

## SELF-PERCEIVED CLINICAL COMPETENCE AMONG NURSING STUDENTS: A CROSS-SECTIONAL ANALYSIS: RESEARCH ARTICLE

**Susan Jacob**

Professor, PhD Scholar, MGM New Bombay College of Nursing, Navi Mumbai, India

**Dr, Prabha K Dasila**

Professor & Director, MGM Institute of Health Sciences, Navi Mumbai, India

### ABSTRACT

Competencies are essential to nursing as they ensure quality, safety, and health assistance. So, gauging the level of clinical competence is pivotal for their productiveness. Identifying basic practical competencies reflects the ability for patient care in clinical practice. Competencies are the indicators of successful performance in particular situation. Clinical Competencies are the attributes of Knowledge, attitude, and skills. Clinical Competence is an essential outcome of Bachelor of Nursing Programme. According to INC, the revised curriculum embraces competence-based and

Outcome based approach throughout the Programme integrating mastery learning and self-directed learning. Today nursing institutes are expected to produce nurses who are clinically competent in spite being novice to meet the growing health care demands of an aging population, and a projected looming nursing shortage. This study aimed to assess self-perceived clinical competence among Final Year B. Sc Nursing Students. Cross sectional study was conducted by using Convenient sampling technique. Data was collected using pretested self-structured rating scale was used. Cronbach's alpha method was used to assess the reliability of the tools and the values found to be highly reliable and was statistically significant. Mean score Competence for Basic nursing skills was reasonably high which was  $(178 \pm 20.52)$ , whereas for Core Nursing skills mean score was  $(80.72 \pm 10.33)$  and advanced nursing skills mean score was  $(45.54 \pm 7.95)$  which is significantly low. Graduating Nurses readiness for Clinical Practice had high competence for Basic skills, whereas for Core and Advanced Nursing skills their competencies were moderate and Low.

**Key words:** Self perceived, Clinical Competence, Nursing Students

### INTRODUCTION

Competencies are the indicators of successful performance in particular situation. It is an amalgamation of attributes such as knowledge, skill, and attitudes (Gonezi 2019). Clinical Competence is an essential outcome of Bachelor of Nursing Programme. The National Council of State Boards of Nursing, defined nursing clinical competence as capable application of Knowledge, interpersonal decision making and psychomotor skills expected for the practice role. (Kenward and Zhong, 2016). The Institute of Medicine (2014) plays a significant role in providing patients with self-care. Hence nurses need to have competencies in performing clinical skills, using resources, applying theoretical knowledge to patient care and mankind. Today nursing institutes are expected to produce nurses who are clinically competent in spite being novice to meet the growing health care demands of an aging population, and a projected looming nursing shortage. Average life expectancy has doubled since 1990, which has

significantly contributed in increased incidence of non-communicable morbidity and mortality. This phenomenon has led to looming demand of health care beds and nursing manpower. However unfortunately there is a global shortage of health care workers, in nurses and midwives; who represent more than 50% of the current shortage in health workers. Further the WHO estimates that the world will need an additional 9 million nurses and Midwives by 2030. India is one of the top supplies of nurses to gulf and Western Countries like United States of America, Canada, UK, Ireland, Australia, and New Zealand. Since India produces many nurses to meet the global demands however there is always a challenge to maintain quality with rapid production of quantity. Further according shortage of nurses necessitate the readiness of nurses immediately to take up the full-fledged role as registered nurse to ensure patient safety and quality of care.

### **NEED OF THE STUDY**

Nurses are essential member of the Collaborative health care team. Bed side care is mostly delivered by nurses in a curative setting. Competent nurses are pivotal to quality patient care services. Due to global shortage of nurses the novice nurses are expected to independently manage the patients. A survey in 2019 reported that, 49% of newly recruited nurses were involved in patient care error and 75% of them were involved in medication error. Feroetal (2019) revealed that, the level of clinical competency of a new graduate nurse is comparably less than experienced one. Nurses' shortage is a global issue in the health care world. The Hospital administrators expect competent clinical skill from nursing graduates at the entry time of their jobs. (Burns and Poster 2018), while the nursing Educational Institutes are facing challenges in producing the graduates with adequate clinical competence to meet the health care need of the world. Furthermore, nursing education experts suggested that clinical competence assessment among nursing student need to be conducted before graduation to shorten the length of clinical orientation for new graduate nurses after they enter the work place. However, the nursing students' clinical competencies have not been assessed immediately prior to their graduation. Considering these factors, the researcher intended to pursue a study to find out the perception of students regarding the clinical competence.

### **STATEMENT OF THE PROBLEM:**

Self-Perceived Clinical Competence Among Nursing Students: A Cross-Sectional Survey

### **Objectives of the study:**

1. To assess self-perceived clinical competence of Nursing students on Basic, Core and Advanced Skills.

### **Operational Definition:**

- 1) Self-Perceived: It is the self-reported ability of Final Year B.Sc Nursing students' to perform Basic. Core and advanced Nursing Procedures independently.
- 2) Clinical Competence: The way the Final Year B. Sc Nursing student feels about her competence in performing basic, core and advanced nursing skills.
- 3) Nursing Students: Nursing students refers to Final year BSc Nursing students studying in Nursing Colleges pursuing degree Programme in Nursing

## **METHODOLOGY:**

**Research Approach:** Quantitative approach

**Research Design:** Descriptive cross-sectional design

**Research Variable:** Self perceived Clinical Competence of Nursing Students.

**Target Population:** BSc Nursing Students

**Accessible Population:** Final Year BSc Nursing Students of selected Nursing colleges.

**Sample Size:** Each of the selected institutes enroll about 30-65 students annually in the B. Sc Nursing Programme, thus total 455 students are studying in the B.Sc Nursing Programme of selected 10 Nursing Colleges. The Study was conducted after six months during their Final year B. Sc Nursing Programme. Sample size was estimated using Cochran formula.

Sample size is n=407 participated in the study.

**Sampling Technique:** Non-Probability Convenient Sampling

### **Inclusion Criteria:**

Final Year BSc Nursing Students those who:

gave consent and present at the time of data collection.

are studying in Nursing Colleges affiliated to State and Deemed University.

have completed six months training during their B.sc Nursing Programme.

**Description of Data Collection Instrument:** Self Structured Tool was prepared by the researcher, Content validity was done with the help of nursing experts and the reliability for each tool was assessed by using Cronbach's alpha method and the reliability coefficient values were the following for basic nursing skills (0.82), core nursing skills (0.84), and advanced nursing skills (0.89) which was found to be highly reliable and was statistically significant.

**Data Collection Process:** Ethical Clearance was Obtained from the Institutional Ethics Committee of MGMIHS. A formal Written permission was taken from the Principals of ten Nursing Colleges of Maharashtra. Instruction was given to the students regarding the objectives of the study. Informed consent was obtained. Structured self-administered tool on a 5-point rating scale was used to collect the data to assess self-perceived clinical competence on selected nursing skills. The tool consists of descriptive rating scale which explains each rating option for the nursing students to explain the self-perceived competence. Each item is scored from 1 to 5 in which one is the lowest score indicating competence for a procedure (basic, core, and advanced). All the Rating scale was scored and interpreted as follows, have done at all (1), Cannot Practice (2). Can Practice with assistance (3), Can practice with supervision (4) Can Practice Independently (5).

The tool was interpreted as high competent, moderate competent and low Competent. All Questionnaires were coded and entered an electronic data base. Data analysis was carried out using SPSS. Descriptive and Inferential Statistics was used.

## **RESULTS**

The Final Year BSc Nursing students (N= 407) participated in this study.

Out of 407 Nursing Students majority were females and in the age group 22-23 years.

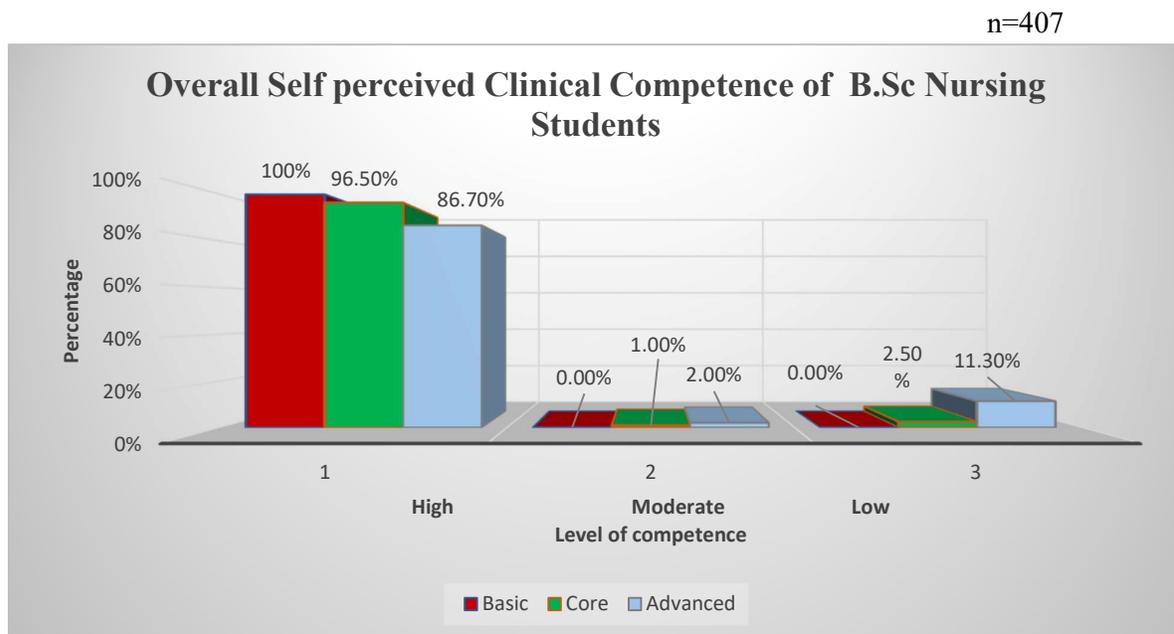
All the students were from Private Nursing Colleges.

### **Analysis of Self Perceived Clinical Competencies of Final Year B.Sc Nursing students**

**Table 1:** Overall self-perceived clinical competence of Final Year B.Sc. Nursing Students on Basic, Core and Advanced Skills.

n=407

Skills		High competence		Moderate Competence		Low Competence	
	M $\pm$ SD	f	%	f	%	f	%
Basic	178 $\pm$ 20.52	407	100.00				
Core	80 $\pm$ 10.33	393	96.6	4	1.0	10	2.5
Advanced	45.54 $\pm$ 7.95	353	86.7	8	2.0	46	11.3



**Figure :1** Distribution of Overall self-perceived clinical competence of Final Year B.Sc. Nursing

**Students**

Figure 1, describes that 100% students perceived themselves highly competent regarding for Basic Nursing skills. For Core Nursing Skills (96.6%) reported highly competent and (86.7%) reported highly competent for advanced Nursing skills.

**Table 2:** Item wise Self-perceived clinical competence on Basic Nursing skills

n=407

Variables of Basic nursing Skills	High competence	Moderate Competence	Low Competence
-----------------------------------	-----------------	---------------------	----------------

	M±SD	f	%	f	%	f	%
Admission Procedure	27±3.12	194	47.7	47	11.5	166	40.8
Discharge Procedure	17.09±3.15	223	54.8	45	11.1	139	34.2
Vital Signs	33.03±3.21	267	65.6	23	5.7	117	28.7
Prevention of bed sore	8.34±1.60	195	47.9	109	26.8	103	25.3
Feeding	16.13±2.99	203	49.9	71	17.4	133	32.7
Assisting Patient in Urinary Elimination	19.57±3.60	180	44.2	43	10.6	<b>184</b>	45.2
Assisting Patient in Bowel Elimination	20.22±6.10	212	52.1	29	7.1	166	40.8
Oxygen Administration	16.30±3.23	210	51.6	65	16	132	32.4
Infection Control	17.67±2.65	199	48.9	68	16.7	140	34.4

**Table 2**, describes that the students perceived themselves highly competent in all Basic nursing skills, except for assisting patient in Urinary elimination, with low competence.

**Table 3:** Item wise Self Perceived Clinical competence of Nursing Students on Core Nursing Skills.

n=407

Variables of Core Nursing Skills	Median	S D	High Competence		Moderate Competence		Low Competence	
			f	%	f	%	f	%
Administration of Oral Medication	21.89	3.00	<b>223</b>	54.8	17	4.2	167	41
Parenteral route	26.67	3.23	<b>210</b>	51.6	38	9.3	159	39.1
Care of wound	12.54	2.24	166	40.8	62	15.2	<b>178</b>	43.8
Performance Focused Assessment	19.62	4.42	<b>166</b>	40.8	90	22.1	151	37.1

Table 3, reveals Overall Core Nursing Skills as perceived by Nursing Students, most of the students perceived themselves as highly competent in all the skills, except for care of wound, with low competence.

**Table 4:** Item wise Self Perceived Clinical competence of Nursing Students on Advanced Nursing skills

n=407

Advanced Nursing Skills	Med ian	S D	High Competence		Moderate Competence		Low Competence	
			f	%	f	%	f	%
Critical Care Nursing	4	0.811	173	42.5	166	40.8	68	16.7
Setting up Crash Cart	4	0.953	154	37.8	<b>162</b>	39.8	91	22.4
Perform Endotracheal Suctioning	4	0.968	163	40	145	35.6	99	24.3
Perform Oropharyngeal Suctioning	4	1.00	149	36.5	148	36.4	110	27
Perform Tracheostomy care	4	1.00	120	29.5	<b>151</b>	37.1	136	33.4
Assisting in Endotracheal Intubation	3	1.03	187	45.9	151	37.1	69	17
Assisting in Defibrillation	3	1.12	161	42	152	37.3	84	20.6
Assisting in setting up of Cardiac Monitor.	4	0.96	127	31.2	<b>151</b>	37.1	129	31.7
Monitoring Pulse Oximeter	5	0.71	0	0	<b>308</b>	75.7	99	24.3
Assist with Arterial Puncture	4	1.12	62	15.2	147	36.1	<b>198</b>	48.6
ABG Analysis	4	1.09	102	25.1	150	36.9	<b>155</b>	38.1
Care of Patient with Pacemaker	3	1.18	162	39.8	132	32.4	113	27.8

Table 4, describes regarding self-perception of Final Year B.Sc. Nursing students regarding their clinical competence on Advanced Nursing skills like majority of students felt that they possess high to moderate competence in varied advanced nursing skills. Assisting with Arterial Puncture and ABG analysis was reported by majority of students as low competent.

#### DISCUSSION

The mean Competence score for basic nursing skills was reasonably high ( $178 \pm 20.52$ ). However, it was significantly Low for Core Nursing skills ( $80.72 \pm 10.33$ ) and advanced nursing

skills (45.54± 7.95). Nurses and Midwives account for nearly 50% of the global health work force and the need to fill this gap is rising rapidly. As the number of Nursing Colleges are increasing, the quality of Nursing care is decreasing. Several reports have indicated that quality of nursing education is compromised due to shortage of experienced nursing faculty, less clinical experience among students, poor remuneration and meagre staff welfare due to which there is rapid turnover of faculty, where the management cannot retain experienced teachers due to which compromised teaching learning takes place. The students' self-evaluations was only incorporated in the study. It was also one point data collection. Data was collected only from Private Nursing Colleges in Mumbai, Navi Mumbai, and Pune regions of Maharashtra. Hence the findings of the study cannot be generalized to all Final Year B.Sc. Nursing Students.

### **CONCLUSION**

The results depicted, self-perceived Clinical Competence of Final Year B.Sc. Nursing Students on Basic Skills majority were highly competent, whereas on Core and Advanced Nursing skills they had moderate and low competence. This could be due to lack of sufficient Clinical Immersion, Poor Clinical Learning Environment, Experienced Clinical Nursing Faculty, inadequate Preceptorship, and poorly equipped Nursing Foundation Lab with high Fidelity Simulators appropriate to the strength of students in various Colleges permitted by the Indian Nursing Council. Hence forth Stake holders should ensure all the facilities and man power resources are deployed according to the requirement of the Curriculum as prescribed by Indian Nursing Council to prepare the Graduate nurses to meet the growing industry requirement and they can practice independently to provide holistic patient care.

Nursing regulatory bodies need to ensure the standard of nursing education and training in the Country is maintained for the sustainability of the Profession to meet the national and international needs of the Country. Hence forth we can Bridge the Gap in Aligning Academics with Professional Practice and thus empower nurses in shaping health care nationally as well as Internationally.

**Acknowledgment:** I would like to express my sincere gratitude to the Principals of Nursing Colleges and administration for their immense support by granting me to carry the permission to carry out this study. My deepest gratitude to Dr Prabha K Dasila (Director and Professor) of MGM New Bombay College of Nursing who is my guide for her invaluable guidance and unwavering support, insightful feedback, and mentorship throughout the study. I would like to convey my sincere gratitude for all students, who participated in the study.

**Funding:** Self

**Conflict of Interest:** None declared

### **References:**

1. Benner, P (2010) From Novice to Expert N.J Prentice Hall.
2. Burns, P. and Poster, E. (2011). Competence Development in New Registered Nurse Graduates; Closing the Gap between Education and Practice, The Journal of Continuing Education in Nursing.
3. Gonezi, A. (2010). Competence Based Assessment in Professions in Australia. Assessment in Education: Principles, Policy and Practice.
4. Kajander- Unkuri, S, Meretoja, etal (2015). Self-assessed level of competence of graduating Nursing students and factors related to it. Nursing Education Today.

5. Nursing School Hub. The history of nursing. 2021. Accessed March 2022 <https://www.nursingschoolhub.com/history-nursing/>
6. El Haddad M, Moxhan L, Broadbent M. Graduate Nurse Practice readiness: a conceptual understanding of an old age debate. *Collegian*2017; 391-396.
7. American Nurse Association (ANA) Work force, Challenges and Opportunities. ANA Enterprise Accessed March 3, 2022 at <https://www.nursingworld.org/practice-policy/workforce/>
8. The Economic Times. India facing shortage of 6000000doctors, 2 million nurses ‘study. April 14 2019. Accessed March 3, 2022 at <https://economic times indiatimes.com/industry/health care/biotech health care India>.
9. Indian Nursing Council Statistics: Distribution of Nursing Educational Institutions as on 31<sup>st</sup> March 2017.
10. Liou, S. and Cheng, C. (2014). Developing and Validating the Clinical Competence Questionnaire: A self-assessment Instrument for upcoming Baccalaureate nursing Graduates. *Journal of Nursing Education and Practice*