# **Effectiveness of Structured Teaching Programme on Knowledge Regarding Infection Control Protocol Among Staff Nurses In** Selected Hospital At Visnagar

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INTRODUCTION: Hospital acquired infection are one of the most common adverse events during health care facility and a major public health issue affecting morbidity, mortality and quality of life. At any time up to 7% of patients in developed and 10% in developing countries will acquired at least one HAI, causing a considerable economic burden to the society. Infection prevention and control is a scientific approach and practical solution designed to prevent harm Caused by infection to patients and health workers.

METHOD AND MATERIAL: A Pre experimental research design was used for the study and data was collected for 60staff nurse working in hospital by convenient sampling method, through self-structured questionnaire. Data was analyzed by using descriptive and inferential statistics such as mean, standard deviation and chi square test.

RESULT: The Majority of the Study Showed That Highest (46.6%) Of Staff Nurse Belonged To the Age Group of 22-27 Year, Majority of the Gender (78.3%) Majority of Professional Qualification (48.3), Majority of Personal Experience among Staff Nurse in Hospital (43.33%), and Majority of Area of Work (40%). After the given of STP majority of majority of 88.33% of the sample population had good knowledge score, and where as 11.66% of the sample population had average knowledge score, In data analysis the mean of pre-test score was 12.96 and mean of post-test score was 24. The mean difference was 11.04. Post test mean was more than pre-test mean, which indicates the effectiveness of structured teaching programme on knowledge regarding infection control protocol among staff nurse in selected hospital at Visnagar. The standard deviation of pre-test knowledge score was 3.13 and post-test knowledge score was 2.60. The calculated' value is 36.8, the DF value was 59 and p value was 0.05 and the level of significant.

CONCLUSION: This study finding concluded that structured teaching programme was effective in improving knowledge regarding infection control protocol among staff nurse in selected hospital Visnagar.

Key Words: Structured Teaching Programme, Infection Control Protocol, Staff Nurse

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#### Introduction

Infection control refers to policies and procedures used to minimize the risk of spreading infection, especially in hospitals and human or animal health care facilities infection control is to reduce the occurrence of infectious disease. Healthcare facilities must have the necessary equipment to implement the standard precaution for all patients. The most significant precaution that is effective in preventing infection transmission is hand hygiene.

#### NEED OF THE STUDY

A hospital is one of the most likely places for acquiring an infection because it harbors a high population of micro-organisms, some of which are resistant to certain antibiotics, which may lead to hospital acquired infections. This study was found necessary to intervene and get insights about the problem of Healthcare associated disease and constraints that arises due to inadequate infection control practices, thereby finding an appropriate solution for the occupational safety of the employees. Nosocomial infections are the serious illness that can cause death in about 1% of all cases. In India the SRS estimates for the year 2003 is about 25 per 1000 live birth in early neonatal period (0-7 day) with about 28 for rural area and 12 for urban areas neonatal mortality rate for the whole country is about 37 per 1000 live birth with approximately 41 for rural area & 22 per urban area. The purpose of standard precaution is to break the chain of infection. Standard precaution is asset of practices that should be used in the care and treatment of all patients, regardless of whether they are known or suspected to be infected with a transmission organism, standard precaution applies when there is the potential for contact with:

Blood (including dried blood) Body fluids are secretions (except sweat)

Non- intact skin

Mucous membrane

Implementation of standard precaution is vital in the prevention of transmission of infection to patients and staff.

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#### **OBJECTIVES:**

- 1. Asses the pretest knowledge score regarding infection control protocol among staff nurse.
- 2. To evaluate the effectiveness of structure teaching programmed on knowledge regarding infection control protocol among staff nurse.
- 3. To find out the association between post test knowledge score with selected demographic variable.

#### HYPOTHESIS:

H1: The mean post-test knowledge score would be significantly higher than mean pre-test knowledge score.

H2: There would be significant association between post-test knowledge score and socio-demographic variable.

#### II. Review of Literature

The review of literature is considered as a systematic and critical review of the most important published scholarly literature on a particular topic. The scholarly literature can refer to published and unpublished based literature and conceptual literature material found in print and non – print forms. Major role is to develop a strong knowledge base to carry out research and other scholarly educational and clinical practice setting activities.

A literature review is an account of what has been already established or published on a particular research topic by accredited scholars and researchers.

Based on the objective of the study the literature from various had been reviewed & arranged under categories.

- 2.1 Review literature related to incidence of hospital acquired infection in India.
- 2.2 Review literature related to infection control protocol.
- 2.3 Review literature related to knowledge of staff nurse regarding prevention of infection and its control.
- 2.1 Review literature related to incidence of hospital acquired infection in India.

Mythri H and Kashinath KR (2014) in their study on nosocomial infections in patients admitted in intensive care unit of a tertiary health centre, India. Researcher's data were collected retrospectively from 130 patient's records presented with symptoms of nosocomial infection in MICU of a tertiary health centre, Tumkur from august 2012 to May 2013. Descriptive statistics using percentage was calculated.

### 2.2 Review literature related to infection control protocol.

Imad F et al (2015) in their study on knowledge and practice of nursing staff towards infection control measures in the Palestinian hospitals. The observer selected cross sectional study was conducted; data were collected using pre-test questionnaires in 271 nurses, in government hospital Palestine, selected by purposive sample. As per result (53.9%) of the studied sample had fair knowledge. However, the majority (91.1) % Of the studied sample had good practice (>80%).

#### 2.3 Review literature related to knowledge of staff nurse regarding prevention of infection and its control.

John G et al (2019) in their study on study to infection prevention control and organisational patient safety culture within the context of isolation: study protocol. The researcher involves qualitative case studies within isolation settings at two National Health Service (NHS) district general hospitals in wales, in the UK. The 18- month study incorporates Manchester's patient safety framework workshop with health workers and other hospital staff, in depth interviews with patients and their relatives, health workers and hospital staff, and periods of hospital ward observation. A computer assisted qualitative Data analysis software package will be utilised to manage and analysis data. Analysis will involve within- case and across case examination and theorisation, in richly describing the emerging relationship between patient safety culture and IPC.

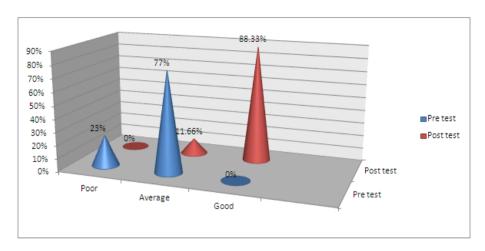
### **III.** Method And Material:

An experimental research design was used for the study and data was collected for 60staff nurse working in hospital by convenient sampling method, through self-structured questionnaire. Data was analyzed by using descriptive and inferential statistics such as mean, standard deviation and chi square test.

### IV. Result:

The Majority of the Study Showed That Highest (46.6%) Of Staff Nurse Belonged To the Age Group of 22-27 Year, Majority Of The Gender (78.3%) Majority of Professional Qualification (48.3), Majority of Personal Experience Among Staff Nurse In Hospital (43.33%), And Majority Of Area Of Work (40%). After the given of STP majority of majority of 88.33% of the sample population had good knowledge score, and where as 11.66% of the sample population had average knowledge score, In data analysis the mean of pre-test score was 12.96 and mean of post-test score was 24. The mean difference was 11.04. Post test mean was more than pre-test mean, which indicates the effectiveness of structured teaching programme on knowledge regarding infection control protocol among staff nurse in selected hospital at Visnagar. The standard deviation of pre-test knowledge score was 3.13 and post-test knowledge score was 2.60. The calculated value is 36.8, the DF value was 59 and p value was 0.05 and the level of significant. Calculated chi square value was not significant with professional qualification. Calculated chi square value was significant with age, gender, personal experience and area of work.

#### DISTRIBUTION OF THE SAMPLE ACCORDING TO THE PRE TEST AND POST TEST LEVEL OF SCORE



Graph showing percentage distribution of the sample according to the pre test and post test level of knowledge score, shows in the pre-test level of knowledge. Score, shows in the pre-test level of knowledge.

Score, according to level of knowledge, sample had average knowledge (76.66%), poor knowledge (23.33%), and (0%) had good knowledge. Score, Shows results in the post-test level of knowledge score, there was marked improvement in the knowledge because of after given structure teaching program, sample with (11.66%) gained average knowledge and (88.33%) gained good knowledge.

EFFECTIVENESS OF SIGNIFICANT DIFFERENCE BETWEEN PRE AND POST TEST KNOWLEDGE SCORE

Parameters	Mean	Mean different	No. of sample	Standard Deviation	"t" Value	DF	"p" Value
Pre Test	12.96	11.04	60	3.13	36.8	59	0.05
Post Test	24	11.04	60	2.60	30.8	39	0.03

The comparison between pre test and post test observation score regarding knowledge of regarding infection control protocol among staff nurse, The mean pre test observation score was 12.96 and the mean post test score was the 24, and the mean different 11.04 No. of sample 60, and the Standard Deviation was 3.13 in pre test and 2.60 in post test score, also the calculated "t" value was 36.8.and the DF =59, and the "p" value was 0.05. Thus, table revealed that mean post test knowledge score was higher than the mean pre test knowledge score. And the calculated "t" value (36.8) is greater than the table value so the research hypothesis was accepted.

Highly Improvement post test level of knowledge score there was given to intervention after pre test. So, The mean post-test knowledge score would be significantly higher than mean pre-test knowledge score.

#### V. Recommendations

The researcher recommends that

A similar study can be replicated on a larger population.

- 1. A study to assess the knowledge, belief and practices can be undertaken.
- A similar study can be conducted on nursing students to assess their knowledge regarding infection control protocol.
- A similar study can be conducted in the community with a non-literate group using different mode of communication (structured interview).

#### VI. **Conclusion:**

This study finding concluded that structured teaching programme was effective in improving knowledge regarding infection control protocol among staff nurse in selected hospital Visnagar

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