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## A pre-experimental study to assess the effectiveness of structured teaching program on knowledge regarding occupational health hazards among the housekeeping staff in selected hospitals of Panipat

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### Abstract

**Background:** Studies on hospital cleaning staff are scarce. Hospital cleaning is far more complex than cleaning offices or schools. Hospital cleaning therefore requires teaching and training. They are liable to hazards of several magnitudes. Regular teaching of basic microbiological principles for all cleaning staff, and assessment of hazards have proved beneficial.

**Aims:** To assess the knowledge of housekeeping staff regarding occupational health hazards.

**Materials and Methods:** The methodology of the presents study was a pre experimental research design. Sample size of the study was 60 selected with non-probability sampling technique. Self-structured knowledge questionnaire on occupational health Hazards among housekeeping staff was used for data collection. Data collection method was self-reporting questionnaire method; data analysis was done with the help of descriptive and inferential statistics.

**Result:** The results of the study shows that in pre-test, housekeeping staff were having an average 75% knowledge regarding selected questionnaire on occupational health hazards and mean score was 18.77 in post-test, average 86.66% knowledge regarding selected questionnaire on occupational health hazards and means score was 22.93, The post-test mean knowledge score is significantly greater than the pre-test mean knowledge score so structured teaching programme was effective.

**Conclusion:** The study concluded that the structured teaching programme was effective in enhancing the knowledge of housekeeping staff regarding occupational health Hazards.

**Keywords:** Effectiveness, structure teaching programme, knowledge, occupational health hazards

### Introduction

#### “An ounce of prevention is worth a pound of cure” (Benjamin franklin)

Hospital is one of the complex institutions which are frequented by people from every walk of life from society without any distinction between age, sex, race and religion. This is over and above the normal inhabitants of hospital i.e. patients and staff <sup>[1]</sup>.

Studies on hospital cleaning staff are scarce. Hospital cleaning is far more complex than cleaning offices or schools. Hospital cleaning therefore requires teaching and training. However, cleaners are often not provided with any form of training and new recruits are often provided with nothing more than a routine introduction to the cleaning process. The cleaners may perform poorly at the job and allow key microbial reservoirs in the clinical environment go unrecognized. They are also liable to hazards of several magnitudes. Regular teaching of basic microbiological principles for all cleaning staff, and assessment of hazards have proved beneficial <sup>[2]</sup>.

Though, the cleaners are unskilled, they play a vital role in the workings of the hospital. These groups of people though exposed to various hazards and health challenges are often neglected and basic preventive measures including education and training for health and safety are usually overlooked. In the developed countries these categories of workers are usually not covered by legislation, and do not have access to basic occupational health services available to other staff <sup>[3]</sup>.

Hospital cleaners routinely clean patient rooms, nursing units, surgical areas, administrative offices, laboratory areas, waiting areas and public restrooms. They clean furniture, polish floors and vacuum carpets. They empty trash and restock medical supplies. Hospital cleaners also collect dirty laundry from all patient areas and distribute the clean linen and hospital gowns back to the appropriate quarters.

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Some also take inventory of any repairs or replacements. Hospital cleaners are subjected to various occupational health hazards that also affect professional health care workers. Problems such as poor posture, mechanical load on the joints, prolonged standing, long working hours, missed meals, not taking breaks during work hours, as well as being subjected to physical factors such as noise and higher temperatures are important occupational health hazards for these workers. They often times are exposed to various forms of work hazards like accidental exposure to the blood and body fluids of patients similar to their counterparts<sup>[5]</sup>.

Despite mounting modifications to the work, through new technologies, changes in work organization and the emergence of new professions, it appears that some issues continue to challenge everyone, such as suffering, illness, accidents related to work. These issues, and have consequences for the people themselves, result in damage to the institutions and society. It is emphasized that occupational or occupational disease is a disease that the employee acquires due to exposure to factors that can that can be chemical, physical and biological, and harm the worker's body continuously or frequently, and for a long time in its Desktop. When working conditions beyond the tolerable limits of the organism, the probability of causing disease in work is significant<sup>[6]</sup>.

### Statement of the problem

“A pre-experimental study to assess the effectiveness of structured teaching program on knowledge regarding occupational health hazards among the housekeeping staff in selected hospitals of Panipat”.

### Objectives of the statement

- To assess the pre-test and post-test knowledge regarding occupational health hazards among housekeeping staff in selected hospitals of Panipat.
- To assess the effectiveness of structured teaching program on knowledge regarding occupational health hazards among housekeeping staff in selected hospitals of Panipat.
- To associate the pre-test knowledge of occupational health hazards among housekeeping staff in hospitals of Panipat with their selected socio-demographic variables.

### Hypothesis

All the hypothesis will be tested at  $P > 0.05$  level of significance.

**H1:** The mean post- test knowledge scores of the housekeeping staff after structured teaching program will be significant higher than their mean pre-test knowledge score.

### Assumptions

- a. Housekeeping staff will have inadequate knowledge regarding occupational health hazards in healthcare setup.
- b. Structure teaching program will enhance the knowledge of housekeeping staff regarding occupational health hazards in healthcare setup.

### Research methodology

Methodology of research organizes all the components of the study in a way that is most likely to lead to valid answers to the problems that have been posted. (Burns and Groove, 2002)

### Research design / setting of the study

One group pre-test post test research design taken. Setting is the general physical location in which data collection takes place. (Polit and Beck, 2004) The study was conducted in selected private hospitals of Panipat, Haryana. In present study the researcher selected one hospital (Cygnus hospital) for pilot study and three hospitals (Hydrabaadi, Aayushmaan bhav and IBM hospital) for main study. The population included in the study are housekeeping staff working in selected hospitals of Panipat. The sample size of the study is 60 housekeeping staff. Non-probability convenient sampling technique will be used.

**Description of the tool:** In this study tools has two parts.

**Part-A:** Demographic Variable

**Part-B:** Self-Structured knowledge Questionnaire on occupational health hazards among housekeeping staff.

### Data analysis

Descriptive and inferential statistic was used for data analysis. The plan of data analysed is as follow:-Computation of frequency and percentage for the analysis of socio-demographic variable. Arithmetic mean, percentage, standard deviation was calculated. Paired ‘t’ test to test the significant difference between pre-test and post-test knowledge score. The level of significance was set as 0.05.

### Data analysis & interpretation

- **The first objective of the study is to assess the pre and post- test knowledge regarding occupational health hazards among housekeeping staff in selected hospitals of Panipat.**

The result according to first objective:-Three fourth of the total samples 45 (75.00%) were having average knowledge. Those who had good knowledge were one fourth of the sample 15 (25.00%). None of the sample had poor knowledge.

- **The second objective of the study was to evaluate the effectiveness of Structured – teaching programme regarding occupational health hazards among housekeeping staff in selected hospitals of Panipat.**

The result according to second objective was:-Majority number of the samples 52 (86.66%) in post – test scored good level of knowledge. Those who got average knowledge were 8 in number (3.34%). None of the samples were under poor knowledge.

- **The third objective of the study was to find the association between the pre-test knowledge scores with their selected socio demographic variables.**

With regard to age majority of the samples 23 (38.33%) were in age between 21 – 25 years. Those who were in age between 26 – 30 years were 22 (36.67%). One fourth of the total samples 15 (25.00%) were in age between 31 – 35 years.

Education of the samples reveals that majority of them 33 (55.00%) were had primary education. Rest others 27 (45.00%) were no literates.

With regard to gender of the samples majority 36 (60.00%) were males and others were females 24 (40.00%).

Area of duty shows that majority of the samples 40 (66.66%) were working in surgical ward. One fourth of the samples who participated in the present study were worked in labour

ward 15 (25.00%). Less number of samples 5 (8.34%) were having their duty in medical ward.

With regard to type of duties equal number of samples 30 (50.00%) had general duties and day / night shift respectively. Monthly income of the samples shows that majority of the samples 22 (36.66%) were earning between 50001 – 10000 Rs. The second highest number of samples 18 (30.00%) had less than 5000 Rs monthly income.

With regard to experience in years majority of the samples 33 (55.00%) had one year of working experience. Rest of the samples were having two years of experience. Majority of the samples 36 (60.00%) had undergone hepatitis vaccine. Those who had not done hepatitis vaccine were 24 (40.00%).

#### **Level of association between pre – test knowledge and selected socio – demographic variables.**

The Age variable is not statistically significant with Pre – test knowledge ( $\chi^2 = 1.278$ . 'P' Value = 0.528). Education is not statistically significant with Pre – test knowledge ( $\chi^2 = 3.793$ . 'P' Value = 0.50). Sex variable is not statistically significant with Pre – test knowledge ( $\chi^2 = 0.370$ . 'P' Value = 0.385). Area of duty is not statistically significant with Pre – test level of knowledge ( $\chi^2 = 0.800$ . 'P' Value = 0.670). Type of duties is not statistically significant with Pre – test knowledge ( $\chi^2 = 0.800$ . 'P' Value = 0.670). Experience in years variable is not statistically significant with Pre – test knowledge ( $\chi^2 = 2.716$ . 'P' Value = 0.088). Last variable Hepatitis vaccination is found not statistically significant with Pre – test knowledge ( $\chi^2 = 0.370$  'P' Value = 0.385).

#### **Mean difference, standard deviation and 't' Test Values**

The mean pre – test knowledge score was 18.77 and the post – test mean score was 22.93, their mean difference was 4.16. the pre – test standard deviation value was 2.540 and their post – test standard deviation was 2.007. the calculated 't' test value was 11.359 and the 'P' value was 0.000. This was less than 0.05. Hence it was concluded that null hypothesis was rejected and alternate hypothesis was accepted.

#### **Summary, conclusion, implication and recommendations major findings of the study**

Frequency and percentage distribution of samples according to socio – demographic variables shows the following findings.

- With regard to age majority of the samples 23 (38.33%) were in age between 21 – 25 years. Those who were in age between 26 – 30 years were 22 (36.67%). One fourth of the total samples 15 (25.00%) were in age between 31 – 35 years.
- Education of the samples reveals that majority of them 33 (55.00%) were had primary education. Rest others 27 (45.00%) were no literates.
- With regard to gender of the samples majority 36 (60.00%) were males and others were females 24 (40.00%).
- Area of duty shows that majority of the samples 40 (66.66%) were working in surgical ward. One fourth of the samples who participated in the present study were worked in labour ward 15 (25.00%). Less number of samples 5 (8.34%) were having their duty in medical ward.
- With regard to type of duties equal number of samples 30 (50.00%) had general duties and day / night shift respectively.

- Monthly income of the samples shows that majority of the samples 22 (36.66%) were earning between 50001 – 10000 Rs. The second highest number of samples 18 (30.00%) had less than 5000 Rs monthly income.
- With regard to experience in years majority of the samples 33 (55.00%) had one year of working experience. Rest of the samples were having two years of experience.
- Majority of the samples 36 (60.00%) had undergone hepatitis vaccine. Those who had not done hepatitis vaccine were 24 (40.00%).

#### **The table II shows the frequency and percentage distribution of samples according to pre – test knowledge.**

- Three fourth of the total samples 45 (75.00%) were having average knowledge. Those who had good knowledge were one fourth of the sample 15 (25.00%). None of the sample had poor knowledge.

#### **The table III shows the frequency and percentage distribution of samples according to post – test knowledge.**

- Majority number of the samples 52 (86.66%) in post – test scored under good knowledge. Those who got average knowledge were 8 in number (13.34%). None of the samples were under poor knowledge.

#### **Nursing implications**

The current study findings have implications in all the field of nursing like nursing practice, nursing education, nursing administration and nursing research. The implications can be discussed as follows:

#### **Nursing Practice**

Nurses can arrange some educational sessions like educational exhibition and demonstration for housekeeping staff as well as for other healthcare personals for improving their knowledge and quality of nursing care. Nurses working in the community could collaborate with the Industries and hospitals to improve the Knowledge of workers on prevention occupational health hazards and health safety measures.

#### **Nursing Education**

Nurses at post graduate level need to develop skills in preparing various teaching methods in various specialized areas at the level of housekeeping. Nurse educators can arrange the interactive methods with the housekeeping staff who works in hospitals with low level of education faces a number of health hazards during work. Making use of advanced technology like LCD projector and power point presentations not only improve the performance of teacher but also help the housekeeping staff to understand very easily and can develop their interest in teaching.

#### **Nursing administration**

The present study has proven effectiveness of health education enhancing the Knowledge of housekeeping staff with reference to prevention of occupational health hazards. So the nurse administrator can take initiative to provide facilities to conduct research such educational programs in the institution as well as in community.

#### **Nursing research**

The findings of the present study have added knowledge to the already existing literature and the implications for the

nursing research are given in the form of recommendation. The study can be baseline for the future studies to build upon and motivate other researchers to conduct further studies.

- All the Healthcare workers should be included in the research activities.
- The study should research the practice of housekeeping staff regarding prevention of the occupational health hazards.

### Recommendations

- Similar study can be done with control group.
- The study can be replicated in different settings.
- Large sample size can be used for the study.

### Conclusion

From this study finding, it was concluded that structured teaching programme was effective in improving the knowledge of housekeeping staff regarding occupational health hazards in healthcare setup and how it will be beneficial in different responsibilities of nurses.

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**Conflict of interest:** Nil

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