

Clinical Competence of Graduating Student Nurses in Higher Education Institutions

Ryan Matthew A. Aquino, Genevive Claire B. Antonio, PhD, RN, Jolieca Lae E. Boado, Alexandra Mae I. Cruz, Stephany Gwen S. Domingo, Fernando Guillero O. Gamboa, Janna Lilac Laguatan, Samantha Eronicka S. Manangan, Reion Gabriel T. Ordonio, Alexandra A. Quisias and Allannis R. Tamondong

Saint Louis University, Baguio City, Philippines

ABSTRACT

Background. Graduating student nurses are crucial to healthcare delivery, yet concerns about their clinical performance persist. They often face challenges translating theoretical knowledge into practice, leading to a theory-practice gap. Clinical competence is essential for ensuring safe and effective nursing care.

Objectives. This study assessed the clinical competence of graduating student nurses in HEIs within Baguio City. It specifically evaluated their proficiency in professional behavior, general performance, core nursing competency, and advanced nursing skills. Additionally, it examined whether significant differences in clinical competence existed based on sex, area of duty, and accreditation status.

Methods. A descriptive-quantitative non-experimental research design was employed. The study surveyed 285 graduating student nurses from six HEIs in Baguio City, selected through fishbowl sampling. Data was collected using the Clinical Competence Questionnaire (CCQ), a 47-item questionnaire with an I-CVI rating of 1.0 and a Cronbach's Alpha of 0.94. Data analysis included descriptive statistics, Welch's T-test, One-way ANOVA, and Welch's ANOVA.

Results. Students demonstrated high competence with the following means: 4.42 in nursing professional behaviors, 4.32 in general performance, 4.35 in core nursing skills, and 3.92 in advanced nursing skills. While the results were interpreted as high competence, specific advanced nursing skills require further enhancement. No significant differences (p -value < 0.05) in clinical competence were found concerning sex (0.38), duty area (0.92), or accreditation status (0.07).

Conclusion. Graduating student nurses show high competency upon entering level IV, emphasizing ongoing skill development for quality patient care. Both genders exhibit proficiency, indicating fair training and effective education regardless of duty area exposure and accreditation status.

Keywords: clinical competence, graduating student nurses, higher education institutions (HEIs)

INTRODUCTION

As nursing education advances, graduating student nurses play a crucial role in healthcare delivery. According to CHED Memorandum Order No. 15 Series of 2017, fourth-year Bachelor of Science in Nursing students should develop competencies to provide safe, appropriate, and holistic care and assume entry-level nursing positions.¹ Graduating student nurses, nearing the end of their education, are expected to manage resources, provide health teaching, understand ethical and legal responsibilities, and function as collaborators, advocates, and researchers. Despite their importance, concerns exist about their clinical performance before and after graduation due to a theory-practice gap.² This gap creates confusion among students, as they struggle



eISSN 2094-9278 (Online)
Published: April 16, 2026
<https://doi.org/10.47895/amp.vi0.10927>
Copyright: The Author(s) 2026

Corresponding author: Genevive Claire B. Antonio, PhD, RN
Saint Louis University
Bonifacio Street, Baguio City 2600 Benguet, Philippines
Email: gcbantonio@slu.edu.ph
ORCID: <https://orcid.org/0000-0003-3633-9922>

to reconcile theoretical knowledge with clinical practice. Studies by RuditaIdris, and Kalyani highlight this issue, with discrepancies observed between what students learn and what they encounter in clinical settings.^{3,4} The COVID-19 pandemic has also affected nursing education. This is supported by Molanida's study, where the graduating student nurses from a public university in Iloilo City, Philippines, had limited opportunities to apply their skills in the actual care setting, resulting in an inflated perception of competence despite having limited clinical exposure.⁵

Nursing, a discipline guided by hands-on experience, requires students to develop clinical competence, which is a blend of skills, knowledge, attitudes, and abilities crucial for safe and effective patient care. Clinical competence encompasses professional behavior, general performance, core nursing skills, and advanced nursing skills. Professional behavior encompasses ethical conduct, responsibility, and effective communication. General performance involves overall conduct and responsiveness in clinical situations. Core nursing skills are foundational for patient care, while advanced skills require higher proficiency and may need supervision for student nurses.⁶

Nursing education must ensure that students are well-prepared for real-world clinical environments. The Performance-Based Development System statistics indicate a decline in new nurses' preparedness, with only 9% of 2020 graduates meeting novice nurse competency requirements.⁷ Research specific to Baguio City is limited, and this study aims to address this gap by evaluating the clinical competence of graduating student nurses in Higher Education Institutions (HEIs) in Baguio City.

CMO No. 15, Series of 2017, outlines the policies, standards, and guidelines for the Philippines Bachelor of Science in Nursing (BSN) program.¹ This order states that the BSN program provided by all HEIs follows an outcomes-based education (OBE) using the 14 Program Outcomes with its own Performance Indicators. It also has Level Outcomes expected to be achieved at the end of the specific year level. Fourth-year student nurses are expected to be able to demonstrate safe, appropriate, and holistic care utilizing the nursing process. They can assume first-level entry positions in any field of nursing.

Gender composition in nursing, traditionally female-dominated, is changing with increasing male participation. Studies offer conflicting views on gender differences in clinical competence. Some suggest males excel in task-oriented care while females excel in people-oriented care, while others find no significant gender-based differences in clinical competence.^{8,9} Investigating this relationship is crucial given the trend towards gender equality in nursing.

In the Philippines, student nurses from HEIs are directed to have clinical rotations in an HEI's affiliated hospital/s. Clinical coordinators in the nursing program make the clinical rotation schedules appropriate to the expected competencies of the year level of the student nurse in accordance with

the BSN level outcomes. Student nurses start their clinical rotations in their second year. Exposure to different clinical areas during education also impacts competence. Studies show varying levels of competence across different settings like the ICU, OR, and general wards.¹⁰ These discrepancies highlight the need to evaluate students' proficiency in various clinical assignments comprehensively.

The accreditation status of nursing programs significantly influences clinical competence. Accredited programs typically have higher licensure examination pass rates and better student outcomes. In the Philippines, CHED mandates accreditation for nursing programs.¹ Present HEIs in the Philippines have their nursing programs accredited or not accredited. HEIs' accredited programs can have their level of accreditation, ranging from level I to IV, which reflects the quality of education and institutional standards.¹ However, limited research links accreditation levels to the clinical competence of student nurses in the Philippines.

OBJECTIVES

The objectives of the study are as follows:

- To assess the level of clinical competence of graduating student nurses in the domains of professional behavior, general performance, core nursing competency skills, and advanced nursing skills
- To determine whether there is a significant difference in the clinical competence of graduating student nurses according to sex, area of duty, and accreditation status of the nursing program.

Theoretical Framework

Kolb's Experiential Learning Theory defines learning as the process of transforming knowledge through experience.¹¹ There are four phases that individuals have to progress through each phase of Kolb's Experiential Learning cycle. First, students engage in their concrete experience (feeling/sensing) and in the reflective observation stage (watching), leading to the abstract conceptualization phase (thinking), then progressing to the active experimentation phase (taking action), leading to a new version of the concrete experience phase, and the cycle continues. In the study, concrete experience involves hands-on skills, patient interactions, and overall performance in real clinical settings. The learning gained by student nurses from each phase of the cycle can be classified into four categories: professional behavior, general performance, core nursing competency skills, and advanced nursing skills. Further, the researchers also investigate how factors such as sex, area of duty, and level of accreditation interact with Kolb's learning stages to shape the clinical competence of graduating student nurses. Kolb's theory suggests that, regardless of gender, students progress through the same learning stages. Different clinical settings offer unique learning experiences. Students rotating through various areas of duty encounter diverse patient populations and clinical scenarios, influencing their

concrete experiences. The accreditation status reflects the quality and standards of the nursing education provided. This can impact the resources available for clinical training and the overall learning environment. By considering these factors within the context of Kolb's theory, the study provides insights into the multifaceted dimensions of clinical competence development among graduating student nurses in HEIs.

METHODS

Research Design

The study used the descriptive-quantitative non-experimental research design to measure the clinical competence of graduating student nurses in relation to the variables of sex, area of duty, and accreditation status.

Locale and Population

The study was conducted in six HEIs, catering to students from different provinces and ethnicities, and even international students. The total population of graduating student nurses from the HEIs is 975. Through Yamane's formula, the following were the sample sizes: nine from University U (No accreditation), 57 from University V (Level II), 20 from University W (Level II), 85 from University X (Level III), 47 from University Y (Level I), and 66 from University Z (Level I). The respondents were: (a) Fourth-year students with a full regular course load, (b) enrolled in the professional nursing courses in the second semester A.Y. 2023-2024, (c) irregular but with professional courses, and (d) bona fide students of the university since the first year. The study did not include respondents who were on study leave.

Respondent identification was done through the fishbowl technique. In this approach, the researchers asked for assistance from the HEIs' research coordinator or department head as the key person to provide the list of clinical groups. From the list provided, the researchers randomly draw the clinical groups down to the respondents through the wheel of names. With the assistance of the key person, the drawn respondents were determined if they met the inclusion criteria.

The variables of sex and area of duty are gathered in the Demographic Profile segment of the questionnaire administered. The respondents were asked to write the number of weeks they had rotated to the indicated duty area from year level two to four.

Data Gathering Tool

The Clinical Competence Questionnaire (CCQ) developed by Liou et al. was the tool used in the study.⁶ The author has permitted the researchers to use the CCQ. The CCQ is a 47-item self-assessment tool that measures the clinical competence of graduating student nurses. The 47 items are divided according to the domains being assessed: items 1 to 16 for nursing professional behaviors; items 17 to 29 for general performance; items 32 to 36, 38, 39, 42 to 45, and 47 for core nursing skills; items 30, 31, 37, 40, 41, and 46

for advanced nursing skills. The tool utilizes a 5-point Likert scale to evaluate clinical competence based on knowledge and practice. A scale of 1 interprets as "do not have a clue," while a scale of 5 interprets as "know in theory, competent in practice without supervision." The CCQ has an I-CVI of 1, S-CVI of 1, Cronbach's alpha of 0.98, and a mean item-total correlation of 0.69.

Reliability testing was conducted by the researchers, yielding a Cronbach's alpha of 0.94 using respondents outside the locale of Baguio City, indicating strong internal consistency and reliable discrimination between different competence levels.

Data Gathering Procedure

The Saint Louis University Research Ethics Committee (SLU-REC 2024-010) approved the study to ensure the proper conduct of research and other related initiatives. The researchers coordinated with the HEIs in January 2024 to request the study population and to undergo appropriate processes for the data gathering procedure, which took place from February to March 2024. For universities W, X, and Y, the researchers approached their Research Ethics Committee and requested permission to conduct the research before presenting it to the Dean. On the other hand, at universities U, V, and Z, the researchers approached the deans directly to conduct the research. Key personnel assisted with the recruitment process. Once informed consent was obtained, the researchers provided printed copies of the questionnaire. The researchers collected the questionnaire and verified that it had been answered completely. If not, the researcher asked the respondents to complete the questionnaire.

Treatment of Data

The study utilized SPSS as the statistical software for data analysis. The researchers calculated the mean for each competency area (nursing professional behaviors, general performance, core nursing skills, and advanced nursing skills), providing a clear summary of competence levels. To address the second research objective: Welch's T-test was used to compare the means of two independent groups with unequal sample size for the variable of sex, One-way ANOVA was used to determine significant differences between two or more independent group with equal sample size for the variable of the domains of clinical competence, and Welch's F-test was used to determine significant differences between two or more independent group with unequal sample size for the variable of accreditation status and area of duty. In the aforementioned statistical methods, the data were grouped according to the demographic profile (sex, area of duty, and accreditation status), and then the mean for clinical competence was calculated.

A possible confounding variable in the study is social desirability, where their perceived clinical competence may not accurately represent their actual clinical competence. Another possible confounding variable is memory, where

respondents' indicated number of weeks may not accurately represent the actual number of weeks they have undergone. To address these, the researchers instructed the respondents to answer honestly and objectively, and were given time to answer the administered tool.

For the data analysis of the area of duty, the respondents were grouped into the area of duty where they have the highest number of weeks rotated. For accreditation status, HEIs with similar accreditation status were grouped.

Ethical Consideration

This study strictly adhered to ethical research guidelines, ensuring the protection of participants' rights and well-being while maintaining high standards of research validity, scientific, and academic integrity. Potential risks were minimal, with no interventions affecting respondents' well-being. The primary risk involved was conflict of interest. Withdrawal without repercussions was consistently maintained. Respect for autonomy was ensured by providing participants with detailed information about the study, its procedures, and associated risks and benefits, emphasizing voluntary participation without coercion. To address the risk of social desirability bias in the self-evaluation assessment tool, researchers instructed respondents to answer honestly and objectively, reiterating these instructions verbally. Data protection measures included maintaining strict confidentiality, restricting access to authorized researchers, and securely storing data until it was tabulated. Access to data files was limited to the research team, and all answered questionnaires were shredded at the end of the research, witnessed by all team members. Anonymous identifiers replaced personal information to ensure anonymity. HEI names were anonymized using placeholders (U, V, W, X, Y, and Z) to prevent potential discrimination.

RESULTS

This section presents the clinical competence of graduating student nurses in HEIs and the significant differences in their clinical competence regarding sex, area of duty, and accreditation status of the nursing program.

Table 1 presents the demographic and institutional profile of the respondents. In terms of sex distribution, majority of participants were female (76.84%). The table also shows the allocation of students across different hospital duty areas, with 22.42% obtaining most of their clinical experience in the operating room. In comparison, only 4.80% were assigned to the Pediatric and Psychiatric wards. Furthermore, Table 1 illustrates the distribution of respondents according to the accreditation status of their HEIs. Nearly half (46.66%) were enrolled in Level I accredited institutions, whereas a smaller proportion (3.16%) were from HEIs without accreditation.

It can be gleaned from Table 2 that the respondents have exceeded the expectations in the clinical setting in terms of nursing professional behaviors, general performance,

Table 1. Demographic Profile

	Frequency	Percentage (%)
Sex		
Male	66	23.16
Female	219	76.84
Area of Duty		
Medical Ward	71	12.63
Surgical Ward	46	8.19
Obstetric/Gynecologic Ward	31	5.52
Labor Room/Delivery Room	44	7.83
Operating Room	126	22.42
Emergency Room	63	11.21
Pediatric Ward	27	4.80
Critical Care	49	8.72
Community	78	13.88
Psychiatric Ward	27	4.80
	Number of Respondents	Percentage (%)
Accreditation Status		
No Accreditation	9	3.16
Level I	133	46.66
Level II	57	20.00
Level III	86	30.18

Table 2. Clinical Competence of Graduating Student Nurses

Domains	Mean	Description
Nursing Professional Behaviors	4.42	HC
General Performance	4.32	HC
Core Nursing Skills	4.35	HC
Advanced Nursing Skills	3.92	HC
Total Mean	4.31	HC
<i>Mean Scale</i>	<i>Descriptive Rating</i>	
3.66 - 5.00	High Competence (HC)	
2.33 - 3.65	Moderate Competence (MC)	
1.00 - 2.32	Low Competence (LC)	

core nursing skills, and advanced nursing skills. The study highlights the nursing professional behavior domain with the highest mean score of 4.42, indicating that graduating student nurses met the expectations in demonstrating ethical conduct, responsibility, accountability, and effective communication within the healthcare environment. Based on the results, the respondents excelled in (a) maintaining appropriate appearance, attire, and conduct (4.74), (b) understanding patients' rights (4.74), and (c) adhering to the regulations governing patients' and families' confidentiality (4.6). This high level of performance in professional behavior encompasses maintaining confidentiality, respecting patient autonomy, collaborating with interdisciplinary teams, adhering to professional standards and codes of ethics, and committing to continuous learning and improvement.

Along the General Performance Domain, Table 2 shows a mean score of 4.32. Though ranked third among the four domains, it is still considered high competence. This means that graduating student nurses exceeded the expectations

of the observable and measurable aspects of a student nurse's overall conduct, responsiveness, and effectiveness in a variety of clinical situations, such as communication skills, time management, adaptability, teamwork, and the ability to apply theoretical knowledge to practical scenarios. The study revealed that the top three skills where they are highly competent are (a) Providing rest and comfort measures (4.72), (b) Performing hygiene and daily care routines (4.72), and (c) Assisting activities and mobility, and changing position (4.52). Conversely, the three skills that yielded the lowest mean score, although still classified as highly competent, are: a) Taking a history for new admission (4.06), b) Performing shift report (4.03), and c) Answering questions for patients or families (4.01).

In terms of the core nursing skills of the respondents, the mean score is 4.35. This means the students have high competency in the fundamental abilities and proficiencies essential for delivering safe and effective patient care. These skills encompass a spectrum of foundational nursing practices, including but not limited to patient assessment, basic clinical procedures, effective communication, and the application of evidence-based nursing interventions. From the given questionnaire, the respondents have high scores on the following: (1) Changing intravenous fluid bottles (4.72), (2) Administering intravenous medications (4.71), and (3) Administering oral medications (4.54). However, it is noteworthy that the respondents' lowest mean scores yet interpreted as high competent are the following: (a) Urinary catheter insertion and care (4.07), (b) Performing tracheostomy care (3.99), and (c) Performing enema (3.70).

As shown in Table 2, the domain of advanced nursing skills has the lowest mean score of 3.92. This is still interpreted as high competence. This represents that the respondents exceeded the expectations in performing the specialized and refined capabilities that extend beyond the foundational competencies acquired during nursing education. The study revealed that the top three skills with the highest mean scores are: (a) performing postural drainage and percussion, and oxygen therapy (4.13), (b) starting intravenous injection (4.14), and (c) performing pre-operation/post-operation care (4.18). The three skills with the lowest mean scores are (a) performing venipuncture (3.47), (b) performing chest tube care with underwater seal management (3.60), and (c) administering blood transfusion (4).

Table 3 shows that at a 0.05 level of significance ($p < 0.05$), the clinical competence between male and female graduating student nurses shows no significant difference ($p=0.38$). This means that the level of clinical competence of graduating student nurses is the same regardless of sex. In terms of the area of duty, Table 3 presents a p-value of more than 0.05 significance level, meaning there is no significant difference in the mean change in the different wards where the respondents were exposed. Using the Welch t-test, results with a p-value of 0.18 reject the hypothesis that there is a significant difference in the clinical competence of graduating

Table 3. The Significant Differences in Clinical Competence in Terms of Sex, Area of Duty, and Accreditation Status in Baguio HEIs in 2024

	F	Mean	dF	P-value
Sex			102.10	0.38
Male	66	4.27		
Female	219	4.32		
Area of Duty			9	0.92
Medical Ward	71	4.22		
Surgical Ward	46	4.31		
Obstetric/Gynecologic Ward	31	4.39		
Labor Room/Delivery Room	44	4.25		
Operating Room	126	4.29		
Emergency Room	63	4.31		
Pediatric Ward	27	4.25		
Community	78	4.38		
Psychiatric Ward	27	4.30		
Accreditation Status			3	0.07
No accreditation	9	4.06		
Level I	133	4.30		
Level II	57	3.96		
Level III	86	4.39		

p-value ≤ 0.05 - Significant at the 5% level

student nurses based on accreditation status. This suggests that regardless of whether HEIs are accredited as level I, II, III, or not accredited, the clinical competence levels of their graduating students are similar.

DISCUSSION

Nursing Professional Behaviours

The results presented in Table 2 may be attributed to the respondents' sense of autonomy and self-regulation, reflecting their capacity to comprehend and manage their behaviors and emotional responses in alignment with moral principles, rather than being driven solely by personal desires. Ponto discussed the importance of autonomy for student nurses, as it aligns with their desire to become professional nurses.¹² Further analysis shows that autonomy and self-regulation are enhanced as the respondents move from level I to level IV. Rudberg et al. discussed how student nurses are sociable during their training and must integrate professional attributes into their routine practice.¹³ The authors also found that student nurses in level IV evolved in terms of the nursing profession due to their gradual exposure to clinical skills in the hospital. A study conducted in Iran revealed that student nurses assigned high importance to caregiving-related principles, particularly statements such as maintaining patient confidentiality and protecting patients' moral and legal rights.¹⁴ These findings are consistent with the results of the present study conducted in the Philippine context. On the contrary, few authors have speculated that the level of professional identity among level IV students is notably low and tends to decrease as they progress through their

academic program.^{15,16} The study's results do not support these speculations because the respondents exhibited commendable ethical conduct, responsibility, accountability, and effective communication. This implies that graduating student nurses in Baguio City are equipped with the professional role and are prepared to become professional nurses guided by ethical principles. Moreover, various factors can influence one's professional behavior, including age, level of education, Filipino values, and personal values. A study conducted by Luciani et al. found a positive correlation between students' educational attainment and the development of their professional values, explaining that as students advance to a higher level, the more their professional values are developed.¹⁷ This study corroborates these results, demonstrating that nursing professional behavior ranks highest.

General Performance

In general performance, graduating student nurses excel in providing rest and comfort measures, performing hygiene and daily care routines, and assisting with activities and mobility, attributed to their maturity and extensive clinical practice. These skills can be considered routine because some skills are related to documentation, and some can be applied in almost all patient cases as appropriate. In the clinical area, the sources of their learning are the clinical instructors and the staff nurses. Student nurses observe the staff nurses in the clinical area where they undergo clinical rotation, and observe their clinical instructors as they directly intervene in the student nurses' skills whenever they deem appropriate. Kolb's Experiential Learning Theory explains that observations lead to thinking, then thinking to taking action.¹¹ These routine skills are continuously learned, applied, and thus continuously improved as the cycle repeats.

Maturity, particularly in clinical practice experience, contributes significantly to their readiness, as mature students manage situations more maturely to help them achieve a goal.^{18,19} As student nurses mature in their education, they have become assertive in performing their skills to improve patient outcomes. Continuous exposure to technical skills and patient interactions since level I has also enhanced their competence, supported by Kolb's Experiential Learning theory, which emphasizes skill repetition and reflective practice.¹¹ Some of the skills indicated under General Performance are routinary performed to prevent patient harm, such as spreading infection and falls.

Another possible analysis is the respondents' pooled experiences since level I. The more the students are exposed to technical skills and patient contact, the more competent they are.²⁰ This is supported by Kolb's Experiential Learning theory, stating that the context of learning clinical skills is through repetition.¹¹ Kolb's theory suggests that the repetition of skills (active experimentation) allows learners to build on their concrete experiences. As students repeat clinical skills, they have the opportunity to reflect on their actions (reflective observation), refine their understanding of the skills (abstract

conceptualization), and further refine their skills through additional practice (concrete experience). Together, these act as assets to becoming clinically competent.

Core Nursing Skills

The results can be attributed to the graduating student nurses' repetition of the skill acquisition. Basic skills were acquired in level I, and as the respondents move to higher levels, these fundamental skills are practiced over time. Each time information is presented to a person or a skill is performed repeatedly, it makes the person remember and perform the skill more easily. This is supported by Kim et al. who stated that critical thinking tends to increase according to academic level and the impact of clinical experiences.¹⁰

As level IV students, clinical thinking skills are enhanced through progressive hands-on experience. The high level of competence exhibited by student nurses correlates with Watson's Human Caring Theory and Kolb's Experiential Learning Theory, offering a holistic framework for understanding the intricacies of clinical competence among graduating student nurses.^{11,21} Watson's theory underscores the fundamental aspects of caring, such as empathy, respect, affection, and genuine presence, all playing a crucial role in evaluating professional conduct, overall performance, and nursing competency skills.²¹ Kolb's Experiential Learning Theory complements this perspective by emphasizing the cyclical nature of the learning journey, wherein practical experiences in clinical environments are succeeded by reflective observation, abstract conceptualization, and active experimentation.¹¹ Some core nursing skills are low in scores, like tracheostomy care, which can be attributed to the respondents' less experience with invasive procedures due to various challenges they face during their clinical learning.

Advance Nursing Skills

The respondents demonstrated a sense of independence, as evidenced by their capacity to take initiative and make autonomous decisions. In addition, they demonstrated specific competencies and confidence in achieving goals. According to Upashe, senior nursing students are capable of independently performing procedures such as blood transfusion, administration of total parenteral nutrition, gastric lavage, basic life support (BLS), endotracheal and tracheostomy suctioning, as well as tracheostomy care, with minimal supervision from their clinical instructors.² Additionally, Zulu et al. revealed that student nurses' independence is encouraged because of the involvement of professional nurses who created an atmosphere conducive to teaching and learning by being welcoming and challenging nursing students.²²

Conversely, the respondents exhibited limitations in performing advanced clinical skills such as venipuncture. Sharma notes that student nurses often lack opportunities to practice advanced nursing procedures.²³ This limitation may be attributed to the competitive clinical environment, where medical clerks and novice nurses also seek hands-on

experience with these skills. Observational data suggest that not all healthcare institutions prioritize student nurses to perform advanced procedures. Addressing this gap in clinical training is essential to ensure that graduating nursing students are adequately equipped to deliver comprehensive care across all areas of nursing practice.

Lastly, Rudberg et. al. discussed that student nurses' continuous experiences in various practical learning strategies are proven to be an effective means of acquiring the needed skill set to increase knowledge, skills, attitude, and values to become an excellent nurse practitioner.¹³ This implies that the respondents are competent in the advanced nursing skills, but need to improve more.

Differences in Clinical Competence by Sex, Area of Duty, and Accreditation Status of the Nursing Program

Sex

The result can be attributed to the respondents' value of caring. Most of the respondents are influenced by Filipino values, exhibit a profound connection to the transcultural practices. A study by Calaranan et al. illuminates how cultural frameworks such as family-centered care, respect for elders, holistic patient care, and the integration of spirituality and faith shape nursing practices and education in the Philippines.²⁴ This linkage underscores the significance of cultural values in nursing practice, advocating for a consistent and comprehensive approach that resonates with the deeply ingrained principles held by Filipino communities. This shared cultural approach, which includes adaptability, resilience, and a strong work ethic, is key to ensuring that all students, regardless of sex, receive culturally relevant and equitable training, leading to consistent clinical competence. The results also indicate that the PLOs and clinical and community duties in HEIs deliver equitable clinical competence training to both male and female nursing students. This reflects positively on the institutions' efforts to ensure unbiased and inclusive training. In line with these findings, a study by Molanida et al. reinforces that sex does not significantly impact graduating nursing students' perceived fundamental nursing skills and core competence.⁵ This aligns with earlier research, such as the systematic review by Chan et al., which found that male and female nursing students perform similarly in most areas, with minimal differences in some aspects.⁸ Tang et al. highlighted that in modern times, male nurses have established their own identity, demonstrating that caring is not solely a female attribute.²⁵ The shift in societal norms has led to an increase in men entering nursing. Male nurses have shown that their gender does not hinder their ability to provide the high-quality care that patients expect from their nurses. While being cared for by a male nurse may not align with traditional expectations, patients are increasingly open to receiving care from male nurses and welcome this change. This evolution in perception is a positive step towards greater diversity and

inclusion within the nursing profession. This study suggests nursing education programs provide equitable training to both genders, fostering inclusivity.

Area of Duty

Looking at the area of duty, the graduating student nurses demonstrated consistent clinical competency regardless of their specific duty areas. Compared to those who focus solely on one duty area, whether a student undergoes multiple rotations in obstetrics or emergency rooms, their competence remains consistent. This result is explained by Dreyfus's Model of Skill Acquisition theory, where individuals progress from beginner to expert through a structured process, transitioning from reliance on rules to intuitive decision-making based on experience.²⁶ With this, the consistent clinical competency of graduating nursing students across different areas of duty suggests that they have reached a level of proficiency or expertise, enabling them to adapt effectively to various areas like hospitals, clinics, community health centers, or even non-traditional healthcare environments like schools. This implies that the respondents, graduating student nurses, may encounter diverse patient populations, medical conditions, healthcare teams, and organizational cultures.

Practicing in different areas of duty builds graduating student nurses' competence in handling various clinical situations and fosters adaptability to changing environments, policies, and patient needs. This adaptability allows them to quickly adjust their care delivery approach, contributing to clinical competence. Thus, adaptability skills are crucial for young adults, including graduating student nurses, to successfully navigate new tasks and environments. According to Roy's Adaptation Model, a stimulus influences an individual to make behaviors to adapt to that stimulus.²⁷ The stimuli in how a graduating student nurse adapts to exposure in the different areas of duty are clinical instructors, the environment in an area of duty, clinical experience, and the influence of the unit personnel, such as staff registered nurses and head nurses. The stimulus then affects the four modes in Roy's Adaptation Model: Physiologic-physical mode, where graduating student nurses must adapt to perform nursing tasks to meet the needs of a variety of patients that they will encounter; self-concept-group identity mode, where positive experiences in a particular unit shape the self-esteem, confidence, and professional identity of the graduating student nurse in their preferred unit; role function mode where the graduating student nurse adapts to different roles and responsibilities that are being required by the different units; and interdependence mode where graduating student nurses can establish meaningful relationships with personnel from the different units. These changes in the four modes encompass the adapted behavior of graduating student nurses exhibiting a high level of clinical competence across the different areas of duty. Zhang et al. support this, that a good learning environment, a smooth transition for students into the workplace, and a solid rapport between instructors and students all contribute to creating

a good clinical learning environment, which is essential for mastery of clinical competence.²⁸ Therefore, this meets the BSN level outcomes in the fourth year, which states, “At the end of the fourth year, given groups of clients (individuals, families, population groups, and communities) with health problems and special needs, the learners demonstrate safe, appropriate and holistic care utilizing the nursing process and can assume first level entry positions in any field of nursing.”²¹

Accreditation Status

The results show that regardless of the accreditation status of HEIs, graduating student nurses demonstrate a consistent level of competence. This outcome can be attributed to the HEIs' compliance with the Commission on Higher Education (CHED) requirements in the Philippines. CHED has implemented policies, standards, and guidelines defining core competencies expected from nursing graduates across all HEIs.¹ These competencies encompass responsibilities, including safe and quality nursing care, resource and environment management, personal and professional development, and quality improvement. The enforcement of these policies and guidelines may foster consistency in nursing education across diverse HEIs while allowing for innovation and adaptation to specific contexts and missions.

Moreover, the Philippine Accrediting Association of Schools, Colleges, and Universities (PAASCU) has 23 quality standards criteria encompassing multiple educational aspects, including vision, faculty, curriculum, facilities, and student services.²⁹ The study also incorporates one HEI lacking accreditation. As long as this HEI adheres to standard protocols/curricula, the clinical competence level among graduating student nurses remains comparable. By meeting these criteria, nursing schools deliver quality education and cultivate competent nursing graduates, irrespective of accreditation levels. This approach helps ensure that nursing graduates possess the necessary competencies to deliver safe and quality nursing care, regardless of their nursing school's accreditation level. This result can be attributed to the fact that, whether accredited or not, nursing programs must follow standardized curricula and educational standards established by accrediting bodies, which may contribute to consistency in the quality of education and training provided across different nursing schools, regardless of their accreditation level.

Limitations of the Study

The study acknowledges several limitations: self-reported scores not validated by instructors, potential discrepancies between perceived and actual competence, the CCQ scale may not fully capture clinical competence, and uneven exposure in different duty areas affecting data consistency and comparability. Using a descriptive–quantitative, non-experimental research design restricts the findings to describing existing conditions and observed relationships; hence, causal inferences cannot be drawn. The results describe the respondents' competence and related factors during data

collection. While the fishbowl technique ensured that each respondent had an equal chance of selection, this method may still introduce bias if the sampling frame does not fully capture all potential participants.

CONCLUSIONS AND RECOMMENDATIONS

The study concludes that level IV student nurses already demonstrate high competence in Professional Behavior, General Performance, Core Nursing Competency Skills, and Advanced Nursing Skills due to their education and clinical experience. Competence improved over levels I, II, and III, although Advanced Nursing Skills showed potential for improvement due to factors like communication skills, the pandemic, and limited experience. Both genders displayed high competence, showing fair training for all students.

Graduating student nurses showed consistent clinical competency, indicating adequate preparation through structured learning. Nursing education equips students to excel in healthcare settings, ensuring safe, appropriate, and holistic patient care. HEIs and faculty support skill development through standardized curricula and equitable education, while students are responsible for their growth. Confidence, independence, adaptability, and instructor guidance are crucial for skill development. Ongoing education and support are vital for nurturing clinical competence as students transition into the workforce.

The researchers recommend that the educational institution and clinical instructors continue implementing focused interventions, such as return demonstrations, extra discussions, and customized instruction. Also, it is recommended that future researchers incorporate clinical instructors' perspectives to obtain a more impartial evaluation of students' clinical competencies.

Statement of Authorship

All authors certified fulfillment of ICMJE authorship criteria.

Author Disclosure

All authors declared no conflicts of interest.

Funding Source

None.

REFERENCES

1. Policies, Standards, and Guidelines for the Bachelor of Science in Nursing (BSN) Program: Commission on Higher Education CHED Memorandum Order No. 15, Series of 2017 [Internet]. 2017 [cited 2023]. Available from: <https://ched.gov.ph/wp-content/uploads/2017/10/CMO-15-s-2017.pdf>.
2. Upashe S, Rahul S, Shetty S. Self-reported clinical practice skill readiness of final year nursing students studying in Bengaluru, Karnataka: An institutional-based cross-sectional study. *Thieme Journal of Health and Allied Sciences NU*. 2022 May; 13(1):114-25. doi: 10.1055/s-0042-1744554.

3. RuditaIdris D, Amimaruddin DK. Exploring student nurses' learning experience in the clinical setting: a literature review. *Int J Nurs Educ.* 2022;14(1):31-7. doi: 10.37506/ijone.v14i1.17733
4. Kalyani M, Jamshidi N, Molazem Z, Torabizadeh C, Sharif F. How do nursing students experience the clinical learning environment and respond to their experiences? A qualitative study. *BMJ Open.* 2019;9(7):1-8. doi: 10.1136/bmjopen-2018-028052.
5. Molanida J, Neyra T, Norada P, Olarte P, Palma D, Oducado RM. Perceived competence of Filipino nursing students graduating during pandemic. *Journal Ners;* 2023;18(1):16–24. doi: 10.20473/jn.v18i1.41395.
6. Liou S, Cheng C. Developing and validating the clinical competence questionnaire: A self-assessment instrument for upcoming baccalaureate nursing graduates. *JNEP.* 2014;4(2):56–66. doi: 10.5430/jnep.v4n2p56.
7. McGarity T, Monahan L, Acker K, Pollock W. Nursing graduates' preparedness for practice: Substantiating the call for competency-evaluated nursing education. *Behavioral Sciences.* 2023 Jul;13(7):553. doi: 10.3390/bs13070553. PMID: 37504000. PMCID: PMC10376128.
8. Chan Z, Chan Y, Lui C, Yu H, Law Y, Cheung K, et al. Gender differences in the academic and clinical performances of undergraduate nursing students: a systematic review. *Nurse Educ Today.* 2014 Mar;34(3):377-88. doi: 10.1016/j.nedt.2013.06.011. PMID: 23910249.
9. Albagawi B, Hussein F, Alotaibi J, Albougami A, Amer M, Alsharari A, et al. Self-efficacy and Clinical Competence of Fourth-year Nursing Students: A Self-reported Study. *IJAAS.* 2019;6(8). doi: 10.21833/ijaas.2019.08.009.
10. Kim S, Choi Y. Nursing competency and educational needs for clinical practice of Korean nurses. *Nurse Education In Practice.* 2018 Oct;34:43-7. doi: 10.1016/j.nepr.2018.11.002.
11. Learning from Experience, Experiential Learning: Experience as the source of learning and development [Internet]. 2006 [cited 2023 Jan]. Available from: <http://www.learningfromexperience.com/images/uploads/process-of-experiential-learning.pdf>
12. Ponto M. Nursing students' perceptions of autonomy: a qualitative study. *Progress in Health Sciences* 1. 2011:11-17.
13. Lundell Rudberg S, Westerbotn M, Sormunen T, Scheja M, Lachmann H. Undergraduate nursing students' experiences of becoming a professional nurse: a longitudinal study. *BMC Nurs.* 2022 Aug 6;21(1):219. doi: 10.1186/s12912-022-01002-0. PMID: 35933339. PMCID: PMC9357313.
14. Bijani M, Tehranineshat B, Torabizadeh C. Nurses', nursing students', and nursing instructors' perceptions of professional values: A comparative study. *Nurs Ethics.* 2019 May;26(3):870-83. doi: 10.1177/0969733017727153. PMID: 28905676.
15. "Nursing Professional Values and Factors Associated with Its Development: Nursing Students' Perspectives." [Internet]. 2020 [cited 2023]. Available from: https://www.academia.edu/110975264/Nursing_Professional_Values_and_Factors_Associated_with_Its_Development_Nursing_students_perspectives
16. Wei LZ, Zhou SS, Hu S, Zhou Z, Chen J. Influences of nursing students' career planning, internship experience, and other factors on professional identity. *Nurse Educ Today.* 2021 Apr;99:104781. doi: 10.1016/j.nedt.2021.104781. PMID: 33530029.
17. Luciani M, Rampoldi G, Ardenghi S, Bani M, Merati S, Ausili D, et al. Personal values among undergraduate nursing students: A cross-sectional study. *Nurs Ethics.* 2020 Sep;27(6):1461-71. doi: 10.1177/0969733020914350. PMID: 32367759.
18. Mirza N, Manankil-Rankin L, Prentice D, Hagerman L, Draenos C. Practice readiness of new nursing graduates: A concept analysis. *Nurse Educ Pract.* 2019;37: 68–74. doi: 10.1016/j.nepr.2019.04.009. PMID: 31112923.
19. Koo H, Lee J. Changes of ego identity and psychosocial maturity in nursing students: A longitudinal study. *Nurse Educ Today.* 2020;94:104574. doi: 10.1016/j.nedt.2020.104574. PMID: 32932059.
20. Mirza N, Manankil-Rankin L, Prentice D, Hagerman LA, Draenos C. Practice readiness of new nursing graduates: A concept analysis. *Nurse Educ Pract.* 2019 May;37:68-74. doi: 10.1016/j.nepr.2019.04.009. PMID: 31112923.
21. Watson J. Caring science and human caring theory: transforming personal and professional nursing and health care practices. *J Health Hum Serv Adm.* 2009 Spring;31(4):466-82. PMID: 19385422.
22. Zulu BM, du Plessis E, Koen MP. Experiences of nursing students regarding clinical placement and support in primary healthcare clinics: Strengthening resilience. *Health SA.* 2021 Oct 29;26:1615. doi: 10.4102/hsag.v26i0.1615. PMID: 34858643. PMCID: PMC8603057.
23. Sharma SK, Arora D, Belsiyal X. Self-reported clinical practice readiness of nurses graduating from India: A cross-sectional survey in Uttarakhand. *J Educ Health Promot.* 2020 May 28;9:125. doi: 10.4103/jehp.jehp_55_20. PMID: 32642481. PMCID: PMC7325751.
24. Calaranan J, Criste R, Fajardo R, Illumin G, Jover M, Uddin T, et al. Harmony in Diversity: Exploring Transcultural Nursing Practices in the Philippines. *International Journal of Research Publication and Reviews.* (2024, January)
25. Tang J, Orte C, Alawi R, Bansale J, Limbag C, Manaog J. Caring Behavior of Male Nurses Based on Clients' Perspectives in Pampanga, Philippines. *The Upland Farm Journal* [Internet]. 2018 [cited 2021 Jul 13];26(1). Available from: https://www.researchgate.net/publication/339817618_Caring_Behavior_of_Male_Nurses_Based_on_Clients'_Perspectives_in_Pampanga_Philippines?_sg=g84hae-wOsUrrDY5B4_2rUmX3YTvux_GR4CX91n96P4JGTrmFWf-WXrNdvPIq84pkA8bL5X5b8GmWnQyNxfWf7M2dprynMx-kqrKPuhSxi-YDPX.
26. Dreyfus SE, Dreyfus HL. Skill acquisition and the concept of expertise. In: Glaser R and Glaser B., eds. *The nature of expertise.* New York: Cambridge University Press; 1986. pp. 25–51.
27. McEwen M, Wills EM. *Theoretical Basis for Nursing,* 4th ed. Wolters Kluwer Health Lippincott Williams & Wilkins; 2019. pp. 177-182.
28. Zhang J, Shields L, Ma B, Yin Y, Wang J, Zhang R, et al. The clinical learning environment, supervision, and future intention to work as a nurse in nursing students: a cross-sectional and descriptive study. *BMC Med Educ.* 2022 Jul 15;22(1):548. doi: 10.1186/s12909-022-03609-y. PMID: 35841091. PMCID: PMC9284732.
29. PRIMER [Internet]. 2021 [cited 2024 Mar]. Available from: <https://paascu.org/ph/wp-content/uploads/2025/05/PAASCU-2021-Primer-compressed.pdf#:~:text=a%20status%20granted%20to%20an%20educational%20institution,quality%20and%2023%20standards%20of%20quality%20practice>.