A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE & PRACTICES REGARDING UNIVERSAL PRECAUTIONS AMONGST STAFF NURSES WORKING IN SELECTED HOSPITALS OF DISTRICT FATEHGARH SAHIB, PUNJAB.

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ABSTRACT

Statement of problem: A descriptive study to assess the knowledge & practices regarding universal precautions amongst staff nurses working in selected hospitals of district Fatehgarh Sahib, Punjab.

Material and methods: In the present study A quantitative research approach and non-experimental descriptive research design was used to assess the knowledge and practice regarding universal precaution among staff nurses. Total 40 sample of staff nurses were selected by convenient sampling technique. Data collection was done through self-structured knowledge questionnaire and checklist. The collected data were analyzed by descriptive and inferential statistics by calculating frequency, percentage, mean, standard deviation, and chi square test.

Result: the result of present study revealed that out of total majority (70%) had Good knowledge, (30%) average knowledge, no one had poor knowledge regarding Universal Precautions Amongst Staff Nurses working in selected hospital. And according to their practice score out of total majority (75%) had Good practices, (25%) had average practices, no one had poor practices regarding Universal Precautions amongst Staff Nurses Working In selected Hospital.

The descriptive statistics of knowledge score. their Mean and median value of health score were 31.88 and 33 while Standard deviation(SD) value were 5.05.Maximum score obtained by study subjects were 40 and minimum score obtained by study subjects were 23. Range value were 17 and mean percentage value for health score 79.7% and the descriptive statistics of practices score. their Mean and median value of health score were 7.95 and 8 while Standard deviation(SD) value were 1.67.Maximum score obtained by study subjects were 10 and minimum score obtained by study subjects were 5.Range value were 5 and mean percentage value for health score 19.8%.

Conclusion the conclusion of present study revealed that majority of the staff nurses had Good knowledge, and had Good practices regarding universal precaution in selected hospitals of district Fathegarh sahib.

Key words : knowledge, practice, universal precaution, staff nurses.

INTRODUCTION

You are a true Medico if "Universal Precautions" strike your mind after listing STD rather than Telephone.

Pranshi

"Universal precaution" is the international term used by the medical industry to describe the set of measures introduced to allow medical staff to safely handle material that may carry blood or body fluids infected with diseases. "Universal precautions" are designed to prevent infection from inoculation; contact with mucous membranes such as mouth or eye, or through skin damages such as cuts.[1]

It is essential for all nurses to follow universal precautions during their clinical posting, as any percutaneous or per mucosal exposure to blood or body fluids, represent a potential HIV. Infection these includes skin–piercing procedures with contaminated objects and even broken skin, open wounds, cuts and mucosal membranes (mouth or eyes) to the blood and body fluids of an infected person. Although they account for a minority of HIV infections, health care procedures represent preventable source of HIV infection, injections are of particular concern, accounting for an estimated 3.9% to 7.0% of new cases worldwide[2].

In addition, unsafe practices in haemodialysis and plasmapheresis centres are associated with HIV transmission. Health care worker protection is an essential component of any strategy to prevent disease against HIV infected patients by health care workers.If health care workers feel they can protect themselves from HIV infection, they can provide better care. Shinde M concluded there is need for introducing measures in order to increase the knowledge, attitudes, practices Teaching Hospital, which may play a very important role in increasing hand hygiene compliance among the staff and reducing cross transmission of infections among patients[2].

The main principles of universal precautions are washing hands, care of intact skin, protection of damaged skin, proper handling and disposal of sharp objects, good hygiene practices, and careful handling of blood and body fluids[3].

NEED OF THE STUDY

Every day while caring for patients, nursing students are at risk for exposure to blood borne pathogens which results in infections such as HIV/AIDS has stimulated a focus on health care workers health and safety and has galvanized efforts towards the prevention of occupational injury and illness. Need for the Study Nurses are the largest occupational group in any health care agency. By virtue of their job responsibility they are frequently exposed to

blood and body fluids. The nurse's risk of exposure to health hazards and the nurse as a cause of iatrogenic infection to the patients are equally challenging issues to the nurses all over the world. By using simple techniques of universal precautions nurse can avoid dangerous occupational hazards and the knowledge of prevention of blood borne diseases can make nurses confident to deal with patients suffering from HIV and HBV. Thus the researcher felt it as a need to educate the nursing students regarding universal precautions as an effective strategy to prevent blood borne diseases[4].

In view of importance for prevention of occupational hazards and minimizing the spread of blood borne diseases. Almost every nation and their government have appointed separate committees. These committees and WHO together make standards and policies by which emphasis is given over universal precautions, these policies are reviewed time to time. Faculty need educated according to current occupational safety and health administration (OSHA) guidelines. The administration, faculty in the nursing institutes are responsible for disseminating information about blood borne infections and its transmission and educating students about the hazards involved in contact with a diverse population in which HIV /HBV may be present. The curriculum must reflect content related to HIV /HBV and other blood borne infections and the practice of universal precautions[5].

STATEMENT OF STUDY

A descriptive study to assess the knowledge & practices regarding universal precautions amongst staff nurses working in selected hospitals of district Fatehgarh Sahib, Punjab.

OBJECTIVES OF THE STUDY

1. To assess the knowledge regarding universal precautions among staff nurses working in selected hospitals of district Fatehgarh Sahib , Punjab.
2. To assess the practices regarding universal precautions among staff nurses working in selected hospitals of district Fatehgarh Sahib , Punjab.
3. To find out the association of knowledge and practices with selected socio-demographic variables regarding universal precautions among staff nurses working in selected hospitals of District Fatehgarh Sahib, Punjab.

OPERATIONAL DEFINITIONS

1. **Assess**: evaluate or estimation the nature, ability, analyze or quality of something.

2. **Knowledge:** Facts, information acquired through experience or education, the theoretical or practical understanding of a subject.

3. **Practice:** practice may be defined as the usual or expected way of using universal precautions while providing care to the patient.

4. **Universal precautions :** Universal precautions refers to the practice, in medicine, of avoiding contact with patient's bodily fluids, by wearing non-porous articles such as medical gloves, gowns, goggles, face shields etc.

5. **Staff Nurses:** Staff nurses are the caregivers who are working in selected hospitals of District Fatehgarh Sahib.

ASSUMPTION

Staff nurses having knowledge and good practices regarding universal precautions

DELIMITATIONS

The study is limited to:

1. The study is limited towards staff nurses.
2. The study will be conducted in a selected hospitals of District Fatehgarh Sahib.

RESEARCH APPROACH

In view of nature of the problem and to accomplish the objectives of the study. For the present study Quantitative research approach was adopted to assess the knowledge and practice regarding universal precaution among staff nurses in selected hospitals of District Fathegarh Sahib, Punjab."

RESEARCH DESIGN

The central purpose of research design is to maximize the amount of control. The investigator has control over the research situation and variables. For the present study, Non-experimental Descriptive study design was utilized to achieve the objectives of the study.

RESEARCH SETTING

The present study was conducted in selected hospitals of District Fathegarh Sahib, Punjab. The rationale for selecting this setting for the study was the researcher's familiarity with setting,geographical proximity and availability of subjects.

POPULATION/ TARGET POPULATION

For the present study, population was all the staff nurses in selected hospitals of District Fathegarh Sahib, Punjab.

SAMPLING TECHNIQUE

In the present study convenient sampling technique was used to select the staff nurses in selected hospitals of district Fathegarh Sahib.

SAMPLE AND SAMPLE SIZE

The sample and sample size for the present study was 40 staff nurses in selected hospitals of district Fathegarh Sahib.

SAMPLING CRITERIA:

Inclusion criteria: Adults …….

- Staff nurses at selected hospitals of district Fathegarh Sahib.

- Staff nurses who were willing to participate in the study and available at the time of data collection.

Exclusion criteria: Adults……

- Staff nurses who are not willing to participate in the study.

- Staff nurses who are not available during the time of data collection.

SELECTION AND DEVELOPMENT OF TOOL

The tool was developed by keeping in mind the objectives of the study and prepared after extensive review of literature, internet sources and through discussion with guide, co-guide and opinions of various experts in the field of nursing. In the present study, knowledge questioner and checklist regarding universal precaution was developed and used by the investigator to collect the data from staff nurses to assess the knowledge and practice.

DESCRIPTION OF TOOL

The tool consists of 2 parts:-

Part A: Socio-Demographic variables:

It consist of socio demographic variable items for obtaining information of age, gender, educational status, total clinical experience, present area of working, and source of previous knowledge regarding universal precaution.

Part B: Structured Questionnaire to assess the Knowledge Regarding Universal Precautions :

It consist of 29 question regarding introduction, definition , methods importance to assess the knowledge regarding universal precaution.

Scoring Criteria:

Each correct item was given 1 mark and 0 mark for incorrect answer.

Maximum score –29

Minimum score –0

Level of knowledge	Criterion measure
Poor	0-10
Average	11-20
Good	21-29

Part C: checklist to assess the practice of staff nurses regarding universal precaution.

Scoring Criteria:

Each correct item was given 1 mark and 0 mark for incorrect answer.

Maximum score –10

Minimum score –0

Level of practice	Criterion measure
Poor practice	0-3
Average practice	4-6
Good practice	7-10

VALIDITY OF TOOL

To ensure content validity of tools it was submitted to various experts in nursing. Tool was given to 6 experts from the field of medical surgical Nursing. Experts were requested to judge the tool for clarity, relevance, appropriateness, relatedness and meaningfulness for the purpose of study and to give their opinion and suggestions on the content, its coverage, organization, presentation, language and feasibility. Necessary modifications were made as per expert's advice.

RELIABILITY OF TOOL

For reliability, the tool was administered to 4 nurses who fulfilled the sampling criteria. The reliability of knowledge questioner was checked by test re test method and Karl Pearson formula and the value of r was 0.07, reliability of the checklist regarding universal precaution was measured by using test retest method by cronbach's alpha (r = 0.76). The tool was found to be reliable.

PILOT STUDY

The pilot study was conducted in a selected hospital Fathegarh Sahib Punjab. A survey was carried out among the nurses. The subjects were informed regarding the purpose of the study and written consent was obtained. The subjects of pilot study were excluded and from main study. The findings of the study revealed that it was feasible and the time and cost of study were within the limit.

ETHICAL CONSIDERATION

It is a system of moral values that is concerned with the degree to which the research procedure adhere to professional, legal and social obligations to the study participants is to be considered.

➤ Formal permission was taken from ethical committee of Desh Bhagat University Mandi Gobindgarh Punjab,

➤ Prior to data collection, written permission was obtained from the Principal, Desh Bhagat University Mandi Gobindgarh Punjab,

➤ Informed consent was obtained from the study subjects for participating in research study.

➤ Participants were assured that anonymity and confidentiality of information was maintained and the findings of the study were used only for research purpose.

DATA COLLECTION PROCEDURE

After getting permission from the concerned authorities data collection was done in the month of June in selected hospital of district Fathegarh Sahib, Punjab. Researcher introduces himself to the study subjects and they were assures for confidentiality of the data. A total 40 nurses were selected for the study using convenient sampling technique. Prior to data collection informed consent was obtained from the subjects. The tool consists of demographic variables, knowledge question and checklist regarding to assess knowledge and practice regarding universal precaution was administered to collect the was collected and compiled for data analysis.

PLAN FOR DATA ANALYSIS

The data analysis was done according to study objectives by using descriptive and inferential statistics. The level of significance at p level 0.05 was chosen. The collected data were transferred to a master sheet prepared for each selection of tool. The descriptive as well as inferential statistics was used to achieve the objectives of the study. The plan of data analysis would be as follows:

Descriptive statistics:

• Frequency and percentage analysis was used to describe the demographic characteristics of adults.

• Distribution of score based upon the knowledge and practice regarding universal precaution.

• Mean and standard deviation was used to determine knowledge and practice regarding universal precaution among nurses.

Inferential statistics:

- Chi square test was used to find the association between the knowledge and practice score related to universal precaution among nurses with the selected demographic variables.

RESULTS

Organization and Interpretation of Data

The collected data was tabulated and analyzed using descriptive and interferential statistics under following section.

Section –I: - Distribution of selected socio- demographic variables in terms of frequency and percentage.

Section-II: - Findings related to level of Knowledge & Practices Regarding Universal Precautions Amongst Staff Nurses.

Section –III: - To find the association between knowledge and practices score with selected demographic variables among Staff Nurses.

SECTION-I Distribution of selected socio- demographic variables in terms of frequency and percentage.

Table-I Frequency and percentage distribution of demographic data.

N=40

Socio-Demographic Variables	N	%
Age (in year)		
Below 25	12	30%
27-31	18	45%
32-36	10	25%
Gender		
Male	19	47.5%
Female	21	52.5%
Education		
GNM	9	22.5%
Basic BSc (NSG)	12	30%
Post Basic BSc (NSG)	11	27.5%
MSc. (Nsg)	8	20
Total Experience		
1-2 YEAR	8	20%
3-4 YEAR	18	45%
5-6 YEAR	14	35%
Area of working		
Emg ward	10	25%
CCU	8	20%
Gen Ward	13	32.5%
Trauma ward	3	7.5%
ICU	6	15%
Source of previous information		
Curriculum	37	92.5%
Mass media	1	2.5%
Print media	0	0%
. Other educational activity	2	5%

Table –1 Shows

Age: According to age among total, 30% of study subjects fall in age group below 25years, 45% fall in age group of 26-31 year and 25% were fall in age group of 32-36 years.

Gender: According to gender among total, 47.5% of study subjects were male, 52.5% of study subjects were female.

Educational Status: according to their education out of total, 22.5% of study subject were GNM holder, 30% were basic BSc. Nsg, 27.5% were post basic BSc, 20%were MSc. holder.

Total experience: Based on clinical experience 20% of students were having 1-2 year of clinical experience, 45% were having 3-4 year of clinical experience and 35% were having 5-6 year of clinical experience.

Present working area: Among total,25% were working in emergency ward, 20% were working in CCU,15% were in General ward,32.5% were in Trauma ward,7.5% were working in ICU.

Source of previous knowledge - Out of total, 92.5% had previous knowledge from curriculum, 2.5% from mass media and 5% from other educational activity.

Section-II: - Findings related to level of Knowledge & Practices Regarding Universal Precautions amongst Staff Nurses.
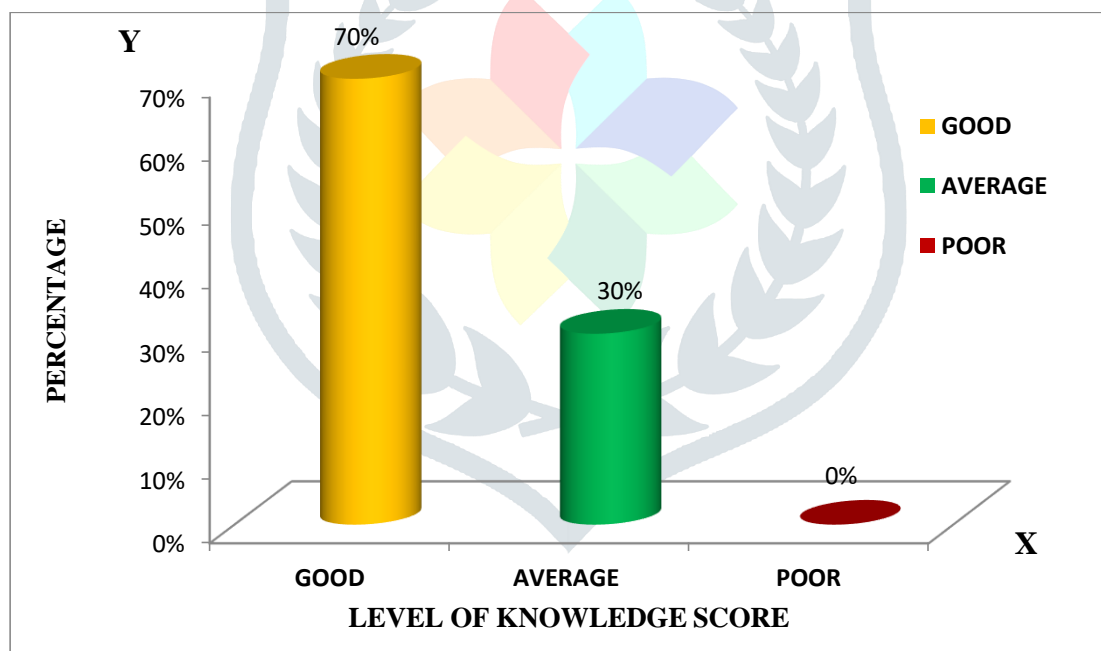
Fig 3. Percentage Distribution of Subjects according to their Level of knowledge score Regarding Universal Precautions Amongst Staff Nurses.

Fig 3 Depict that out of total majority (70%) had Good knowledge, (30%) average knowledge, no one had poor knowledge Regarding Universal Precautions Amongst Staff Nurses working in selected hospital.
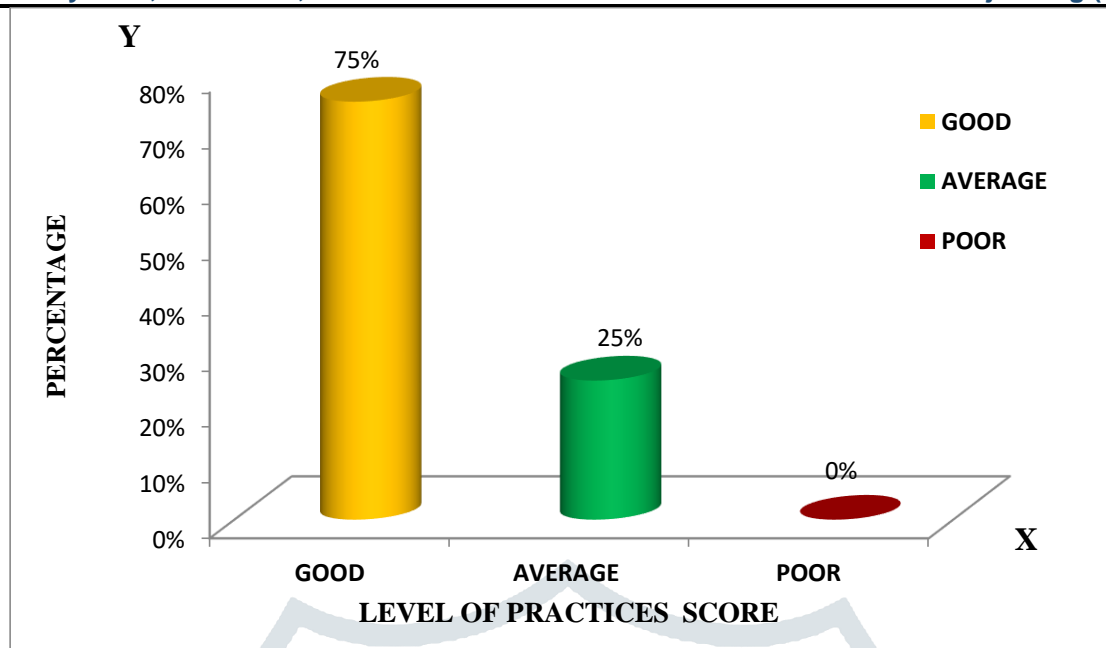
Fig 3. Percentage Distribution of Subjects according to their Level of Practice score Regarding Universal Precautions Amongst Staff Nurses.

Fig 3 Depict that out of total majority (75%) had Good practices, (25%) had average practices, no one had poor practices Regarding Universal Precautions Amongst Staff Nurses Working In selected Hospital.

Table No.3: Descriptive statistics of knowledge score Regarding Universal Precautions Amongst Staff Nurses.

N=40

Descriptive Statistics	Mean	Median	S.D	Maximum	Minimum	Range	Mean%
Knowledge Score	31.88	33	5.05	40	23	17	79.7%

SD=standard deviation, **N** = Total number of sample

Table No.3: Revels that the descriptive statistics of knowledge score. their Mean and median value of health score were 31.88 and 33 while Standard deviation(SD) value were 5.05.Maximum score obtained by study subjects were 40 and minimum score obtained by study subjects were 23. Range value were 17 and mean percentage value for health score 79.7%.

Table No.3: Descriptive statistics of practices score Regarding Universal Precautions Amongst Staff Nurses.

<div align="right">

N=40

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Descriptive Statistics	Mean	Median	S.D	Maximum	Minimum	Range	Mean%
Practices Score	7.95	8	1.67	10	5	5	19.8%

SD=standard deviation, **N** = Total number of sample

     Table No.3: Revels that the descriptive statistics of practices score. their Mean and median value of health score were 7.95 and 8 while Standard deviation(SD) value were 1.67.Maximum score obtained by study subjects were 10 and minimum score obtained by study subjects were 5.Range value were 5 and mean percentage value for health score 19.8%.

Section –III: - To find the association between knowledge and practices score with selected demographic variables Amongst Staff Nurses.

Table No. 4: Association of knowledge score with selected socio-demographic variable.

      (N-40)

Socio-Demographic Variables	Good	Average	Poor	Chi value	df	p-value
Age (in year)						
Below 25	7	5	0	1.2963[NS]	2	0.5229
27-31	14	4	0			
32-36	7	3	0			
Gender						
Male	13	6	0	0.043 [NS]	1	0.8358
Female	15	6	0			
Education						
GNM	5	4	0	1.1712 [NS]	3	0.7599
Basic BSc (NSG)	9	3	0			
Post Basic BSc(NSG)	8	3	0			
MSc. (Nsg)	6	2	0			
Total Experience						
1-2 YEAR	6	2	0	2.240 [NS]	2	0.3262
3-4 YEAR	15	3	0			
5-6 YEAR	9	5	0			
Area of working						
Emg ward	6	4	0	6.777 [NS]	4	0.1481
CCU	8	0	0			
Gen Ward	8	5	0			
Trauma ward	3	0	0			
ICU	3	3	0			
Source of previous information						
Curriculum	25	12	0	1.390 [NS]	2	0.499
Mass media	1	0	0			
Print media	0	0	0			
Other educational activity	2	0	0			

*Significant, [NS]Non significant, P-level<0.05.

Table 3 Shows the association between the knowledge score of with socio demographic variable. The Chi-square value shows that there was no significance association between the level of knowledge score with any demographic variables (age, gender, education, total experience, area of working, previous source of information,). The calculated chi-square values were less than the table value at the 0.05 level of significance.

Table No. 4: Association of practices score with selected socio-demographic variable.

(N-40)

Socio-Demographic Variables	Good	Average	Poor	Chi value	df	p-value
Age (in year)						
Below 25	9	3	0	0.2074^{NS}	2	0.9015
27-31	13	5	0			
32-36	8	2	0			
Gender						
Male	12	7	0	2.7068 ^{NS}	1	0.0998
Female	18	3	0			
Education						
GNM	3	6	0	1.0303 ^{NS}	3	0.7939
Basic BSc (NSG)	3	9	0			
Post Basic BSc(NSG)	3	8	0			
MSc. (Nsg)	1	7	0			
Total Experience						
1-2 YEAR	6	2	0	0.0387 ^{NS}	2	0.9808
3-4 YEAR	14	4	0			
5-6 YEAR	11	3	0			
Area of working						
Emg ward	7	3	0	9.0137 *	4	0.050
CCU	8	0	0			
Gen Ward	6	0	0			
Trauma ward	2	1	0			
ICU	7	6	0			
Source of previous information						
Curriculum	28	9	0	0.3187^{NS}	2	0.5723
Mass media	1	0	0			
Print media	0	0	0			
Other educational activity	1	1	0			

*Significant, ^{NS}Non significant, P-level<0.05.

Table 3 Shows the association between the practices score of with socio demographic variable. The Chi-square value shows that there was significance association between the level of practices score with Area of working (chi value-9.0137, df-4, p-value- 0.050). There was no significance association between the level of practice score with other demographic variables (age, gender, education, total experience, previous source of information,). The calculated chi-square values were less than the table value at the 0.05 level of significance.

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