Simulation-Based Learning, Peer Collaboration and Clinical Confidence Levels of Nursing Students

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ABSTRACT

A well-structured nursing curriculum plays a crucial role in shaping competent healthcare professionals by integrating theoretical knowledge with hands-on clinical practice. This study investigated simulation-based learning, peer collaboration, and the confidence levels of nursing students in the clinical setting. The study utilized a quantitative approach, specifically a descriptive correlational design. It was conducted to Bachelor of Science in Nursing (BSN) program in the first congressional district of Zamboanga Del Sur. The respondents of the study were 120 nursing students, selected using the total enumeration sampling technique. Researcher-made instrument tools were used to conduct the study, namely the Level of Simulation-Based Learning, Level of Peer Collaboration, and Level of Confidence. Frequency and percentage, mean and standard deviation, and the Pearson Product-Moment Correlation Coefficient (Pearson's r) are the statistical procedures applied. The findings show that respondents' levels of simulation-based learning is very high. The respondents peer collaboration is also very high. Additionally, respondents demonstrated a generally high level of confidence. There is a highly significant relationship between respondents' level of simulation-based learning performance and their level of confidence as well as between peer collaboration and level of confidence across various constructs. Three key predictors contribute to student level of confidence: a realistic environment, feedback and reflection, and shared responsibility. Students' self confidence in their ability to learn was shaped by a realistic atmosphere, feedback and reflection, and shared accountability. It is recommended that the institution adopt high-fidelity simulation-based learning to further strengthen the integration of simulation-based learning across all educational programs.

Keywords: clinical setting, clinical competence, confidence level, nursing curriculum, peer collaboration, simulation-based learning

INTRODUCTION

A well-structured nursing curriculum plays a crucial role in shaping competent healthcare professionals by integrating theoretical knowledge with hands-on clinical practice. To ensure that nursing graduates are equipped with the essential skills, knowledge, and values needed to address global health challenges and provide high-quality healthcare, nursing education emphasizes experiential learning. This includes clinical practice, simulations, and community immersion, which complement classroom instruction and laboratory learning. A well-structured nursing program plays a crucial role in shaping healthcare professionals who are not only proficient in their field but also committed to ethical practice and lifelong learning (CMO No. 15, s. 2017). Learner-centered and outcomes-based strategy is used in the nursing curriculum to make sure that professional courses incorporate both theoretical instruction and Related Learning Experience (RLE) components. In order to facilitate a smooth transition between classroom training and real-world application in clinical settings, faculty

members actively monitor students during their RLE. When lecturers and nurses work closely together, team teaching improves instruction efficacy and reinforces critical nursing abilities (Ramos, 2024).

This methodical approach prepares students for the intricacies of real-world healthcare contexts by giving them both practical experience and fundamental knowledge, Clinical skills laboratories (CSLs) are essential components in this process, offering students an opportunity to practice and refine their skills in simulated settings that mirror real-life clinical environments. A laboratory that closely replicates hospital conditions enhances the students' preparedness for actual patient care (Elendu, et al., 2024).

Simulation-based learning has become a vital educational strategy in nursing and education, offering students an immersive and realistic learning environment where they can develop clinical skills without the immediate risk of patient harm. This approach involves the use of high-fidelity mannequins, virtual simulations, and scenario-based exercises to replicate real-life medical situations (Alharbi et al., 2024; Hillere et al., 2022; Koukourikos et al., 2021. According to Jeffries (2020), simulation-based learning provides nursing students with the opportunity to practice complex clinical procedures, make critical decisions, and enhance their clinical reasoning skills. The simulation environment allows students to make mistakes and learn from them, which is crucial for building competence confidence in their clinical abilities (Lasater, 2019). In addition to skill development, simulation-based learning has also been shown to positively impact students' clinical decision-making, communication, and teamwork abilities. A study by Cant& Cooper (2021) emphasized that simulation-based learning not only improves technical skills but also enhances students' ability to collaborate effectively in team settings.

Peer collaboration among nursing students is an essential component of nursing education, fostering both academic and professional growth. Collaboration allows students to share knowledge, discuss complex clinical cases, and provide emotional and professional support to one another. Research by Hennessey et al. (2021) highlights the positive impact of peer collaboration on students' learning outcomes, indicating that students who engage in collaborative activities demonstrate enhanced problem-solving abilities, improved clinical reasoning, and better communication skills. Thus, peer collaboration serves as a valuable tool in shaping competent, confident, and emotionally resilient nursing professionals.

Confidence levels in nursing roles and skills is notably demonstrated by students who participated in the clinical immersion model (Moore, et al., 2023). Nursing confidence is recognized as a crucial factor influencing nursing performance (Ban,et al., 2024). When comparing instructional methods, Brannan et al., (2008) found that the confidence levels of students using the human patient simulator (HPS) did not significantly differ from those who underwent traditional lecture-based teaching. However, simulation in nursing education has been shown to enhance students' knowledge, satisfaction, and confidence levels (Dincer & Atam, 2020). Additionally, students who participated in simulation experiences demonstrated improved knowledge assessment and greater confidence levels (Hassan et al., 2024).

Despite these advancements, new nurses often exhibit low confidence in performing core nursing skills, with the exception of taking vital signs.Furthermore, standardized scenario-based digital environments offer promising potential as an alternative clinical experience, improving nursing students' efficacy, attitude, and confidence as scrub nurses in perioperative settings (Siah et al., 2022).Few studies have specifically examined the impact of simulation-based learning and peer collaboration on nursing students' confidence, often focusing more on clinical competencies or academic performance rather than self-confidence in clinical practice (McGaghie et al., 2021).

This study aims to address an empirical gap**,** which refers to the absence of concrete, evidence-based research directly addressing specific research questions within a particular area of study. In the context of nursing education, while theoretical knowledge and anecdotal evidence suggest that simulation-based learning and peer collaboration offer benefits, there is a lack of robust empirical data investigating how these factors influence nursing students' confidence levels. This gap exists due to the limited number of well-structured studies that isolate these variables and assess their individual or combined effects on nursing students' confidence. Therefore, addressing this gap is crucial for identifying evidence-based strategies that can enhance nursing education and student outcomes.

THEORETICAL FRAMEWORK

The study was anchored on the following theories: Kolb's Experiential Learning Theory (1984), Vygotsky's Social Development Theory (1978), and Bandura's Social Cognitive Theory (1986).

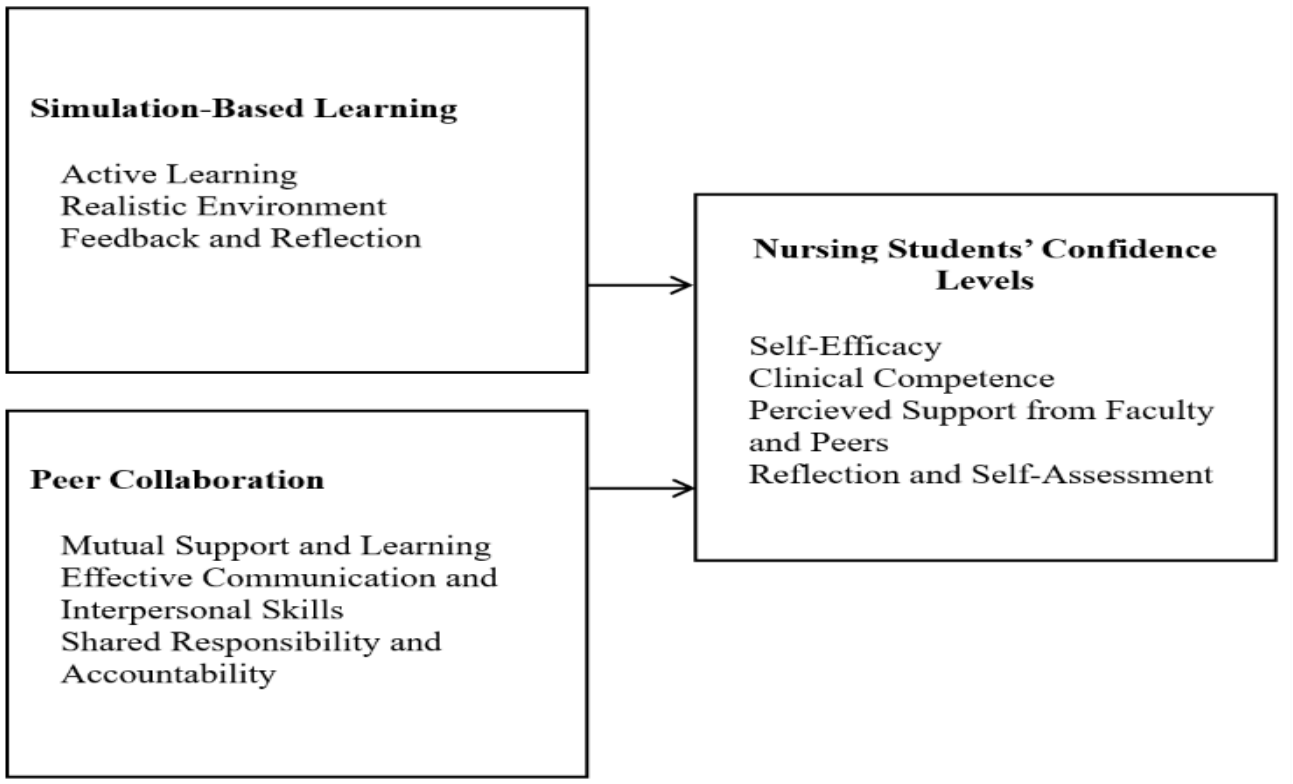
Kolb's Experiential Learning Theory (1984) is based on the premise that learning is a process where knowledge is created through the transformation of experience. According to Kolb, learning is a cyclical process involving four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentationSeveral studies have used Kolb's Experiential Learning Theory to examine the effectiveness of simulation-based learning in nursing education. For instance, O'Leary (2021) used Kolb's framework to explore how simulation-based learning enhances nursing students' clinical skills and decision-making abilities. They found that students who actively participated in simulations demonstrated improved clinical reasoning and confidence. Similarly, studies by Tarrant et al. (2019) have shown that nursing students benefit from reflective learning in simulation, where they not only engage in real-time clinical scenarios but also analyze their actions, leading to better preparedness for real clinical situations. These studies support the use of Kolb's Experiential Learning Theory as a foundational framework for simulation-based learning, as it helps explain how students' experiences in simulated environments contribute to deeper learning and skill acquisition

Peer collaboration is closely related to Vygotsky's Social Development Theory, as it highlights the significance of social interactions in enhancing cognitive development. In the context of nursing education, peer collaboration allows students to work together, share knowledge, and assist one another in solving clinical problems. Through these interactions, nursing students are not only able to build upon their existing knowledge but are also. Numerous studies have utilized Vygotsky's Social Development Theory to examine the benefits of peer collaboration in educational settings, particularly in nursing education. For example, a study by Hughes and colleagues (2020) explored how peer collaboration in nursing simulations improved students' critical thinking and clinical decision-making. They found that peer interactions facilitated deeper learning, as students were able to provide feedback and support to one another, ultimately improving their confidence in clinical situations. Similarly, O'Neill and colleagues (2021) applied Vygotsky's theory in their study on peer collaboration during clinical placements, finding that students who collaborated with peers showed greater growth in clinical competence and confidence. These studies underscore the effectiveness of peer collaboration in fostering cognitive development, reinforcing the appropriateness of Vygotsky's Social Development Theory in this study.

Bandura's Social Cognitive Theory (1986) is centered on the idea that learning occurs within a social context and is influenced by the interactions between an individual, their behavior, and the environment. Several studies have applied Bandura's Social Cognitive Theory to explore the development of self-efficacy and confidence in nursing students. For example, a study by Razzak et al. (2020) found that simulation-based learning significantly increased nursing students' self-efficacy and confidence in performing clinical tasks, particularly in high-stakes situations. Similarly, Wu et al. (2021) investigated how simulation experiences impacted nursing students' self-confidence in patient care, revealing that students who engaged in simulations exhibited higher levels of confidence in clinical settings. These findings support the relevance of Bandura's theory in understanding how experiences in educational settings, such as simulation, can influence nursing students' confidence levels. Through these studies, the theory has been instrumental in explaining the relationship between experiential learning, self-efficacy, and confidence in nursing education.

CONCEPTUAL FRAMEWORK

This study explores the impact of simulation-based learning and peer collaboration on the confidence levels of nursing students. The variables include simulation-based learning, with constructs such as active learning, realistic environments, and feedback and reflection, as well as peer collaboration, which involves mutual support and learning, communication and interpersonal skills, and shared responsibility and accountability. These variables and constructs aim to assess how they influence nursing students' self-efficacy, clinical competence, perceived support from faculty and peers, and their reflections and self-assessment in clinical settings.



Statement of the Problem

This study investigated simulation-based learning, peer collaboration and clinical confidence levels of nursing students in the first congressional district of Zamboanga Del Sur. It aimed to answer the following questions:

1. What is the respondents' level of simulation-based learning as to active learning, realistic environment and feedback and reflection?
2. What is the respondents' level of peer collaboration as to mutual support and learning, effective communication and interpersonal skills, and shared responsibility and accountability?

3. What is respondents' level of confidence as to self-efficacy, clinical competence, perceived support from faculty and peers, reflection, and self-assessment?
4. Is there a significant relationship between the respondents' level of simulation-based learning and their level of confidence?
5. Is there a significant relationship between the respondents' level of peer collaboration and their level of confidence?
6. What are the predictors of the level of confidence of respondents?

Hypotheses

Ho1: There is no significant relationship between the respondents' level of simulation-based learning and their level of confidence.

Ho2: There is no significant relationship between the respondents' level of peer collaboration and their level of confidence.

RESEARCH METHODOLOGY

Design

The study utilized the quantitative approach specifically descriptive correlational design. A quantitative research method is a descriptive research that attempts to collect quantifiable information to be used for statistical analysis of the population sample (Manjunatha, 2019). Descriptive correlational research design describes the variables and measures the extent of the relationships that occur between and among the variables (Aprecia, 2022). The Correlational design is a study design for examining the relationships among simulation-based learning, peer collaboration and confidence levels variables in a single group, which can occur at several levels (Devi, & Lepcha, & Basnet, 2023). Through the use of the design, this study was able to provide empirical evidence on how simulation-based learning and, peer collaboration could be related to nursing students' clinical confidence.

Setting

The study were conducted at a private institution offering a Bachelor of Science in Nursing (BSN) program in the first congressional district of Zamboanga Del Sur. Geographically, the institution is situated on Mabini Street in Molave, Zamboanga Del Sur, Philippines, and served as the site for all research activities and data collection.

Respondents

The respondents of the study were 120 third year nursing students identified through complete enumeration census sampling. The selection of the respondents was based on the following inclusion criteria: 1) male and female nursing students who were currently enrolled in a baccalaureate nursing program, 2) students who were in their 3rd year who had participated in both laboratory simulation procedures and hospital clinical rotation, and 3) students who gave their consent to participate in the study.

Instruments

The following tools were used to conduct the study:

A. Level of Simulation-Based Learning: Used to assess the level of simulation-based learning of the student, a researcher-made questionnaire was utilized to gather pertinent data and information. Prior to its administration, the questionnaire underwent a pilot test to ensure the reliability and validity of each item. The Cronbach's alpha analysis was conducted to evaluate the internal consistency of the questionnaire, confirming that the instrument is both reliable and valid for the study. The following research instrument yielded a Cronbach's Alpha as reliability coefficient as follows; Active Learning 0.731, Realistic Environment 0.760, Feedback and Reflection 0.806. This rigorous testing process ensures that the questionnaire effectively measures the constructs of interest, thereby enhancing the credibility of the findings.

Responses	Continuum	Interpretation
4- Strongly Agree (SA)	3.26 - 4.00	Very High (VH)
3 - Agree (A)	2.51 - 3.25	High (H)
2 - Disagree (D)	1.76 - 2.50	Low (L)
1 - Strongly Disagree (SD)	1.00 - 1.75	Very Low (VL)

B. Level of Peer Collaboration. Used to assess the respondent's level of peer collaboration, a researcher-made questionnaire was utilized to gather pertinent data and information. Prior to its administration, the questionnaire underwent a pilot test to ensure the reliability and validity of each item. The Cronbach's alpha analysis was conducted to evaluate the internal consistency of the questionnaire, confirming that the instrument is both reliable

and valid for the study. The following research instrument yielded a Cronbach's Alpha as reliability coefficient as follows; Mutual Support and Learning 0.852, and Shared Responsibility and Accountability 0.861, Shared Responsibility and Accountability 0.845. This rigorous testing process ensures that the questionnaire effectively measures the constructs of interest, thereby enhancing the credibility of the findings.

Responses	Continuum	Interpretation
4 - Strongly Agree (SA)	3.26 - 4.00	Very High (VH)
3 - Agree (A)	2.51 - 3.25	High (H)
2 - Disagree (D)	1.76 - 2.50	Low (L)
1 - Strongly Disagree (SD)	1.00 - 1.75	Very Low (VL)

C. Level of Confidence. Used to assess a student's level of self-confidence, a researcher- made tool was used to collect relevant data and information. Prior to its administration, the questionnaire underwent a pilot test to ensure the reliability and validity of each item. The Cronbach's alpha analysis was conducted to evaluate the internal consistency of the questionnaire, confirming that the instrument is both reliable and valid for the study. The following research instrument yielded a Cronbach's Alpha as reliability coefficient as follows; Students Efficacy 0.768, Clinical Competence 0.893, Perceived Support from Faculty and Peer 0.847 and Reflection and Self-Assessment 0.884. This rigorous testing process ensures that the questionnaire effectively measures the constructs of interest, thereby enhancing the credibility of the findings.

Responses	Continuum	Interpretation
4 - Strongly Agree (SA)	3.26 - 4.00	Very High (VH)
3 - Agree (A)	2.51 - 3.25	High (H)
2 - Disagree (D)	1.76 - 2.50	Low (L)
1 - Strongly Disagree (SD)	1.00 - 1.75	Very Low (VL)

Data Gathering Procedure

The researcher first obtained permission from the Dean of the Graduate School that she be allowed to start the data gathering. Permission was secured from the Office of College Administrator. The Dean of Nursing were informed and asked for the participation of their 3rd year nursing students. The meticulously designed data-gathering procedure was implemented to ensure that every phase of the research process meets the highest ethical and methodological standards. Comprehensive informed consent forms was then be distributed to prospective participants, explicitly detailing the study's objectives, potential risks and benefits, confidentiality safeguards, and the researcher's contact information. Participants were informed that their involvement is entirely voluntary and that they may decline participation or withdraw at any time without penalty.

Subsequently, eligible nursing students were recruited using a total enumeration sampling method to secure a representative sample of the target population. Once consent is secured, participants were invited to complete a series of carefully developed questionnaires designed to assess constructs related to simulation-based learning, peer collaboration, and confidence in clinical practice. Prior to full-scale administration, these instruments underwent pilot testing and reliability assessments—using measures such as Cronbach's alpha—to ensure that they were accurately captured the intended constructs during the study.

Data collection was taken place in a controlled environment, either via paper-based survey to minimize external disturbances and maintain consistency. The researcher was be available to offer procedural clarifications without

influencing participants' responses. All completed questionnaires was systematically tallied, analyzed and stored securely: physical documents will be kept in locked filing cabinets, and digital data was encrypted and password-protected. Strict measures were employed to anonymized the data, ensuring that no personal identifiers were linked to any responses.

Finally, once the data had been gathered, they were compiled and prepared for statistical analysis using dedicated software such as Minitab. Descriptive statistics, Pearson product-moment correlation coefficients, and regression analyses was conducted to explore the relationships among simulation-based learning, peer collaboration, and confidence levels. This rigorously planned and ethically sound data-gathering procedure ensured that the quantitative data collected were both reliable and robust, ultimately providing a firm foundation for subsequent statistical interpretation and the overall credibility of the research outcomes.

Ethical Considerations

Formal approval was sought from the Misamis University Ethics Board, ensuring that the study framework including data collection methods and numerical analyses was adhered to stringent ethical guidelines. Ethical consistency is essential to the entire study process. Approval was given by the Misamis University Ethics Board, which ensured that every stage—from data collection to numerical analysis—met the highest ethical standards needed for quantitative research. Obtaining each participant's full informed consent is necessary since trustworthy data is vital to the validity and reliability of statistical conclusions.

In-depth consent forms that described the study's goals, possible risks and advantages, and the safeguards in place to protect the privacy of their data were given to respondents. In addition to stressing that participation was completely optional and that each respondent was have the choice to decline or withdraw at any time, these forms included the researcher's contact details in case they have any questions about the study. In addition to safeguarding participants' rights, this careful approach to permission improved the data collected.

The researcher was also ensured to put strict confidentiality measures in place. Any information that might be used to identify specific respondents will be redacted and safely preserved for this quantitative survey. To maintain the objectivity and reliability of the generated numerical data, participants' academic and personal information will be kept completely private. In this quantitative research, such ethical standards are essential because they preserve respondents' confidence, which directly supports the validity and dependability of the final statistical conclusions.

Data Analysis

With the help of the statistical program Minitab, the following statistical procedures and techniques were applied to obtain comprehensive, valid, and reliable results:

Mean and Standard Deviation were employed to evaluate students' critical thinking disposition and overall confidence levels. The mean offers insights into average tendencies, while the standard deviation highlights variability within the data.

Pearson Product-Moment Correlation Coefficient or Pearson's r, was utilized to determine the strength and significance of relationships between variables, such as the connection between laboratory simulation performance and peer collaboration and confidence level among respondents.

Regression analysis was used to quantified the contribution of each independent predictor—namely, active learning, a realistic environment, and feedback with reflection; as well as mutual support and learning, communication and interpersonal skills, and shared responsibility and accountability—to the variance observed in self-efficacy, clinical competence, perceived support from faculty and peers, reflection, and self-assessment.

RESULTS AND DISCUSSIONS

Respondents' Level of Simulation-Based Learning

Table 1 presented respondents' level of simulation-based learning. With an overall weighted mean (WM=3.53; SD=0.0503) the data clearly shows that respondents highly appreciate and successfully use simulation-based learning. This indicates that students believe simulation to be a useful and effective teaching strategy, which is consistent with its increasing popularity in healthcare education. Simulation-based learning bridges the gap between theoretical knowledge and practical application by providing students with engaging, hands-on experiences that enable them to practice clinical skills in a secure, regulated setting.

The findings suggested that by strengthening practical skills and critical thinking in clinical settings, simulation-based learning is an effective teaching method that greatly improves student outcomes. Students can gain confidence in patient care and become more prepared for the ever-changing issues they were faced in real-world practiced by immersing themselves in realistic clinical settings through simulation-based learning. Hwang and Ha (2025), for example, show how SBL increases students' preparedness and proficiency in providing patient care, establishing a clear correlation between improved clinical performance and simulated experiences. Similarly, Prabha Valsaraj et al. (2025) support the claim made by Ma et al. (2024) that simulation is crucial to mental health nursing and improves performance in surgical nursing education. Simulation exercises encourage a deeper, more integrated learning method by creating an environment in which theoretical information is converted into practical abilities.

Combining these viewpoints, it is evident that simulation-based learning offers an immersive learning platform that tackles the technical and cognitive aspects of nursing, beyond the limitations of conventional didactic techniques (Rajaguru & Park, 2021). SBL acts as a link between classroom instruction and clinical practice by giving students opportunities for practical experience, prompt feedback, and critical reflection (Ma et al., 2024). Beyond technical proficiency, SBL promotes overall self-assurance by giving practice, error, feedback, and improvement chances. Students who participate in this cyclical learning process gain resilience and a growth mentality, which empowers them to face clinical issues head-on rather than hesitantly.

Table 1 Respondents' Level of Simulation-Based Learning

Construct	WM	StDev	Interpretation
Active Learning Realistic Environment Feedback and Reflection	3.54 3.48 3.58	0.2969 0.2800 0.3025	Very High Very High Very High
Overall Weighted Mean	**3.53**	**0.0503**	**Very High**

Legend:

3.26 - 4.00 Very High (VH) 2.51 - 3.25 High (H)

1.76 - 2.50 Low (L) 1.00 - 1.75 Very Low (VL)

Respondents' Level of Peer Collaboration

Table 2 showed the data on respondents' level of peer collaboration. Data show that the level of peer collaboration of the respondent is is very high with an overall weighted mean (WM =3.68; SD 0.140). This indicates that respondents' level of peer collaboration is very high. This high rating implies that students see their involvement in peer collaboration as very successful and meaningful. Given their high degree of collaboration, students are likely to actively engage in cooperative learning activities and collaborate closely with their classmates to accomplish common academic and clinical objectives. The information also shows that

interpersonal and communication skills were reviewed very highly, highlighting how important they are to productive peer relationships. Students who communicate well are able to share information, articulate ideas clearly, and offer helpful criticism in group situations. At the same time, good interpersonal skills—like empathy, active listening, and conflict resolution—create a helpful learning environment and help to build meaningful connections.

Nursing students are aware of the value of the contribution that clinical learning experiences make to their development of professional socialization and need to increase their understanding with regard to their roles and mutual expectations in the clinical field (Khoza, 2015). Enhancing peer collaboration is a powerful pedagogical tool that promotes communication among peers and mutual support, thus positively affecting learners' performance during classroom work (Kos, 2024). Peer support is a widely recognized approach in higher education, improving learning efficiency, facilitating the exchange of knowledge, and helping students transition into university life through mutual help and collaboration (Parmar, 2025). learning and discussion with peer, comfortableness with learning activity, dynamic learning atmosphere, mutual appreciation when giving feedback, mutual respect with peer, and collective usage encourages a good habit of learning descriptively engaged students' collaboration effectiveness, whereas one factor, peer's social relationships with teachers gain better showed its ineffectiveness (Sumekto, & Rinan, 2020).

The results highlight the importance it is to incorporate communication, peer collaboration, and simulation-based learning into healthcare education. The benefits of peer collaboration and simulation-based learning, including enhanced professional identity, teamwork, and communication, underscore their importance in promoting high-quality, patient-centered care. The peer collaboration is more than just sharing knowledge; it also involves accountability, confidence-building, and mentoring.

Table 2 Respondents' Level of Peer Collaboration

Construct	WM	StDev	Interpretation
Mutual Support and Learning	3.52	0.3591	Very High
Communication and Interpersonal Skills	3.96	0.3190	Very High
Shared Responsibility	3.56	0.3254	Very High
Overall Weighted Mean	**3.68**	**0.140**	**Very High**

Legend:

3.26 - 4.00 Very High (VH) 2.51 - 3.25 High (H)

1.76 - 2.50 Low (L) 1.00 - 1.75 Very Low (VL)

Respondents' Level of Confidence

Table 3 showed the respondents' level of confidence. Data presents that respondents demonstrated a generally high level of confidence, with an overall weighted mean of (WM=3.47; SD=0.0869). This suggests that students have a robust and favorable feeling of self-assurance across all of the study's examined dimensions. In this sense, confidence includes a variety of qualities, such as clinical expertise, the capacity for making decisions, and self-efficacy in overseeing patient care. Further, Reflection and Self-Assessment Inform that student respondent regularly reflect their clinical experiences to improve my nursing practice, take time to evaluate my performance and identify areas for improvement after each clinical session. Believing on self-assessment is an important tool for improving my skills and knowledge in nursing.

Effective teaching strategy that can support nursing students to build clinical confidence and creating a positive learning environment allows students to have a positive attitude and experience with simulations (Kuesakul et al., 2024). Peer support creates a cooperative learning environment where students are at ease asking for

assistance and sharing. Focused interventions may be required, such as extra instruction, role-playing games, mentorship programs, or customized comments intended to help students who are less confident. Although more clinical placement experience tends to boost confidence levels, a number of outside variables might affect how confident and equipped students feel for practical application (Porter,2013). Their capacity to manage patients in a clinical setting is one area where this confidence is especially evident. A careful consideration of simulation design elements and more general educational practices is crucial to guarantee a successful simulation experience and boost self-confidence (BdiriGabbouj et al., 2024).

This study highlights the necessity of carefully designed simulation programs that strike a balance between the development of technical skills, multidisciplinary cooperation, and a deeper comprehension of patient safety. Nursing education may create highly skilled professionals that are prepared to succeed in a variety of clinical situations by improving simulation design and encouraging self-directed learning.

Table 3 Respondents' Level of Confidence

Construct	WM	StDev	Interpretation
Self-Efficacy	3.46	0.3624	Very High Very
Clinical Competence	3.38	0.2380	High Very
Perceived Support	3.46	0.3949	High Very
Reflection and Self-Assessment	3.59	0.3227	High
Overall Weighted Mean	**3.47**	**0.0869**	**Very High**

Legend:

3.26 - 4.00 Very High (VH) 2.51 - 3.25 High (H)

1.76 - 2.50 Low (L) 1.00 - 1.75 Very Low (VL)

Significant Relationship between the Respondents' Level of Simulation-Based Learning and their Level of Confidence

Table 4 examined the significant relationship between respondents' simulation-based learning and their confidence levels. Data shows that statistically self-efficacy, clinical competence, perceived support, and reflection/self-assessment.is significantly correlated between simulation-based learning and confidence levels, as indicated by the p-value of 0.00 for all components in the table A p-value less than 0.05 in statistical analysis indicates strong evidence against the null hypothesis, indicating that certain variables are tightly related rather than independent. Active learning, a realistic setting, and feedback/reflection have a substantial influence on self-efficacy, clinical competence, perceived support, and reflection/self-assessment, as evidenced by the fact that all stated p-values are 0.00. The fact that the null hypothesis was rejected in every instance emphasizes how important simulation-based learning is for boosting respondents' confidence.

Beyond technical skills, simulation-based learning has also been found to enhance nurses' confidence in delivering difficult news and empathizing with elderly patients. However, some challenges persist in translating these skills seamlessly into real-world application (Mohammed & Shaban, 2025). In the blood transfusions, studies indicate that most nurses trained through SBl demonstrated a high level of knowledge and satisfactory practical skills following their learning sessions (Abo Elnasr et al., 2024). The influence of simulation on clinical performance is further demonstrated by real-world instances. For example, nurses who participate in simulation-based education programs have observable gains in technical abilities like intravenous (IV) insertions, WOOD Furthermore, SBT prepares students for high-pressure scenarios, offering a structured environment that fosters discussion, feedback, and debate—all of which contribute to developing their ability to handle emergency situations effectively (Woodhall et al., 2021).

The findings highlighted the indispensable role of simulation-based learning in nursing education. It effectively enhances students' clinical skills, critical thinking, and confidence, preparing them for real-world healthcare challenges. Providing a safe and structured environment, SBL equips students with practical experience and reinforces their ability to manage complex patient care situations. As a result, simulation-based learning is not only a valuable teaching tool but also a critical factor in shaping a competent and confident nursing workforce ready to meet the demands of modern healthcare.

Table 4 Significant Relationship between the Respondents' Level of Simulation-Based Learning Performance and their Level of Confidence

Construct	Self-Efficacy	Clinical Competence	Perceived Support	Reflection and Self-Assessment
Active Learning	r= 0.429 p= 0.00** Reject Ho	r=0.380 p= 0.00** Reject Ho	r= 0.403 p= 0.00** Reject Ho	r= 0.332 p= 0.00** Reject Ho
Realistic Environment	r=0.294 p= 0.00** Reject Ho	r= 0.302 p= 0.00** Reject Ho	r= 0.339 p= 0.00** Reject Ho	r= 0.399 p= 0.00** Reject Ho
Feedback and Reflection	r=0.465 p=0.00** Reject Ho	r= 0.432 p= 0.00** Reject Ho	r= 0.568 p=0.00** Reject Ho	r=0.448 p=0.00** Reject Ho

Ho: There is no significant relationship between the respondents' level of simulation-based learning performance and their confidence levels.

Legend:

0.00-0.01** Highly Significant, 0.02-0.05* Significant, above 0.05 Not Significant

Significant Relationship between the Respondents' Level of Peer Collaboration and their Level of Confidence

The table 5 presented Significant Relationship between the Respondents' Level of Peer Collaboration and their Confidence Levels. Data shows that the respondent level of peer collaboration and their confidence levels significantly correlated with one another. as evidenced by the consistently low p-values (0.00). This indicates statistically significant relationships between peer collaboration and confidence levels across all constructs. A p-value below 0.05 signifies strong evidence against the null hypothesis, meaning the variables are not independent but are closely associated. Since every construct—mutual support and learning, communication and interpersonal skills, and shared responsibility—yields a p-value of 0.00, this confirms that these factors play a critical role in shaping self-efficacy, clinical competence, perceived support, and reflection/self-assessment. The rejection of the null hypothesis across all categories reinforces the importance of peer collaboration in fostering confidence among nursing students. These findings validate that structured peer learning enhances professional development by providing significant psychological and practical support in a clinical setting with interprofessional collaboration brings together health and social care professionals to enhance patient outcomes through.

Beyond academic growth, peer interaction contributes to professional inclusivity and soft skill development, breaking hierarchical barriers within healthcare settings. Pairing junior students with more experienced peers further boosts confidence and readiness for practical applications, reinforcing the effectiveness of collaborative learning models (Markowski et al., 2021). However, challenges exist, particularly for first-year students, who often report lower engagement and weaker peer support perceptions compared to their more senior counterparts (AbdElmagied Elsayed et al., 2023). This indicates a need for early interventions to ensure students benefit from

peer collaboration throughout their educational journey.Despite its advantages, peer collaboration may clash with traditional or self-paced learning approaches, where institutional and logistical constraints hinder effective peer interaction (Poellhuber, 2008). While peer groups significantly influence academic performance and engagement, proper faculty guidance and regulation are necessary to optimize the benefits of peer-based learning and ensure productive student interactions (Filade, 2019).

Peer collaboration is a fundamental pillar of nursing education, shaping students' confidence, academic performance, and clinical preparedness. By fostering mutual learning, communication, and teamwork, peer-based models enhance critical thinking, practical competence, and professional inclusivity. However, successful implementation requires structured planning, institutional support, and adaptation to diverse learning styles. As nursing education continues to evolve, strategically integrating peer collaboration can significantly improve student outcomes and build a more competent, confident workforce prepared for the completion.

Table 5 Significant Relationship between the Respondents' Level of Peer Collaboration and their Level of Confidence

Construct	Self-Efficacy	Clinical Competence	Perceived Support	Reflection and Self-Assessment
Mutual Support and Learning	r= 0.381 p= 0.00** Reject Ho	r=0.310 p= 0.00** Reject Ho	r= 0.533 p= 0.00** Reject Ho	r= 0.332 p= 0.00** Reject Ho
Communication and Interpersonal Skills	r=0.495 p= 0.00** Reject Ho	r= 0.512 p= 0.00** Reject Ho	r= 0.542 p= 0.00** Reject Ho	r= 0.363 p= 0.00** Reject Ho
Shared Responsibility	r=0.459 p=0.00** Reject Ho	r= 0.467 p= 0.00** Reject Ho	r= 0.527 p=0.00** Reject Ho	r=0.378 p=0.00** Reject Ho

Ho: There is no significant relationship between the respondents' level of peer collaboration and their confidence levels.

Legend: 0.00-0.01** Highly Significant, 0.02-0.05* Significant, above 0.05 Not Significant

Predictors of the Respondents' Level of Confidence

Table 6 presented the results of a multiple linear regression analysis conducted to determine the predictors of the respondents' level of confidence. The analysis considered three independent variables—realistic environment, feedback and reflection, and shared responsibility—to assess their contribution to confidence levels. The regression model equation derived from the analysis is as follows: *Confidence = 1.084 + 0.253(Realistic Environment) + 0.313(Feedback and Reflection) + 0.1437(Shared Responsibility).* This equation suggests how each factor independently and collectively influences the respondents' confidence when all variables are held constant.The findings show that feedback and reflection had the highest coefficient (0.313) with a statistically significant *p*-value of 0.00, indicating a strong positive effect on respondents' confidence. This is followed by realistic environment (coefficient = 0.253, *p*= 0.01), which also showed a statistically significant positive influence. In contrast, shared responsibility had the smallest coefficient (0.1437) and a *p*-value of 0.13, which exceeds the 0.05 level of significance, suggesting it is not a statistically significant predictor in this model. The constant value of 1.084 indicates the baseline level of confidence when all predictors are zero. Analyzing the model further, the R-squared value of 27.22% suggests that approximately 27% of the variability in the respondents' level of confidence can be explained by the three predictors. The adjusted R-squared of 25.32% accounts for the number of predictors and the sample size, providing a more accurate estimate of model fit. The predicted R-squared value of 21.84% indicates how well the model is likely to predict new observations. These

values imply a moderate level of predictability, with other unexplored factors likely contributing to the remaining variance in confidence levels.

The findings resonate strongly with Bandura's (1997) *Social Cognitive Theory,* particularly the concept of *self-efficacy,* which suggests that confidence is influenced by personal experiences, social modeling, and verbal persuasion. In this context, realistic environments serve as enactive mastery experiences, and feedback functions as verbal persuasion and social support—both key mechanisms for building confidence. Shared responsibility, while not statistically significant, might correspond with vicarious experiences, which Bandura posits as less impactful unless the observer identifies closely with the model.From a practical standpoint, these findings imply that educators, trainers, and program designers should prioritize integrating realistic simulations and continuous feedback mechanisms into instructional designs. Doing so may significantly elevate learners' confidence, which is a crucial determinant of successful performance and long-term competence in real-world settings.

Table 6 Predictors of the Respondents' Level of Confidence

Term	Coef	SE Coef	T-Value	P-Value
Constant	1.084	0.387	2.80	0.00
realistic environment	0.253	0.104	2.42	0.01
feedback and reflection	0.313	0.101	3.09	0.00
shared responsibility	0.1437	0.0950	0.1.51	0.13

Regression Equation reflection and self-assessment = 1.084 + 0.253 realistic environment + 0.313 feedback and reflection + 0.1437 shared responsibility

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0.278823	27.22%	25.32%	21.84%

Ho: There is no predictor of the respondents' level of confidence

FINDINGS, CONCLUSION, AND RECOMMENDATIONS

Findings

The study has presented the following:

1. Respondents' level of simulation-based learning is very high.
2. Respondents' level of peer collaboration is very high.
3. Respondent demonstrated a high level of confidence
4. There is a significant relationship between respondents' level of simulation- based learning and their Confidence Levels
5. There is a significant relationship between peer collaboration and confidence levels across various constructs
6. There are three predictors that contributes to student confidence levels such as realistic environment, feedback and reflection, and shared responsibility.

Conclusions

Based on the findings of the study, the following conclusions were formulated:

1. The respondents' high degree of simulation-based learning demonstrates its effectiveness in enhancing nursing students' understanding and practical abilities, implying that incorporating simulation into the curriculum can significantly improve clinical skills acquisition.

2. The high level of peer collaboration among respondents suggests a strong culture of teamwork and collective learning, indicating that fostering collaborative environments is essential for developing interpersonal and professional skills in nursing education.
3. The consistently high confidence levels observed support the notion that a supportive learning environment promotes self-assurance, which is crucial for students' readiness to perform confidently in clinical settings.
4. 4.The significant correlation between confidence and simulation-based learning performance underscores the importance of maintaining high-quality simulation experiences to boost students' clinical competence and self-efficacy.
5. The strong correlation between confidence levels and peer collaboration highlights the value of teamwork in skill development, suggesting that peer interactions play a vital role in building nursing students' confidence and competence.
6. Students' self-confidence in their learning abilities was shaped by a realistic learning atmosphere, constructive feedback, reflection, and shared accountability, implying that these elements should be integrated into nursing education to enhance students' professional growth and preparedness.

Recommendations

Based on the results and conclusions of the study, the researcher recommends considering the following:

1. The Institution may adapt High Fidelity Simulation-Based Learning to strengthen the integration simulation-based learning in all clinical settings.

2. Clinical instructor may strengthen peer collaboration initiatives to develop structured peer-led activities, such as group problem-solving exercises and mentorship programs, to cultivate teamwork and collective learning among students.

3. Clinical instructor may strengthen development curriculum programs by incorporating confidence-building strategies such as guided reflection, personalized feedback, and self-assessment tools to reinforce learners' belief in their abilities.

4. Clinical instructor may foster a realistic and supportive learning environment – Maintain an immersive, feedback-driven atmosphere with clear expectations, opportunities for reflection, and shared accountability to support student self-assurance and skill mastery.

5. Student may strengthen teamwork in the aspect of skill enhancement to facilitate team-based learning opportunities, encouraging cooperative problem-solving and communication development to maximize the benefits of collaboration in clinical settings.

6. Clinical instructor may design learning experiences that incorporate the following elements realistic environment, feedback and reflection, and shared responsibility. Specifically, create simulation scenarios that closely mimic real clinical settings, provide timely and constructive feedback, encourage reflective practices, and promote shared accountability among students.

7. Future researchers may examine simulation-based learning and peer collaboration's impact on nursing students' transition from academic learning to real-world clinical practice.

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