

## Effectiveness of Planned Teaching Programme on the Knowledge Regarding Challenges in Controlling Hospital Acquired Infection Among Senior Staff Nurses And Incharge Sisters Working in Government Medical College & Hospital, Nagpur.



### Nursing

**KEYWORDS :** Hospital acquired infection, Nurses knowledge, Effectiveness, Planned teaching programme

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### ABSTRACT

*Background:* Nurses plays an important role in assessment of the hospital infection rate with the help of surveillance. Nurse collaborates with medical and nursing staff to investigate the cause and spread of infection. Nurse carries out surveillance of Nosocomial infections and provides relevant information. Nurse identifies problems related to infection and reports to infection control committee and management. In order to do so, she needs to know about prevention and control of hospital infections and surveillance and methods. Nurse has to develop appropriate attitude of aseptic measures and have detail knowledge about the infection and its control measures. This knowledge helps in prevention minimizing the rate of Nosocomial infections. Till date, no study was conducted in Govt. Medical College & Hospital, Nagpur by nursing personnel.

#### Objectives:

1. To assess the existing knowledge of senior staff nurses and Incharge sisters regarding challenges in controlling hospital acquired infections.
2. To evaluate the effectiveness of planned Teaching programme regarding challenges in controlling hospital acquired infections.
3. To associate the post test knowledge score with the selected demographic variables.

*Method :* This Cross sectional study was based on evaluative approach. The population was all the nurses of Govt. Medical College & Hospital, Nagpur. The sample consists of 100 nurses willing to participate in study. The sampling technique used in the study was Non-Probability Convenient Sampling. The tool was structured questionnaire.

*Results:* The overall mean score knowledge at pre-test is  $4.76 \pm 1.37$  and after the planned teaching programme, the overall mean score knowledge at post-test was  $6.33 \pm 1.55$ . the *t*-value calculated was 10.31 and probability value was 0.000 i.e. less than table value hence it shows high significance increase in knowledge resulting in effectiveness of planned teaching programme.

*Conclusion:* The planned teaching programme significantly brought out their improvement in the knowledge regarding in controlling hospital acquired infections among nurses working in Govt. Medical College & Hospital, Nagpur. Analysis of data showed that there was significant increase in post test knowledge score.

### INTRODUCTION

Hospital are placed for healing and providing relief to the sick and wounded Hospital wastes have always been considered as potentially hazardous in view of dissemination of infection. The people exposed to risk of infection from hospital waste are patient medical, nursing and Para medical health provider, patient relatives. People involved in collection and disposal of waste as well as those involved in cleaning floor surface, instruments glassware and linen.

Hospitals in the developing world lack an awareness of infection control programmes and also proper documentation methods of various infections, making it very difficult to investigate the spread of infections (epidemics). Therefore, knowledge about the infection control to the Nurses and other staffs is essential.

One of the most important responsibilities of the infection control team is to establish a system for case finding and to initiate the maintenance of baseline infection rate for entire hospital to control nosocomial infections.

Nurse identifies problems related to infection and reports to infection control committee and management. In order to do so, she needs to know about prevention and control of hospital infections and surveillance and methods. Nurse has to develop appropriate attitude of aseptic measures and have detail knowledge about the infection and its control measures. This knowledge helps in prevention minimizing the rate of Nosocomial infections.

### MATERIALS & METHODS

The Quasi experimental design, one group pre-test post-test design was chosen for study. This study was Cross sectional based on evaluative approach. The investigator selected Govt. Medical College & Hospital, Nagpur. The sampling technique used in this study was non-probability convenient sampling. In this study, the sample size consisted of 100 nurses which fulfills the crite-

ria. A structured questionnaire of all close ended questions was prepared to determine the knowledge of nurses regarding challenges in controlling hospital acquired infections.

**PILOT STUDY:** The pilot study was conducted in hospitals on 10<sup>th</sup> December, 2015, to assess the feasibility of the study and to decide the statistical analysis and practicability of research. It was found feasible. 10 nurses were selected for pilot study using convenience sampling technique. The subjects included in pilot study are excluded in final study. The association between demographic variables and knowledge was analyzed by Guttman split half and all the tests were set at  $p < 0.05$ . The results showed that the statistical test chosen to test the results was appropriate.

**DATA COLLECTION:** The data gathering process began from 28th January, 2016. The investigator gathered Nurses at API Hall, GMCH in advance and obtained the necessary permission from the concerned authorities. The investigator introduced him and informed the nurses about the nature of the study so as to ensure better co-operation during the data collection.

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The investigator explained the need, scope, purpose and objectives of the study to the concerned authority. After securing the permission from the concerned authority of hospital and photocopy of written permission letter was given to the ward incharges and OPD incharges with necessary verbal information about the plan of action to get their cooperation.

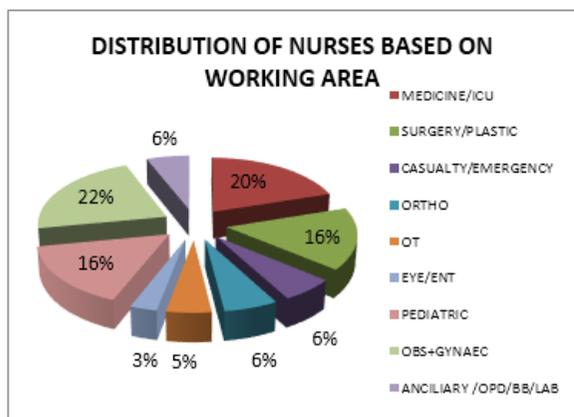
Then the questionnaire was distributed to all samples The 10 minutes are given to each sample for solving the questionnaire. Same day the planned teaching was imparted to the group by the lecture cum discussion with effective use of Visual aids. The

session is of 45 minutes. Every doubt was clarified. On Same day, post test was administered by using the same questionnaire to assess the effectiveness of planned teaching.

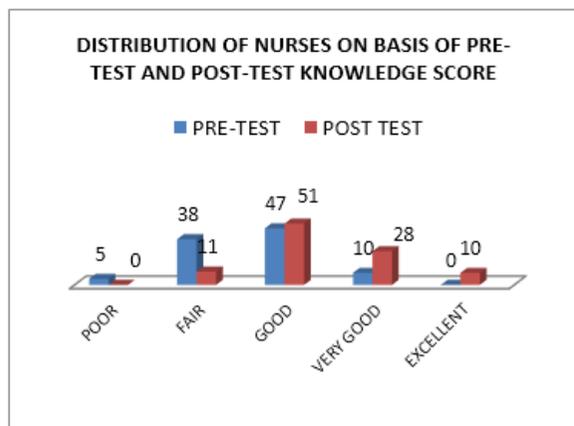
The collected data was coded, tabulated and analyzed by using descriptive and statistics (mean percentage, standard deviation) and inferential statistics. To associate the demographic characteristics, one way ANOVA test was used.

**RESULTS**

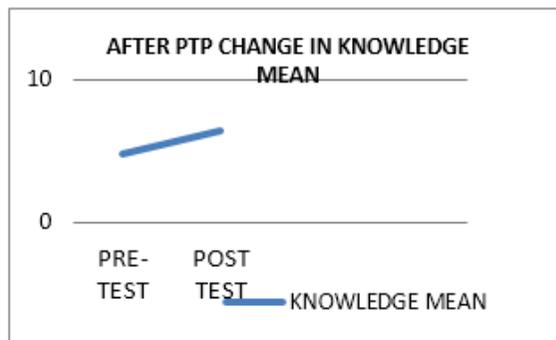
Majority (70%) of the samples under study were belongs to more than 45 years age group. Majorities (66%) of the samples were In-charge sisters and 34% of the samples were senior staff nurses. Majorities (88%) of the samples were GNM qualified in experimental group and 6% of the samples were PBBSc nursing in a group. There is 3 % PHN/DPN and 2% B.Sc. nurses whereas 1% samples were M.Sc. Nursing qualified in group. 14% samples of group were having the 5-10 years of working experience and 21% samples of group were having the 11-20 years of working experience, 65% samples of group were having more than 20 years of working experience Hence, it is interpreted that most of the samples under study were having more than 20 years of working experience in group.



The highest percentage (22%) of samples in group had been working in obstetrics & Gynecology Dept 20 % samples of group were from Medicine Department & ICU. and 16 % samples of group were from surgery & Plastic Surgery area and 6% samples of group were from casualty & emergency Department and 6 % samples of group were from ORTHO area, 5% samples of group were from operation theatre and 3% samples of group belong to Eye & ENT Dept.. And 16 % samples of group were from pediatric Department And 6% of the samples were from ancillary, OPD, Blood Bank and laboratory. Hence, it is interpreted that most of the samples under study were belongs to obstetrics & Gynecology Dept in group. And nextly medicine followed by surgery Department and plastic surgery.



The overall mean score knowledge at pre-test is 4.76 ±1.37 and after the planned teaching programme, the overall mean score knowledge at post-test was 6.33±1.55. the t-value calculated was 10.31 and probability value was 0.000 i.e. less than table value hence it shows high significance increase in knowledge resulting in effectiveness of planned teaching programme.



Association of knowledge and designation is calculated with student t –test, t- value is 1.97 and p-value is 0.049 which is less than table value so there is association between designation and knowledge regarding challenges in controlling hospital acquired infections.

Association of knowledge and qualification is calculated with F –test with f-value is 22.184, p value is 0.00 which is less than table value so there is high significant association between professional qualification and knowledge regarding challenges in controlling hospital acquired infections.

**There is no association find between the age, area of working of nurses with their knowledge score**

**DISCUSSION**

Under general assessment In pre-test, most of the samples of group had good level of knowledge i.e. 47 samples, 10 samples had very good level of knowledge and 38 samples had fair level of knowledge. And 5 had poor level of knowledge. No sample belongs to Excellent level of knowledge.

In post-test, most of the samples of group had good level of knowledge i.e. 51 samples, 28 samples had very good level of knowledge and 11 samples had fair level of knowledge. And 10 had Excellent level of knowledge. No sample belongs to poor level of knowledge.

The overall mean score knowledge at pre-test is 4.76 ±1.37 and after the planned teaching programme, the overall mean score knowledge at post-test was 6.33±1.55. the t-value calculated was 10.31 and probability value was 0.000 i.e. less than table value hence it shows high significance increase in knowledge resulting in effectiveness of planned teaching programme.

**CONCLUSION**

1. Most of the nurses in a group shows significant increase in knowledge level after planned teaching programme. During pre-test 0% nurses were excellent which increased to 10%.
2. Knowledge score shows that there is effectiveness of planned teaching programme as there was significant increase in knowledge level after post test in group.
3. Most of the demographic factors are not associated with knowledge but professional qualification and designation is significantly associated with knowledge level of nurses in group.

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**TABLE NO. 1 COMPARISON OF PRE-TEST & POST-TEST KNOWLEDGE SCORE**

NURSES GROUP [n=100]				
Knowledge area	Pre Test	Post Test	t-value	p-value
Overall	4.76 ±1.37	6.33±1.55	10.31	0.00 S,p<0.05

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