‘A study to assess the knowledge regarding universal safety precaution among Class IV workers in Smt. Kashibai Navale Medical College & General Hospital Narhe, Pune-41.’


ABSTRACT

A descriptive study was conducted to assess the knowledge regarding universal safety precaution among class IV workers of Smt. Kashibai Navale Medical College and General Hospital Narhe, Pune-41, objectives of study were-

1. To assess the knowledge of class IV workers regarding universal safety precautions.
2. To associate the class IV workers knowledge about universal safety precautions with selected demographic variables.

As per the general system theory given by Betty Neuman (1982), conceptual framework was made for assessment of the knowledge among class IV workers about universal safety precaution. The research method adopted for the study was a quantitative approach and Non-Experimental exploratory descriptive research design was used. The accessible population was class IV workers in Smt. Kashibai Navale Medical College and General Hospital Narhe, Pune-41

The sample of the study constitute of 100 class IV workers from Smt. Kashibai Navale Medical College & General Hospital, Narhe, Pune-41 and Non Probability purposive sampling technique was used. A structured questionnaire was prepared for assessing the knowledge of class IV worker about universal safety precaution.

The tool consists two sections: -

Section I: It included the 7 demographic variables such age, gender, educational status, duration of experience, presently working areas. Section II: dealt with total 30 items to assess the knowledge among class IV workers regarding universal safety precaution. The content validity was determined by the experts from the college. The reliability of tool was done by correlation and was found to be 0.748. Pilot study was done to check the feasibility of the study .Major Findings of The Study were Most of the samples were in the age group of 25-35 years (53%). Majority of them were male (67%). (42%) were having secondary education (50%) of them were have 5-10 years of working experience , (66%) were working at ward, and (88%) class IV workers have good knowledge regarding universal safety precaution, their score between (21-30). There is no association between age, gender, education, duration of experience, working area. Keywords: Knowledge, Universal Safety Precaution, Class IV Workers.

INTRODUCTION

Universal precautions are the infection control techniques that are recommended to use control the infection. Universal precautions, a concept developed by centers for diseases control during the mid of 1980; due to largely as a response to HIV. The infection control standards outlined to prevent transmission of Hepatitis B, which is also effective in preventing transmission of other diseases, such as HIV and other blood born diseases. This
concept has been further developed and is known as standard precaution.\(^1\) Universal precautions are recommended for doctors, nurses, patients, and health care support workers who are required to come into contact with patients or bodily fluids. Universal precautions refers to the practice, in medicine, of avoiding contact with patients bodily fluids by means of the wearing of nonporous articles such as medical gloves, goggles and face shields. Use of personal protective equipments is now recommended in all health settings. Under universal precaution all patients were consider to be possible carriers of blood borne pathogens. The guidelines recommended wearing gloves when collecting or handling blood and body fluids contaminated with blood, wearing face shields when there was danger of blood splashing on mucous membranes and disposing of all needles and sharp objects in puncture resistant containers.\(^2\)

### NEED FOR THE STUDY

Currently 33.3 million people worldwide are living with HIV. For the health professional, and co-workers in addition to contact with infected semen, blood and blood products, HIV infected can also be acquired through exposure to other contaminated body fluids such as CSF, pericardial, pleural, fluids and amniotic fluids. Also 90%of infections are in the developing countries. During caring waste segregation, disposed, health care workers are more exposes self to the risk of acquiring such infections like HIV, HBV. This standard mandated that any health care support workers are potentially exposed to blood and needles and other sharp instruments must be implement sharps safety devises where ever feasible. As it is found that most of the infection is through ‘needle stick injury’.

The workers are more prone to this injury while handling sharp objects.

### STATEMENT OF THE PROBLEM

A study to assess the knowledge regarding universal safety precaution among class IV workers in Smt. Kashibai Navale Medical College & General Hospital Narhe, Pune-41

### OBJECTIVES OF THE STUDY

1. To assess the knowledge of class IV workers regarding universal safety precautions.
2. To associate the class IV workers knowledge about universal safety precautions with selected demographic variables.

### DELIMITATIONS

1. Participant’s observation is not possible as the researcher has to be present in I.C.U., O.T., labour room, casualty and other wards for data collection.
2. This study is limited to nurses working in morning and evening shifts only.

### ASSUMPTION

It is assumed that
1. Class IV workers play an important role in use of universal precautions to prevent Complications.
2. Adequate knowledge is required for correct practice of universal precautions While handling patients and infectious waste material.
3. Class IV workers have less knowledge about universal safety precautions.
4. Knowledge of universal precautions is measurable.

### ETHICAL ASPECT

The research committee and the ethics committee approved the research statement and the synopsis. Problem statement and the objectives were discussed and due permission was obtained from the authorities before conducting the study. The participants were given the information and written informed consent was taken from the...
samples who participated in the study. They have the full right for information regarding the findings of the study.

<table>
<thead>
<tr>
<th>RESEARCH METHODOLOGY</th>
</tr>
</thead>
</table>

**RESEARCH APPROACH**

The research approach adapted in the study was Quantitative research approach.

**RESEARCH DESIGN:** Non-Experimental exploratory descriptive research design

**IDENTIFICATION OF TARGET & ACCESSIBLE POPULATION**

Population: In this study the population was elderly people above the age group 60 years and those living in old age homes in Pune City.

Target population: Class IV workers of S.K.N.M.C & G.H. Hospital Pune-41.

Accessible population: In this study the accessible population is class IV workers in S.K.N.M.C & G.H. Narhe, Pune-41.

**SETTING OF THE STUDY:** S.K.N. Hospital Pune.

**SAMPLE AND SAMPLING TECHNIQUE-**


Sampling technique: the sampling technique used in this study is Non-Probability Purposive Sampling Technique

Sample size: sample size for the study consist of 100 class IV workers selected as per availability and fulfillment of the present criteria.

**INCLUSION CRITERIA-**

2. Class IV workers willing to participate in the study.
3. Class IV who can read and understand English and Marathi.

**EXCLUSION CRITERIA-**

1. Class IV workers working in OPD.
2. Class IV workers not willing to participate in the study.

3. Class IV who cannot read and understand English and Marathi.

**DATA ANALYSIS**

**SECTION I:** - consists of the Analysis of the Demographic data of the samples

**SECTION II:** - Analysis of the data related to knowledge of class IV workers regarding universal safety precautions.

**SECTION III:** - Analysis of data to One way analysis of variance (ANOVA) is used to assess association of knowledge score about universal safety precaution with selected demographic variables.

<table>
<thead>
<tr>
<th>ANALYSIS AND INTERPRETATION OF DATA</th>
</tr>
</thead>
</table>

**SECTION I: Demographic Data:**

**Age:**

53% were from the age group of 25 to 35 years, 24% were from the age group of 20 to 25 years, 19% were from the age group of 35 to 45 years, 4% were from the age group of 45 and above.

**Gender:**

67% were Male and 33% were female

**Education:**

42% had taken secondary education, 30% had taken higher secondary, 21% had taken primary education and 7% had done their graduation.

**Duration of experience:**

50% were having 5-10 year of experience, 44% were having 0 to 5 year of experience and 6% were having 10 and above.

**Working area:**

66% were working in ward, 18% were working in ICU, 7% were working in labor room, 5% were working in casualty and 4% were working in OT.

**SECTION II:** knowledge of class IV workers regarding universal safety precautions
Knowledge score of subjects according to Knowledge grade

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Knowledge grade</th>
<th>Frequency (F)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Poor (score 0-10)</td>
<td>00</td>
<td>00%</td>
</tr>
<tr>
<td>2.</td>
<td>Average (score 11-20)</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>3.</td>
<td>Good (score 21-30)</td>
<td>88</td>
<td>88%</td>
</tr>
</tbody>
</table>

Pie diagram represent that 88% of subjects were having good knowledge score and 12% were having average knowledge score.

SECTION III: One way analysis of variance (ANOVA) is used to assess association of knowledge score about universal safety precaution with selected demographic variables

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Characteristics of the subject</th>
<th>F</th>
<th>F-value</th>
<th>df</th>
<th>Table value of F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>20 to 25 years</td>
<td>2</td>
<td>4</td>
<td></td>
<td>2.54</td>
</tr>
<tr>
<td>2.</td>
<td>25 to 35 years</td>
<td>5</td>
<td>3</td>
<td></td>
<td>2.67</td>
</tr>
<tr>
<td>3.</td>
<td>35 to 45 years</td>
<td>1</td>
<td>9</td>
<td></td>
<td>2.67</td>
</tr>
<tr>
<td>4.</td>
<td>45 and above</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Male</td>
<td>6</td>
<td>7</td>
<td></td>
<td>5.72</td>
</tr>
<tr>
<td>2.</td>
<td>Female</td>
<td>3</td>
<td>3</td>
<td></td>
<td>4.00</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Primary</td>
<td>2</td>
<td>1</td>
<td></td>
<td>0.03</td>
</tr>
<tr>
<td>2.</td>
<td>Secondary</td>
<td>4</td>
<td>2</td>
<td></td>
<td>3.99</td>
</tr>
<tr>
<td>3.</td>
<td>Higher secondary</td>
<td>3</td>
<td>0</td>
<td></td>
<td>2.76</td>
</tr>
<tr>
<td>4.</td>
<td>Graduation and above</td>
<td>0</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duration of experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>0 to 5 years</td>
<td>4</td>
<td>4</td>
<td></td>
<td>2.41</td>
</tr>
<tr>
<td>2.</td>
<td>5 to 10 years</td>
<td>5</td>
<td>0</td>
<td></td>
<td>3.15</td>
</tr>
<tr>
<td>3.</td>
<td>10 and above</td>
<td>0</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Working area</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>ICU</td>
<td>1</td>
<td>8</td>
<td></td>
<td>1.04</td>
</tr>
<tr>
<td>2.</td>
<td>O.T.</td>
<td>0</td>
<td>4</td>
<td></td>
<td>2.56</td>
</tr>
<tr>
<td>3.</td>
<td>Labor Room</td>
<td>0</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Casualty</td>
<td>0</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Ward</td>
<td>6</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSION

Age: In findings majority of the samples that is fifty three percents were found to have age between 25 -35 years , twenty four percents of samples is between the age group of 20-25years ,nineteen percents of samples are from the age group of 35-45 years and four percents of samples are from age group of 45 and above.

Gender: In this study sixty seven percents of the samples are male and thirty three percents are female

Education: In this study forty two percents had taken secondary education ,thirty percent had taken higher secondary education , twenty one percents had taken primary education and seven percents had done their graduation.

Duration of experience: In this study fifty percents of samples having 5-10 years of experience forty four percent of samples were having 0-5 years of experience and six percent were having 10 and above experience .

Working area: In this study sixty six percent were working in ward , eighteen percent were working in ICU , seven percent were working in labor room, five percents were working in casualty and four percent were working in OT.

Section II: - Knowledge of class IV workers regarding universal safety precaution

In this study it shows eighty eight percent class IV workers have good knowledge regarding universal safety precaution their score 21-30.and twelve percent class IV workers have average knowledge regarding universal safety precaution their score between 11-20

REFERENCES

1. www.universal precaution.com
3. www.google.com-pubmed