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## **A study to assess the effectiveness of structured teaching programme [STP] on knowledge regarding prevention of needle sticks injuries among the internship students at selected institute of nursing, Belgaum**

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### **Abstract**

Needle stick injuries are a common event in the healthcare setting. When drawing blood, administering an intramuscular or intravenous drug, or performing other procedures involving sharps, the needle can slip and injure the healthcare worker. This sets the stage to transmit viruses from the source person to the recipient. These injuries also commonly occur during needle recapping and as a result of failure to place used needles in approved sharps containers. During surgery, a surgical needle may in avertdedly penetrate the glove and skin of the surgeon or assistant. Penetrating accidents of the surgeon or assistant with the scalpel or other sharp instruments are also handled as a needle stick injury. Generally, needle stick injuries cause only minor bleeding or visible trauma, however, even in the absence of bleeding the risk of viral infection remains. Scalpel injuries tend to be larger than a needle stick. In turn, a needle stick injury may also pose a risk for a patient if the injured health professional carries HBV, HCV or HIV. Needle stick injuries are not limited to the medical community. Any environment where sharps are encountered poses a risk.

**Keywords:** Needle stick injuries, STP, scalpel injuries, HBV, HCV, HIV

### **Introduction**

A needle stick injury is a percutaneous piercing wound typically set by a needlepoint, but possibly also by other sharp instruments or objects. Commonly encountered by people handling needles in the medical setting, such injuries are an occupational hazard in the medical community. These events are of concern because of the risk to transmit blood-borne diseases through the passage of the hepatitis B virus (HBV), the hepatitis C virus (HCV), and the Human Immunodeficiency Virus (HIV), the virus which causes AIDS. Despite their seriousness as a medical event, needle stick injuries have been neglected: most go unreported needle sticks have been recognized as occupational hazards [3].

Needle stick injuries are a serious concern for nurses and other healthcare workers. One of the main clinical risks from needle stick injury is the possible infection by blood-borne diseases, such as hepatitis and HIV. A number of different measures have been introduced to minimize the risk and impact of needle stick injuries, including the use of fixed-needle safety syringes. However, some healthcare workers refuse to use such devices, for reasons that include the perceived need to change syringe needles between drawing up a medicine and its administration to a patient [4].

Health care workers in India are at high risk of developing blood-borne infections from needle stick injuries. Indian hospitals often do not have the resources to invest in safety devices and protective equipment to decrease this risk. In collaboration with hospital staff, the primary author implemented a sharps injury prevention and biomedical waste program at an urban 60-bed charity hospital in northern India [7].

The program aligned with hospital organizational objectives and was designed to be low-cost and sustainable. Occupational health nurses working in international settings or with international workers should be aware of employee and employer knowledge and commitment to occupational health and safety [7].

Prevention of needle sticks injuries is an education programme designed to improve the internship student's quality of self-care and nursing care and to avoid problems from the sharp instruments. It includes the structure teaching programme which is now generally believed. The purpose of teaching is to self-awareness of the needle sticks injury. It is an important for the internship students while working in the hospital or health care setting to become familiar with various risk of needle stick injuries. If the students' knowledge and skill is improved the self can aware the better care and also patient care [7].

### Objectives

This chapter deals with the statements of the problem and objectives of the study. Objectives are what the investigator proposes to accomplish in research, i.e., and the specific shorter measurable goals to be met. Explicit description of the objectives is essential to come out with the meaningful research and the objectives for the current study are as follows:

#### The objectives of the study are

- To assess the knowledge regarding prevention of the needle stick injuries among internship students.
- To assess the effectiveness of structured teaching program [STP] on knowledge regarding prevention of the needle stick injuries among internship students.
- To find out an association between the knowledge scores regarding the prevention of needle stick injuries and the selected demographic variables, among the internship students

### Hypothesis

All hypothesis will be tested at 0.05 level of significance

**H<sub>1</sub>:** The mean post-test knowledge score is significantly higher than the mean pre-test knowledge score regarding the prevention of needle stick injuries among the internship students at 0.05 level of significance

**H<sub>2</sub>:** There will be a significant association between the pre-test knowledge scores regarding the prevention of needle stick injuries among the internship students with their selected demographic variables at 0.05 level of significance

### Research methodology

Research methods are the techniques researchers use in performing research operations. Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically.

This chapter presents the methodology adopted for study. It includes the research approach, research design, setting, population, sampling criteria for sample selection, sampling technique, description of tool, testing of the tools, pilot study, procedure for data collection, plan for data analysis

### Research approach

An evaluate approach was used to evaluate the effectiveness of structured teaching programme (STP) through the difference between the pre-test and post-test knowledge scores. Evaluative research consist of four phases *viz*, Determining the objectives of the structured teaching programme (STP). Develop a means of measuring the attainment of those objectives.

Collecting data.

Interpret data in terms of objectives.

One group pre-test and post-test followed by the analysis of data, the difference of the pre-test and post-test scores represent the effect of the independent variables.

### Research design

Research design is a plan, structure and strategy of investigations of answering the research question is the overall plan or blueprint the researchers select to carry out their study.

The main focus of the study was to test the knowledge of internship student on prevention of the needle stick injury through pre-test and post-test which depicted as O<sub>1</sub> and O<sub>2</sub> respectively. The experimental variable administered was structured teaching programme (STP) the schematic representation of research study design used by the investigator given below.

**O<sub>1</sub>:** Pre-test [knowledge regarding prevention of needle stick injury before administration of structured teaching programme (STP)]

**X:** Intervention [Administration of structured teaching programme (STP) on prevention of needle sticks injury]

**O<sub>2</sub>:** Post-test [knowledge regarding prevention of needle stick injury after administration of structured teaching programme (STP)]

### Variables

Research variables are concepts at various levels of abstraction that are measured, manipulated or controlled in the study.

Two types of variable were identified in this study. They are study variables and socio-demographic variables.

### Study variables

#### Independent variable

Structured teaching programme (STP) on knowledge regarding the prevention of needle stick injury.

#### Dependent variables

Internship student's gains in the knowledge, regarding the prevention of needle stick injuries.

### Socio-demographic variable

The socio-demographic variables considered for this study were age, gender, religion, marital status.

### Research setting

Settings are the more specific place where data collections will occur [46] the study was conducted in KLEU'S Institute of Nursing sciences, Belgaum

### Population of the study

Population refers to the total category of persons or objects that meet the criteria for study establish by researcher, any set of persons, objects or measurements having an observable characteristic in common

The target population for the study consisted of internship students of KLEU'S Institute of Nursing sciences, Belgaum

### Sample

A sample is a selected proportion of the defined population. In this study the sample is internship students, KLEU'S Institute of Nursing sciences, Belgaum

**Sample size**

Sample is consists of a subject of the units that compose the population.

The sample size consists of 30 internship students KLEU'S Institute of Nursing sciences, Belgaum

**Sampling technique**

Sampling technique is an important step in the research process. It is the process. It is the process of selecting representative units or subjects of a population of the study in a research. The investigator selected the internship students by using purposive sampling technique.

**Criteria for sample selection**

The criteria for sample selection are mainly depicted under two heading, which includes the inclusion criteria and exclusion criteria.

**Inclusion criteria**

Internship students studying in KLEU'S Institute of Nursing sciences, Belgaum, who are willing and present at the time of data collection.

**Exclusion criteria**

Internship students who are on leave at the time of data collection.

**Sample characteristics**

Samples of 30 subjects were taken through purposive sampling technique from the study population for data collection. The data obtained to describe the sample characteristics including age, sex, religion, marital status.

**Development and description of the tool**

The tool is the vehicle that could obtain data pertinent to the study and at the same time adds to the body of general knowledge in the discipline<sup>[46]</sup>.

Selection and development of the tool was done based on the study. After an extensive review of literature and discussion with the experts the self-administered knowledge questionnaires on prevention of needle stick injury found appropriate. The developed tool was refined and validated by the guide and subject experts. The tool consisted of two sections:

**Section A: socio-demographic data**

It consist of four items for obtaining information about the selected background factors such as age, gender, religion, marital status.

**Section B: knowledge questionnaire on prevention of needle stick injury**

It consists of self-administered knowledge questionnaire on prevention of needle stick injury, which includes 50 items of multiple choice questions. The number of questions under the various headings is given below:

**Table 1:** Distribution of knowledge questions under various headings

Aspects/Content	No of Items
Introduction of needle stick injury	3
Meaning of needle stick injury	1
Definition of needle stick injury	8
Incidence of needle stick injury	2
Causes of needle stick injury	5
Risk factors of needle stick injury	1
Prevention of needle stick injury	30
Total	50

**Scoring technique**

The self-administered knowledge questionnaire consisted of 50 closed ended multiple choice questions. Every correct answer was accorded a score of one (1) and every incorrect

unanswered item was accorded zero (0). The maximum score on self-administered knowledge questionnaire was fifty (50). The different level of knowledge is categorized as follows:

**Table 2:** Distribution of subjects of according to level of knowledge n = 30

Level of knowledge	Range
Poor	< 20% SCORE
[1-10]	
Average	21% - 28% SCORE
[11-14]	
Good	> 28% SCORE
[15-50]	

**Content validity**

Validity refers to the degree to which an instrument measures what it is supposed to measure. Content validity is the extent to which the measuring instruments provides adequate coverage of the topic under study.

To ensure content validity of the tool, the prepared instruments along with the objectives, operational definitions, and criteria check list for evaluation of self-administered knowledge questionnaire, scoring key, blue print and criteria check list were submitted to subject Guide

and nursing experts in the field of medical & surgical nursing (5 nursing experts). All the experts suggestions were taken into consideration and the modifications were incorporated in the final preparation of the self-administered knowledge questionnaire on prevention of needle stick injury.

**Validity of the structured teaching plan (STP):** The initial draft was given to the six nursing experts in the field of medical & surgical nursing along with the criteria check

list. The expert were requested to validate the structured teaching programme (STP) based on the criteria check list. The suggestions of experts were incorporated and structured teaching was modified and finalized with the opinion of guide.

### Development of teaching plan

Based on the objectives and the questionnaire, structured teaching programme (STP) was prepared.

The structured teaching was pertaining to the domains of learning i.e knowledge.

The following steps were adopted to develop the teaching plan.

- Development of the content blue print.
- Preparation of structured teaching programme (STP).
- Establishment of the content validity of structured teaching programme (STP).
- Final draft of teaching plan

### Development of criteria checklist

A criteria check list was prepared to develop structured teaching based on the review of literature and the opinion of experts. The criteria check list constructed under broad headings

- Objectives
- Content (selection, organization, presentation)
- Language
- Practicability
- Time allotment

Drafts of criteria check list and teaching plan was given to seven experts for validation.

### Preparation of structured teaching

Structured teaching was developed by reviewing related literature and considering the opinion of experts. The main objectives that were considered while preparing structured teaching were:

- Understanding level of the internship students
- Method of teaching to be adopted
- Simplicity of language
- Relevancy of teaching
- Attention span of internship students

### Development of Lesson plan

For the present study, in order to organize the content of the lesson plan, literature was reviewed from books, journals, and internet. Opinion and suggestions from experts has helped to determine the different areas to be covered during teaching and the various methods of eliciting response from the group. Thus, the outline parameter of the entire study was engraved.

### Determining the method of evaluating structured teaching programme (STP)

The evaluation of structured teaching was through post-test on 8<sup>th</sup> day of implementation of structured teaching programme (STP).

### Pilot study

Pilot study is a small scale version or trial run of the major study. Its function is to focus the assessment of the adequacy of measurement.

The pilot study was conducted at the KLE'S school of nursing, Dandeli. From 15-11-2013 to 22-11-2013 obtaining

the permission from the Principal KLE'S school of nursing, Dandeli. The investigator selected 10 internship students by purposive sampling technique. After a brief self-introduction, the investigator explained the purpose of the study. Good rapport was established. On day 1<sup>st</sup> the investigator conducted the pre-test by administering self-administered knowledge questionnaire. Same day structured teaching was given to the students and doubts clarified. On the 8<sup>th</sup> day post-test was administered using the same self-administered knowledge questionnaire to the same internship students.

### Reliability of the tool

Reliability is defined as the extent to which the instrument yields the same result on the repeated measures that is concerned with the consistency, accuracy, stability and of homogeneity.

A pre-test was done to establish the reliability and to determine the language clarity and feasibility of the tool.

The reliability of the tool is computed by using Spearman Brown's prophecy formula, where 'r' value obtained was 0.7 which showed that the tool was reliable and valid.

### Procedure for data collection

The data collection was carried out from 10-01-2014 to 10-02-2014 permission was obtained from the Principal KLEU'S Institute of nursing college Belgaum.

The data collection process had done from KLEU'S Institute of nursing college Belgaum. i.e total 30 internship students. On first day, the investigator administered the self-administered knowledge questionnaire to the internship students after introducing and explaining the purpose of the study to assess knowledge regarding prevention of needle sticks injury. On the same day structured teaching (STP) regarding prevention of needle sticks injury was conducted for a period of one hour after pre-test.

Eighth day, the investigator administered post-test and assessed their knowledge on prevention of needle sticks injury.

### Plan for data analysis

Data analysis is the systematic organization and synthesis of the research data and testing of research hypothesis using the data.

The analysis of data is the most skilled task in the research process. It calls for the researchers own judgment and skill. For the present study the data obtained were analyzed in respect to the objectives of the study by using descriptive and inferential statistics. The plan of data analysis was worked out with the experts in the field of statistics and nursing

The plan of analysis was as follows:

- Organization of data in a master sheet
- Tabulation of data in terms of frequencies, percentage, mean, standard deviation and range was done.
- Classification of knowledge score was done as shown below

$(X + SD)$  = Good knowledge score

$(X + SD) - (X - SD)$  = Average knowledge score

$(X - SD)$  = Poor knowledge score

A score of '1' was given to all correct answers while a score of '0' was given to all incorrect answers.



**Descriptive statistics were used to draw the following conclusions**

1. Frequency and percentage distribution to analyze the demographic data and level of knowledge regarding prevention of needle sticks injury among internship students studying in KLEU’S Institute of Nursing sciences, Belgaum.
2. Mean median, mode, standard deviation and range to assess the knowledge regarding prevention of needle sticks injury among internship students studying in KLEU’S Institute of Nursing sciences, Belgaum.

**Inferential statistics were used to draw the following conclusions**

1. Paired’t test for testing effectiveness of structured teaching programme (STP) regarding prevention of needle sticks injury among internship students studying in KLEU’S Institute of Nursing sciences, Belgaum.
2. Chi-square test to find association between the knowledge scores with selected demographic variables regarding prevention of needle sticks injury among internship students studying in KLEU’S Institute of Nursing sciences, Belgaum.

**Results**

Results this deals with analysis and interpretation of information collected through a self-administered knowledge questionnaire from 30 internship students studying in KLE’S Institute of Nursing sciences, Belgaum, Karnataka.

The present study was designed to assess the effectiveness of structured teaching programme (STP) on knowledge regarding prevention of needle stick injury among internship students, collected data were coded, organized, analyzed and interpreted using descriptive and inferential statistics.

**Organizational findings**

The data collected from the staff nurse has been organized and presented under the following headings:

**Section I**

Frequency and percentage distribution of the socio-demographic variables.

**Section II**

Analysis of pretest and post-test knowledge scores on prevention of needle stick injury.

**Section III**

Analysis of effectiveness of structured teaching programme (STP) on prevention of needle sticks injury.

**Section IV**

Analysis of association between the pre-test levels of knowledge with selected socio-demographic variables.

**Section I: Frequency and percentage distribution of the socio-demographic variables**

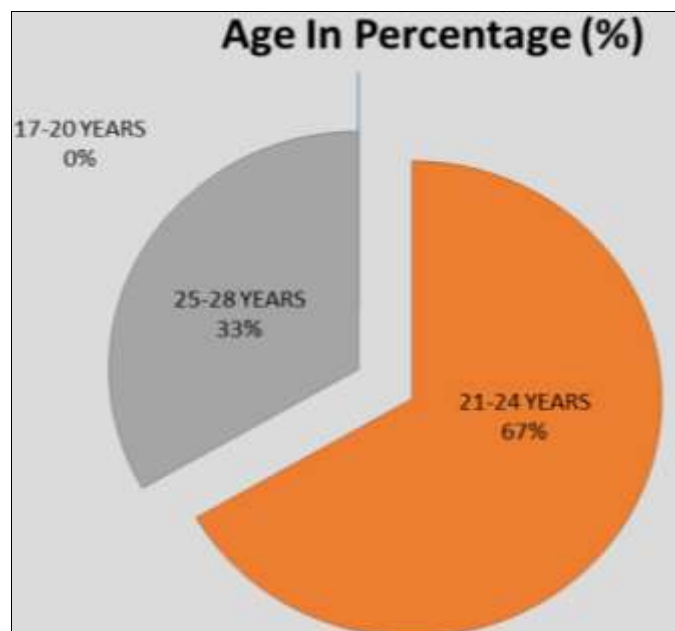
This selection deals with the data pertaining to the base line Performa of internship students. The data is analyzed by descriptive statistics and presented in terms of frequency and percentage

**Table 3:** Frequency and percentage distribution of internship students according to Age, Gender, and Religion n=30

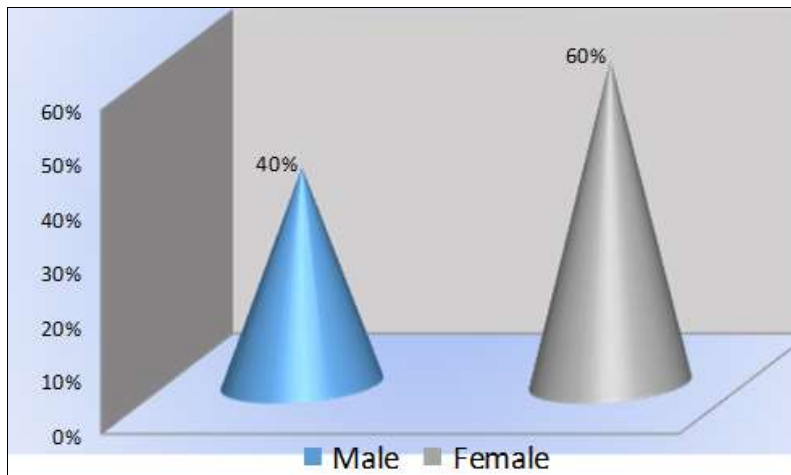
Demographic variables	Frequency	percentage
	(f)	(%)
<b>Age</b>		
17-20 years	0	0
21-24 years	20	66.6
25-28 years	10	33.3
<b>Gender</b>		
Male	12	40
Female	18	60
<b>Religion</b>		
Hindu	18	60
Muslim	4	13.3
Christine	8	26.6
Others	0	0

Data presented in the table 3 shows the distribution of the internship students according to age, gender, and religion.

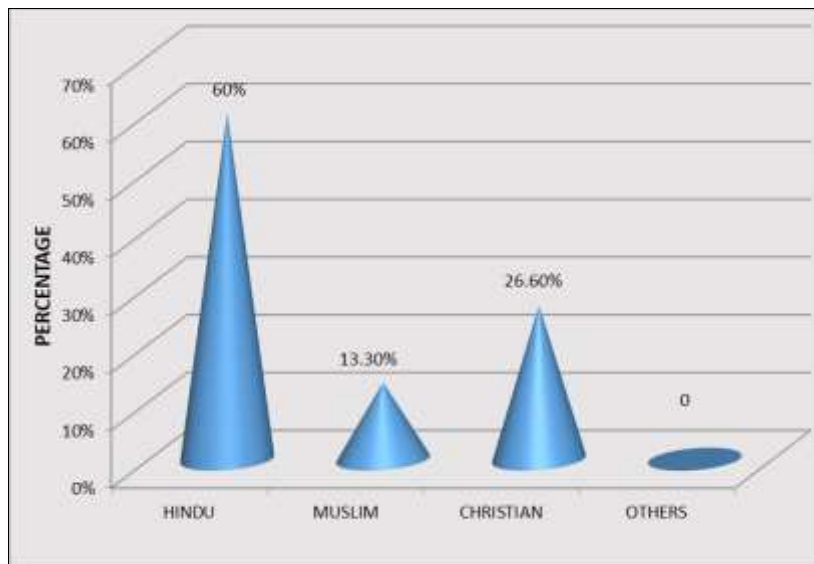
Table 3 reveals majority of the internship students 20 (66.6%) were between age group of 21-24 years and only 10 (33.3%) were in the group 25-28 years. The internship students 18 (60%) were female and 12 (40%) were male. majority of internship students 18 (60%) were Hindu and minority 4 (13.3%) were Muslim.



**Graph 1:** Pie graph showing percentage distribution of subjects according to ‘age’



**Graph 2:** Column graph showing percentage distribution of subjects according to ‘Gender’



**Graph 3:** Column graph showing percentage distribution of subjects according to ‘Religion’

**Section II: Analysis of pre-test and post-test knowledge scores on prevention of needle stick injury among internship students**

This section deals with the analysis and interpretation of the data to assess the structured teaching programme (STP) on

knowledge regarding prevention of needle stick injury among internship students. The data regarding pre-test knowledge score has been summarized using mean percentage and standard deviation presented in the table.

**Table 4:** Mean median, mode, standard deviation, and Range of knowledge scores of subjects regarding prevention of needle stick injury: n=30

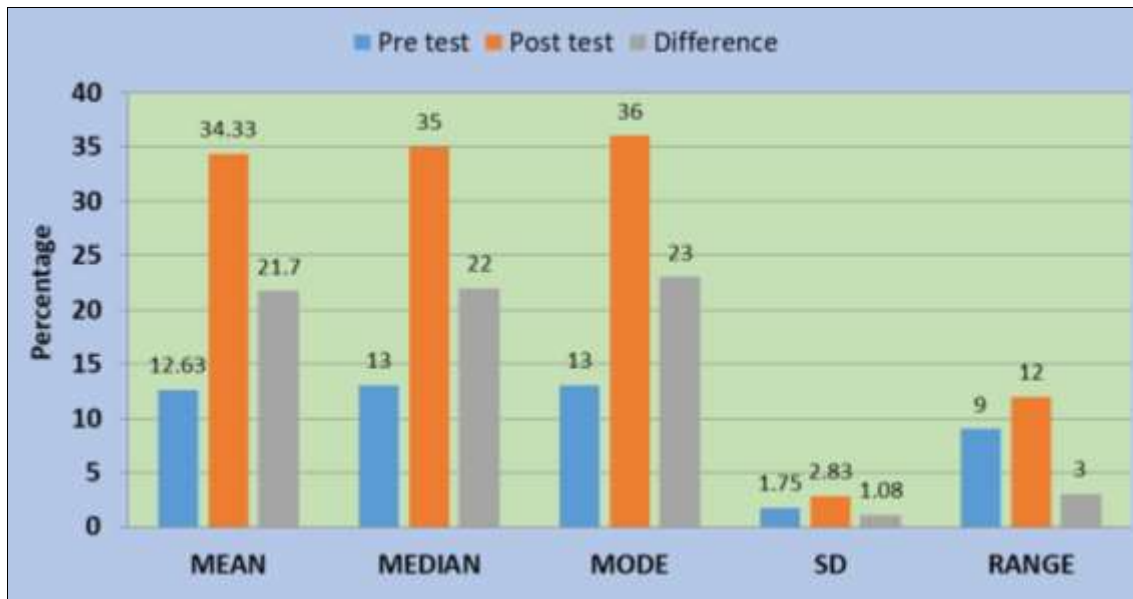
Area of Analysis	Mean	Median	Mode	standard deviation	Range (H-L)
Pre test	12.63	13	13	1.75	09
Post test	34.33	35	36	2.83	12
Difference	21.7	22	23	1.08	3

**Table 5:** Pre-test and post-test frequency and percentage distribution of knowledge scores of subjects regarding prevention of needle sticks injury n=30

Knowledge Level	Pre-test		Post-test	
	Frequency f	Percentage (%)	Frequency f	Percentage (%)
<b>Poor</b>				
< 20% scores [1-10]	02	6.66	00	00
<b>Average</b>				
37- 47% [11-14]	27	90	00	00
<b>Good</b>				
> 50% scores [15-50]	01	3.33	30	100.0
Total	30	100%	30	100.0

**Table 4: Reveals that**

- Mean of pre-test is 12.63, median 13, mode 13, and range is 09 and of post-test mean is 34.33, median 35, mode 36 and range is 12.
- Standard deviation of pre-test is 1.75 and post-test is 2.83
- The difference of pre-test and post-test mean is 21.7, median 22, mode 23, range 03, and standard deviation is 1.08.



**Graph 4:** Column graph showing Mean, Median, Mode, Standard Deviation (SD), Range, and Difference of Mean, Median, Mode, Standard Deviation (SD) & range of pre-test and post-test knowledge score of subjects regarding Prevention of needle sticks injury

**Table 5 reveals that**

In pre-test 02(6.66%) subjects had poor knowledge, 27(90%) had average & 01(3.33%) had good knowledge,

where as in post-test all the subjects 30(100%) had good knowledge scores.



**Graph 5:** Column Graph showing distribution of knowledge scores of subjects regarding Prevention of needle sticks injury

**Section III Analysis of effectiveness of structured teaching programme on prevention of needle sticks injury**

This section deals with the analysis and interpretation of the data to assess the effectiveness of structured teaching programme (STP) on prevention of needle stick injury among internship students.

**Testing hypothesis**

**H<sub>1</sub>.** The mean post-test knowledge scores of the students exposed to structured teaching programme (STP) will be significantly greater than their mean pre-test knowledge scores at 0.05 level of significance.

**Table 6:** Difference (d), standard error of difference (SEd) and paired 't' test values of knowledge scores of subject n=30

Mean	Standard error	Paired 't' test		
Difference	of Difference	calculated	29df	Inference
(d)	(SEd)			
21.7	0.4	43.4	2.045	*

Table 6 reveals that calculated paired 't' value ( $t_{\text{calculated}}=43.4$ ) is greater than tabulated value ( $t_{\text{tabulated}} = 2.045$ ). Hence  $H_1$  is accepted. This indicates that the gain in knowledge score is statistically significant at  $p < 0.05$  levels.

**Table 7:** Association between the pre-test level of knowledge scores and selected socio-demographic variables: Chi-square ( $\chi^2$ ) test to determine the association n=30

Respondent's knowledge $\chi^2$ value								
Demographic category								
Variables	sample	Poor		Average		Good		df
		f	(%)	f (%)	f (%)			
Age Group (Years)	17-20	0	0.0	0	0.0	0	0.0	9.488 NS
	21-24	0	0.0	19	63.3	1	3.3	
	25-28	2	6.6	08	26.6	0	0.0	
Gender	Male	2	6.6	10	33.3	0	0.0	5.991 NS
	Female	0	0.0	17	56.6	1	3.3	
Religion	Hindu	0	0.0	17	56.6	1	3.3	12.592 NS
	Muslim	1	3.3	3	10	0	0.0	
	Christian	1	3.3	7	23.3	0	0.0	
	Other	0	0.0	0	0.0	0	0.0	

Table No 7 reveals  $\chi^2$  value computed between the pre-tests levels of knowledge with selected socio-demographic variables

- The  $\chi^2_{\text{calculated}}$  value (9.488) is less than  $\chi^2_{\text{tabulated}}$  value (3.33). Hence  $H_{2.1}$  is rejected. There is no significant association between knowledge scores and age.
- The  $\chi^2_{\text{calculated}}$  value (5.991) is less than  $\chi^2_{\text{tabulated}}$  value (4.58). Hence  $H_{2.2}$  is rejected. There is no significant association between knowledge scores and gender.
- The  $\chi^2_{\text{calculated}}$  value (12.592) is less than  $\chi^2_{\text{tabulated}}$  value (2.32). Hence  $H_{2.3}$  is rejected. There is no significant association between knowledge scores and religion.

### Summary

This chapter has dealt with the analysis and interpretation of result of the study.

Both descriptive inferential statistics were used to analyze the data. The analysis was carried out on the basis of the objectives and hypothesis of the study.

The data analysis and interpretation has been organized and presented as socio-demographic variables, knowledge of internship student regarding needle stick injury, the effectiveness of structured teaching programme (STP), and association of pre-test knowledge scores with selected socio-demographic variables.

Frequency and percentage were used to analyze the socio-demographic variables, mean, mean percentage and standard deviation were used to analyze the knowledge. The effectiveness of structured teaching programme (STP) was assessed using paired 't' test. The association between the pre-test levels of knowledge with selected socio-demographic variables was calculated using chi-square ( $\chi^2$ ) test.

### Discussion

The aim of the study was to assess the effectiveness of structured teaching programme (STP) in improving the

Therefore, structured teaching programme on prevention of needle stick injury is effective to improve the knowledge of internship students.

### Section IV: Association between the pre-test levels of knowledge scores with selected socio-demographic variables

#### Testing of hypothesis

$H_2$  – There will be a statistically significant association between the pre-test level of knowledge scores and selected socio-demographic variable at 0.05 level of significance.

knowledge on prevention of needle stick injury among internship students studying in KLEU'S Institute of Nursing sciences, Belgaum, Karnataka.

### Major findings and Discussion

#### Section I: Major findings of the study related to the socio-demographic variables

Majority of the internship students 20(66.6%) were between the age group of 21 -24 years. Majority of internship students 18(60%) were female and 12(40%) were male. Majority of internship students 18(60%) were Hindu.

#### Section II: Analysis of pre-test and post-test knowledge scores on prevention of needle stick injury among internship students

Mean of pre-test is 12.63, median 13, mode 13, range 09, and standard deviation 1.75, and of post-test mean was 34.33, median 35, mode 36, range 12, and standard deviation 2.83. There is considerable deference of mean 21.7, median 22, mode 23, range 03, and standard deviation 1.08, of pre-test and post-test knowledge scores.

The pre-test and post-test frequency and percentage of knowledge scores of subjects regarding prevention of needle stick injury revealed pre-test 02(6.6%) subjects and poor knowledge, 01(3.3%) had good knowledge, as in post-test all the subjects 30(100%) had good knowledge scores.

#### Section III: Analysis of effectiveness of structured teaching programme (STP) on Prevention of Needle sticks Injury:

The mean difference between pre-test and post-test knowledge scores was a true difference and not a chance difference. This indicates that structured teaching was significantly effective in increasing the knowledge of internship students.

The overall mean knowledge scores of pre-test were 12.63 and post-test is 34.33 with standard deviation of pre-test 1.75 and posttest 2.83. The mean difference of pre-test and post-test is 21.7 and standard error of difference 0.4.



The obtained, value ( $t_{\text{calculated}}$  43.4) is greater than the table value ( $t_{\text{tabulated}}$  2.045) at 0.05 level of significance. Therefore 't' value is found to be significant. It shows that there will be significant difference between pre-test and post-test knowledge scores of internship students regarding on prevention of needle stick injury. Therefore the research hypothesis is accepted.

#### Section IV: Analysis of association between pre-test levels of knowledge with selected socio-demographic variables

The  $\chi^2$  value computed between the pre-test levels of knowledge with selected socio-demographic variables. Variables of age ( $\chi^2=9.488$ ), gender ( $\chi^2=5.991$ ), religion ( $\chi^2=12.592$ ), were found to be non-significant at 0.05 level. Thus it can be interpreted that there is no significant association between the pre-test levels of knowledge with selected socio-demographic variables.

#### Conclusion

The focus of the study was to assess the effectiveness of structured teaching programme (STP) on prevention of knowledge among internship students studying in KLEU'S Institute of Nursing sciences, Belgaum. A pre-experimental design was used in the study. The data was collected from 30 internship students through self-administered knowledge questionnaire.

The following conclusion was drawn on the basis of the present study

1. Pre-test concluded among 30 subjects 2 (6.6%) had poor knowledge scores and 27 (90%) had average scores while 1 (3.3%) had good knowledge scores.
2. After the structured teaching programme (STP) post-test conducted among the same 30 subjects, all the subjects had good knowledge scores.
3. There was significant increase in post-test knowledge scores through structured teaching programme (STP). The gain in knowledge score was significant at  $p<0.05$  level and calculated paired' is 43.4. Findings revealed that structured teaching programme (STP) on prevention of needle sticks injury was effective to improve knowledge of subjects under study.
4. There is no significant association between the knowledge scores with socio-demographic variables.

#### Limitation of the study

- The study is limited to Internship students at studying in KLEU'S Institute of Nursing sciences, Belgaum, Karnataka.
- The study is limited to only 30 Internship students

#### Recommendations

Based on the findings of the study, the following recommendations have been made for study:

- A similar study can be done to assess the attitude and practice of Internship students regarding prevention of needle stick injury.
- The study can be replicated on large samples for a better generalization.
- Video assisted teaching programme can be conducted among the Internship students regarding prevention of needle stick injury.
- Structured teaching can be conducted among the

Internship students regarding prevention of needle stick injury.

#### Conflict of Interest

Not available

#### Financial Support

Not available

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