

“A Study to Assess the Level of Knowledge of Standard Protocol for Infection Control Among Health Care Assistant Working in Different Clinical Area at SMVMCH, Puducherry”.

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Abstract: Infection prevention and control (IPC) is a practical, evidence-based approach and aim is to prevent patients and health workers from being harmed by avoidable infections. The study was conducted to assess the level of knowledge of standard protocol for infection control among health care assistant working in different clinical area at SMVMCH, Puducherry. A total of 50 health care assistant were selected by using a convenient sampling technique and the study was carried out in Sri Manakula Vinayagar Medical College and Hospital. The data was collected by using the knowledge questionnaire consist of 25 question on standard infection control measures. The study results showed that 10 (20 %) of them had inadequate knowledge, 26 (52 %) of them had moderately adequate knowledge, 14 (28 %) of them had adequate knowledge and this might be due to lack of awareness, practice related to infection control at hospital. Mean and standard deviation on level of knowledge regarding standard protocol for infection control among healthcare assistant was 9.08 with the standard deviation of 4.01 The structured teaching and practice of standard infection control measures might make health care assistant in improving their knowledge and practice while practicing in hospital.

I. Introduction

If things are not so good, you may be want to imagine something better.

- John forbesnash

Infection prevention and control (IPC) is a practical, evidence-based approach whose aim is to prevent patients and health workers from being harmed by avoidable infections. Preventing health care-associated infection (HAIs) avoids this unnecessary harm and at times even death, saves money, reduces the spread of antimicrobial resistance (AMR) and supports high quality, integrated, people-centred health services. It is grounded in infectious diseases, epidemiology, and health system strengthening and implementation science. IPC occupies a unique position in the field of patient safety and quality universal health coverage since it is relevant to health workers and patients at every single health care encounter.

Patients in all health care settings are at risk for acquiring infections because of lower resistance to pathogens; increased exposure to pathogens, some of which may be resistant to most antibiotics; and invasive procedures. Health care workers are at risk for exposure to infections as a result of contact with **patient blood, body fluids, and contaminated equipment and surfaces**. By practicing basic infection prevention and control techniques, you avoid spreading pathogens to patients and sustaining an exposure when providing direct care. Patients and their families need to be able to recognize sources of infection and understand measures used to protect themselves. Patient teaching must include basic information about infection, the various modes of transmission, and appropriate methods of prevention.

Manasij Mitra (2021) Eastern India, the compliance rates regarding the hand hygiene among doctors were 81.34% in January 2019 to December 2019 and 94.50% in January 2020 to December 2020. Hand hygiene compliance rates among nurses were 91.63% in January 2019 to December 2019 and 98.52% in January 2020 to December 2020, while the hand hygiene compliance rates among other healthcare workers like physiotherapists and housekeeping staffs were 70.40% in January 2019 to December 2019 and 82.90% in January 2020 to December 2020.

II. Review Of Literature

T. Saraswathy et al., (2021) Applying inter professional simulation to improve knowledge, attitude and practice in hospital- acquired infection control among health professionals. This study aimed at determining the effectiveness of an innovative approach using interprofessional simulation scenarios (IPSS) in improving knowledge, attitude, and practice (KAP) of hospital-acquired infection control (HAIC) among health professionals. The interventional study was conducted in a teaching hospital in Malaysia. Purposive sampling was used to recruit participants from surgical, intensive care, and other units. Thirty-six health professionals in the experimental and forty in the control group completed the study. All subjects participated in an interactive

lecture and demonstrated four IPSS on HAIC i.e. (i) taking blood specimen (ii) bed sore dressing (iii) collecting sputum for acid-fast bacilli and (iv) intermittent bladder catheterization. Each team consisted of a doctor and a nurse. A self-administered questionnaire on KAP on HAIC was completed by respondents during the pre-, immediately and, post-intervention. An independent t-test was conducted to measure the significance between the experimental and control group. Overall, using the four procedures as surrogates, the interprofessional learning approach in HAIC intervention showed improvement among the participants in the experimental group following structured instructions.

Statement of the problem

“A study to assess the level of knowledge of standard protocol for infection control among health care assistant working in different clinical area at SMVMCH, Puducherry”.

Objectives

- To assess the level of knowledge regarding standard protocol for infection control among health care assistant.
- To associate the level of knowledge regarding standard protocol for infection control health care assistant with their selected demographic variables.

Assumption

The health care assistant at different clinical area may have adequate knowledge regarding standard infection control protocol.

Materials and methods

This chapter describes the research methodology followed to assess the level of knowledge of standard protocol for infection control among health care assistant working in different clinical area at SMVMCH, Puducherry. It deals with research approach, research design, setting of the study, population, sample, sample size, sampling technique, criteria for sample selection, plan for data collection and tools and instruments.

Section – A: This section consists of demographic data such as Age, Gender, Education, Language, Place of work and Sources of information.

Section – B: This section consist of 25 knowledge questionnaire on standard protocol for infection control. Each question consists of 1 mark. And scoring interpretation as,

Scoring interpretation:

| KNOWLEDGE | SCORING INTEPRETATION |
|-----------|-----------------------------|
| 1 – 8 | Inadequate knowledge |
| 9 – 16 | Moderate adequate knowledge |
| 17 – 25 | Adequate knowledge |

Research approach

A quantitative research approach was adopted for this present study.

Research design

Descriptive research design chosen for this present study.

Setting of study

This study will be conducted in SMVMCH Puducherry. This hospital is 100 meter away from SMVNC. The hospital is 1050 bedded multi - specialty hospital.

Sample:

The sample of the study comprises of all health care assistant working at Sri ManakulaVinayagar Medical College and hospital.

Sampling technique

Convenient sample technique chosen for this present study.

Sample size:

The sample size consist of 50 health care assistant.

Criteria for sample selection

Inclusion Criteria

1. Health care assistant who are willing to participate in the study.
2. Both male and female.

Exclusion Criteria

1. Health care assistant absence at the time of data collection.
2. Health care assistant who are not cooperate for the study

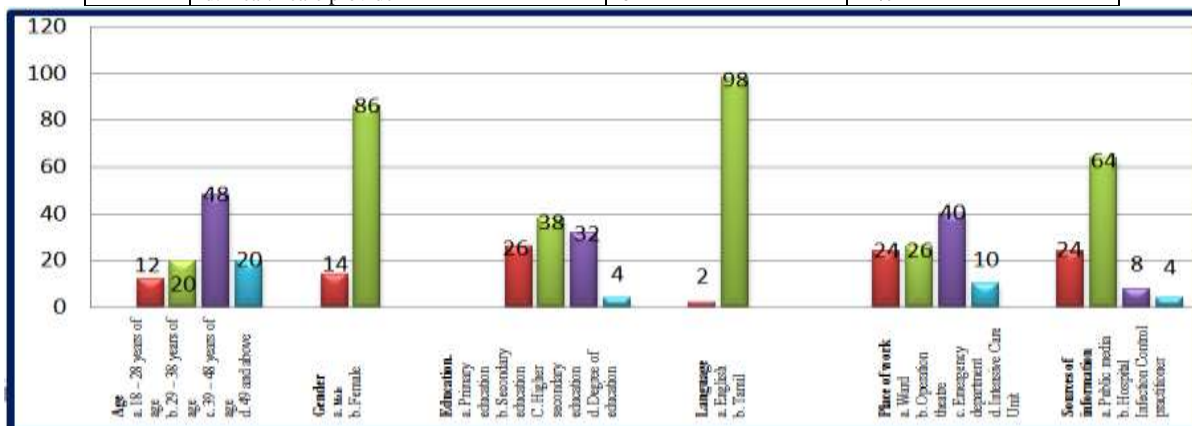
III. Results

The findings reveals that out of 50 samples 10 (20 %) of them had inadequate knowledge, 26 (52 %) of them had moderately adequate knowledge, 14 (28 %) of them had adequate knowledge. The findings reveals that Mean and standard deviation on level of knowledge regarding standard protocol for infection control among healthcare assistant. The mean score was 9.08 with the standard deviation of 4.01. The findings shows that association on level of knowledge regarding standard protocol for infection control among healthcare assistant with their selected demographic variables. There was no significant association between Age, Gender, Education, Language, Place of work and Sources of information.

Frequency and percentage wise distribution of demographic variables to assess the level of knowledge regarding standard protocol for infection control among healthcare assistant.

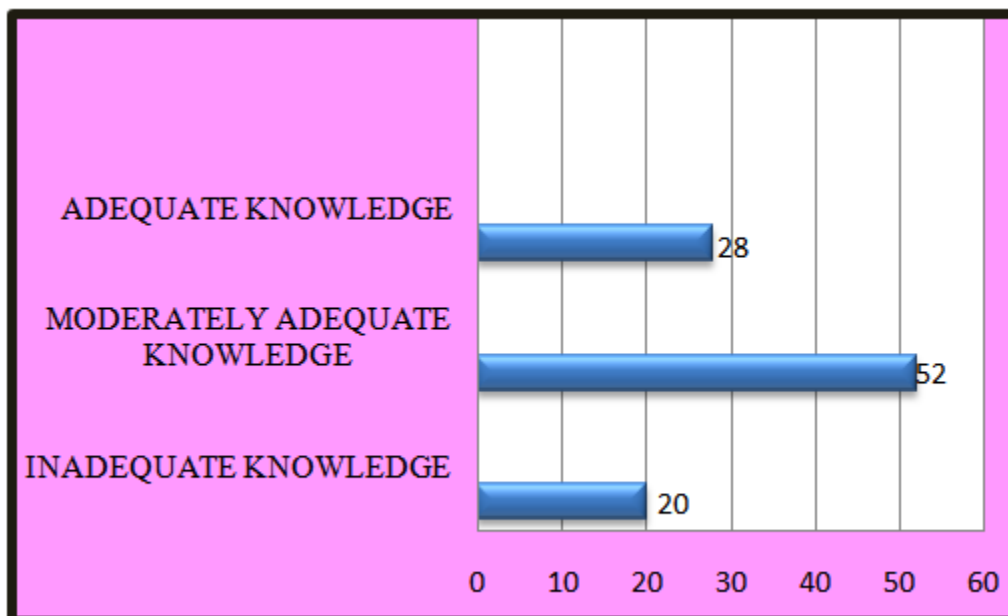
(N = 50)

| S.NO | DEMOGRAPHIC VARIABLES | FREQUENCY | PERCENTAGE |
|------|--|-----------|------------|
| 01 | Age | | |
| | a. 18 – 28 years of age | 06 | 12 % |
| | b. 29 – 38 years of age | 10 | 20 % |
| | c. 39 – 48 years of age | 24 | 48 % |
| | d. 49 and above | 10 | 20 % |
| 02 | Gender | | |
| | a. Male | 7 | 14 % |
| | b. Female | 43 | 86 % |
| 03 | Education. | | |
| | a. Primary education | 13 | 26 % |
| | b. Secondary education | 19 | 38 % |
| | C. Higher secondary education | 16 | 32 % |
| | d. Degree of education | 02 | 4 % |
| 04 | Language | | |
| | a. English | 1 | 2 % |
| | b. Tamil | 49 | 98 % |
| 05 | Place of work | | |
| | a. Ward | 12 | 24 % |
| | b. Operation theatre | 13 | 26 % |
| | c. Emergency department | 20 | 40 % |
| | d. Intensive Care Unit | 05 | 10 % |
| 06 | Sources of information | | |
| | a. Public media | 12 | 24 % |
| | b. Hospital Infection Control practitioner | 32 | 64 % |
| | c. Newspaper and Internet | 04 | 8 % |
| | d. Health care provider | 02 | 4 % |



Frequency and percentage wise distribution on level of knowledge regarding standard protocol for infection control among healthcare assistant. (N = 50)

| LEVEL OF KNOWLEDGE | N | % |
|-------------------------------|----|----|
| Inadequate knowledge | 10 | 20 |
| Moderately Adequate knowledge | 26 | 52 |
| Adequate knowledge | 14 | 28 |



Association on level of knowledge regarding standard protocol for infection control among healthcare assistant with their selected demographic variables.

(N = 50)

| S.N O | DEMOGRAPHIC VARIABLES | Inadequate | | Moderately Adequate | | Adequate | | X ² % | p value n |
|----------|-------------------------------|------------|----|------------------------|----|----------|----|---------------------|--------------|
| | | n | % | n | % | n | n | | |
| 01 | Age | | | | | | | | |
| | a. 18 – 28 years of age | 2 | 4 | 1 | 2 | 3 | 6 | 9.890 Df = 6 | 0.1294 NS |
| | b. 29 – 38 years of age | 2 | 4 | 7 | 14 | 1 | 2 | | |
| | c. 39 – 48 years of age | 2 | 4 | 15 | 30 | 7 | 14 | | |
| | d. 49 and above | 4 | 8 | 3 | 6 | 3 | 6 | | |
| 02 | Gender | | | | | | | | |
| | a. Male | 3 | 6 | 3 | 6 | 1 | 2 | 2.803 Df = 2 | 0.2461 NS |
| | b. Female | 7 | 14 | 23 | 46 | 13 | 26 | | |
| 03 | Education. | | | | | | | | |
| | a. Primary education | 6 | 12 | 5 | 10 | 2 | 4 | 9.439 Df = 6 | 0.1503 NS |
| | b. Secondary education | 2 | 4 | 10 | 20 | 7 | 14 | | |
| | c. Higher secondary education | 2 | 4 | 9 | 18 | 5 | 10 | | |
| | d. Degree of education | 0 | 0 | 2 | 4 | 0 | 0 | | |
| 04 | Language | | | | | | | | |
| | a. English | 0 | 0 | 1 | 2 | 0 | 0 | 0.941 Df = 2 | 0.6244 NS |
| | b. Tamil | 10 | 20 | 25 | 50 | 14 | 28 | | |
| 05 | Place of work | | | | | | | | |
| | a. Ward | 3 | 6 | 5 | 10 | 4 | 8 | 1.437 Df = 6 | 0.9636 NS |
| | b. Operation theatre | 3 | 6 | 6 | 12 | 4 | 8 | | |
| | c. Emergency department | 3 | 6 | 12 | 24 | 5 | 10 | | |
| | d. Intensive Care Unit | 1 | 2 | 3 | 6 | 1 | 2 | | |

| | | | | | | | | | |
|----|--|---|----|----|----|---|----|-----------------|--------------|
| 06 | Sources of information | | | | | | | | |
| | a. Public media | 3 | 6 | 4 | 8 | 5 | 10 | 7.216 Df = 6 | 0.3013 NS |
| | b. Hospital Infection Control practitioner | 6 | 12 | 20 | 40 | 6 | 12 | | |
| | c. Newspaper and Internet | 0 | 0 | 2 | 4 | 2 | 4 | | |
| | d. Health care provider | 1 | 2 | 0 | 0 | 1 | 2 | | |

It shows that association on level of knowledge regarding standard protocol for infection control among healthcare assistant with their selected demographic variables. There was no significant association between Age, Gender, Education, Language, Place of work and Sources of information.

IV. Conclusion And Recommendations

The present study was to assess the level of knowledge of standard protocol for infection control among health care assistant working in different clinical area at SMVMCH, Puducherry. A descriptive research design was selected for this study with quantitative research approach was adopted for this study. Population of the study consist of health care assistant working at hospital. The study samples were selected by using convenient sampling technique at Sri ManakulaVinayagar Medical College and Hospital. Sample size consist of 50 health care assistant working at Sri ManakulaVinayagar Medical College and Hospital.

Implication of the study

The study had implication for nursing practice, nursing education, nursing administration, and nursing research.

Nursing practice

- The nurse working in the hospital, clinical setting and in community should practice standard infection control measures as integral part of nursing profession.
- The study can also be used by the nurse to educate and instruct about the consequences of failure in practicing standard infection control measures
- This method will improve the health- seeking behaviour of people in the future.

Nursing education

- Effort should be made to improve and expand nursing curriculum to provide more content in the area of standard infection control measures.
- Students should be provided with adequate opportunities in developing skills in standard infection control measures.
- In Medical Surgical Nursing and Nursing Foundation, curriculum needs to strengthen to enable the nursing students to know about the standard infection control measures

Nursing administration

- Nursing administration can make necessary policies to implement awareness regarding standard infection control measures.
- Nurses administrator should arrange seminars, conference, workshops, related to standard infection control measures.
- The nurse administer plays a vital role in providing educational programme to provide knowledge regarding standard infection control measures should be placed in hands of people.

Nursing research

- The findings of the study help the nurses and students to develop the inquiry by providing baseline.
- In Nursing general aspects of this study indicates assessing standard infection control measures. Finally, the results can be made by further replication of the study.
- Nursing researcher should encourage clinical nurses to apply the research findings in their daily nursing care activities and can bring out new innovative procedure to reduce complications.
- The researcher should conduct periodic reviews of research findings and disseminate the findings through conferences, seminars, publications in journals and on the worldwide web.

V. Recommendation

On the basis of the findings of the study, the following recommendations have been made,

- A similar study can be replicated on a large sample to generalize the findings.
- A similar study can be conducted on a true experimental research design.
- A similar study can assess the knowledge, attitude and practice of standard infection control measures among staff nurse.

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