

Effectiveness of Self-Instructional Module on Knowledge Score regarding Standard Precaution on Prevention of Infection among Staff Nurses

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Abstract

Introduction : The goal of standard measures is to reduce the risk of infection from both recognized and unrecognized sources, including blood-borne infections and other microorganisms or pathogens.

Methodology : An evaluative approach was used for the study. Pre-experimental one group pretest - posttest research design was used in the study. Simple random sampling technique was used. The size of population included in this study was 60 staff nurses setting of the study was Matro Mass Hospital, Jaipur.

Result : In pre-test knowledge score and it is reflected that exactly few (2, 3.3%) staff nurses observed with poor level of knowledge (0-6) about standard precaution on prevention of infection

Conclusion : We can conclude that was a statistically significant in gaining knowledge of standard precaution on prevention of infection of staff nurses.

Keywords : Effectiveness; self-instructional module; precaution; prevention; infection

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Introduction

To prevent infections that are linked to health, standard principles have been developed. These recommendations on common precaution for infection control should be followed by all healthcare professionals when caring for each patient. Here, several suggestions have been broken down into three categories: (1) waste disposal; (2) waste disposal; and (3) needle stick injury avoidance.

In order to get rid of grime, soil, pathogens, and microorganisms, hand washing is the act of washing hands with water or without any other liquid and using soap. The Centers for Disease Control have stated that efficient hand washing is one of the most crucial steps in stopping the spread of pathogens before beginning each episode of care and after any contact or activity that could possibly contaminate hands, hands should be immediately decontaminated from direct patient contact. Hands that are obviously filthy or soily or that could be contaminated with

organic materials and dirt should be washed in soapy water. Hands should be free of all organic substance and dirt before using an alcohol-based hand rub to disinfect them. Until the solution has evaporated and the hands are dry, hands must be vigorously rubbed together, giving special attention to the tips of the fingers, the thumbs, and the spaces in between the fingers. (WHO 2008)

The term "biomedical waste" refers to waste that results from diagnostic procedures, vaccinations of humans (people) or animals, biological production-related activities, or research activities, as well as from the previously stated categories as defined by the Bio-Medical Waste Rules. (2016). The term "waste management" or "waste disposal" refers to all necessary activities and measures, from outlawing refuse to its ultimate disposal. The surveillance, regulation, garbage gathering, treatment, transport, and disposal are all included in this. In addition to being required by law, effective administration for BMW is also a duty of members of society. Hospital waste management differs because it has an impact

on not only the health of the patient but also that of the medical staff, nurses, janitors, and other members of the public.

Injuries caused by needles, such as needle stick wounds, occur when a needle accidentally punctures and penetrates flesh. People who use syringes for hypodermics or other items that resemble needles are vulnerable to needle injuries. Injuries can happen at any step or multiple stages. This includes incorrect waste disposal during and after use, recapping the needle, cleaning up, accessing the IV line, passing a sharp object, processing specimen removal or insertion of needle and suture needle handling, among other things.

Objectives

- v To assess the pre-test knowledge score regarding standard precaution on prevention of infection among staff nurses.
- v To assess the effectiveness of self-instructional module on knowledge score regarding standard precaution on prevention of infection among staff nurses.
- v To find out the association between pre-test knowledge score regarding standard precaution on prevention of infection among staff nurse with their selected demographic variables.

Hypothesis

RH₀₁ - There will be no significant difference between pre-test and post-test knowledge score regarding standard precaution on prevention of infection among staff nurses.

RH₁ - There will be significant difference between pre-test and post-test knowledge score regarding standard precaution on prevention of infection among staff nurses.

RH₀₂ - There will be no significant association between pre-test and post-test knowledge score regarding standard

precaution on prevention of infection among staff nurses with their demographic variables.

RH₂ - There will be significant association between pre-test knowledge score regarding standard precaution on prevention of infection among staff nurses with their demographic variables.

Assumption

1. Nurses have inadequate knowledge regarding the Infection Control.
2. Self-instructional module will help to improve the knowledge of nurses regarding standard precaution on prevention of Infection.

Delimitation

1. The study conduct among the staff nurses those are working in selected Hospitals of Jaipur.
2. The study will be limited to the staff nurses those who have RN RM certificate.
3. The study will be limited to 60 staff nurses.

Methodology

An evaluative approach was used for the study. Pre-experimental one group pretest - posttest research design was used in the study. The samples were recruited by probability simple random sampling technique. The size of population included in this study was 60 staff nurses which were selected according to inclusive and exclusive criteria. They were given a self-instructional module to give their response to assess the knowledge regarding standard precaution on prevention of infection. Main study was conducted in the Matro Mass Hospital, Jaipur, Informed consent from the staff nurses was obtained prior to data collection process and collect the data in the form of pre-test and post-test. Then going for analysis and interpretation of data with inferential statistics like chi-square, mean, median, standard deviation etc.

Results

Table-1 Frequency and Percentage Distribution of Staff Nurses

Demographic Variables	Category	Frequency	Percent
Age	20-25year	23	38.3
	25-30year	20	33.3
	30-35year	8	13.3
	≥ 35year	9	15.0
Gender	Male	33	55.0
	Female	27	45.0

Educational Qualification	General Nursing Midwifery	33	55.0
	B. Sc. Nursing	25	41.7
	Post Basic B. Sc. Nursing	2	3.3
Experience of working in clinical area	12-24 month	36	60.0
	24-36 month	10	16.7
	36-48 month	7	11.7
	≥ 48 months	7	11.7
Source of previous knowledge	During course	13	21.7
	Clinical experience	37	61.7
	Mass Media	7	11.7
	Conference and workshop	3	5.0

Table 2 :- Comparison of knowledge among staff nurses at Pre-administration (Baseline)

N=60

Knowledge at Baseline stage		Frequency (N)	Percent (%)
Score	Category		
0-6	Poor	2	3.3
7-12	Average	24	40.0
13-18	Good	34	56.7
19-24	Excellent	0	0.0

Table 3 :- Comparison of Knowledge of Staff Nurses At Post Administration Stage

N=60

Knowledge at Post test		Frequency (N)	Percent (%)
Score	Category		
0-6	Poor	0	0.0
7-12	Average	3	5.0
13-18	Good	35	58.3
19-24	Excellent	22	36.7

Table 4 :- Comparison of Knowledge Scoring between pre (Baseline) And post administration

Parameter	Variable	Scatterings	Z-Statistic	p-value (LOS)
		Mean±SD		
Knowledge of Standard Precaution	Pre-test	12.37±3.24	16.37	p<0.001#
	Post-test	17.42±2.12		
	Mean Difference	5.05 points		

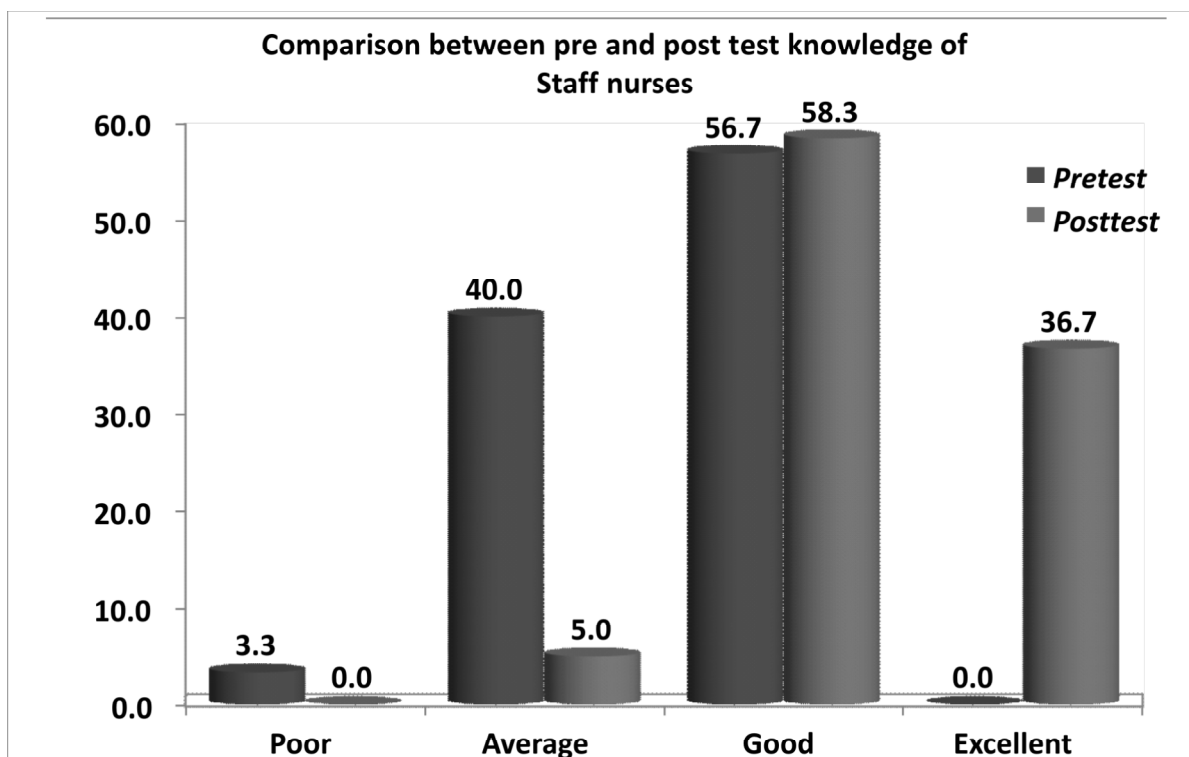


Figure 1-Bar diagram showing the comparison in knowledge levels among staff nurses having before (pre-test) and after administration (post-test) of self-instructional module.

Section-3 the association of knowledge of standard precaution on prevention of infection of staff nurses after administration with selected demographic variables at pre administrations age

In pre-test knowledge score and it is reflected that exactly few (2, 3.3%) staff nurses observed with poor level of knowledge (0-6) about standard precaution on prevention of infection, twenty-four (40.0%) staff nurses showed average (7-12) level of knowledge, thirty-four (56.7%) were in (13-18) level of knowledge, none (0.0%) of the staff nurses identified with excellent (19-24) level of knowledge about standard precaution on prevention of infection. It was detected in post-test that none subjects were left in poor (0-6) category. Major proportion of subjects twenty-two (36.7%) staff nurses acquired excellent (19-24) level of knowledge. 35, (58.3%) staff nurses acquired good (13-18) level of knowledge, few (5.0%) staff nurses observed with average (7-12) level of knowledge.

Conclusions

Thus after the analysis and interpretation of the data the hypothesis RH01-there are no significant difference

between pre-test knowledge score regarding standard precaution on prevention of infection is Rejected. While the hypothesis RH1-there are significant difference between the post-test knowledge score of the standard precaution on prevention of infection among staff nurses are significantly higher than mean pre-test knowledge score at the level of significance $P < 0.05$ is being accepted. Also, the hypothesis RH2-there are significant association between pre-test knowledge score with demographic variables Age, education, working experience, previous knowledge, found to be significant at the level of $P < 0.05$ is being accepted from the above result. We can conclude that were a statistically significant in gaining knowledge of standard precaution on prevention of infection of staff nurses. Thus, the intervention "self-instructional module" was effective.

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