

Assessment of Knowledge and Attitude of Infection Control among Paramedical Students

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ABSTRACT

Background: Nosocomial contamination control is vital in any medical clinic to keep away from odds of cross-disease or communication of disease to different patients. Mixed breed disease could be characterized as the communication of irresistible specialists among patients and staff inside a clinical atmosphere.

Objectives: 1. To assess the information and perspectives of paramedical understudies at medical clinics to disease that ought to be followed regularly. 2. To see whether radiography understudies know about the presence of convention and enactment concerning nosocomial contamination control.

Methods: This prospective, questionnaire, comparative study was conducted at College of Paramedical Sciences, Teerthanker Mahaveer University, Delhi road Moradabad, Uttar Pradesh for period of one year. A validated questionnaire was circulated among Paramedical students. The survey include multiple choice questions (MCQs) related to demographic characteristics (Age, Gender), academic qualification and survey the degree of information and mentality of nosocomial contamination control among paramedical understudies.

Result: In this study assessment the knowledge and attitude of Infection control among paramedical students and we have concluded the exact mean value of all respondent in which there positively correct answer according to included three programmes like radiological imaging techniques, Medical lab techniques, and Optometry and in which there were response for radiological imaging techniques (73%), Medical

Lab Techniques (88%) and Optometry (82%). So then we concluded that Medical lab techniques have more knowledge compared to radiological imaging techniques and Optometry. The result of this study was not satisfied knowledge of respondents. Study concludes that there should be proper lecture and theory classes for the conduction of knowledge about nosocomial infection control. Among all three courses, Radiology imaging techniques, medical lab techniques, and Optometry, in 374 participants, and in which participated students have knowledge about paramedical students are at risk of infection 79.1% of students correct answered and the 20.9% students gave incorrect answered.

Conclusion: Among all the subjects, most of them were aware and had a positive attitude toward (78%) nosocomial infection control. The knowledge of nosocomial infection control was good among the respondents since most of them have done undergone prior nosocomial infection control by self-precautions. The respondents had good knowledge for nosocomial infection control and we were involved in three programmes of paramedical college including Radiological imaging techniques, Medical lab techniques, and Optometry and in which entire participants were 374 and in which 78% were positive knowledge and 22% negative knowledge.

Keywords: Infection, Microorganism, Sterilization, Nosocomial infection, PPE, SICP, PUI.

INTRODUCTION

Nosocomial infection is hospital acquired infection like bacteria, viruses, and fungi etc. these are caused in any events 48 to 72 hours after admission to emergency clinic or during a predetermine of 3 to 10 days after excuse so patient should not show side effect of disease at the time of admission.¹

Numerous elements are related with a high risk of nosocomial infection the factor that can minimum risk of nosocomial infection include systemic treatment of patients avoided prolong hospitalization the utilization of antimicrobial for hand cleaning.¹

Nosocomial infection are a significant medical condition in all social orders as indicated by the WHO 7.1 million instances of nosocomial contamination happen each year. One out of each 20 individuals experiences clinic disease which prompts 99,000 instances of death consistently and forces an assessment cost of 32 million to society.¹

Keeps to SICP (Standard infection control precaution) by the paramedical understudy is basic in battle HAIs (hospital acquired infections). Hence, radiography understudies need to have fitting information and practices of disease control.²

Contamination control is connected with shut down or stops the spread of disease in medical care establishments. Radiology staff in emergency clinics oversees various patients every day. Those patients who have a disease can put the radiology staff in danger when they visit the division they can likewise be a wellspring of tainting in the radiology field like surfaces, instruments, and machines.³

Staff of Paramedical is at high risk of openness cross-disease by blood borne microbes, for example, mycobacterium tuberculosis and other viruses.⁴

Hand cleanliness forestalls cross-disease in clinics however adherence to rules is regularly poor. While the strategy engaged with hand cleanliness is basic, the

unpredictable association of components that the investigation of hand cleanliness conduct produces the investigation of hand cleanliness complicates.⁴

Function of Infection Control Program

- Education and input to clinicians utilizing observation information and antibiogram information by anatomic site
- Provision of either hand washing materials or liquor based (waterless) hand purifying materials.
- Monthly meeting of the contamination control group.

Three moments for hand hygiene

1. Before contacting a patient.
2. Immediately after contact with body liquids, discharges mucous films non-flawless skin, or wound dressings whether or not gloves were utilized.
3. After reaching a patient and his/her brief natural components, regardless, when leaving the patient's side.



Fig. Way of hand washing for nosocomial infection control

Individual Protective Equipment

1. Utilization of Gloves

Sterile gloves ought to be worn when contacting blood, body fluid,

discharges, and debased things and when acting venipuncture.

2. Eye Insurance, Face Cover and Face Safeguard

Face Cover should be worn during systems or patient consideration.

Splashes of blood, body liquids emissions. Model suctioning imaging an injury.

Research facility tests.

3. N95 Respirators

Respirators are wrapper unequivocally expected to channel little particles transmitted by the airborne course like measles, tuberculosis and varicella. They are used for disintegrated making frameworks that have been seemed to uncover staff, including:

- Diagnostic bronchoscopy
- Sputum acceptance
- Laboratory treatment of mycobacterium tuberculosis, for example, concentrating respiratory examples for smear and culture Staff needed to wear N95 respirators should go through fitting.

4. Outfit/Cover

Outfit/cover ought to be worn to secure skin and to forestall ruining of dress during systems or patient consideration exercises that are required to create sprinkles or showers of blood, body fluid, emissions, and discharges.

5. Hack decorum/respiratory cleanliness

Instruct characteristic individuals and clinical benefits workers to cover their mouths/noses while hacking or wheezing use and dispose of tissues, perform hand neatness after hands have been in contact with respiratory outflow.⁵

METHOD AND MATERIAL

STUDY TYPE: A questionnaire-based cross-sectional study was carried out in the college of paramedical sciences at Teerthanker Mahaveer University, Delhi Road Moradabad, and Uttar Pradesh, India.

This study was a questionnaire based on Assesment of Knowledge and Attitude of Infection Control among Paramedical Students. To check the Knowledge about Nosocomial infection control postgraduate and undergraduate students from three departments' i.e. radiological imaging techniques, medical lab techniques and optometry.

STUDY DESIGN: This study was prospective, comparative & questionnaire-based designed and carried Out among paramedical students of the College of Paramedical Sciences at Teerthanker Mahaveer University Delhi Road Moradabad To check Knowledge about Nosocomial infection control postgraduate and undergraduate students from three departments i.e. radiological imaging techniques, medical lab techniques, and optometry were compared. The project was approved by the college review committee.

STUDY AREA: Students coming to pursue degree & master in the college of paramedical sciences Teerthanker Mahaveer University Delhi Road Moradabad Uttar Pradesh, India.

STUDY DURATION: This questionnaire-based study was carried out for the period of one year from 1 May 2020 to 1 May 2021 at the College of Paramedical Sciences Teerthanker Mahaveer University Delhi Road Moradabad Uttar Pradesh.

SELECTION CRITERIA

- **Inclusion Criteria**
 1. 1st-year undergraduate students of RIT, MLT & Optometry
 2. 2nd-year undergraduate students of RIT, MLT & Optometry
 3. 3rd-year undergraduate students of RIT, MLT & Optometry
 4. 1st-year postgraduate students of RIT, MLT & Optometry
 5. 2nd-year postgraduate students of RIT, MLT & Optometry
 6. Students who are willing to participate

• **Exclusion Criteria**

1. Faculty member of the paramedical college.
2. All diploma students.

STUDY POPULATION: The size of the population was 374 students. The population consisted of all students including both male & female who were physical & mentally sound aged between 18-31 of three departments i.e. radiological imaging techniques, medical lab techniques, and optometry of paramedical science excluding the candidates who fell under exclusion criteria.

METHOD OF DATA COLLECTION:

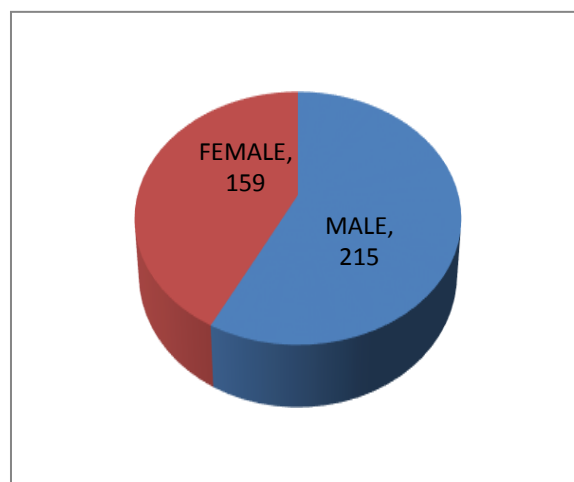
The study was carried out among students of three departments of paramedical science i.e. radiological imaging techniques, medical lab techniques, and optometry excluding the candidates who fell under exclusion criteria and who were ready to participate were included in the study. The purpose of the study was explained to every individual. After assessing these criteria, a total number of 374 participants were included in the study. Verbal consent was obtained from all students included in this study. The questionnaire was structured by using Google form & was distributed in different WhatsApp groups via the internet. The questions were incorporate subsequent to going through various literature related to that, which comprised of a self-structured questionnaire divided into two sections. The first section of the questionnaire comprised of demographic data including name, age, gender, program, department and semester.

SETTING AND RESOURCE: The project setting was done in the College of Paramedical Sciences Teerthanker Mahaveer University, located in the area of Moradabad district of Uttar Pradesh, India. This University is well established with various paramedical courses with various programs required for this study including radiological imaging techniques, medical lab techniques, and optometry.

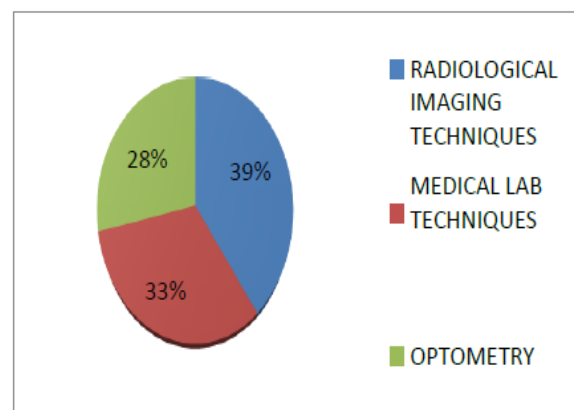
Statistical Analysis: The data collected was compiled, tabulated, and analyzed. Analysis was done using Google form.

RESULT

A prospective, comparative & questionnaire- based study was carried out with the size of 374 students on the topic “Assessments of knowledge and attitude of infection control among paramedical students”. Gave the following results in which pie chart



Pie chart show the ratio between male and female respondent in three paramedical programme

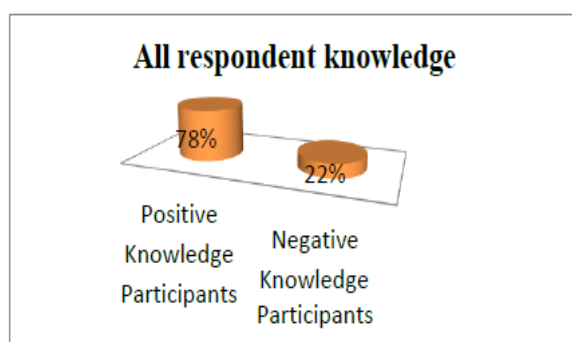


Pie chart show the ratio of respondent in different programme

After collecting data values were statistically and tabulated. Among the groups, the sample size was more in the radiological imaging techniques 143 students respectively. Less sample size was seen in 118 from medical lab techniques, 102 from Optometry students Pie chart show the ratio of radiological imaging techniques in the college of paramedical

sciences was more in comparison to the Optometry and Medical lab techniques.

The knowledge of nosocomial infection control was good among the respondents since most of them have done undergone prior nosocomial infection academic or performed nosocomial infection control by self-precautions. The respondents had good knowledge for nosocomial infection control and we were involved in three programmes of paramedical college including Radiological imaging techniques, Medical lab techniques, and Optometry and in which entire participants were 374 and in which 78% were positive knowledge and 22% negative knowledge.



Pie chart show all participants negative and positive knowledge

In this study assessment the knowledge and attitude of Infection control among paramedical students and we have concluded the exact mean value of all respondent in which there positively correct answer according to included three programmes like radiological imaging techniques, Medical lab techniques, and Optometry and in which there were response for radiological imaging techniques (73%), Medical Lab Techniques (88%) and Optometry (82%). So then we concluded that Medical lab techniques have more knowledge compared to radiological imaging techniques and Optometry. The result of this study was not satisfied knowledge of respondents. Study concludes that there should be proper lecture and theory classes for the conduction of knowledge about nosocomial infection control.

DISCUSSION

In this study Assessment the Knowledge and Attitude of Infection Control Among Paramedical Students and we were concluded the exact mean value of all respondent in which there positively correct answer according to included three programmes like radiological imaging techniques, Medical lab techniques, and Optometry and in which there were response for radiological imaging techniques (73%), Medical Lab Techniques (88%) and Optometry (82%). So then we concluded that Medical lab techniques have more knowledge compared to radiological imaging techniques and Optometry. The result of this study was not satisfied knowledge of respondents. Study concludes that there should be proper lecture and theory classes for conduction of knowledge about nosocomial infection control. ⁶

CONCLUSION

The paramedical students had great Information with respect to nosocomial contamination control and this information was reflected in their mentality and disposition and practice close by cleanliness for the counteraction of nosocomial disease. nonetheless, this investigation appear that there is a requirement in order to additional development in the need of hand cleanliness preparing program and The instructional courses ought to be led all the more over habitually with persistent execution input As paramedical understudies are a significant gathering of major parts in the medical care group it is critical to give the best precise information and legitimate preparing in regards to the preventive proportions of nosocomial contamination from the early time of their preparation further there is need for a disease anticipation group to get more engaged with preparing and refreshing of existing practices. Hand cleanliness specialists and sink are the vital components in improving execution to hand hygiene. ⁶

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Ethical Approval: Approved

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