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Original Research Paper

Nursing

A STUDY TO ASSESS EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON LABORATORY SAMPLE SAFETY MEASURES AMONG STAFF NURSES WORKING IN DR. HEDGEWAR RUGNALAYA AURANGABAD CITY

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ABSTRACT

BACKGROUND: Hospital is an institution providing medical and surgical treatment and nursing care for sick or injured people. Nurses are the largest occupational group in any health care agency. Specimen collection, preparation and handling are important tasks performed by nurses. By identifying pathogens and analyzing urine, feces, sputum and blood, one can assess the health status of a patient.

METHODOLOGY: One group pre-test post-test design was used for the study. The sample consisted of 60 staff nurses. The purposive sampling technique was used to select the data. The data was collected by using base line proforma and structured knowledge questionnaire.

RESULT: The post-test findings shows that the calculated mean was 15 as compared with pre-test mean that is 07. The calculated 't' test (t= 13.0932) shows that there is significant difference and planed teaching programme on laboratory sample safety measures was effective in improving the knowledge of staff nurses. The association between knowledge score and demographic variable was computed by using Chi- square and which shows there is no significant association between post-test knowledge score and demographic variables.

KEYWORDS : Effectiveness, Laboratory Sample Safety Measures, Planned Teaching Programme, Staff Nurses

INTRODUCTION:

Hospital is an institution providing medical and surgical treatment and nursing care for sick or injured people. Nursing is a profession within the health care sector focused on the care of individuals, families, and communities so they may attain, maintain, or recover optimal health and quality of life. Nurses are the person trained to care for the sick or infirm, especially in a hospital.

Nurses are the largest occupational group in any health care agency. By virtue of their job responsibility they are frequently exposed to blood and body fluids. Specimen collection, preparation and handling are important tasks performed by nurses. By identifying pathogens and analyzing urine, feces, sputum and blood, one can assess the health status of a patient.

One of the core responsibilities of nurses is to collect, then label and transportation of specimens for analysis. Immediately after this, the specimens should be delivered to the laboratory. Laboratory sample safety measures are more important for the nurses and all health members to avoid the prevention of cross infection in the surrounding areas.

Specimen labeling errors have long plagued the laboratory industry, putting patients at risk of transfusion-related death, medication errors, misdiagnosis, and patient misman agement. It has been estimated that >160000 adverse patient events occur each year in the US because of patient or specimen identification errors involving the laboratory.

Workgroup formed by the Centers for Disease Control and Prevention as a best practice in 2010 to reduce identification errors and improve the accuracy of patient specimen and laboratory testing identification in hospital settings. However, data accumulated over the past 20 years indicate that the incidence of wrong-blood-in-tube errors remained unchanged even though barcode scanner usage increased from 8% to 38% during the same period.

Diagnostic investigations are the back bone of patient care as clinical decisions heavily rely on the performance and interpretation. The advent of modern instruments in laboratory medicine has made investigations more perfect but it is crucial to be aware of factors affecting results. Nursing staff, phlebotomist, junior doctors, consultants, laboratory staff and pathologist all must act in tandem as their collaborative team effort can ensure best patient care.

Nurses need not be specialized in the technical details of laboratory analyses. However, knowledge about pre-analytical variables is important because it has a significant effect on the results of laboratory tests. Of the pre-analytical errors, 60% result from insufficient quantity of specimens and inappropriate specimen quality. Confusion about the process of blood sampling, errors in patient identification and preparation, faults at specimen col-lection device/container, and errors in processing the specimens ultimately jeopardize the laboratory results. Such errors can seriously affect the reliability of test results, also impacting the diagnosis and treatment process of the disease. As the specimens are collected by nurses, these errors can be rarely detected by laboratories. The "human factor" plays a role in concealing errors in an unrealistic way; however, recognizing and defining probable error fields through adequate trainings provided on a repetitive and continual basis can substantially

reduce errors

STATEMENT OF THE PROBLEM

" A study to assess effectiveness of planned teaching programme on laboratory sample safety measures among staff nurses working in Dr. Hedgewar Rugnalaya, Aurangabad"

OBJECTIVES OF THE STUDY

1. To assess pre-test knowledge score on laboratory sample safety measures.
2. To evaluate the effectiveness of planned teaching programme on laboratory sample safety measures.
3. To find out the association between the post-test score with their selected demographic variables.

HYPOTHESIS

H1 : There will be significant difference between the pre and post test knowledge score on laboratory sample safety measures among staff nurses.

H2 : There will be significant association between mean pre-test knowledge score and selected demographic variables.

MATERIAL AND METHOD:

RESEARCH APPROACH:

An evaluatory approach used for this study.

RESEARCH DESIGN:

One group pre-test post-test design was used for this study.

RESEARCH SETTING:

The study was conducted at Dr. Hedgewar Rugnalaya, Aurangabad.

SAMPLE SIZE:

The study consist of 60 staff nurses.

INCLUSION CRITERIA

Who are available at the time of data collection
Who can able to read and write English.
Who are willing to participate in the study

EXCLUSION CRITERIA

Who are not available at the time of data collection
Who are not registered to council

DEVELOPMENT AND DESCRIPTION OF THE TOOL:

The tool consisted of base line proforma, and36 knowledge questionnaire regarding blood, urine, sputum and stool sample collection, labeling and transportation. The tool was validated by experts. The reliability of tool was obtained was r = 0.91 and was shows the tool was reliable

PLAN FOR DATA ANALYSIS:

The obtained data was planned to be analysed by both descriptive and inferential statistics on the basis of objectives and hypothesis.

RESULT AND DISCUSSION:

The data was analysed and presented under the following section.

Section 1: Frequency and percentage distribution of p r i m i g ravida mothers according to the selected demographic variable.

Section II: Effectiveness planned teaching programme on laboratory sample safety measures.

Section III : Association between post-test knowledge score with selected demographic variable.

SECTION 1:

Frequency and percentage distribution of primigravida mothers according to the selected demographic variable.

The study result showed that majority of staff nurses 44 (73.33%) are belongs to the age group of 21 - 28 years, 14(23.33%) belongs to the age group of 29-38 years. Majority of staff nurses 47 (78.33%) were female and 13(21.66%) were male. Most of staff nurses are 28(63.33%) are GNM, 4(6.66%) are PB B.Sc. nursing and 18(30%) had Basic B.Sc. nursing education. Majority of staff nurses 18(30%) were had less than one year, 10(16.66%) had 1-2 year, 8(13.33%) had 2-3 year, 24(40%) had 3year and above work experience. The area of working experience shows that most of them 14(23.33%) worked in general ward, 18(30%) in ICUs, 28(46.66) in others.

SECTION II :

Effectiveness planned teaching programme on laboratory sample safety measures.

Table 1: Effectiveness of planned teaching programme on laboratory sample safety measures among staff nurses.
N= 60

Test	Mean	SD	T value	P value	Inference
Pre-test	07	4.968	13.093	0.001	S
Post- test	15	3.102			

The data in Table 1 shows that post-test findings shows that the calculated mean was 15 as compared with pre-test mean that is 07. The calculated 't' test (t= 13.0932) shows that there is significant difference and planed teaching programme on laboratory sample safety measures was effective in improving the knowledge of staff nurses.

SECTION III:

Association between post-test knowledge score with selected demographic variable.

The association between knowledge score and demographic variable was computed by using Chi- square and which shows there is no significant association between post-test knowledge score and demographic variables. Hence it can be inferred that H_2 is rejected and null hypothesis is accepted.

RECOMMENDATIONS:

1. Similar study can be conducted on a larger sample.
2. A comparative study can be conducted with control group.
3. A comparative study may be conducted to find out the effectiveness between SIM and PTP regarding the same topic.
4. A descriptive study can be conducted to assess the knowledge and practice of staff nurses on laboratory sample safety measures.

CONCLUSION :

Specimen collection is an art which can directly affect a client's diagnosis, treatment and recovery. The nurse is the sole responsible person for the collection of specimens. In some situation, the nurse may have to schedule the test, prepare the client, assist the physician in performing the test and give after care of the client.

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