



Cover Page



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STUDY TO ASSESS NURSES' SKILL COMPETENCY RELATED TO CARDIOVASCULAR ASSESSMENT

Mrs. Poonam Paul

Assistant Professor, Government College of Nursing
Gandhi Nagar, Jammu, Jammu Kashmir, India

Abstract: An Evaluative Study to assess the Skill Competency of staff nurses related to cardiovascular Assessment with a view to plan inservice education in critical care areas of a selected hospital, Ludhiana, Punjab.

Keywords: Skill, Nursing, Cardiovascular, Critical, Patients.

INTRODUCTION

All nurses should possess core critical assessment skills in order to appropriately assess critically ill patients.

As health care delivery changes in critical care, nursing continuous to evolve and develop. Nursing skills are expanding to incorporate skills once seen as the remit of the medical profession. Nurses have now equipped themselves with the skills that can enhance the care they provide to their patients. Assessment of patients is major role in nursing and by expanding assessment skills; nurses can ensure that patients receive the care most appropriate to their needs.

Statement of Problem

An Evaluative Study to assess the Skill Competency of staff nurses related to cardiovascular Assessment with a view to plan inservice education in critical care areas of a selected hospital, Ludhiana, Punjab.

Objectives

- 1) To prepare the structured performa for evaluating nurses Skill Competency and planning inservice education related to Cardiovascular Assessment for nurses working in critical care areas.
- 2) To assess the level of nurses' Skill Competency related to Cardiovascular Assessment.
- 3) To evaluate the standard of nurses' Skill Competency and identify deficits in order to plan & recommend inservice education.

Research hypothesis

H1- Nurses' with >3 years of clinical experience will have higher Skill Competency scores than those with lesser years of experience.

Rationale

- Role of qualification and experience in enhancing nurses' skills further supports needs for continuous inservice education.

Delimitations

The Study was planned to be limited to staff nurses working in critical care areas of Christian Medical College & Hospital, Ludhiana Punjab.

Operational Definitions

Nurses: Male or female professionals who have completed basic nursing education programme (degree or diploma) are registered to practice nursing and presently working in selected critical care areas of Christian Medical College and Hospital Ludhiana, Punjab.

Critical Care Areas: Critical care areas are defined as ICCU, Step down unit/Intermediate care unit, CTU/R. R, Medical ICU'S and Surgical ICU.

Competencies: Advanced abilities to exhibit skills related to Cardiovascular Assessment according to structured assessment performa.

Cardiovascular Assessment: Collection of information about selected functions of heart and blood vessel by following sequence and systematic techniques of physical examination, observation of clinical manifestations such as angina, altered breathing, fluid accumulation and hemodynamic monitoring in terms of structure, process and outcome standard criteria.



Cover Page



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Level of Standard: Grading of performance demonstrated by staff nurses as per the set criteria on a structured assessment performa.
Plan of Inservice Education: Blueprint of teaching-learning content/activities and evaluation performa prepared for the employed nurses to improve their assessment Skill Competency in critical care areas.

CONCEPTUAL FRAMEWORK

The study approach demanded an appropriate evaluation model to meet the objectives of research. The conceptual framework of this study is based on ANA quality cycle model (1975) and concepts from Donabedian's framework (1996) of structure, process and outcome.

RESEARCH METHODOLOGY

• Research approach & Research design

The research approach indicates the broad-based procedure for collection and analysis of data in a particular situation. The research design refers to the plan and organization of scientific investigation for conducting the study. A well-conceived and properly executed research design enhances the investigator's confidence in the research project. For the present study quantitative approach and non-interventional-evaluative design was planned to achieve the objectives.

- **Dependent Variable-** Skill Competency related to Cardiovascular Assessment.
- **Independent Variable** - The independent variables of this study were the personal i.e., age, gender and professional variables such as qualification, training institute, years of experience, and area of work.

Selection of Field for the Study

The study will be conducted on nurses in selected critical care areas of CMC hospital, Ludhiana, Punjab.

Population

The target population of this study will be nurses working in critical care areas.

Sample and Sampling Technique

Purposive sampling technique will be used to select the sample of minimum 80 nurses working in ICCU, Step down unit/intermediate care unit, CTU, ICU - 1, 2, 3, and Neuro ICU of a selected hospital, Ludhiana, Punjab.

DESCRIPTION OF TOOL

Tool: A Structured Cardiovascular Assessment Performa was prepared for evaluating the skill competency of staff nurses working in critical care areas. The tool consists of two parts:

Section I: Demographic data

This part consists of items for obtaining personal information about subjects such as age, gender, professional qualification, training institute, years of experience, area of work.

Section II: Structured skill competency performa of Cardiovascular Assessment

The structured skill competency performa consists of 40 criteria for assessing nurses' skill competency. Assessment of skill competency will be based on:

- Scoring of individual criteria: score '1' assigned if standard criteria is fully satisfied, if not '0' or no score awarded. Maximum Score= 40, Minimum Score=0



Cover Page



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Table 1
Distribution of Staff Nurses according to Competency in terms of level of Skills related to Cardiovascular Assessment
N=80

Criteria	Competency		Staff nurses	
	Levels	Score	n	%
Skills (40)	Good	>39	0	0
	Average	27-39	1	1.25
	Below Average	<27	79	98.75

Maximum Score of skill Competency Assessment Performa = 40

Table 1 and Figure 1 depicts that majority of staff nurses (98.75%) exhibited below average competency on skills related to Cardiovascular Assessment and only (1.25%) staff nurses showed average skills. None (0%) of the nurses were competent enough to reach 'good level' of competencies according to skills criteria.

Table 2
Distribution of Staff Nurses according to Deficits in skill Competency related to Standard Criteria
N=80

Standard Related to Cardiovascular	Staff nurses with deficit in competencies Assessment	
	n	%
Criteria no. Process: skill able to demonstrate-		
identify need CVA	54	67.5
identify patient name/ unit no.	62	77.5
collect, check all equipments	74	92.5
communicate to the patient	2	2.5
follow universal precaution	57	71.5
assess level of consciousness	11	13.75
observe skin color	30	37.5
assess generalized edema	67	83.75
assess pulse rate for full one minute	37	46.25
pulse rate	2	2.5
rhythm of pulse	80	100
volume of pulse	80	100



Cover Page



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check heart rate	12	15
assess respiration rate for full one minute	38	47.5
respiration rate	1	1.25
pattern of respiration	80	100
measure blood pressure	73	91.25
obtain temperature	67	83.75
determine position of heart	1	1.25
identify the land marks	80	100
identify the apical impulse	71	88.75
inspect distention of neck	80	100
palpate chest area over heart	80	100
percuss the chest	80	100
auscultate the heart sounds	0	0
auscultate the breath sounds	65	81.25
palpate liver	57	71.25
palpate abdomen	36	45
extremities (skin changes)	39	48.75
palpate for pitting edema	26	32.5
identify signs of vascular changes	71	88.75
make the patient comfortable	4	5
replace all the articles	22	27.5
discard the waste	79	98.75
wash hands after procedure	77	96.25
record and report as per the norm	1	1.25
Outcome: skill able to demonstrate- satisfaction with performnace	45	56.25
efficiency in term of time, resources	57	71.25



Cover Page



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patient centered approach (safety, comfort, priority)	11	13.75
ability to interpretation of the findings	1	1.25

Table 2 depicts that according to process criteria the majority of staff nurses exhibited lack of Skill Competency for 20/22 criteria i.e. 55.5%. In outcome criteria the majority of staff nurses exhibited lack of Skill Competency for 1/4 criteria i.e. 25%.

Table 3
Percentage Distribution of Staff Nurses according to Expected Standard of Skill Competency

Competency standard	Criterion measure	Staff nurses	
		n	%
Met	> 90%	0	0
Not Met	< 90%	100	100

Maximum score = 40
Minimum score = 0

Table 3 depicts that all (N=80) the staff nurses (100 %) did not meet the expected standard (skill competency score i.e., > 90%) related to Cardiovascular Assessment. Hence it can be inferred that the staff nurses lack the expected skill competency related to Cardiovascular Assessment. Hereby indicating need for inservice education.

Result: None of critical care nurses (N=80) could meet the Skill Competency standard of 90-100%. Majority of staff nurses (n=79) exhibited below average Skills related to Cardiovascular Assessment. Majority of nurses exhibited deficits in skills related to assessment of vital signs, neck vein distension, oxygenation, palpation and percussion technique. The staff nurses lack the expected Skill Competency related to cardiovascular assessment. Hereby indicating need for inservice education.

• Limitations

- The size of sample was only 80 staff nurses from critical care areas; hence it was difficult to make broad generalizations.
- Purposive sampling was done from a selected hospital in Ludhiana which restricts the generalization of the study to the particular setting.

Implications of the study

The findings of present study indicated that None of the staff nurses (N=80) could meet the Skill Competency standard of 90-100%. So, there is need to improve their Skill Competency related to Cardiovascular Assessment.

REFERENCES

1. Hynes P. Standards for Critical Care Nursing Practice. 4th ed. London: Canadian Association of Critical Care Nurses, 2009.
2. Leanne M. Assessing cardiovascular status: A guide for acute nurses, Collegian: journal of the Royal College of Nursing Australia Jan 2005;12(1):34-40.
3. Woodruff David W. ed4nurses: Cardiovascular assessment in Eau Claire, http://www.ed4nurses.com/reviewed on 8/4/2012.
4. Schroeder P. Monitoring and evaluation. 1st ed. Aspen Publishers: U.S,1991.
5. Black JM. Medical & Surgical Nursing. 8th ed. New Delhi: Elsevier, 2005.
6. Lerner SE. Medical- legal experience, expertise & insight: Pulmonary and Critical Care Medicine, http://www.drlerner.com/articles/reviewed on 2012.
7. Christian K and Werdan K. Department of Medicine: Hemodynamic monitoring, http://www.ncbi.nlm.nih.gov/ reviwed on 2001.
8. Galley J. Guidance for nurse staffing: Nurse staffing in critical care in London, http://www.rcn.org.uk/reviewed on 2001.
9. Cox Cl and McGrath A. Intensive Critical Care Nursing: Cardiac and circulatory assessment in intensive care units. The official Journal of the British Association of Critical Care Nurses Dec 1998;14(6):283-7.
10. Woodruff David W. ed4nurses: Cardiovascular assessment in Eau Claire, http://www.ed4nurses.com/reviewed on 8/4/2012.