

KNOWLEDGE OF NURSING STUDENTS REGARDING CARE OF INTENSIVE CARE UNIT PATIENTS

Author's Name: Mrs. Thangam sheela Rosaline¹, DR. Rajrani²

Affiliation:

1. Ph.D Scholar, Himalayana University, Itanagar, Arunachal Pradesh, India
2. **Ph.D Guide**, Himalayana University, Itanagar, Arunachal Pradesh, India

Corresponding Author Name : Mrs. Thangam sheela Rosaline¹

Abstract

Background: It has been strengthened that nursing students benefit from ICU placements by practicing their patient care skills, widen their knowledge by observing complex treatments and care activities. Besides these positive outcomes it is also being emphasized that ICU environment is a complex environment for students which may trigger their stress during clinical placements. There are very few studies related to nursing students' perceptions about ICU placements.

Objective: To assess the knowledge of student nurses regarding care of intensive care unit patient.

Methods: The study was conducted in selected ICU hospitals by two data collectors and selected hospitals. The questionnaire were checked for completeness, cleaned manually and entered in to Epi-Data version 4.2. Then the data was transferred in to SPSS version 21.0 for further analysis. Descriptive statistics were carried out. Finally checked association between dependent and independent variables.

Result: showed that level of knowledge was done as follows: 28(46.7%) of the students were good knowledge, 26(43.3%) Average knowledge and 6(10%) were poor knowledge regarding care of intensive care unit patients. Assessment of the level of knowledge of nursing students with demographic characteristics. Gender and course of study significantly association with knowledge level of students with $p < 0.05$.

Conclusion : Personal experiences and perceptions of the nursing students play an important role in forming their thoughts related to ICU. ICU environment is a place where nursing students experience different procedures and caring activities and get involved in analyzing complex health conditions. For the students who are at their beginning of their nursing education ICU's are quite stressful places to practice nursing skills. Considering nursing students' limited autonomy at ICU's comparing to clinical wards we recommend the use of the intensive care unit as a part of clinical education for nursing students who are close to their graduation such as intern students

Keywords: Knowledge, Intensive Care Unit, patients, care

INTRODUCTION:

The purpose of nursing education is to equip nursing students with the necessary knowledge, attitude and skills in order to provide effective patient care. Clinical practice plays an important role in nursing students' education by promoting different clinical experiences in various locations of the health care settings. Taking responsibility in patient care helps nursing students feel confident and transform their theoretical knowledge to clinical practice. While nursing students practice nursing care activities during their clinical rotations they also get an opportunity to develop effective communication skills and emphatic understanding. It has been reported that students' emphatic caring and caring towards patient's active involvement and collaboration with clinical staff improves their clinical practices. Home works, case report studies, nursing care plans help nursing students to gain confidence and learn about clinical cases.^{1,2}

Being confident during clinical practice is an important fact in nursing education. Although competence level of nursing students during their clinical practice varies, there are numerous studies indicate that they experience some amount of stress in hospital environment.³ It has been known that stress is a negative effect on learning activities of a person. Although some amount of stress may trigger learning positively as the amount of stress increases learning gets troubled. It is important to provide positive learning environments for nursing students in order get successful in nursing education.^{4,5}

Not only classroom environment but also clinical environments should be satisfying for students and should be meeting the goals of nursing education. Studies done on nursing students' ICU experiences reflects that ICU placement provides various benefits for them. However it has been also a question if clinical experience in ICU is useful for nursing students' education particularly the ones attending beginning courses classes because of its complicated nature and excess of stimulus.⁶ At a glance being in different units, participating in patient care activities, seeing different patient profiles can be evaluated as positive outcomes in nursing education.³ ICU is a different and sometimes traumatic experience for patients treated in these units because of their complexity. Feeling safe in this chaotic environment is important for hospitalized ICU patients and nursing students as well. Insufficient knowledge and technical skills are determined as major sources of stress among students. According to some research findings most of the nursing students grade their clinical competence as sufficient. There are very few studies that explored nursing students' experience and their perceptions related to intensive care units during clinical rotations. Intensive care units (ICU) are known to increase stress further in nursing students. One study represents that even being familiar with psychomotor skills is not effective in decreasing.⁷

METHODOLOGY

Study area and period

Study was conducted selected ICU hospitals and study period one month.

Study design

A cross sectional study was conducted to attain the objectives of the study.

Population

Source and study population:: All nursing students who are working at ICU.

Inclusion criteria and Exclusion criteria

Inclusion criteria:

- All students who are working at ICU.
- Nursing students who are working at least for six months

Exclusion criteria:

- students who are absent during data collection period

Sample size: Convenient sampling technique selected 60 students.

VARIABLES

Dependent variable: Knowledge regarding Intensive care unit patients.

Independent variables:

Age, Gender, religion, educational status, family history of ICU patients, aware about ICU, Source of information, Attended any class on ICU

OPERATIONAL DEFINITION

1. Knowledge: In this study knowledge refers to the understanding of students regarding Intensive care unit, as measured by a structured questionnaire

2. Intensive Care Unit: In this study, it refers to an Intensive care *refers to the specialized treatment given to patients who are acutely unwell and require critical medical care.*

3. Nursing Students: In this study, it refers to candidates studying degree and diploma course in selected nursing college.

DATA QUALITY CONTROL

The data collection questionnaires were pretested on 5% of the sample size one week before the actual data collection date and will be reviewed in areas other than the study area. Following the pretest, the tools will be edited and changed to meet the study's objectives. The consistency of the data was monitored during the collection process by closely monitoring the data collectors and the collection method, as well as reviewing the collected data on a regular basis. Any items missing from the questionnaire that the data collectors misunderstood were immediately checked by the supervisors and corrected for the next day of data collection with the principal investigators.

DATA PROCESSING AND ANALYSIS

The collected data was washed, coded, and entered into the SPSS program before the actual study began. The data will be entered and analyzed using the statistical kit for social sciences (SPSS) version 20; the findings will be presented in a detailed description using frequencies, proportions, and cross tabs. Association between dependent and independent variables with a P-value less than 0.05 were considered statistically significant.

RESULT

Table 1: Distribution of study subjects according to socio-demographic variables
N=60

Demographic profile	No of respondents	% of respondents
Age groups in Years		
17-19	11	18.3
20-22	21	35
23-25	15	25
>25y	13	21.7
Gender		
Male	43	71.7
Female	17	28.3
Religion		
Hindu	34	56.7
Christian	22	36.7
Muslim	4	6.7
Educational status		
Bsc 1 st Year	15	25
Bsc II nd Year	31	51.7
Bsc III rd Year	14	23.3
Family history of ICU patients		
Yes	41	68.3
No	19	31.7
Aware about ICU Patients		
Yes	23	38.3
No	37	61.7
Source of information		
Health personal	21	35

Mass media	19	31.7
Workshop	15	25
Friends	5	8.3
Neighbour	0	0.0
Attended any class on care of patients		
Yes	21	35
No	39	65
Total	60	100.0

Table 1: represent that Most of the students (35%) were in the age group of 20-22 years and (25%) of nursing students were in the age group of 23-25 years,(21.7%) of the students were more than 25 years and (18.3%) percent of them were in the age group of 17-19 years. (72%) of student nurses were Males and remaining (28%) were Females. Majority of student nurses (56.7%) were belonging to Hindu religion (36.7%) were Christians and (6.7%) were Muslim. Most (51.7%) of students had Bsc II year Nursing education,(23.3%) are Bsc III year Nursing education,(15%) of them are Bsc Ist Year students. (68%) of student nurses were family history of ICU patients and (32%) of were no family history of ICU patients. (61.7%) of student nurses were Aware about intensive care unit and (38.3%) of were no Aware about intensive care unit. (35%) of student nurses were know about intensive care unit from health person and (31.7%) of were know from mass media,(25%) were know from workshop,(8.3%) were know about friends and 0 percentage from nothing. (65%) of student nurses were not attended class about Care of intensive care unit patients and (35%) of were attended class about intensive care unit.

Table II : Knowledge levels of respondents

Levels of knowledge	Frequency	Percentage
Poor knowledge	6	10.0
Average knowledge	26	43.3
Good knowledge	28	46.7
Total	60	100.00

Above Table:2: Categorization of the nursing students on the basis of their level of knowledge was done as follows: 28(46.7%) of the students were good knowledge, 26(43.3%) Average knowledge and 6(10%) were poor knowledge regarding care of intensive care unit patients.

Table III: Association between knowledge levels with demographic characteristics

Characteristics	Knowledge level				Chi-square	df	p-value
	Good	Average	Poor	Total			
Age group (Years)							
17-19yrs	6	4	1	11	10.087 ^a	6	0.121
20-22 yrs	14	5	2	21			
23-25 yrs	3	11	1	15			
Above 25 yrs	5	6	2	13			
Gender							
Male	25	13	5	43	10.694 ^a	2	0.005*S
Female	3	13	1	17			
Religion							
Hindu	18	13	3	34	6.096 ^a	4	0.192
Christian	10	9	3	22			
Muslim	0	4	0	4			
Course of study							
G.N.M 1st year	6	7	2	10	22.756 ^a	6	0.001*S
G.N.M 2 nd year	20	9	2	31			
G.N.M 3 rd year	2	10	2	14			
Family history of ICU patients							
Yes	17	21	3	41	3.541 ^a	2	0.170
no	11	5	3	19			
Aware about cardio pulmonary resuscitation							
Yes	11	10	2	23	0.074 ^a	2	0.963
No	17	16	4	37			
Source of information regarding ICU							
Health personal	12	7	2	21	8.550 ^a	6	0.200
Mass media	9	7	3	19			
Workshop	7	7	1	15			
Friend	0	5	0	5			
Neighbor	0	0	0	0			
Attended any class regarding ICU							
Yes	11	9	1	21	1.114 ^a	2	0.573
No	17	17	5	39			

*p<0.05

Above table 4 showed that Assessment of the level of knowledge of nursing students with demographic characteristics. Gender and course of study significantly association with knowledge level of students with p<0.05.

DISCUSSION

A study was conducted to assess the goal of providing a clinical rotation in a basic nursing program is to integrate skills and knowledge from the classroom setting into the clinical practice setting. In the intensive care unit (ICU), nursing students have the ability to learn about the complex health issues of critically ill patients, practice selected technical skills, and develop communication skills. There are both benefits and challenges to having nursing students in the intensive care setting. With preparation, the student is able to immerse in the ICU environment, acquire new knowledge and skills, and participate alongside the nurse caring for critically ill patients. The staff nurse must

balance patient care with the added responsibilities of helping the student meet the clinical goals. It is optimal to have faculty that are also intensive care clinically competent and can facilitate the clinical experience. The school, the hospital, and the ICU need to collaborate to provide a positive clinical experience that is safe for the patient. In return, the hospital can recruit student nurses and clinical faculty. Planned with thought and intention, rotations in the ICU can be an ideal clinical setting for upper-level student nurses to learn the role of the registered nurse.⁸

A study was conducted to Intensive and critical care nursing is focused on severely ill patients who benefit from the attention of skilled personnel. More intensive and critical care nurses are needed in Europe. A basic competence scale (Intensive and Critical Care Nursing Competence Scale, version 1) and a knowledge test (Basic Knowledge Assessment Tool, version 7) were employed among graduating nursing students (n = 139). **Result showed that** Sixty-nine per cent of the students self-rated their basic competence as good. No association between self-assessed Intensive and Critical Care Nursing-1 and the results of the Basic Knowledge Assessment Tool-7 was found. The strongest factor explaining the students' conception of their competence was their experience of autonomy in nursing after graduation. Study concluded that However, a knowledge test or other objective method of evaluation should be used together with a competence scale based on self-evaluation.⁹

CONCLUSION

Study helps to understand the student's knowledge regarding care of intensive care unit patients. Hence students required proper education and skill training to increase knowledge regarding care of intensive care unit patients..

REFERENCES

- [1] Baraz S., Memarian R., Vanaki Z. The diversity of Iranian nursing students' clinical learning styles: A qualitative study. *Nurse Education in Practice*, 2020. 14: 525-531
- [2] Blomberg K., Bisholt B., Engstrom A.K., Ohlsson U., Johansson A.S., Gustafsson M. Swedish nursing students' experience of stress during clinical practice in relation to clinical setting characteristics and the organisation of clinical education. *Journal of Clinical Nursing*, 2016, 23: 2264- 2271.
- [3] Cochran J. & Ganong H.L. A comparison of nurses' and patients' perceptions of intensive care unit stressors. *Journal of Advanced Nursing*, 2019- 14(12), 1038-1043.
- [4] Cochrane J., Heron A., Lawlor K. (1993) Reflections on student nurse placements in PICU, *Heart Lung*; 2020- 22(3), 259-265.
- [5] Conneely A. & Hunter D. (2012) Introducing firstyear student placements in critical care, *Nursing Standard*; 26 (23), 35-40.
- [6] Cilingir D., Gursoy A. A., Hindistan S., Ozturk H. Nursing and midwifery college students' expectations of their educators and perceived stressors during their education: A pilot study in Turkey. *International Journal of Nursing Practice*; 17, 486-494.
- [7] Doucette E., Brandys D., Canapi B.K., Davis A., Dinardo J., Imamedjian I. (2011) The intensive care unit as an untapped learning resource: a student perspective. *Dynamics*; 22



- (1), 19-23.
- [8] Vanessa Stadlbauer, Peter Steiner, Martin Schweiger. Knowledge and attitude of ICU nurses, students and patients towards the Austrian organ donation law. 2013 Aug 16;14:32.
- [9] Riitta-Liisa Lakanmaa¹, Tarja Suominen, Juha Perttilä. Graduating nursing students' basic competence in intensive and critical care nursing. 2014 Mar;23(5-6):645-53.