



EFFECTIVENESS OF STRUCTURED TEACHING PLAN ON THE KNOWLEDGE REGARDING INFECTION CONTROL AMONG CLASS IV WORKERS OF SHARDA HOSPITAL, GREATER NOIDA

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ABSTRACT - The field of infection control focuses on preventing nosocomial or healthcare-associated infections and addresses factors related to the spread of infections within the healthcare environment, such as management, monitoring/investigation of proven or suspected infection spread within a specific healthcare environment, and prevention. This study aimed to assess the effectiveness of Structured Teaching Plan (STP) on knowledge regarding infection control among class IV workers of Sharda Hospital, Greater Noida. The objectives of the study were to assess pre-test and post-test level of Knowledge regarding infection control, to compare pre-test and post-test knowledge score regarding infection control and to find an association between pre-test and post-test knowledge score among selected socio-demographic variables among class IV workers of Sharda Hospital. A Quantitative research approach with pre-experimental one group pre-test post-test design was used for the study. Data revealed that, there was a statistically significant difference noted in the mean knowledge scores of class IV workers regarding Infection Control in pre-test and post-test at $p < 0.000$. It showed that the intervention was effective in improving the knowledge of Class IV workers.

KEYWORDS - Infection Control, Class IV Workers & Structured Teaching Plan (STP)

INTRODUCTION - The hospital has become a more unsafe environment for patients while they are there. Infection is a substantial health issue that can be costly to cure and has a considerable impact on medication effectiveness. Infection control focuses on preventing nosocomial or healthcare-associated infections and addresses factors that contribute to the spread of infections in the healthcare environment, such as management, monitoring/investigation of proven or suspected infection spread within a specific healthcare environment, and prevention. In light of this, the term "infection prevention and control" has gained popularity in the healthcare industry.

Infection control measures include increasing hand washing adherence, standard precautions, personal protective equipment, aseptic technique, sterilization, sharps management, waste management, surveillance, and reporting of hospital-acquired infections. Staff must follow recommended evidence-based utilizes as part of infection control efforts. The most common means of transmitting healthcare-associated infections from patient to patient and within the hospital environment is through the hands of healthcare staff. Hand hygiene is the most effective approach to

prevent antibiotic resistance and reduce healthcare-associated infections (HCAIs), however healthcare workers rarely follow recommended practices. Hand hygiene is an important aspect of patient safety since it helps to prevent the spread of infection. Its promotion is a task that requires a multimodal strategy.

MATERIAL AND METHOD - A Quantitative research approach was used and the research design adopted for the present study was pre-experimental one group pre- test post-test design. The target population for the study were Class IV workers, Sample size was 60 data analysis was done by using Purposive Sampling Technique on the basis of objectives and hypothesis. A modified General System Model by Ludwig Von Bertalanffy (1968) was used as a conceptual framework for the study.

RESULT - The collected data was analysed by descriptive and inferential statistics. In this research study The majority (73.3%) of the participants were in the age group of ≤ 25 years, most (71.7%) of them were female, majority (43.3%) of participants had educational status of intermediate (12th), most (76.7%) of them were having work experience of ≤ 2 years, majority (56.7%) of them had income above 10,000per month in rupees, Most(78.3%) of them were working in non-critical area, Majority(70.0%)of them were having previous knowledge on infection control, and most of them (53.3%) had not attended any in-service- education regarding infection control.

Table 1 - Frequency and percentage distribution of participants based on level of knowledge regarding Infection Control in pre-test

<i>Knowledge level</i>	<i>Category Scores</i>	<i>Respondents</i>	
		Frequency (n00 (n) (n)	Percentage (%)
Poor	≤ 8 Score	19	31.7%
Average	9-16 Score	41	68.3%
Good	(>16) Score	0	0%
Total		60	100%

Table 1 - It revealed that around 31.7% of them were having poor level of knowledge, about 68.3% of them having average level of knowledge and none of them had good level of knowledge.

Table 2 - Frequency and percentage distribution of participants based on level of knowledge regarding infection control in post-test

<i>Knowledge level</i>	<i>Category Scores</i>	<i>Respondents</i>	
		Frequency	Percentage
Poor	(≤ 8) Score	0	0%
Average	9-16 Score	41	68.3%
Good	(>16) Score	19	31.7%
Total		60	100.0%

Table 1 - It revealed that around 68.3% of them were having average level of knowledge, about 31.7% of them having good level of knowledge and none of them had poor level of knowledge.

Table 3 - Comparison of knowledge scores of Class IV workers regarding Infection Control in pre-test and post-test

<i>Knowledge</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean difference</i>	<i>Paired t-test</i>	<i>P value</i>
Pre-test	9.55	3.07	6.20	21.17	0.00 S*
Post-test	15.7	2.28			

(N=60)

(p<0.05 significant level) S*- Significant

Table 3 - It reveals that, there was a statistically significant difference noted in the mean knowledge scores of Class IV workers regarding Infection Control in pre-test and post-test at p<0.000. It shows that the intervention was effective in improving the knowledge of Class IV workers.

Table 4 - Association between Pre- Test scores with demographic variables of class IV workers in pre-test

<i>Demographic variables</i>	<i>Pre-Test Scores</i>			<i>F Value one-way ANOVA</i>	<i>p value</i>
	<i>N</i>	<i>Mean</i>	<i>SD</i>		
1. Age in years					
≤25	44	9.93	2.952	2.609	0.112(NS)
Above 25	16	8.50	3.266		
2. Gender					
Male	17	9.18	3.540	0.346	0.559(NS)
Female	43	9.70	2.908		
3. Educational Status					
10th	14	8.79	3.512	0.810	0.450(NS)
12th	26	9.50	3.444		
Graduation	20	10.15	2.134		
4. Work Experience					
≤ 2 Years	46	9.50	3.075	0.051	0.822(NS)
Above 2 Years	14	9.71	3.197		
5. Income					
≤ 10,000	26	9.73	2.961	0.156	0.694(NS)
Above 10,000	34	9.41	3.201		
6. Current Working Area					
Critical Area	13	8.69	3.473	1.295	0.260(NS)
Non- Critical Area	47	9.79	2.956		
7. Any Previous Knowledge					
Yes	42	9.36	3.214	0.546	0.463(NS)
No	18	10.00	2.765		
8. Attended Any In-service Education					
Yes	28	8.93	3.431	2.183	0.145(NS)
No	32	10.09	2.668		

(p<0.05-Significant level, S: Significant, NS: Non-Significant)

Table 4 - One-way ANOVA was computed to find the significant association between pre-test scores with selected demographic variables of class IV worker. It revealed that, there was no statistically

significant association ($p > 0.05$) found between Pre-Test scores with selected demographic variables of Class IV workers.

Table 5 - Association between Post- Test scores with demographic variables of class IV workers in post-test

<i>Demographic variables</i>	<i>Post-Test Scores</i>			<i>F Value</i>	<i>p value</i>
	<i>N</i>	<i>Mean</i>	<i>SD</i>		
(N=60)					
					<i>one –way ANOVA</i>
1. Age in years					
≤25	44	16.20	2.216		
Above 25	16	14.50	2.066	7.186	0.010(NS)
2. Gender					
Male	17	16.18	2.215		
Female	43	15.58	2.322	0.821	0.369(NS)
3. Educational Status					
10th	14	14.71	2.525		
12th	26	16.19	2.417	2.029	0.41(NS)
Graduation	20	15.90	1.774		
4. Work Experience					
≤ 2 Years	46	15.96	2.190	1.621	0.208(NS)
Above 2 Years	14	15.07	2.556		
5. Income					
≤ 10,000	26	15.00	2.135	5.281	0.25(NS)
Above 10,000	34	16.32	2.266		
6. Current Working Area					
Critical Area	13	15.15	2.375	1.128	0.293(NS)
Non- Critical Area	47	15.91	2.263		
7. Any Previous Knowledge					
Yes	42	15.69	2.353		
No	18	15.89	2.193	0.093	0.761(NS)
8. Attended Any In-service Education					
Yes	28	15.96	2.317	0.456	0.502(NS)
No	32	15.56	2.285		

($p < 0.05$ -Significant level, S: Significant, NS: Non-Significant)

Table 5 - One-way ANOVA was computed to find the significant association between post-test scores with selected demographic variables of class IV worker. It revealed that, there was no statistically significant association ($p > 0.05$) found between post-test scores with selected Demographic Variables of Class IV workers.

CONCLUSION –

The main focus of the study was to assess the effectiveness of Structured Teaching Plan (STP) on knowledge regarding infection control among class IV workers of Sharda Hospital data showed that the intervention was effective in improving the knowledge of Class IV workers.

It revealed that, there was no statistically significant association ($p > 0.05$) found between pre-test and post-test score with selected demographic variables of the participants.

The gathered data was tabulated, grouped and analysed. Bio statistical methods (One way ANOVA and Paired t- test) were used for analyses. The following conclusions were drawn from the result of the study:

- Majority (68.3%) of them having average level of knowledge (31.7%) of them were having poor level of knowledge and none of them had good level of knowledge in Pre- test.
- Majority (68.3%) of them were having average level of knowledge, about (31.7%) of them having good level of knowledge and none of them had poor level of knowledge in Post –test.

RECOMMENDATION - On the basis of findings of the study the following recommendations can be made for further research.

- A similar study may be conducted in large scale in order to draw generalization.
- A comparative study can be done between the staff nurses working in urban hospitals and rural hospitals
- An experimental study can be under taken with control group for effective comparison.
- A similar study can be conducted between health workers and common people.
- A study can be conducted to evaluate various teaching strategies like self-instructional module

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