

A Study to Assess Knowledge Regarding Universal Precautions among Staff Nurses

M. Magudeeswaran¹, Vasantha Kumari², Dr. Sridhar³, D. Maryline Flinsi⁴

¹Emergency Staff Apollo loga Hospital, Karur

²Nursing supervisor Apollo loga Hospital, Karur

³Unit head of Apollo loga Hospital Karur

⁴Principal, Apollo School of Nursing, Indraprastha Apollo Hospital, New Delhi – 76, India

Abstract: ***Topic:** A study to assess the knowledge regarding Universal Precautions, among Staff Nurses. **Background:** Nurses are the principal group of health care personnel in all health care settings. Nurses' lack of knowledge may be a barrier in prevention of infections. **Aim:** The objectives of the study were to assess the Staff nurses knowledge regarding universal Precautions, to assess the relationship between Staff nurses knowledge regarding universal precautions and selected variables. **Method:** This study was conducted in Apollo Logo Hospitals, Karur. Fourty Staff nurses were selected convenient Sampling technique for this study. The total period of the study was from October to April 2021 - 2022. A validated self - prepared questionnaire was used to assess the knowledge. **Results:** 52.5% of samples had good knowledge, 32.5% of samples had very good knowledge, 12.5% of samples had average knowledge and 2.50% of samples had below average knowledge. Based on the findings of the study, the following conclusions were drawn. The knowledge and attitude of nurses on universal precautions is above average and the nurses working in the medical units were having better knowledge than nurses in the Apollo hospital. There was no significant association between knowledge of nurses regarding universal Precautions with regard to their age, professional qualification, and experience. **Conclusion:** Awareness and knowledge of universal precautions played a significant role in reducing the infection mainly during pandemic situations.*

Keywords: Knowledge, Universal precautions, Staff Nurses, Hospital, Health care associated infections.

1. Introduction

Nurses are exposed on a daily basis to a range of health and safety hazards. The employment of appropriate infection control precautions to safeguard against transmission of blood - borne and other occupational microbial pathogens should be a routine component of healthcare provision. Center for Disease Control and Prevention recommends that everybody should use standard precautions whenever in contact with body fluids.

At anytime anyone's blood, body fluids, secretions, excretions, mucus membranes or non - intact skin can carry germs that are harmful to others¹. Prevention of transmission of pathogens in hospitals is predicated totally on standard precautions. Internationally, standard precautions are considered fundamental in prevention and control of infection and effective in protecting patients and nursing professionals. In an exceedingly handout on 13 October 2015 WHO state that "Preventable Hospital Infections are a serious explanation for death and disability for the patients".

Healthcare associated infections are a very important issue of patients who are critically ill. In August 2019, eight patients were identified to 11 have infections like six lung infections, one surgical site infection, six tract infections and three meningitis. Adequate knowledge regarding standard precautions can reduce the mortality and morbidity rates¹.

2. Material and Methods

- **Research approach:** Quantitative research approach
- **Research design:** Non - experimental descriptive design

- **Research Variable** - Knowledge on Universal precautions among Staff Nurses
- **Settings of the study** - Apollo Logo Hospital, Karur
- **Data collection method**

The knowledge of the staff nurses regarding universal precaution was assessed using structured knowledge questionnaire

- **Target population:** Staff Nurses working in Apollo Logo Hospitals, Karur
- **Sample:** Staff Nurses working in Apollo Logo Hospitals, Karur fulfilling inclusion criteria
- **Sample Size:** 40
- **Sampling Method:** Non probability convenient Sampling technique

Inclusion criteria:

Nurses working in Apollo Logo Hospital, Karur.

Exclusion criteria

Student Nurse, Nursing Assistant.

Ethical considerations:

Data was collected after obtaining written permission from our Unit Head and Nursing superintendent. Written consent was taken from the staff before collecting data

3. Results

The data regarding the knowledge of the staff nurses regarding the universal precautions was analyzed using descriptive and inferential statistic.

Volume 11 Issue 6, June 2022

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

Section A: Demographic variable of the staff nurses

Table 1: Frequency percentage of the demographic variable of the staff nurses

S. No	Demographic Variables	Frequency	Percentage
1	Gender		
	a) Male	4	10%
	b) Female	36	90%
	C) Transgender	NIL	0%
2	Age		
	a) 12 To 20 Years	NIL	0%
	b) 21 To 30 Years	37	92%
	c) > 30 Years	3	8%
3	Marital Status		
	a) Married	10	25%
	b) Unmarried	30	75%
	c) Divorced/ Separated	NIL	0%
4	Educational Status		
	a) GNM	17	43%
	b) B. Sc (Nursing)	23	57%
	c) M. Sc (Nursing)	NIL	0%
	d) Phd	NIL	0%
5	Working Experience		
	a) < 1 Year	20	50%
	b) 1 To 2 Years	10	25%
	c) 2 To 5 Years	7	17%
	d) >5 Years	3	8%
6	Place Of Work		
	a) Emergency	5	12%
	b) OPD	15	38%
	c) Wards	16	40%
	d) ICU	4	10%

Table 1 shows that highest percentage 90% of subjects were female and 10% were male. Regarding age 92% of them were 21 – 30 years, 8% of them were > 30 years. Most of the participants 75% were unmarried and lower 25% were married. With respect to their educational qualification 57% of their were GNM, and 43% of them were B. Sc Nursing. Half of the staff nurses 50% of them were < 1 year of experience, 25% of them were 1 - 2 years of experience, 17% of them were 2 - 5 year of experience and only 08% of them were > 5 year experience. Nearly 40% of the staff were working in wards, 38% in OPD, 12% in emergency and only 10% in ICU.

Section II knowledge of the staff nurses regarding universal precautions

Table 2: Item wise distribution of the staff nurses with respect to their correct response for the structured questionnaire, N=40

S. No	Structured Questions	Frequency	Percentage
1	Universal precautions should be practiced on	36	90%
2	Alcohol based hand rubs have good or excellent antimicrobial activity against all of following except	36	90%
3	When using hand wash to wash hands you should rub hands and fingers together atleast	38	95%
4	Each of the following statements regarding alcohol - based hand rubs is true except	32	80%
5	Which statement indicates best	38	95%

	understanding of the correct protocol for blood & body fluid isolation		
6	Which of the following is the 1 st priority in preventing infections when providing care for a client	40	100%
7	After use the PPE should be discarded in which of the following bin	40	100%
8	Use air borne precautions for patients known or suspected to have serious illnesses for the following conditions except	32	80%
9	In COVID treatment unit high touch surfaces should be disinfected every	34	85%
10	How many pairs of gloves is used during donning of PPE while caring for COVID patient	36	90%
11	Which is the proper way of disposal of used needles and sharp materials	30	75%
12	We are clean non - sterile gloves for the following except	30	75%
13	Which of the following solutions is used to disinfect the contaminated surface in Hospitals	36	90%
14	Most of the blood borne infections acquired in the work place is the result of	32	80%
15	Which of the following are considered as medical waste	32	80%
16	Proper disposal of medical waste	30	75%
17	For droplet precautions wear surgical mask with in	30	75%
18	When withdrawing medication from a multi - dose vial, you can reduce the risk of transmitting infections between clients by	26	65%
19	When using a full set of PPE, what is the proper order for donning	30	75%
20	What is always the final step after removing personal protective equipment (PPE)	34	85%

The structured questionnaire has 20 questions to assess the knowledge of the staff nurses regarding universal precaution. Each question carrier 1 mark and there was no negative marking.

Table 2 showed that all participants have given correct response to question number 6 and 7. Majority of the nurses (90% to 95%) have given correct response to question number 1, 2, 3, 5, 10, 13. Most of the nurses (80 - 85%) have given correct response to questions 4, 8, 9, 14, 15, 20. Question number 11, 12, 16, 17, 18, 19 are answered only by some nurses (65% - 75%).

Table 3: Distribution of the Nurses with respect to their knowledge regarding Universal Precautions

Knowledge	Frequency	Percentage
Below average (70%)	1	2.50 %
Average (70% - 79%)	5	12.5 %
Good (80% - 89%)	21	52.5 %
Very good (90% - 100%)	13	32.5 %
Total	40	100

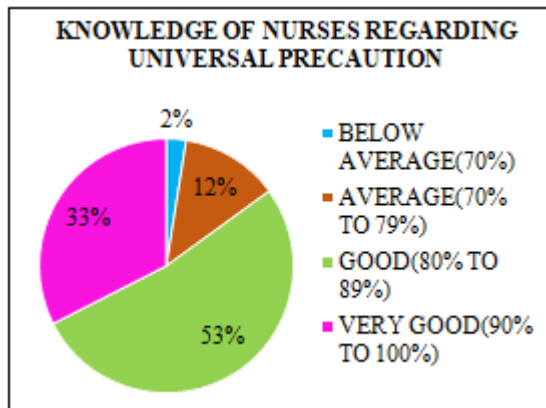


Figure 1: Distribution of nurses as per their knowledge regarding universal precaution

Table 3 and Fig 1 shows that nearly half of the sample 53% has good knowledge and some of the nurses 33% has good knowledge. Few nurses 12% had average knowledge and only 2% had below average knowledge

4. Discussion

There are many studies associated with knowledge and attitude regarding universal Precautions among nurses. this study emphasized to assess the knowledge regarding universal Precautions among Nurses through a structured questionnaire. The current study revealed that the nearly half of the staff nurses had good knowledge regarding universal precautions. There was significantly higher mean knowledge score among nurses in medical units than nurses working in Hospitals. This study is in agreement with the study conducted by Prateeksha in 2010 in kerela among neuro nurses which showed that the knowledge of neuronurses on standard precautions was above average¹.

5. Conclusion

Awareness and knowledge of universal standard precautions play a major role in reducing the infection mainly during pandemic situations². the present study findings assure that the nurses and were aware and are intimate with the universal precautions and their importance in reducing infections. this result shows the infectious committee features a great role in educating the health care workers and supply a far better environment for serving the patients³.

References

- [1] Ms. Prateeksha. R (2010) A study to assess knowledge regarding standard precautions among neuro nurses (Unpublished Dissertation)
- [2] <https://biomedpharmajournal.org/vol14no4/awareness-regarding-universal-safety-precaution-among-nurses-and-compulsory-rotatory-residential-internship-in-a-teaching-hospital>
- [3] https://www.researchgate.net/publication/264979520_Role_of_knowledge_in_practicing_universal_precautions_among_staff_nurses/
- [4] Gupta S, Williamson S, and Vij A. (2017). Knowledge and Practice of Nursing Staff Toward~ Infection Control Measures in a Tertiary Care Hospital. Journal of