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Relationship Between Clinical Simulation Exposure and Nursing Student's Clinical Confidence

Jann Louiz U. Valencia[1*], Kyle Ellen Ram M. Bantiling[1], Kaila T. Dela Cruz[1], Jay Ann R. Arandia[1], Chinnie Ann Marie T. Zamora[1], Ralph Arjay C. Dela Cruz[1], Jhoniel C. Samoling[1]
[1]*Saint Francis of Assisi College*
[*]*jhonielsamoling24@gmail.com*

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ABSTRACT

This paper intended to test the hypothesis that clinical simulation exposure and acquisition of clinical confidence among third- and fourth-year nursing students are related, based on the NLN Jeffries Simulation Theory, which highlights high-quality simulation as a key component of Related Learning Experience (RLE). Specifically, the paper aimed to determine whether exposure to clinical simulation significantly affects students perceived clinical confidence. A quantitative descriptive-correlational research design was used. The researchers employed universal sampling involving 50 third- and fourth-year nursing students in a nursing education program. A structured self-administered questionnaire based on validated simulation exposure and clinical confidence instruments was utilized for data collection. The instrument measured the degree of simulation exposure and areas of clinical confidence using a Likert-scale format. Descriptive statistics (frequency, percentage, and weighted mean) and inferential statistics (correlation test) were applied to determine the relationship between variables. Ethical considerations, including informed consent, voluntary participation, confidentiality, and anonymity, were strictly observed. Data were collected during scheduled academic activities with institutional approval. Findings indicated that respondents perceived high levels of exposure and confidence, with both variables rated as Strongly Agree. Inferential analysis revealed a moderate and significant correlation between clinical simulation exposure and clinical confidence, indicating that increased exposure to simulation is associated with higher confidence. However, the lowest confidence level was observed in detecting patient abnormalities, suggesting limitations in diagnostic reasoning and critical thinking skills. In summary, clinical simulation exposure plays an important role in promoting nursing students' clinical confidence. It is recommended that nursing curricula enhance high-fidelity diagnostic simulation exercises focused on patient assessment and abnormality detection to further develop critical thinking and overall clinical competence.

Keywords: *Nursing, Clinical Simulation Exposure, Clinical Confidence, Related Learning Experience*

INTRODUCTION

In simulation, students can work in a setting that is relatively comparable to a hospital and assists them in gaining experience in nursing and healthcare before they begin practicing as professionals. Simulation-based learning is a key tool in nursing education, offering students the chance to practice reallife scenarios in a safe and controlled environment. It helps connect what students learn in the classroom with what they'll face in clinical settings. Through practice, students can test their skills, think critically, and make decisions, building their

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confidence in the process. In a secure environment with no risk to patients, students are able to apply everything they have learned, handle any difficulties they encounter, and even make mistakes without causing harm (Koukourikos et al., 2021).

This hands-on experience is crucial because in nursing, it's not enough to just know the theory; students need practical experience to deliver safe and effective care. Simulation helps them practice those skills, get instant feedback, and refine their performance. Simulations provide students with a chance to identify their strengths and weaknesses and work on improving them. In a supportive, low-risk setting, they can make mistakes, learn from them, and grow more confident in their abilities without worrying about putting patients at risk. This helps students see their progress and improve their clinical judgment (Theobald et al., 2021).

Simulation-based learning has received widespread recognition for its ability to improve clinical competence, encourage critical thinking, and enhance decision-making abilities (Cant & Cooper, 2020). Simulation in clinical situations allows nursing students to improve their skills and become more confident in critical situations. Nursing students must be confident to think and make decisions effectively to influence the outcomes of their patient care in real-life nursing practice.

It is very important for nurses to have confidence. Nurses feel these influences when they respond to real patients, make choices, interact with team members, and deal with stress. Even though it is understood that simulation helps with technical skills and logical thinking, there are not many studies that look at exactly how factors like realism, feedback, and student involvement contribute to their confidence. Nurses need to build mental toughness as well as knowledge to provide top-quality care. Reflecting helps students see how their school lessons apply to practical life, which increases both their self-awareness and self-confidence (Roca et al., 2020).

Many believe that simulation helps in nursing education, but little research has been done on how aspects like realism, feedback, and student engagement impact why nursing students gain clinical confidence. Past research found that people improved their technical abilities and decision-making through simulation, but it is not certain whether confidence increased as well. As stated in a paper by Alharbi et al. (2024), learning through simulations boosted nursing students' skills and knowledge to perform in hospitals. The study also showed that not enough research had been done on realism, feedback, and student involvement, all of which help student nurses feel more confident in practicing their skills. This study sought to know how these aspects affect the self-assurance of nursing students and which parts of simulation best prepare them for real-life situations.

In the current study, the researchers examined how types of feedback, realism, and involvement in clinical simulation impacted nursing students' confidence using NLN Jeffries Simulation Theory. This research identified which aspects of simulation were most effective at building confidence. The researchers aimed to offer insights into how simulation programs could be further designed to help students become more confident and capable in their skills so they would be better prepared for the real world of healthcare.

This study aimed to provide nursing students with a deeper understanding of how clinical simulation exposure influenced their confidence in performing nursing skills. It also sought to explore the extent to which simulation-based learning enhanced clinical confidence and to offer factual evidence supporting its effectiveness in nursing education.

The researchers and respondents maintained the confidentiality of any data collected. The data collected from the answers were treated with utmost confidentiality to protect the respondents' privacy. The researcher conducted meetings and data collection face-to-face at Saint Francis of Assisi College – Las Piñas Campus following the availability of the respondents.

This study was significant because it examined how clinical simulation exposure influenced the development of clinical confidence in nursing students. The study used the Simulation Theory by NLN Jeffries to analyze how important simulation components such as realistic materials, organized checklists, and instructor feedback interacted to provide students with the confidence they needed to move from classroom knowledge to effective patient care. As a result, educators learned how elements including feedback, realism, and students' involvement influenced clinical confidence and could adjust their teaching strategies to enhance the effectiveness of simulations. It looked at how using clinical simulations helped prepare students to handle various healthcare

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tasks confidently and efficiently. Administrators recognized the merits of enhancing simulation training in nursing courses because it prepared students for work in the field. Many policymakers referred to the study's findings to urge that simulation exercises be included in nursing school programs because they prepared students well for healthcare practice. Finally, this study laid the framework for future research by promoting the study of various simulation methodologies and their long-term effects on nursing skill development and patient care outcomes.

The findings guided targeted improvements in simulation design and implementation. By pinpointing how and why some students might not have achieved the expected level of clinical confidence, the study provided a map for continuous adjustments such as revisiting teaching strategies, enhancing the simulations, or improving feedback mechanisms. These insights supported the creation of a more responsive educational framework, one that continuously evolved to meet the diverse needs of learners. In doing so, it empowered nursing students to cultivate the critical thinking and decision-making skills essential for complex clinical environments, which resulted in confident and well-prepared nurses who were more likely to make sound clinical judgments, reduce medical errors, and deliver higher-quality patient care.

METHODS

Research Design

Researchers carried out a descriptive-correlational study to determine how confidence in clinical work among Saint Francis of Assisi College – Las Piñas Campus students changes as a result of their simulation training. According to Sharma (2019), quantitative research uses statistical analysis to study how various variables are connected.

With a correlational strategy, researchers can observe how variables are related by directly examining them without conducting experiments. By examining variables without influencing them, researchers were able to determine their relationships (Correlational Research Design - Publica, 2024). Nursing schools found this approach most advantageous, as students did not always have the opportunity to practice in real hospitals due to obstacles and guidelines.

The study aimed to identify patterns in students' ability to perform clinical simulations, as these patterns could help improve educational methods. All nursing students in their third and fourth years were sent the survey questionnaire. The data collected were analyzed to determine whether clinical simulations enhanced the students' confidence; this information guided how simulation-based learning could be improved in the curriculum.

Research Locale

The researchers selected students who were currently enrolled in Saint Francis of Assisi College – Las Piñas Campus, which is situated at 045 Admiral Village, Talon 3, Las Piñas City, and was headed by Dr. Sharon V. Dimatulac, the Dean of Nursing. The researchers maintained an unbiased relationship with the respondents because the respondents had no direct connection to the researchers. The researchers declared that no financial or other support was received from any entity with an interest in the research work, and no other connections or actions appeared to jeopardize the research study.

Sampling Technique

The sampling technique used in this study was universal sampling, where every member of the target population was included in the sample. Shown in table 1, the respondents included Level 3 students with 31 participants and Level 4 students with 19 participants, for a total of 50 respondents from Saint Francis of Assisi College – Las Piñas Campus for School Year 2024–2025. The researchers selected Level 3 and Level 4 student nurses as respondents considering their exposure to a wide range of hospital areas and, more significantly, because these grade levels were not new to the program. They had already participated in and experienced multiple areas that were advanced in their corresponding field and level.

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Table 1. *Distribution of Respondents*

Year	Frequency (*f*)	Percentage (%)
3rd Year	31	64.81%
4th Year	19	35.19%
Total	50	100%

RESULTS AND DISCUSSION

This section contains tables and discussions of the data gathered that address the research problems. The ramifications of the results are also presented.

Research problem #1," What is the respondents' level of clinical simulation exposure?

Table 2. *Respondents' Level of Clinical Simulation Exposure*

No	Statement	Mean	Interpretation	Rank	Qualitative Interpretation
1	The teaching methods used in the clinical simulation were effective.	3.42	Strongly Agree	6.5	Very High
2	I valued the way my clinical instructors guide the clinical simulation sessions, making the experiences both engaging and educational.	3.58	Strongly Agree	1	Very High
3	The materials/equipment used in the clinical simulations were motivating for me to learn.	3.38	Strongly Agree	8.5	Very High
4	The teaching methods used in the clinical simulation were helpful for me.	3.44	Strongly Agree	5	Very High
5	The clinical instructors gave me sufficient guidance before I perform technical/clinical skills.	3.52	Strongly Agree	2	Very High
6	The clinical instructors facilitate my ability to critically assess my client's needs.	3.50	Strongly Agree	3	Very High
7	The clinical instructors gave me verbal and/ or written feedback concerning my clinical simulation experience/ performance.	3.42	Strongly Agree	6.5	Very High
8	The clinical instructors provide enough opportunities for independent practice in the skills lab and clinical sites.	3.46	Strongly Agree	4	Very High
9	The clinical simulation provided me with a variety of learning materials and activities to promote my learning process.	3.36	Strongly Agree	10	Very High
10	The way my clinical instructors conducted the clinical simulation was suitable to the way I learn.	3.38	Strongly Agree	8.5	Very High
	WEIGHTED MEAN	3.45	Strongly Agree		Very High

Note. Shown in Table 5 is the Respondents' Level of Clinical Simulation Exposure; this presents the assessment of third-year and fourth-year nursing students regarding their level of satisfaction with clinical simulation. Legend: 3.26 - 4.00 = Strongly Agree (4); 2.51 - 3.25 = Agree (3); 1.76 - 2.50 = Disagree (2); 1.00 - 1.75 = Strongly Disagree (1) Motola, I., Devine, L. A., Chung, H. S., et al. (2017). Simulation in healthcare education: A best evidence practical guide. AMEE Guide No. 82.

Table 2 presents the assessment of third-year and fourth-year nursing students regarding their level of satisfaction with clinical simulation. Among the ten items evaluated, Statement 2, "I valued the way my clinical instructors guided the clinical simulation sessions, making the experiences both engaging and educational," received

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the highest mean score of 3.58, interpreted as "Strongly Agree." Statement 5, "The clinical instructors gave sufficient guidance before performing technical/clinical skills," closely followed with a mean score of 3.52, also interpreted as "Strongly Agree." These findings suggest that clinical simulation is an effective educational strategy in enhancing student engagement, learning experience, and perceived competence in nursing practice. Conversely, Statement 9, "The clinical simulation provided a variety of learning materials and activities to promote the learning process," received the lowest mean score of 3.36, yet still fell within the "Strongly Agree" interpretation.

Overall, the respondents assessed their level of clinical simulation satisfaction as "Strongly Agree," with a general mean of 3.45 (See Table 5). This indicates that students are highly satisfied with their clinical simulation experience, which reflects positively on the effectiveness, engagement, and perceived value of the simulation activities. The findings further support previous research on how nursing students feel about clinical simulations and the effect this has on their confidence during actual practice. High levels of satisfaction connected to instructor support and active involvement align with the view that structured simulations help students not only learn more but also feel prepared for clinical and technical work. Brown et al. (2020) highlighted that when students in clinical education felt highly satisfied, it was most likely due to solid mentorship and regular oversight. Supportive learning environments help students develop clinical skills, build confidence, and become emotionally prepared, making it probable that these factors positively affected the study's outcomes.

It was also evident from data analysis that third- and fourth-year students differed in their satisfaction with simulation activities. Possible explanations include the amount of clinical experience and the intensity of learning expected at each step in the curriculum. Thus, the null hypothesis could not be maintained, showing that the students' year level has a significant impact on their opinion of simulationbased education.

Furthermore, the findings of Saragih et al. (2024) suggested that using simulation to teach nursing students improves clinical skills and proves to be a helpful approach in nursing training. Their study indicated that as students advance in their education, they value the importance of simulation experiences in preparing them for actual clinical work.

Research problem #2, "What is the respondent's level of clinical confidence?

Table 3. *Respondent's Level of Clinical Confidence*

No.	Statement	Mean	Interpretation	Rank	Qualitative Interpretation
1	I am confident that I am obtaining the required knowledge from clinical simulation to perform necessary tasks in a clinical practice.	3.40	Strongly Agree	2.1	Very High
2	I am confident that I am developing the required skills from clinical simulation to perform necessary tasks in a clinical practice.	3.50	Strongly Agree	1	Very High
3	I am confident that I can accurately assess an individual with any abnormalities.	3.18	Agree	10	High
4	I am confident that I am mastering the content of the clinical simulation activity that my clinical instructors presented to me.	3.40	Strongly Agree	2.2	Very High
5	I am confident that I can develop an appropriate nursing care plan for individuals with any abnormalities.	3.32	Strongly Agree	7	Very High
6	I am confident that the clinical simulation covered critical content necessary for the mastery of the curriculum.	3.30	Strongly Agree	8	Very High
7	I can handle whatever comes my way in clinical practice.	3.28	Strongly Agree	9	Very High
8	I am confident that I can always manage to solve difficult problems if I try hard enough.	3.40	Strongly Agree	2.3	Very High
9	I am confident that I can evaluate the effectiveness of my interventions for an individual with any abnormalities.	3.40	Strongly Agree	2.4	Very High

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10	I am confident that I can appropriately intervene to meet the needs of an individual with abnormalities.	3.34	Strongly Agree	6	Very High
	WEIGHTED MEAN	3.35	Strongly Agree		Very High

Note. Shown in Table 3 is the ranking of nursing students' clinical confidence based on their responses. Legend: 3.26 - 4.00 = Strongly Agree (4); 2.51 - 3.25 = Agree (3); 1.76 - 2.50 = Disagree (2); 1.00 - 1.75 = Strongly Disagree(1) (Al Gharibi, K. A., Schmidt, N., & Arulappan, J. 2021). Effect of repeated simulation experience on perceived self-efficacy among undergraduate nursing students. Nurse Education Today, 106.

Table 3 presents the ranking of nursing students' clinical confidence based on their responses. The highest-rated item was Item No. 2, "The respondent is confident that they are developing the required skills from clinical simulation to perform necessary tasks in clinical practice," with a mean of 3.50, interpreted as "Strongly Agree." This indicates that students felt well-supported in skill development through simulation-based learning. Closely following was Item No. 1, "The respondent is confident that they are obtaining the required knowledge from clinical simulation to perform necessary tasks in clinical practice," with a mean of 3.40 (Strongly Agree), showing strong confidence in knowledge acquisition from simulations. Item No. 7, "The respondent can handle whatever comes their way in clinical practice," ranked ninth with a mean of 3.28 (Strongly Agree), reflecting a moderate level of assurance in adaptability to real clinical challenges. The item that received the lowest rating was Item No. 3, "The respondent is confident that they can accurately assess an individual with any abnormalities," with an average score of 3.18, interpreted as "Agree" (See Table 6). This result points to a certain level of hesitation among students when it comes to making accurate diagnostic assessments.

The computed general mean was 3.35, falling under the "Strongly Agree" category. This suggests that most third- and fourth-year nursing students at Saint Francis of Assisi College–Las Piñas generally feel confident in their clinical abilities, likely due to their exposure to simulation-based learning. These findings imply that students are ready to carry out clinical tasks, apply their knowledge effectively, and make sound clinical decisions.

Bland et al. (2019) found that learning using simulations helped students develop their clinical capabilities and confidence. The realistic and orderly way that students participated in simulations prepared them and increased their confidence in applying both theoretical and practical knowledge. Similarly, Baugh et al. (2018) reported that nursing students developed confidence and competence when dealing with various clinical cases in both hospital and community environments. Despite this, the slightly lower ratings on diagnostic confidence could indicate that students had less exposure to complex clinical scenarios in their simulations. This underscores the need to integrate more diverse and advanced case situations into training modules.

These findings reveal that although simulation effectively builds foundational skills, it would be more beneficial if paired with real-life clinical practice to further strengthen students' diagnostic confidence. A well-rounded approach could better prepare nursing students for real-world practice. Overall, the study supports the effectiveness of simulation in developing student competence and self-confidence before entering actual clinical settings. The high levels of reported confidence suggest that the simulation strategies used in the curriculum effectively target important areas such as skill acquisition, clinical reasoning, and decision-making. Nonetheless, the lower confidence in identifying abnormalities points to the importance of refining simulation content to further enhance clinical readiness.

Research problem #3, "Is there a significant relationship between the respondent's level of clinical simulation exposure and level of clinical confidence?

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Table 4. *Significant Relationship between the Respondent's Level of Clinical Simulation Exposure and Level of Clinical Confidence*

Pearson R	P Value	Decision	Remarks
0.39132	0.004521	Significant	Reject H0
	Level of Significance = 0.05		

Table 4 presents the significant relationship between the respondents' level of clinical simulation exposure and their level of clinical confidence. The Pearson r value was 0.39132, indicating a moderate positive correlation—as clinical simulation exposure increased, clinical confidence also tended to increase. The p-value was 0.004521, which was less than the level of significance ($\alpha = 0.05$) (Refer to Table 7). This indicates that the result is statistically significant. Therefore, the null hypothesis (H_0), stating that there is no significant relationship between simulation exposure and clinical confidence, is rejected. This supports the conclusion that greater exposure to clinical simulation positively influences the confidence levels of nursing students.

This finding highlights the crucial role of clinical simulation in developing nursing students' clinical confidence, which is essential for safe and effective patient care. It supports the integration of simulation-based learning into nursing curricula as a way to enhance competence, critical thinking, and preparedness for real-life clinical scenarios. From examining Table 7, it becomes clear that clinical simulation has a moderately strong positive influence on nursing students' clinical confidence. As students engage more frequently in clinical simulation activities, their self-confidence in performing nursing tasks steadily improves. This result is statistically significant, given that the p-value is below 0.05, indicating that the outcome is unlikely to be due to random chance. Therefore, greater exposure to simulation exercises is associated with increased confidence among students in applying their clinical skills.

These findings align with the conclusion drawn by Al-Ghareeb et al. (2020), who observed that simulation-based education enhanced nursing students' confidence and competence in actual clinical practice. Their study pointed out that simulation training allowed students to apply theory, helped them make decisions, and increased their confidence in dealing with different situations in practice.

CONCLUSION

Clinical simulations strengthened nursing students' confidence at Saint Francis of Assisi College – Las Piñas Campus. The study found that increased simulation exposure was associated with greater confidence, notably in clinical decision-making, critical thinking, and practical skills application. Nursing students who participated in more immersive and realistic simulation settings demonstrated greater skill and self-confidence in clinical activities. The success of simulation-based learning was attributed to the collaborative efforts of instructors, administrators, and students. Well-prepared clinical instructors who provided clear guidance, constructive feedback, and continuous mentorship played a critical role in building student confidence. Simulation exercises focusing on realism, active engagement, and structured debriefing sessions reinforced learning outcomes. Despite the overall positive results, the study identified areas for improvement, particularly in the diversity and complexity of simulation materials.

Increasing the variety of clinical settings, including advanced medical cases, and ensuring the availability of high-quality simulation equipment enhanced student learning experiences. Technological improvements helped students prepare to manage diverse health challenges in real-world settings. The quality and effectiveness of clinical simulation programs depended on regular monitoring and evaluation. Evaluations of simulation activities, instructor performance, and student feedback were conducted regularly to maintain program effectiveness.

The study highlighted that clinical simulation is essential in helping students transition from theory to practice. Because simulation provides a safe learning environment, students can experiment, make mistakes, receive

guidance, and improve their skills without putting patients at risk. As a result of this approach, students developed better clinical skills as well as a positive attitude and resilience, which are important for success in healthcare.

Based on the results and conclusions of the study, the following recommendations are suggested to strengthen the clinical simulation program at Saint Francis of Assisi College – Las Piñas Campus:

First, attention should be given to the area identified as needing the most improvement, the limited selection of learning materials and simulation activities. To address this, the college is advised to allocate resources toward acquiring modern and diverse tools, including high-fidelity mannequins, virtual simulation platforms, and a wider range of clinical case scenarios that closely resemble real-life hospital environments. These improvements aim to enrich the educational experiences and better prepare students for the complexities of actual clinical settings.

In addition, the administration should invest in ongoing faculty development. Regular training sessions for clinical instructors should be conducted, focusing on essential aspects of simulation-based education such as scenario planning, facilitation techniques, and structured post-simulation debriefings. Since instructors play a key role in student learning during simulations, enhancing their skills will have a significant impact on student confidence and competence.

Another recommendation is to form a dedicated committee for simulation quality improvement, involving faculty members, simulation laboratory staff, and student representatives. This group should be tasked with reviewing current simulation practices, incorporating feedback from students, and proposing updates to enhance the curriculum.

The school may also benefit from establishing collaborative ties with hospitals and simulation centers. Such partnerships can expand students' exposure to a broader spectrum of clinical cases and offer more hands-on learning experiences.

Finally, it is essential for the institution to implement regular reviews and evaluations of its simulation program. Monitoring aspects such as teaching effectiveness, simulation content relevance, and student performance outcomes will help ensure that the program continues to meet educational goals and prepares students for real-world nursing responsibilities. These initiatives, collectively, will contribute to increasing students' clinical confidence and readiness to practice as competent nursing professionals.

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