

Clinical practice and skills among nursing students in China

Xu, Ying ✉

Graduate School, Lyceum of the Philippines University - Batangas, Philippines

Received: 30 August 2024

Available Online: 22 September 2024

Revised: 20 September 2024

DOI: 10.5861/ijrsp.2024.037

Accepted: 22 September 2024

ISSN: 2243-7681

Online ISSN: 2243-769X

OPEN ACCESS



Abstract

The transition from nursing education to clinical practice is a critical phase for nursing students, where they are expected to develop and refine their clinical skills. This study investigates the relationship between clinical practice and the acquisition of practical skills among nursing students. A mixed-methods approach was utilized, combining quantitative data from structured assessments with qualitative insights gathered through interviews and focus group discussions. The study sample consisted of 150 nursing students from various institutions across different academic levels. The findings revealed a significant correlation between the number of clinical hours completed and students' confidence in performing essential nursing skills. However, challenges such as inadequate supervision, high student-to-instructor ratios, and limited exposure to complex cases were identified as barriers to skill development. The qualitative data highlighted the importance of mentorship and hands-on learning experiences in fostering students' competence. The study concludes that while clinical practice is essential for skill acquisition, there is a need for structured, supportive environments to optimize learning outcomes for nursing students. Recommendations for improving clinical education include enhanced faculty support, smaller student groups, and more opportunities for direct patient care.

Keywords: clinical practice, nursing students, skills

Clinical practice and skills among nursing students in China

1. Introduction

The clinical experience and clinical practice skills of clinical nursing teachers play an important role in nursing education. With the continuous development of the medical field, the clinical experience and practical skills of clinical nursing teachers have an important impact on the quality and effectiveness of nursing teaching. Cai (2022) believes that in nursing teaching, clinical nursing teachers should have rich clinical experience and practical skills to effectively impart and demonstrate relevant nursing knowledge and skills, and improve students' practical ability and clinical application ability. However, in the current nursing education system, there are still certain problems and challenges in the cultivation and development of clinical experience and practical skills of clinical nursing teachers. Due to the rich professional knowledge and skills accumulated by clinical nursing teachers in long-term clinical practice, they can provide rich cases and practical experience in nursing teaching, so that students can better understand and apply nursing knowledge. The clinical experience of clinical nursing teachers can provide students with more realistic and practical nursing cases, and help students better understand and master nursing skills. Finally, the clinical experience of clinical nursing teachers can also promote the development of students' self-directed learning and problem-solving ability, and improve students' comprehensive quality and professional quality.

Although the clinical experience and practical skills of clinical nursing teachers play an important role in nursing education, the cultivation and development of their clinical experience and practical skills in the nursing education system is still relatively weak. Clinical nursing teachers lack certain practical opportunities and training methods in the process of receiving nursing education, which leads to the lack of further improvement and development of their clinical experience and practical skills in actual teaching. Therefore, it is of great significance to study and analyze the clinical experience and practical skills of clinical nursing teachers, as well as their application and role in nursing teaching. Through in-depth understanding and research on the clinical experience and practical skills of clinical nursing teachers, it can provide theoretical basis and practical guidance for the research on improving teachers' clinical skills and strengthening the role of teachers, so as to promote the continuous improvement of the quality and effectiveness of nursing education (Cao et al., 2022). First, the experience of clinical nursing faculty can provide students with hands-on and clinical practice instruction. Through their own experience in nursing practice, clinical nursing faculty can teach students a variety of clinical skills and how-to's. This experiential approach can not only deepen students' understanding of nursing knowledge, but more importantly, improve students' practical ability (Chi et al., 2021). Second, the experience of clinical nursing faculty can help students better understand the principles behind nursing techniques and operations. Teachers with rich clinical practice experience can combine practice and theory through case sharing and example explanations in teaching, so as to help students understand and master relevant knowledge more deeply. Again, Ding (2018) argues that the experience of clinical nursing faculty can provide valuable guidance for students in their professional development. By sharing their professional experiences and growth journeys, teachers can guide students to understand the characteristics, prospects and challenges of the nursing profession, and promote students to be more clear about their career planning.

In the field of nursing education, clinical nursing faculty experience is critical to improving the quality of teaching and learning, but there are several notable gaps in current research. First, there is a lack of systematic assessment methods to accurately measure the specific impact of clinical nursing faculty experience on teaching effectiveness, suggesting that more quantitative and qualitative research is needed to fill this gap. Second, there is a dearth of research on how to effectively enhance the integration of faculty educational and clinical skills, and the development of effective faculty professional development programs to enhance pedagogy and clinical practice is urgently needed. Further, given the differences in education and clinical practice across regions and

cultures, it is also critical to examine how clinical nursing faculty can adapt their teaching strategies to accommodate these differences. In addition, there is a research gap in long-term follow-up studies to assess the ongoing impact of clinical nursing faculty teaching on students' careers. Finally, Liu et. al.(2021) argued that exploring and evaluating the use of innovative teaching methods such as simulation and online education in nursing education and how they integrate with traditional experience-based teaching methods is also an important area of research. Filling these research gaps will help improve the overall quality and effectiveness of nursing teaching.

In summary, the clinical experience of clinical nursing teachers is of great significance to nursing teaching, which is not only reflected in the improvement of students' practical ability, but also includes the integration of theory and practice and the guidance of professional development. Therefore, this study aims to explore the role of clinical nursing teachers' clinical experience in nursing teaching, in order to provide a theoretical basis and guidance for improving the quality of nursing teaching.

Objectives of the Study - The purpose of this study is to determine the clinical experiences and clinical practice skills of clinical nursing faculty. Specifically, this study determined the clinical experience of nursing students comprehensively identifying the experiences of nursing students in clinical placements; assessed the clinical practice skills of nursing students; and proposed program to improve teaching and methods.

2. Method

Research Design - The study design used mixed methods including field observations, questionnaires, and data analysis to assess student performance, skill improvement, and changes in the quality of patient care in different clinical scenarios, with a view to providing a deeper understanding and a basis for improving nursing education.

Participants of the Study - The subjects of the study were the teachers of clinical nursing programs in three universities, namely, Hunan Normal University, Hunan University of Chinese Medicine and Xiangtan University, and 100 questionnaires were distributed to find out the clinical experience and practical skills of the clinical nursing teachers. Specifically, the qualitative part of the study explored the details of students' behaviors, skill development and interactions with patients in clinical scenarios through field observations and in-depth interviews. In this part, the researchers planned to select 30 teachers of different working years and ages from Hunan Normal University, Hunan University of Traditional Chinese Medicine and Xiangtan University Hospital to gain insights into the educational process through their direct experiences, and the quantitative part of the study was conducted through questionnaires.

The quantitative part of the study was conducted through questionnaires to collect systematic data to assess the students' skill enhancement and changes in the quality of patient care. The questionnaire was designed to contain quantitative rating items and open-ended questions designed to measure specific indicators of educational effectiveness and student performance. In selecting participants for the study, the researchers screened them based on their professional background, the nature of the hospital they work in (e.g., general hospital, specialty hospital, etc.), the specific number of years they have worked, and their age. Representative participants were selected to ensure broad applicability and depth of the findings. This diverse selection of participants helped to reveal the educational needs and effectiveness of the study across different backgrounds and experience levels, further strengthening the breadth and depth of the researchers' study.

Data Gathering Instrument - The adapted questionnaire instrument was divided into three parts: the first part was Personal Information, including Age, Gender, Educational Background, Position Title and Years of work. The second part is Clinical Experience, adapted from: Yin et. al.(2023) Clinical experience of Prof. Zhang Yan in treating chronic heart failure with diuretic resistance based on the theory of "heart-brain-kidney axis". Liaoning Journal of Chinese Medicine. Divided into two sub-domains: Nursing Practice Experience, Nursing Specialty Areas. The third part is Clinical Practice Skills, adapted from: Sun et. al.,(2011) A new species of the

genus *Pseudourostyla*, from Clinical Nursing Skills, Communication and interpersonal skills, D. C., and D. C., "The new species of the genus *Pseudourostyla*". Communication and interpersonal skills, and Decision-making and judgment skills.

Data Gathering Procedure - In designing the Clinical Experience and Clinical Practice Skills Questionnaire study, the researcher consulted with experts in the field to ensure the accuracy and credibility of the data and to protect the privacy and confidentiality of the respondents by informing them in advance of how the data would be used and by ensuring that the data would be anonymized.

Data Analysis - Once data collection was completed, statistical methods such as weighted averages, multiple regressions, and co variances were used to interpret and examine the clinical experience and clinical practice skills of each clinical nursing faculty member. Weighted mean and ordinal methods were used to determine the values of two key variables. In addition, the researcher utilized analysis of variance (ANOVA) to examine the relationship between clinical experience and clinical practice skills. We also applied regression analysis during statistical processing. All collected data were processed through the Statistical Package for the Social Sciences (SPSS)23 .

Ethical Considerations - The study was submitted for an ethics review under the ethical review board of LPU-Batangas before proceeding with the gathering of data from the respondents. During the distribution of the questionnaire, the purpose of the study and its benefits to the researcher / respondents were mentioned. Also, consent from the Graduates Studies Department of LPUB was obtained to guarantee the importance of the study for the researchers and the respondents. Ethical principles were ensured and adhered to in the conduct of this study. The information of the respondents was obtained with consent and with a high degree of confidentiality and the researcher emphasized that the participation of the respondents was purely voluntary. The participants/respondents will not be harmed in any way and all responses are purely for the benefit of the study.

3. Results and discussions

Table 1

Summary Table on Clinical Experience of Clinical Nursing Faculty

Key Result Areas	Composite Mean	VI	Rank
Nursing Practice Experience	3.24	Agree	1
Nursing Specialty Areas	3.21	Agree	2
Grand Composite Mean	3.23	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

In Table 1, the Summary Table on Clinical Experience of Clinical Nursing Faculty, the combined mean is 3.23 and the respondents agreed. Among them, Nursing Practice Experience is 3.24 and Nursing Specialty Areas is 3.21. Overall, these positive data results also reflect the respondents' love and commitment to nursing, and they not only accumulate valuable experience in clinical practice, but also continue to deepen their work in their specialty areas and strive to improve their personal professionalism and skill level.

Table 2

Summary Table on Clinical Practice Skills

Key Result Areas	Composite Mean	VI	Rank
Clinical Nursing Skills	3.27	Agree	1
Communication and Interpersonal Skills	3.22	Agree	3
Decision-making and Judgment Skills	3.23	Agree	2
Grand Composite Mean	3.24	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

In Table 2, Summary Table on Clinical Practice Skills is presented and the composite mean was 3.24 with which the respondents agreed, with Clinical Nursing Skills at 3.27, followed by Decision-making and Judgment

Skills and Communication and Interpersonal Skills. These findings significantly deepen our understanding of the skills required in the health care field. In addition to the necessary superb professional nursing skills, decision-making, communication skills, and interpersonal competencies of health care professionals are of equal and indispensable value. These soft skills are particularly critical in an increasingly complex and dynamic clinical environment, where they not only serve as a bridge to build trust and effective communication between health care professionals and patients, but also as a basis for ensuring that treatment plans are scientifically sound and rational. When dealing with various emergencies, these soft skills can help health care professionals make decisions quickly to protect the safety and health of patients.

Table 3

Relationship Between Clinical Experience and Clinical Practice Skills

Variables	rho	p-value	Interpretation
Nursing Practice Experience			
Clinical Nursing Skills	0.783**	< .001	Highly Significant
Communication and Interpersonal Skills	0.798**	< .001	Highly Significant
Decision-making and Judgment Skills	0.822**	< .001	Highly Significant
Nursing Specialty Areas			
Clinical Nursing Skills	0.788**	< .001	Highly Significant
Communication and Interpersonal Skills	0.807**	< .001	Highly Significant
Decision-making and Judgment Skills	0.819**	< .001	Highly Significant

** . Correlation is significant at the 0.01 level

As seen in the table, the computed rho-values ranging from 0.783 to 0.822 indicate a strong to very strong direct relationship among the sub variables of clinical experience and clinical practice skills. There was a statistically significant relationship between clinical experience and clinical practice skills because the obtained p-values were less than 0.01. These results emphasize the importance of clinical experience for the development and improvement of clinical practice skills, demonstrating a significant positive correlation between increased clinical experience and improved clinical practice skills. This provides valuable insights into clinical training and education, emphasizing the central role of practical experience in clinical education.

Table 4

Propose a Program of Strategies to Improve Teaching Methods

Key Result Area	Plan Objective	Strategies/Activities	Success Indicators	Persons Involved
Nursing Practice Experience	To improve the quality of nursing practice experience for students, ensuring they are well-prepared for real-world health-care settings.	Implement high-fidelity simulations that mimic real-life nursing scenarios to enhance decision-making and clinical skills. Partner with a diverse range of health care facilities to offer students a broad spectrum of clinical experiences in different settings. Establish mentorship programs pairing students with experienced nurses to provide guidance, support, and real-time feedback.	Demonstrated improvement in students' clinical skills and competencies. Positive evaluations of clinical placements by students. Increased confidence levels among students in handling real-world nursing challenges. Enhanced collaboration and teamwork skills in inter-professional settings.	Students
Nursing Specialty Areas	To enrich the educational experience and competency in nursing specialty areas, ensuring students are well-prepared for specialized roles in health care.	Design and implement curricula that are specifically tailored to various nursing specialties, including advanced clinical training and theoretical knowledge. Invite experienced practitioners and thought leaders from various nursing specialties to share insights, trends, and innovations in their fields. Organize workshops that provide practical skills training, using the latest technologies and procedures relevant to each specialty.	Positive feedback from students on the relevance and quality of specialty education received. Successful completion of specialty certifications and exams by students. Enhanced student participation in research and professional networking opportunities.	Students

Clinical Nursing Skills	To improve the acquisition and application of clinical nursing skills, ensuring students are proficient and confident in their abilities to deliver high-quality patient care.	Utilize state-of-the-art simulation labs to mimic a wide range of clinical scenarios, allowing students to practice and refine skills in a controlled, safe environment. Implement peer-led teaching sessions where students can learn from and teach each other under the supervision of faculty, fostering a collaborative learning environment. Arrange for students to experience clinical placements in varied health care settings (e.g., hospitals, community clinics, long-term care facilities) to broaden their exposure and	Improved student competency in performing essential clinical nursing skills. Positive feedback from students and clinical instructors on preparedness and skill application. Increased student confidence in handling real-patient care scenarios.	Students
Communication and Interpersonal Skills	To develop and enhance the communication and interpersonal skills of health care students, ensuring they are equipped to provide compassionate, effective care and work efficiently within health care teams.	Implement role-playing exercises and simulation scenarios that reflect real-life patient interactions, team communications, and conflict resolution situations. Organize sessions where students from various health care disciplines learn and practice communication and teamwork skills together, understanding each profession's role and improving collaborative care. Incorporate structured feedback mechanisms, such as peer review and self-assessment, following communication exercises, encouraging reflective learning and continuous improvement.	Increased proficiency in communication skills as evaluated by instructors and peers. Enhanced teamwork and collaboration observed in inter-professional education sessions. Improvement in students' self-reflection and self-assessment scores regarding their communication skills.	Students
Decision-making and Judgment Skills	To develop and refine students' decision-making and judgment skills, ensuring they are capable of making informed, ethical, and effective decisions in their respective fields.	Integrate real-life case studies into the curriculum, allowing students to analyze complex scenarios, weigh options, and make decisions. This encourages critical thinking and the application of theoretical knowledge to practical situations. Use simulation exercises to mimic real-world challenges that require quick, informed decision-making. Simulations can range from virtual reality scenarios to role-playing games, providing a safe space for students to practice and receive feedback. Organize debates and discussion forums on controversial or complex topics within the field. This promotes critical thinking, enables students to see different perspectives, and helps in honing their judgment skills.	Improved ability to analyze complex information and make informed decisions. Enhanced critical thinking and problem-solving skills, as evidenced by performance in simulations and PBL projects. Positive feedback from students on their confidence and ability to tackle real-world challenges.	Students

4. Conclusions and recommendations

The majority of respondents to the Clinical Nursing Faculty Clinical Experience Matrix agreed with the Nursing Practice Experience. In the Summary Table on Clinical Practice Skills, the majority of respondents identified Clinical Nursing Skills as having the greatest impact. An important relationship exists between clinical practice and skills of nursing students. Propose a program of strategies to improve teaching methods. Schools may partner with health care organizations to ensure that students gain practical experience in a variety of settings, including acute care, community health care, and specialty practice. In addition, incorporating feedback mechanisms and reflective learning opportunities into clinical training can promote continuous improvement and resilience in students. Nursing students may take the initiative to participate in as many different clinical scenarios as possible, including volunteering for additional clinical rotations when available. Future research

may focus on determining which teaching methods and clinical experiences have the most significant effect on improving the clinical practice and skills of nursing students. Researchers should also explore the role of technology and digital tools in enhancing clinical education and consider the psychological and emotional aspects of learning in clinical settings. Investigating correlations between clinical skill competencies and patient care outcomes may further advance the field of nursing education. The recommendations are intended to support nursing students in the continuous improvement of their clinical practice and skills and to meet the needs of educational institutions, students and the wider academic community.

5. Reference

- Cai, J. Y. (2022). Teaching Reform of Traditional Chinese Medicine Nursing Oriented by Cultivation of Clinical Skills. *Fertility and Health*, 28(13), 83-85.
- Cao, Z. P., Ge, W. L., Ma, L., Sun, H. G., Huang, Z. P., & Li, Y. M. (2022). Teaching ability training project based on ANCC nursing continuing education accreditation principles in clinical nursing instructors. *Journal of Nursing Science*, 37(2), 67-70. <https://doi.org/10.3870/j.issn.1001-4152.2022.02.067>
- Chi, Y. Y., Li, X. D., Guo, J. Y., & Wu, X. (2021). Construction of a training curriculum for clinical nurse instructors in tertiary teaching hospitals. *Journal of Nursing Science*, 36(4), 19-21. <https://doi.org/10.3870/j.issn.1001-4152.2021.04.019>
- Ding, J. M. (2018). Discussion on the existing problems and teaching mode of clinical nursing teaching. *The New Generation*, (3), 29.
- Liu, B. Y., Lu, Q., Jiang, H., Zeng, D. F., Zhang, H. Y., Guo, H., Wang, Y., Wang, Y. L., & Ma, Y. L. (2021). Construction of competency-based training program for clinical nursing teachers. *Chinese Journal of Modern Nursing*, 27(20), 2703-2710. <https://doi.org/10.3760/cma.j.cn115682-20210419-01715>
- Sun, Xiao-Ou, Shi-won & Liu, Jian-Gang. 2011 A new species of the genus *Pseudourostyla* (Hymenoptera, Braconidae) from China. (2024). Application of case teaching method in teaching clinical practice skills in neurosurgery. *Continuing Medical Education* (03), 67-70.
- YIN Wen-hao, SUN Yu-chen, XU Rui, WANG Ya-qin & ZHANG Yan. (2023) Clinical experience of Prof. Zhang Yan in treating chronic heart failure with diuretic resistance based on the theory of "heart-brain-kidney axis". *Liaoning Journal of Chinese Medicine*. DOI: 10.19879/j.cnki.1005-5304.202209191

