Original Research Paper

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EFFECT OF STRUCTURED TEACHING PROGRAM ON KNOWLEDGE OF HOUSEKEEPING STAFF REGARDING PREVENTION AND MANAGEMENT OF NEEDLESTICK INJURY.

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ABSTRACT Aim: The aim of the study was to improve the knowledge regarding prevention and management of needlestick injury among housekeeping staff. Methods and Materials: A quantitative pre experimental one group pre-test post-test design was used to collect data from 50 subjects by simple random sampling technique. Self administered structured knowledge questionnaire were used. The collected data was analyzed by using descriptive and inferential statistics. Results: The Mean pre-test score was 14.72 and Mean post-test score was 21.46. The results revealed that among 50 study participants, majority of subjects (50%) had average knowledge,36% had poor knowledge and only 14% had good knowledge regarding prevention and management of needlestick injury. The structured teaching programme was effective. Conclusion: The finding of the study revealed that there was a significant increase in the post-test knowledge scores after structured teaching programme.

KEYWORDS : Knowledge; Structured Teaching Programme; Needlestick Injury; Housekeeping Staff

INTRODUCTION

A needle stick injury is a penetration of skin by a needle or other sharp object, which was in contact with blood, tissue, or other body fluid before the exposure.[1] According to the World Health Organization , 35.7 million health care workers in the world are exposed to the risk of Needle stick injuries[2]. Needle stick injuries are one of the major risk factor for blood-borne infections at healthcare facilities. Needle stick and sharp injuries are occupational health hazards to healthcare workers. Every day healthcare workers are exposed to infectious pathogens through contaminated needle and other sharps injuries[3]. In a WHO study, the annual global estimated proportion of HCWs exposed to these infections were 0.5% for HIV, 2.6% for HBV and 5.95% for HCV[2]. For the prevention of needlestick injury the employers should establish a blood borne pathogen control program , provide needle devices with safety features, investigate all sharps- related injuries and provide post-exposure medical evaluations[4] . From the studies and surveys ,the CDC revealed that nurses have the highest frequency of needlestick 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[5].

MATERIALS AND METHODS

- **Setting:** The study was conducted at MOSC Medical college hospital ,Kolenchery
- **Research approach:** The approach used in this study was quantitative approach
- **Research design**: Pre experimental research Design.
- **Sample:** 50 Housekeeping staff
- **Inclusion criteria:** Housekeeping staff of MOSC Medical College Hospital who are able to read ,write and speak Malayalam.
- **Data collection instruments:** Socio personal - professional data :Structured knowledge questionnaire
- **Description of tool:**

The tool consisted of two aspects:

Section A: - A structured questionnaire to assess socio personal-professional data of the study participants. Items on selected demographic variables like Age, gender, previous history of needlestick injury etc.

Section B: - Structured knowledge questionnaire to assess the knowledge on prevention and management of needlestick injury

Content validity: The content validity index was calculated as 0.08.The reliability coefficient was 0.83 and was calculated by using Cronbach's alpha.

- **Data Collection Procedure**

The investigator obtained ethical clearance from the Institutional ethical committee of Malankara Orthodox Syrian Church Medical College Hospital. Formal permission was obtained from the Medical superintendent and nursing superintendent. . Fifty housekeeping staff were selected by simple random sampling technique. Consent was taken from each subject. The subject was informed about the purpose of the study and was requested to complete the structured knowledge questionnaire regarding prevention and management of needlestick injury. Pre test was administered to each client followed by structured teaching programme aided by Power point presentation to facilitate the understanding of teaching Teaching was carried out for 45 minutes. Method of instruction was lecture cum discussion. After the teaching session, clients were free to clarify their doubts. Post test was conducted using the same questionnaire on the 14th day of teaching.

RESULTS

Data were analyzed by descriptive and inferential statistics using Microsoft excel and R software

Distribution of socio-personal and professional characteristics

Among 50 respondents, most of the subjects (92%) were females. About 14% subjects were having previous history of needle stick injury. Majority of the study subjects (66%) have not attended any training program regarding prevention and management of needle stick injury.

TABLE 1: Frequency and percentage distribution of pre-test and post test level of knowledge.

n=50

Level of knowledge	Pre test knowledge score	Post test knowledge score
Poor (0-13)	Frequency percentage(%) 18 36	Frequency Percentage(%) - -
Average (14-18)	25 50	6 12
Good (19-25)	7 14	44 88

Among 50 study participants majority of housekeeping staff (50%)

had average knowledge, 36% had poor knowledge and only14% had good knowledge regarding prevention and management of needlestick injury. But in post-test majority of the housekeeping staff (88%) had acquired good knowledge and 12% had acquired average knowledge.

TABLE 2: Mean, Standard Deviation ,t - Test Score and p Value of Knowledge Score.

n=50

Knowledge	Mean	Standard Deviation (SD)	t test	p value
Pre–test knowledge	14.72	3.09	-15.84	p<0.001
Post–test knowledge	21.46	1.91		

P <0.05 –significant*

Paired t –test was used to find the significant difference between pre-test and post-test knowledge score. There is a statistical difference in the average knowledge regarding prevention and management of needlestck injury after the intervention (p<0.05) Hence the intervention is found to be effective.

4.DISCUSSION

From the pretest knowledge score it was inferred that among 50 study participants, majority (50%) had average knowledge, 36% had poor knowledge and only 14% had good knowledge regarding prevention and management of needlestick injury. A quasi-experimental study conducted in selected health centers of Tirupati, India among 50 health workers to assess the knowledge regarding prevention and management of needlestick injury revealed that about 30% had inadequate level of knowledge, 50% had moderate level of knowledge and only 20% had adequate level of knowledge[6] .

The reason for poor pretest knowledge in the present study may due to the fact that the majority of the subjects (66%) had not received any type of training programme regarding prevention and management of needlestick injury. Attending more continuing education programs regarding prevention and management of needlestick injury will increase the knowledge level of housekeeping staff.

From the study, it was observed that the mean of post test knowledge score were higher than the mean of pre test knowledge score. There is a statistical difference in the average knowledge regarding prevention and management of needlestick injury after the intervention (p<0.05).Hence the structured teaching program is found to be effective.

A quasi experimental study was conducted to assess the effectiveness of structured programme on knowledge regarding prevention and management of needlestick injury among 60 nursing students in a selected nursing college of Jalandhar, Punjab. The findings of the study revealed that, in pre test 48.33% of subjects were having adequate level of knowledge 38.34% of study subjects were having moderate level of knowledge and 13.33% were having inadequate level of knowledge. In post test scores 90% of subjects showed adequate knowledge[7].This study concluded that, there was significant improvement in the knowledge scores after the intervention. Hence the intervention was found to be effective.

5.CONCLUSION

The study revealed that housekeeping staff had average knowledge regarding the prevention and management of needlestick injuries during clinical teaching. Educational intervention had a positive impact on knowledge of housekeeping staff regarding needlestick injuries. Hence there is an exigent need for conducting educational programmes for housekeeping staff regarding prevention and management of needle stick injury.

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