association of knowledge scores with their selected socio demographic variables.

H1- There will be significant association of knowledge scores with their selected socio demographic variables.

REVIEW OF LITERATURE-

Literature reviewed under following headings as follows,

1. Review of literature regarding use of laminar bio safety cabinet.

2. Review of literature related to importance on use of laminar bio safety cabinet for preparation of chemotherapy drugs among Staff nurse.

RESEARCH METHODOLOGY: -

Research Design- Descriptive survey.

Research Setting-Bombay hospital, Indore,M.P.

Variable-Demographic variable i.e. age,gender,religion,professional qualification, work experience and continuous nursing education programme.

Target Population- Staff nurses who are working in Bombay hospital, Indore.

Sample Size-Sample size were 30.

Sampling Technique-Non probability convenient sampling technique was used.

RESULT-1 Demographics

The analysis of the demographic data of the study samples gives an idea about the general characteristics of the staff nurses of selected hospital(Bombay hospital, Indore). Distribution of staff nurses according to their age in years shows that70% each were belonging to the age group of 21-25 years, 26.67% in age of 26-30 years and >36years of age respectively. Distribution of staff nurses according to their gender reveals that 76.67% of them were Females and 23.33%Males.Distribution of staff nurses according to their religion reveals that 163.33% Hindu and 3.33% Muslim and 33.34% Christian. Distribution of staff nurses according to their professional qualification reveals that 33.34% GNM , 53.32% BSc Nursing staffs, 6.67% Post BSc Nursing staffs and 6.67%

were MSc Nursing staffs.Distribution of staff nurses according to their work experience in years reveals that 33.34% staffs with 1 year of work experience, 43.33% staffs with 2 years of work experience , 10%with 3 years of work experience and 13.33% with ≥ 4 years of work experience. Distribution of staff nurses according to their attended continuous training education reveals that the staff nurses who attended the continuous training education were 33.34% and staffs who have not attended the continuous training education were 66.66%.

RESULT-2 KNOWLEDGE SCORE OF STAFF NURSES

This Table deals with the assessment of knowledge of staff nurses working in Bombay hospital in different department. The level of knowledge is divided under the following heading poor, average and good.

Table no 1.1 the knowledge score,Mean,Standard Deviation

(N=30)

S.NO	LEVEL OF KNOWLEDGE	KNOWLEDGE SCORE	FREQUENCY	PERCENTAGE	MEAN	STANDARD DEVIATION
1	Poor	1-7	1	3.33	13.886	3.172
2	Average	8-14	15	50		
3	Good	15-21	14	46.67		

The above table shows the mean and standard deviation of knowledge during assessments. The overall mean of knowledge score is 13.886 and overall standard deviation is 3.172 that shows that data is scattered away from the mean. The knowledge score between 1-7 is 1 (3.335) staff nurse and the knowledge score between 8-14 is 15(50%) staff nurses the knowledge score between 15-21 is 14 (46.67%) staff nurses.

RESULT:-3 The area wise Knowledge score,Mean,standard Deviation

Descriptive statistics was used to test the significance of knowledge score of staff nurse regarding importance on use of laminar bio safety cabinet for preparation of chemotherapy drugs among staff nurses. Area wise knowledge scoring done under grades i.e. Poor, average and good under following sub headings.

1.Knowledge on chemotherapy.
2.Chemotherapy drugs.
3.Safe handling and administration of chemotherapy drugs.
4.Management of chemotherapy complication.

5. laminar bio safety cabinet

Mean score was high on knowledge on chemotherapy and laminar bio safety cabinet(2.066-2.133).

RESULT:-4 ASSOCIATION OF KNOWLEDGE SCORE IN RELATION TO DEMOGRAPHIC VARIABLES

There is no association of knowledge on use of laminar bio safety cabinet for preparation of chemotherapy drugs among staff nurses in relation to age,gender,religion,professional qualification, work experience   and continuous nursing education programme. Thus null hypothesis is retained and alternative hypothesis is rejected.

Limitation:

The study is confined to a small i.e.30 nursing personnel working in different units of Bombay hospital, Indore; the generalization of the study to a large population can be made. The study was limited to particular region at Indore; the generalization of the study to a more regions can be added. Another limitation was that we could only assess the knowledge but could not see the practice of it.

Conclusion:

 Conclusion reveals that there was a no association in knowledge regrading importance on use of laminar bio safety cabinet for preparation of chemotherapy drugs among staff nurses in Bombay hospital, Indore.

There was no association between knowledge score with their selected socio demographic variables regarding use of laminar biosafety cabinet among staff nurses This training enhances quality nursing care to patient.

Keywords: - Chemotherapy, laminar Bio safety cabinet,

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