



A STUDY TO EVALUATE THE EFFECTIVENESS OF SELF INSTRUCTIONAL MODULE ON NEEDLE STICK INJURY IN IMPROVING KNOWLEDGE AMONG STAFF NURSES IN SELECTED HOSPITAL AT COIMBATORE.

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ABSTRACT

A study to evaluate the effectiveness of self instructional module on needle stick injury in improving knowledge among staff nurses in selected hospital at Coimbatore. The research approach used was quantitative approach and one group pretest & post test experimental design was used. Among the samples 63.4% of staff nurses had moderate knowledge in the pretest and 36.6% had good knowledge. The level of knowledge in post test reveals that 100% of staff nurses had good knowledge. The obtained 't' value 49.63% is statistically significant at 0.05 level. This indicates the mean difference 14 is a true difference. It was inferred that the self instructional module was effective in improving the knowledge regarding needle stick injury.

KEYWORDS : self instructional module, needle stick injury.

Introduction

Needle stick injury is an accidental injury with a needle that is contaminated with blood or body fluid. The injuries have been reported as a meaning of infecting the nurse or health care professional with hepatitis or HIV. The risks of accidental needle stick injuries are most common during invasive procedure such as collection of blood and giving injections. These injuries can occur at any time, when people carelessly handle the needle. The improper disposal of needle in linen garbage will injure other workers, who encounter them unexpectedly. The centers for disease control and prevention (CDC) estimates that each year 3,85,000 needle stick and others sharps related injuries are sustained by hospital based health care personnel.

Statement of the Problem

A study to evaluate the effectiveness of self instructional module on needle stick injury in improving knowledge among staff nurses in selected hospital at Coimbatore.

Objectives

- To assess the level of knowledge regarding needle stick injury among staff nurses.
- To evaluate the effectiveness of self instructional module on needle stick injury among staff nurses.
- To determine the association between post test score and selected demographic variables.

Hypothesis

- H₁: The mean post test score of the experimental group will be significantly higher than the mean pre test score.
- H₂: There will be a significant association between the post test score and selected demographic Variables such as age, experience and vaccination status.

Assumptions

This study assumes that,

- Staff nurses should have knowledge about prevention of needle stick injury.
- They are at high risk to sustain needle stick injury.

Material & Methods

A Quantitative Research approach, pre experimental (one group pre test and post test) design was adopted to assess the level of knowledge regarding needle stick injury among nurses working at ESI hospital Coimbatore. Formal permission was obtained from medical officer at ESI hospital for conducting the study. Sample size consists of 30 staff nurses, who fulfill the inclusion criteria. The investigator explained the purpose of conducting the study and reassured the nurses that collected data will be kept confidential.

Description of tool

The tool was developed after a thorough review of literature and experts opinion.

It consists of two parts.

Part I: Demographic Variables such as age, income, experience,

immune status & Vaccination status.

Part II: Self assessment Questionnaire consists of 20 items. Each question has 4 options and the correct answers carries one mark and incorrect answer carries zero mark.

Data collection procedure

Initially the researcher established rapport with the study subject and purpose for doing the study was explained to individual sample. Convenient sampling technique was used to select 30 nurses for the experimental group of the study. The selected intervention was administered for experimental group. During the procedure demographic variables & knowledge level was assessed and provided appropriate intervention to the experimental group. The data was analyzed, by using descriptive & inferential statistics.

Results and Conclusion

Table-1: Distribution of samples according to knowledge level in pre test and post test

The findings are tabulated and data interpreted as follows; (n=30)

LEVEL OF KNOWLEDGE	EXPERIMENTAL GROUP			
	PRE TEST		POST TEST	
	FREQUENCY	%	FREQUENCY	%
ADEQUATE KNOWLEDGE	11	36.6	30	100
MODERATE KNOWLEDGE	19	63.4	0	0

The data presented in table 1 shows that 63.4% of staff nurses in the experimental group had moderate knowledge in the pretest and 36.6% had good knowledge. The level of knowledge in post test reveals that 100% of staff nurses had good knowledge.

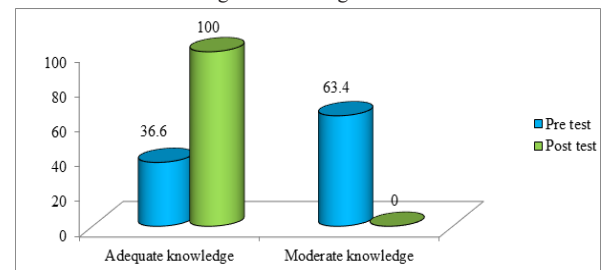


Fig-1: percentage distribution of samples level of knowledge score in pre test and post test.

Table- 2 -Mean, Mean difference, Standard deviation and't' value of pretest and posttest Level of knowledge among samples.

(n=30)

S. NO	Variables	Mean	Mean difference	Standard deviation	Paired 't' test	Degree of Freedom
1	Pre test	9.4	6.94	2.62	49.63*	29
2.	Post test	16.4	1.88			

* Significant at 0.05 level

Table-2 represents that the mean posttest score 16.4 is higher than the mean pretest score 9.4 the obtained 't' value is 49.6 is statistically significant at 0.05 level.

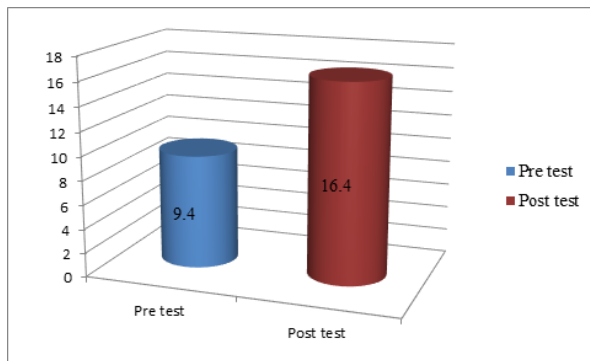


Fig-2: Distribution of mean knowledge score of samples in pre test and post test.

TABLE-3: Association between level of knowledge score and selected demographic variables (Age, experience, vaccination). (n=30)

Sl. NO	Demographic Profile	Knowledge Level of Post-test				χ ² Value / df=1
		Above mean		Below mean		
		F	%	f	%	
1	Age in years					30.2*
	a) Below 40 years	0	0	8	26.6	
	b) Above 40 years	22	73.4	0	0	
2	Experience					31.14*
	a) Below 5 years	0	0	5	16.6	
	b) Above 5 years	25	83.4	0	0	
3	Vaccination					18*
	a) Done	18	60	0	0	
	b) Not done	12	40	0	0	

* Significance at 0.05 level.

The findings in table-3 reveals that there was a significant association between the age (χ²=30.2), experience (χ²=31.14) and vaccination (χ²=18) and level of post test knowledge score. So the findings support the research hypothesis.

Discussion

The study findings shows

- Among the samples, 26.6% belongs to 31-40 years and 26.6% belongs to 51-60 years of the age group. Majority of the samples 46.8% belongs to 41 -50 yrs of age.
- Regarding the monthly income 6.6% of samples earns Rs15,000 and another 6.8% of samples earns Rs 20,000 and 86.6% of samples earns Rs 20,000.
- Among the samples 16.6% of samples had 3-5 years of experience, 16.8% had 6-10 years of experience and 66.6% of samples had above 10 years of experience.
- Among the samples 70% of samples had checked their immune status and 30% have not checked their immune status.
- Among the samples 60% of samples belongs to vaccinated group and 40% of samples were not vaccinated.

The first objective of the study was to assess the level of knowledge regarding needle stick injury among staff nurses.

The study reveals that among the experimental group 36.6% had good knowledge and 63.4% had moderate knowledge in the pretest and 100% of the samples had good knowledge in post test.

The second objective of the study was to evaluate the effectiveness of self instructional module on needle stick injury among staff nurses.

The present study reveals that in experimental group mean post test knowledge score 16.4 is higher than the mean pretest knowledge score 9.4. That indicate the mean difference 6.9 is a true difference which has not occurred by chance, t' value 49.62 was significant at 0.5 level of significance

The third objectives of the study to determine the association between the posttest Knowledge score and selected demographic variables

The study reveals that post test knowledge score of experimental group was associated with the selected demographic variables such as age-χ²=30.2, experience χ²=31.14 and vaccinationχ²=18.

Conclusion

The conclusion drawn from the study, the majority of nurses had inadequate knowledge regarding needle stick injury and prevention of needle stick injury. The study findings revealed that the knowledge was significantly improved by providing the self instructional module.

Recommendations

- Similar study can be done on a large sample for generalization.
- Similar kind of study can be done in various settings.
- Similar study can be conducted on allied health science and medical professionals.

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