



## **A QUASI EXPERIMENTAL STUDY TO ASSESS THEEFFECTIVENESSOFLEARNINGMODULEON KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING PREVENTION OF NEEDLE STICK INJURY AMONGHOUSEKEEPING STAFF IN SRM GENERAL HOSPITAL,KATTANKULATHUR**

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### **Abstract**

The objective of the study was to determine the effectiveness of learning module on knowledge, attitude and practice regarding prevention of needle stick injury between study and control group. Quantitative research approach and quasi experimental design was adopted. The sample size was 100 housekeeping staffs were chosen by using convenience sampling technique. Pre-test was assessed by using self structured knowledge, attitude and practice questionnaire on the 1<sup>st</sup> day of the data collection. Following to the pre-test, intervention of the study (Learning module on Prevention of needle stick injury) was given to the study participants with use of power point presentation for 20-30 minutes, demonstration for 5 minutes and a booklet regarding prevention of needle stick injury was given to them. After 7 days post-test was assessed by using the same questionnaire. The result revealed that during post- % (38) of housekeeping staff knowledge was found to be adequate with a mean value of 18.6 with standard deviation  $\pm$  2.58. Housekeeping staff attitude were improved about 78% (39) with a mean value of 39.3 with standard deviation  $\pm$  6.11. Regarding practice among housekeeping staff showed improvement 78% (39) with a mean value of 10.9 with standard deviation  $\pm$  1.97 which was significant  $p < 0.05$ . Whereas in control group the p value is not less than 0.05 is not significant at 5% level. Study concluded overall there was improvement in knowledge, attitude and practice of housekeeping staff on prevention of needle stick injury after giving learning module among study group.

**Keywords:** Learning module, Prevention of needle stick injury, housekeeping staff, Effectiveness, Knowledge, Attitude and Practice.

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## **1. INTRODUCTION**

A needle stick injury is a percutaneous piercing wound typically set by a needle point, 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. Despite their seriousness as a medical event, needle stick injuries have been neglected, most of the needle stick injuries are unreported and it have been recognized as occupational hazards.<sup>[1]</sup>

From the studies and surveys, the Centers for Disease Control and Prevention revealed that nurses have the highest frequency of needle stick injury reports and housekeeping staff are second. Housekeeping staff plays pivotal role in ensuring an infection free and safe environment in hospitals. As they are frequently handling biomedical waste in hospitals, they are prone for needle stick injuries. Lack of literacy and mismanagement in handling sharps by housekeeping staff has caused an increase in the incidence of needle stick injuries among them.<sup>[2]</sup>

### **Objectives of the Study**

To assess the level of knowledge, attitude and practice regarding prevention of needle stick injury among the housekeeping staff in study and control group.

To determine the effectiveness of learning module on knowledge, attitude and practice regarding prevention of needle stick injury between study and control group.

To correlate the post-test level of knowledge, attitude and practice regarding prevention of needlestick injury among study and control group.

To associate the post-test level of knowledge, attitude and practice regarding prevention of needle stick injury with their selected demographic variables.

### **Research Hypotheses**

RH1 – There will be a significant difference in the post-test level of knowledge, attitude and practice regarding prevention of needle stick injury among the housekeeping staff in the study group.

RH2 – There will be a significant correlation between post-test level of knowledge, attitude and practice regarding prevention of needle stick injury among the housekeeping staff in study and control group.

RH3–There will be a significant association between the post-test level of knowledge, attitude and practice regarding prevention of needle stick

injury among the housekeeping staff with their demographic variables in study and control group.

## **2. MATERIALS AND METHODS**

Approach: Quantitative evaluative approach.

Design: Quasi Experimental design with Study and Control group.

Independent variable: Learning module regarding prevention of needle stick injury.

Dependent variables: Knowledge, attitude and practice regarding prevention of needle stick injury.

Setting: The study was conducted in SRM General Hospital, Kattankulathur, Chengalpattu District, TamilNadu, India.

Tools: Self – Structured knowledge, attitude and practice questionnaire.

### **Validity Of The Tool/ Ethical Consideration**

The validity of the tool was judged by 2 medical experts and 3 nursing experts from other nursing college. The opinions and suggestions on the applicability of the content was modified and finalized. The formal approval was obtained from the Institutional Ethical Committee.

### **Data Collection Procedure**

Control group data collection was done among 50 participants for two weeks. Approximately twenty minutes was spent to collect data from the participants. On first day took demographic variables, pre-test on knowledge, attitude and practice was done with self-structured questionnaire., after 7 days post-test was taken. Study group data collection was done among 50 participants for the next two weeks. On the first day demographic variables, pre-test was done to assess the level of knowledge, attitude and practice by using same questionnaire and intervention was given with powerpoint presentation for 20-30minutes,demonstration for 5minutes and booklet was given to them. After 7 days post-test was taken, confidentiality was maintained throughout the procedure.

### 3. RESULTS

COMPARISON OF PRE AND POST TESTS CORE IN THE LEVEL OF KNOWLEDGE, ATTITUDE AND PRACTICE REGARDING PREVENTION OF NEEDLE STICK INJURY AMONG THE HOUSEKEEPING STAFF

n = 100

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S No	variables	Group	Scorelevelof test	N	Mean	SD	t value	Df	P value
1	Knowledge	Studygroup	Pretest	50	4.7	2.88	-32.27	49	0.000**
			Posttest	50	18.6	2.59			
	Control group	Pretest	50	5.4	2.19	1.38	49	0.18	
		Posttest	50	4.7	2.88				
2	Attitude	Studygroup	Pretest	50	14.5	1.93	-29.78	49	0.000**
			Posttest	50	39.3	6.11			
	Control group	Pretest	50	14.4	2.25	-0.22	49	0.82	
		Posttest	50	14.5	1.93				
3	Practice	Studygroup	Pretest	50	5.5	1.22	-12.44	49	0.000**
			Posttest	50	10.9	1.97			
	Control group	Pretest	50	5.3	1.06	-0.16	49	0.88	
		Posttest	50	5.4	1.23				

### 4. DISCUSSION

The study revealed that during post-test 76% (38) of housekeeping staff knowledge on prevention of needle stick injury was found to be adequate with a mean value of 18.6 with standard deviation  $\pm$  2.58. Housekeeping staff attitude were improved about 78% (39) with a mean value of 39.3 with standard deviation  $\pm$  6.11. Regarding practice among housekeeping staff showed improvement 78% (39) with a mean value of 10.9 with standard deviation  $\pm$  1.97 which was significant  $p<0.05$ . Correlation reveals that there was having positive correlation on knowledge with favourable attitude at  $p<0.05$ , while all other was not having statistically significant correlation between attitude Vs practice ( $p = 0.39$ ) and knowledge Vs practice ( $p = 0.35$ ) and there is statistically significant association between the post-test level of attitude with the demographic variables “Previous knowledge regarding needle stick injury” and also post-test level of practice with the demographic variables “Type of family”. Whereas in control group the p value is not less than 0.05 is not significant at 5% level.

### 5. CONCLUSION

The present study assessed the effectiveness of learning module on knowledge, attitude and

practice regarding prevention of needle stick injury among housekeeping staff. The result of the study revealed that in the pre-test majority of the housekeeping staff were having inadequate level of knowledge, unfavourable attitude and practice towards prevention of needle stick injury. Whereas in the post test housekeeping were found to possess adequate level of knowledge, favourable attitude and practice after the intervention.

**Conflicts Of Interest:** No conflicts of interest.

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