eISSN: 3108-074X
Volume: 1
Issue: 2
July - December 2025

# Nursing Innovators Journal

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Editor: Prof. Laishangbam Bijayalakshmi

Publisher: MKSSS Smt. Bakul Tambat Institute of Nursing Education
www.nijbtine.org

NURSING INNOVATORS JOURNAL

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VOLUME 1 ISSUE 2 JULY-DECEMBER 2025



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Volume 1, Issue 2, July-December 2025 ISSN:3108-074X (Online)

# From the Editorial's desk: "Need for innovations in nursing research approach for holistic health outcomes."

It is with great pleasure to present the current issue of the Nursing Innovators Journal (NIJ), an open-access, double-blinded, peer-reviewed international journal. NIJ brings together a diverse collection of scholarly research work from nursing that reflects the contemporary development, emerging evidence, and evidence-based practices within the fields of community health nursing, mental health nursing, obstetrical gynecological nursing, pediatric nursing, and medical surgical nursing in health sciences.

The present issue of the journal is unified by a central theme on innovations in nursing research, its interventions for holistic health outcomes, emphasizing the critical role of innovative educational strategies, evidence-based interventions, and holistic nursing care in addressing contemporary health challenges across the lifespan. The articles in this issue explore diverse dimensions of nursing practices, ranging from child and adolescent health, maternal and family care, clinical and surgical nursing, to elderly care from various nursing specialities. This issue highlights the impact of structured teaching programs, simulation-based learning, and evidence-based practice in achieving nursing excellence. Overall, these contributions pointed out the importance of preparing a competent, ethical, and empowered nursing workforce capable of responding to evolving healthcare needs at both national and global levels.

Recently, around the world, rapid changes are happening, from rising incidence of non-communicable diseases to unprecedented rises in mental health issues to the increased global life expectancy up to 74.5 years for males and 79.1 years for females in 2050, as projected by the United Nations. And from war-conflict-ridden countries, humanitarian crises, and greying populations to the latest developments in artificial intelligence and research advancements around the world, the scope for the caring science of nursing is huge. Conducting relevant nursing research that addresses such societal changes and issues through innovative research with a strong ethical background is a glaring need. Finding such articles has become an essential step in the dissemination of nursing research in today's academic journal world.

The concern rises when the nursing research is done for the sake of doing it, while innovation and methodological rigor are given a miss. With the threat for plagiarize content, and AI content mixed with it, the originality in research articles needs to be under strict scrutiny nowadays. As a nurse innovator, novelty must stay humane and use digital technology ethically and appropriately. The nursing researchers must be wary and alert to the lure of unethical research conduct in any form. The world is changing, with ever-evolving health care demand. Let's us put-up a discerning bird-eye view, and act to match the evolving researchable gaps beat by beat with humane innovations of caring that are culturally inclusive and sustainable ways. The need for conducting good, honest, need-based, innovative nursing research is a nonnegotiable and palpable fact.

NIJ and its editorial board are committed to providing genuine content for the readers that is based on authentic and original research and academic expertise. We ensure this commitment through our double-blinded peer-reviewed process and stringent SOP editorial process to bring out the issue of high-quality academic research based on methodology rigor and its findings for the profession and public at large.

The views and opinions expressed in the published articles are solely those of the authors and do not necessarily reflect the views of the editor, editorial board, publisher, or affiliated institutions. The journal assumes no responsibility for any consequences arising from the use of the published content. On behalf of the editorial team, I extend our sincere appreciation to all contributors and readers for their continued support.

Warm regards.

**Prof. Laishangbam Bijayalakshmi Devi**

**Editor, Nursing Innovators Journal, MKSSSBTINE, Pune**

Volume 1, Issue 2, July-December 2025 ISSN:3108-074X (Online)

# "Impact of Simulation Scenario on Nursing Students for Future Performance in Clinical Settings."

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***Abstract: Background:*** *Integrating theoretical knowledge with clinical practice is a fundamental component of nursing education. Nurses play a crucial role in the early recognition and management of critical conditions; however, nursing students often have limited exposure to real-life emergencies during their clinical training. Learning in high-risk and unpredictable clinical environments may not be practical for building competence and confidence among students. Simulation scenario–based training provides a safe, realistic, and controlled environment that allows students to practice clinical skills, decision-making, and critical thinking before encountering actual patients. This study aimed to assess the impact of myocardial infarction (MI) management simulation scenarios on learning experience, confidence, and readiness for future clinical performance among nursing students at a selected nursing institute in Pune.* ***Methodology:*** *A descriptive cross-sectional study was conducted in May 2025 among 215 nursing students enrolled in diploma and B.Sc. Nursing programs. Participants were selected using non-probability convenience sampling. Students were divided into 22 groups, each consisting of approximately 10 students, and underwent a 90-minute expert-facilitated simulation scenario on MI management progressing to pulmonary embolism. Data were collected post-intervention using a structured Google Form comprising four sections: demographic data, learning experience, confidence, and readiness for future performance. Each domain included ten items measured on a rating scale. Data were analyzed using descriptive and inferential statistics.* ***Results:*** *Among the participants, 35% were diploma students and 65% were B.Sc. Nursing students, with equal distribution across age groups (18–20 years and above 20 years). Most students reported a positive impact of simulation training, with 94% rating it as an excellent learning method. About 93% felt confident in managing critical situations, and 95% reported readiness for future clinical performance. A significant association was found between familiarity with simulation equipment and confidence levels ($p = 0.039$).* ***Conclusion:*** *Simulation-based training significantly enhanced nursing students' learning experience, confidence, and readiness for clinical practice. Integrating simulation scenarios into nursing curricula is recommended for effective teaching of critical emergency care.*

***Keywords:*** *Impact, Simulation Scenario, Nursing Students, Future Performance, Clinical Settings.*

## I. Introduction:

Nursing is an essential profession as it provides holistic care to patients. Nurses should be well-prepared for real clinical settings. New nurses frequently experience "reality shock" and struggle to deliver safe care to their patients when transitioning from academic environments to clinical practice. This includes feelings of anxiety, disorientation, and self-doubt due to the fear of making mistakes. This is because they often lack critical thinking and communication skills.[1-5] This is also because they have learnt nursing skills by shadowing staff nurses and their faculty in clinical areas. In real-world clinical settings, nursing students are usually limited to observing, as these settings are unpredictable, with fluctuating patient needs, emergencies, and high staff workloads. This limits safe opportunities for students to participate actively. Due to concerns about patient safety, liability, and lack of time for supervision, students may only shadow registered nurses rather than practice skills themselves. Students are sometimes shielded by their faculty from intense or emotionally charged situations (e.g., deaths, aggressive patients), which limits exposure to the whole reality of nursing. This volatile environment, while authentic, is not ideal for building student confidence or integrating theory with practice.[6-8]

While linking nursing education to clinical practice settings, simulation-based education offers a powerful solution to many of the challenges student nurses face in real clinical environments, such as volatility, unpredictability, and limited hands-on opportunities. It addresses this gap by replicating clinical scenarios in a safe, controlled environment.[9] Students can practice and refine skills such as medication administration, CPR, wound care, and communication, as repetition builds confidence and enhances mastery of psychomotor skills.[10] Simulation exposes students to low-frequency, high-stakes clinical events they might not encounter in real life but must be prepared for, and fast-paced settings do not always allow time for reflective learning or student decision-making.[11-12] Real-life situations also offer limited opportunities for interaction with interprofessional teams. Simulations built around interprofessional scenarios—where other students act as patients, relatives, or doctors—can improve SBAR communication, assertiveness, and teamwork.[13]

Numerous studies have been conducted on the impact of simulation scenarios on learning care in emergencies. High-fidelity simulation helped nursing students recognize and manage patient deterioration (e.g., respiratory distress, hypotension), thereby improving their clinical judgment and early intervention.[13] A study on simulation to teach basic life support (BLS) found that students who participated in simulation-based BLS training demonstrated significantly better CPR skills, improved retention, and quicker response times compared to those who received lecture-based training.[14] A study on Mass Casualty Incident (MCI) simulation, as reported in Trauma and Mass Casualty Response, found that MCI simulation enhanced students' ability to triage, prioritize care, communicate effectively under stress, and perform rapid assessments in disaster-like conditions.[15] A study on simulation-based anaphylaxis training effectively equipped new nurses to manage anaphylactic shock, boosting their confidence and promoting safe, patient-centred care.[16] High-fidelity medical simulation effectively enhanced students' knowledge and confidence in managing septic shock, proving to be a valuable learning tool for improving resuscitation skills and self-assurance.[17]

According to the Nursing and Midwifery Council (NMC, 2023) "simulation is an educational method which uses a variety of modalities to support students in developing their knowledge, behaviours, and skills, with the opportunity for repetition, feedback, evaluation, and reflection to achieve their programme outcomes and be confirmed as capable of safe and effective practice."[18] Simulation enhances students' learning and management of clinical situations by allowing hands-on decision-making without exposing patients to risk. It fosters critical thinking, skill development, and confidence, while faculty can monitor progress and guide reflective learning toward competence and readiness for real practice.[19] Learners can be encouraged to view the consequences of their actions or inactions from multiple perspectives. Simulation enables deliberate decision-making, leading to varied scenario outcomes—an opportunity not typically available in real clinical settings.[20] Research has demonstrated that simulation increases problem-solving ability, communication competency, cooperation, leadership, critical thinking, and delegation skills.[21-23] A similar finding was observed in a study that examined the impact of repeated multi-patient simulations on the readiness of senior nursing students for practice. In a randomized controlled trial involving 78 students, the intervention group demonstrated significant improvements in self-confidence, knowledge, and professional readiness, indicating that multi-patient simulations effectively enhanced students' preparation for real-world healthcare demands.[24] Simulation-based learning with Standardized Patients enhances self-efficacy, motivation, and clinical skills, making it an effective active learning approach in an academic setting.[25] Simulation experience to reduce anxiety levels among nursing students.[26]

A descriptive quantitative study to examine the perceptions of 76 Saudi novice nursing students regarding satisfaction and self-confidence with High Fidelity Simulation (HFS), using the Student Satisfaction and Self-Confidence in Learning Scale. Their results showed high levels of satisfaction and self-confidence among students. Prelicensure students reported significantly higher satisfaction ($p = 0.03$), and a strong positive correlation was found between satisfaction and self-confidence ($p < 0.0001$). Their study supports HFS as an effective tool in nursing education for enhancing clinical skills, learner engagement, and preparing students for clinical practice.[27]

End-of-life (EOL) care is another challenging area for nursing students, often causing anxiety and feelings of unpreparedness that can impact career satisfaction. Simulation using standardized patients has shown promise in addressing this gap. The study reported that EOL simulations improved students' communication, comfort with sensitive topics, and confidence in hospice care, enhancing readiness for emotionally and ethically complex clinical situations.[28]
Collectively, these studies highlight the growing importance of simulation in preparing nursing students for real-world clinical challenges. Though time-consuming, simulation has the potential to transform nursing education and improve the quality of patient care across various healthcare settings. This study aimed to assess the impact of myocardial infarction (MI) management simulation scenarios on learning experience, confidence, and readiness for future performance in a clinical setting among nursing students at a selected nursing institute in Pune.

**Research questions:**

1. Does the simulation scenario enhance the learning experience of nursing students?
2. Does the simulation scenario improve the confidence levels of nursing students?
3. Does the simulation scenario enhance the readiness for future performance of nursing students in a clinical setup?
4. Is there an association between selected demographic variables and the learning experience, confidence, and readiness for future performance of nursing students in clinical setups?

**Objectives:**

1. To assess the impact of the simulation scenario on learning experience among nursing students.
2. To assess the impact of the simulation scenario on the confidence level among nursing students.
3. To assess the impact of the simulation scenario on readiness for future performance of nursing students in a clinical setup.
4. To associate the learning experience, confidence, and readiness for future performance in a clinical setup with their selected demographic variables among nursing students.

**II. Research methodology:**

A descriptive cross-sectional study was conducted in May 2025 involving 215 nursing students from both diploma and baccalaureate programs. Students were selected through non-probability convenience sampling to evaluate their learning outcomes following a simulation scenario. It focused on the management of myocardial infarction (MI) progressing to pulmonary embolism (PE), a complex and high-risk clinical situation requiring critical thinking and prompt decision-making. Students were recruited from the second and third year GNM and BSc Nursing programs. The study's purpose, procedures, and ethical considerations were clearly explained to all students. Informed consent was obtained through a Google Form.

**Eligibility criteria:**

**Inclusion Criteria**

- Students from the Second and Third year GNM and BSc Nursing programs
- Students who were willing to participate and provide informed consent.

**Withdrawal Criteria**

- Incomplete or duplicate responses.

**Scenarios:** The 215 nursing students participating in the study were divided into 22 groups, each consisting of approximately 10 participants. Each group of 10 students engaged in a 90-minute simulation session facilitated by experienced faculty. The sessions included a pre-briefing, hands-on simulation with a high-fidelity mannequin, and a structured debriefing to reinforce clinical reasoning.

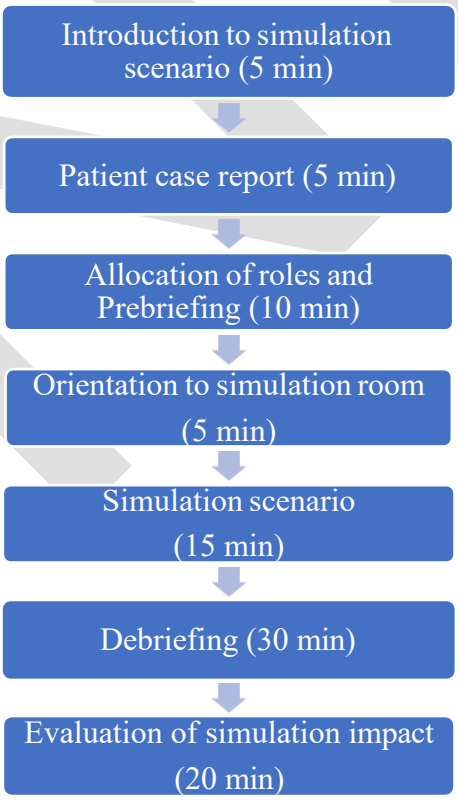



**Fig. 1 shows the phases of the simulation scenario.**

The scenario session began with an introduction to the learning objectives. Students were then introduced to crisis management, continuous reassessment, situational awareness, use of available resources, and closed-loop communication. These principles were discussed and reinforced throughout the simulation activities.

Each group of nursing students was presented with a simulated MI patient case. They were assigned roles such as primary nurse, physician, patient relative, and student nurse. Through cards, they were asked to select appropriate actions based on the clinical presentation. Subsequently, students were oriented to the simulation room, including the monitoring and care equipment relevant to cardiac care. Simulation scenarios were carried out with each scenario beginning when a designated "primary nurse" entered the room to assess and manage the simulated MI case. Each simulation scenario was followed by a debriefing session led by a faculty. The session included reflective and analytical questions as a group, such as: “How do you feel after the scenario?”, “What happened during the scenario?”, and “What did you learn from managing this MI case?” These discussions allowed students to process the experience, reinforce crisis management principles, and identify areas for improvement. This structured approach aimed to enhance the students’ understanding of acute cardiovascular emergencies, improve confidence in clinical interventions, and foster readiness for real-world clinical practice.

**Measurement and scoring:**

Data collection took place immediately following the simulation scenario, using a structured Google Form consisting of four sections: (1) demographic information, (2) learning experience, (3) confidence, and (4) readiness for future clinical performance. Each section contained ten items rated on a standardized Likert scale to capture participants’ perceptions and self-assessments across key domains relevant to simulation-based learning. A defined time frame was provided for students to complete the feedback form.

The responses were automatically recorded in Google Sheets and subsequently exported to Microsoft Excel for data cleaning and preparation for analysis. Descriptive statistics, including frequency and percentage, were used to summarize demographic data and response trends. Pearson’s correlation coefficient was used to examine the associations between students’ learning experiences, confidence, and readiness for future performance in clinical practice, with selected demographic variables. These analyses aimed to identify meaningful relationships and differences that could inform future improvements in simulation-based nursing education.

**III. Result:**

In this study, data from 215 nursing students were analysed descriptively using frequency and percentage. Table 1 describes demographic variables of the students.

**Table 1: Frequency distribution of demographic variables**.

N = 215

| Sr. No. | Demographic variable | Frequency (N = 215) | Percentage (%) |
|---|---|---|---|
| 1. | **Age in years:** | | |
| | 18-20 | 108 | 50.23 |
| | >20 | 107 | 49.77 |
| 2. | **Course** | | |
| | GNM | 76 | 35.35 |
| | BSc N | 139 | 64.65 |
| 3. | **Year of course:** | | |
| | 2nd year | 120 | 55.81 |
| | 3rd year | 95 | 44.19 |
| 4. | **Familiarity with simulation tools:** | | |
| | None | 13 | 6.05 |
| | Basic | 88 | 40.93 |
| | Advanced | 114 | 53.02 |

The demographic profile indicated that 50% of the students were between 18 and 20 years old, while the remaining 50% were above 20 years old. Sixty-five percent of students were enrolled in the B.Sc. Nursing program where 35% were from the diploma (GNM) program. Fifty-six percent of students were in the 2nd year, while 44% were in the 3rd year of the program. The majority, 53% of students, had an advanced level of familiarity with simulation tools. In comparison, 41% of students had basic knowledge of simulation tools, which reflects a strong representation of students pursuing advanced nursing education.

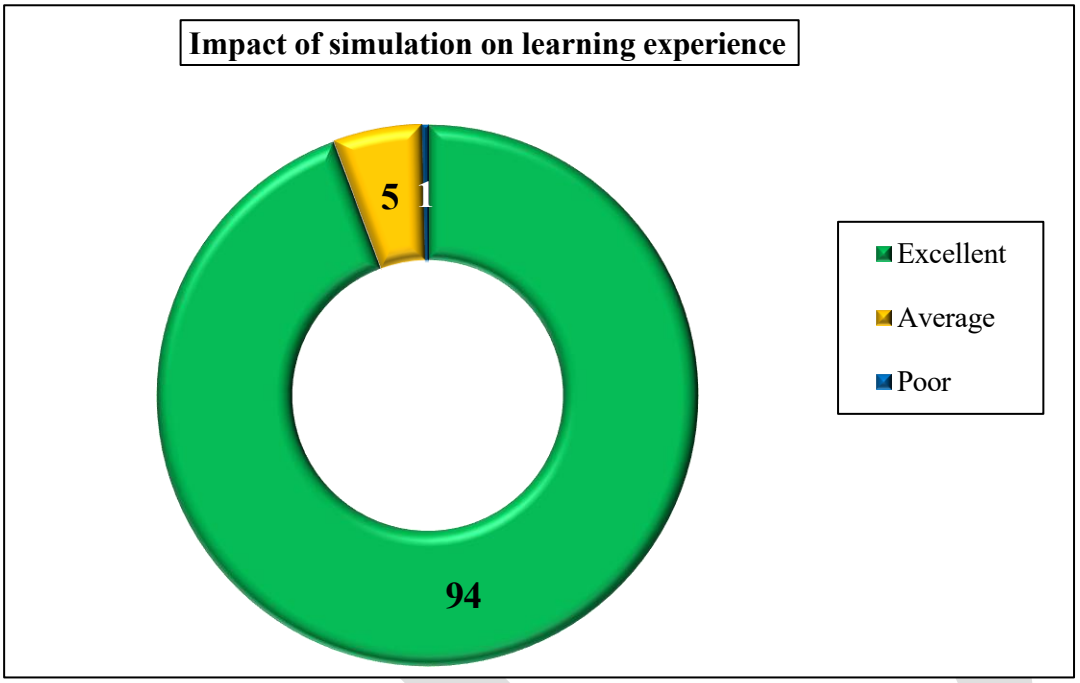
**Table 2: Impact of simulation on learning experience**

N = 215

| Sr. No. | Items | Agree | | Neutral | | Disagree | |
|---|---|---|---|---|---|---|---|
| | | Freq. | % | Freq. | % | Freq. | % |
| 1. | Clear instructions on the simulation's ground rules were provided at the beginning. | 211 | 98.13 | 3 | 1.39 | 1 | 0.46 |
| 2. | Learning objectives were explained in the beginning. | 210 | 97.67 | 5 | 2.32 | 0 | 00 |
| 3. | Felt the learning environment was safe. | 209 | 97.20 | 4 | 1.86 | 2 | 0.93 |
| 4. | The methods used were supportive and effective. | 203 | 94.41 | 12 | 5.58 | 0 | 00 |
| 5. | Adequate materials were available during the simulation. | 182 | 84.65 | 29 | 13.48 | 4 | 1.86 |
| 6. | The variety of educational materials and activities was promoted in a simulation. | 199 | 92.55 | 14 | 6.51 | 2 | 0.93 |
| 7. | The teaching/ technique used in the simulations helped me to learn the activities very clearly. | 204 | 94.88 | 11 | 5.11 | 0 | 00 |
| 8. | The way simulations worked was appropriate to my learning style. | 200 | 93.02 | 15 | 6.97 | 0 | 00 |
| 9. | The scenarios designed were appropriate to my course of studies. | 207 | 96.27 | 8 | 3.72 | 0 | 00 |
| 10. | The faculty ran the scenario effectively. | 202 | 93.95 | 12 | 5.58 | 1 | 0.46 |

Ninety-eight percent of students strongly agreed that clear instructions regarding the simulation ground rules were provided at the beginning, and learning objectives were communicated, as affirmed by 98.67% of students. Ninety-seven percent of students reported feeling that the learning environment was safe, and 94.41% said that the instructional methods employed were both supportive and effective. The availability of adequate materials during the simulation was affirmed by 84.65% of students, while 92.55% of students agreed that a variety of educational materials and activities were incorporated to enhance learning.

The teaching techniques utilized facilitated a clear understanding of the activities for 94.88% of students, and 93.02% of students reported that the simulation modalities were congruent with their learning styles. The relevance of the scenarios to the students' course of study was confirmed by 96.27%, and the faculty's effectiveness in conducting the scenarios was rated positively by 93.95% of students. These findings collectively suggest that the simulation design, content, and facilitation effectively supported the learning needs and preferences of the students, resulting in a high level of satisfaction with the learning experience.




**Graph 1: Impact of simulation on learning experience**

Graph 1 shows the overall impact of the simulation scenario on the learning experience among nursing students. Ninety-four percent of students rated the simulation experience as an excellent method of learning, reflecting strong satisfaction with this innovative teaching method. These findings suggest that students found the simulation scenario engaging, relevant, and effective in enhancing their understanding of clinical concepts and skills. A smaller portion of the students (5%) rated their learning experience as average. This group may have found some aspects of the simulation less impactful or may have had expectations that were only partially met. Their response still indicates a neutral to moderately positive view of the simulation experience.

Notably, fewer than 1% of students reported a poor learning experience with the simulation, indicating that very few students found this learning method unsatisfactory. This minimal negative feedback further emphasizes the overall acceptance and success of simulation-based learning within this group. Together, these results highlighted the importance of simulation as a preferred instructional strategy in nursing education, which can meet the learning needs of students.

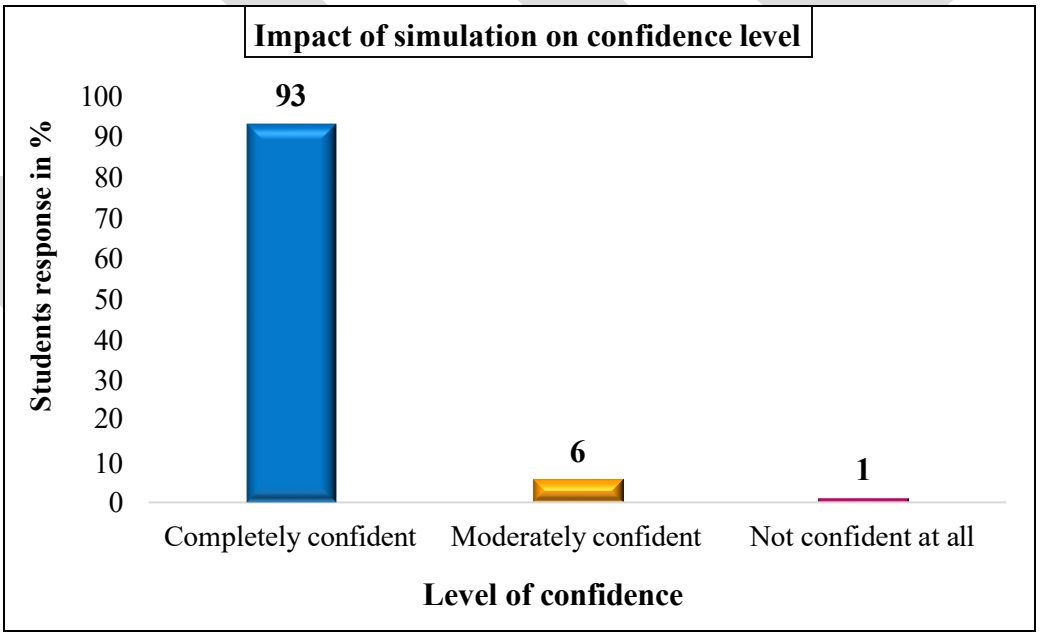
**Table 3: Impact of simulation on confidence**

N = 215

| Sr. No. | Items | Agree | | Neutral | | Disagree | |
|---|---|---|---|---|---|---|---|
| | | Freq. | % | Freq. | % | Freq. | % |
| 1. | The simulation covered essential content, enabling me to master the subject area in my curriculum. | 205 | 95.34 | 10 | 4.65 | 0 | 00 |
| 2. | I mastered the simulation activity/skill comfortably. | 194 | 90.23 | 20 | 9.30 | 1 | 0.46 |
| 3. | I developed the skill with rationality to perform the activity. | 200 | 93.02 | 12 | 5.58 | 3 | 1.39 |
| 4. | I felt responsible for my learning in the simulation. | 205 | 95.34 | 7 | 3.25 | 3 | 1.39 |
| 5. | I was accountable for the activity assigned to me in the simulation. | 204 | 94.88 | 10 | 4.65 | 1 | 0.46 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6. | I was able to think critically and evaluate my actions in simulations. | 199 | 92.55 | 14 | 6.51 | 2 | 0.93 |
| 7. | I felt more relaxed while learning. | 189 | 87.90 | 20 | 9.30 | 6 | 2.79 |
| 8. | I felt more confident in my competence to handle emergency scenarios. | 197 | 91.62 | 16 | 7.44 | 2 | 0.93 |
| 9. | I was able to identify my strengths and weaknesses in my performance during the simulation. | 208 | 96.74 | 6 | 2.79 | 1 | 0.46 |
| 10. | The feedback was constructive in my learning. | 206 | 95.81 | 7 | 3.25 | 2 | 0.93 |

Table 3 above shows the descriptive findings regarding the impact of simulation on confidence. It indicated that the simulation effectively covered essential content necessary for mastery within the students' curriculum, as evidenced by 95.34% agreement. Nighty percent of students reported confidently mastering the simulation activities and skills. Furthermore, 93.02% acknowledged developing skills grounded in rational understanding necessary to perform the activities. High levels of learner responsibility (95.34%) and accountability (94.88%) were also reported by students for their assigned tasks during the simulation. Critical thinking and self-evaluation were agreed for 92.55% of students, promoting reflective practice. Additionally, 87.90% of students felt more relaxed during the learning process. Confidence in managing emergency scenarios increased for 91.62% of students. Notably, 96.74% were able to identify their strengths and weaknesses in performance, supporting targeted improvement. Finally, constructive feedback was perceived as instrumental to learning by 95.81% of students. Collectively, these results demonstrate that the simulation not only enhanced technical competence but also fostered reflective practice, learner autonomy, and confidence in clinical skills.




**Graph 2: Impact of simulation on confidence level**

Graph 2 shows that the overall impact of the simulation scenario on confidence levels revealed a strong sense of self-assurance among the students. A majority, 93% students, reported feeling fully confident in managing the critical clinical situation presented during the simulation. This high level of confidence suggests that the simulation effectively enhanced their ability to handle complex and high-pressure scenarios. Additionally, 6% of participants identified themselves as moderately confident. Only a small minority, 1%, reported being low confident. This overall distribution indicates that nearly all students feel well-prepared and confident in their clinical abilities following the simulation training. Such

favourable confidence is an encouraging sign of their readiness to perform effectively in real-world clinical settings. It also reflects increased self-efficacy, which is crucial for nursing students as they transition from academic learning to practical application in patient care.

**Table 4: Impact of simulation on readiness for future performance in a clinical setup**

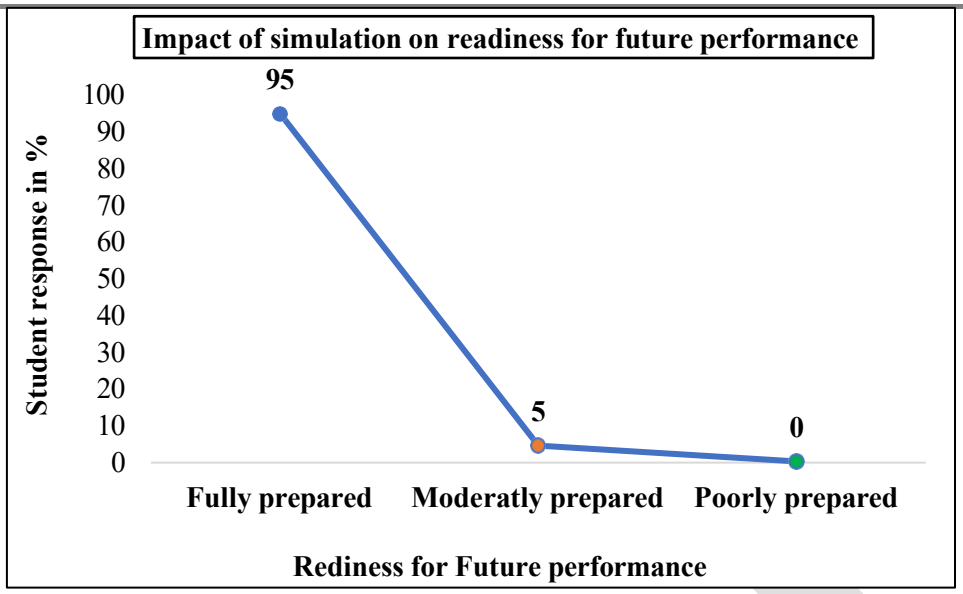
**N = 215**

| Sr. No. | Items | Agree | | Neutral | | Disagree | |
|---|---|---|---|---|---|---|---|
| | | Freq. | % | Freq. | % | Freq. | % |
| 1. | I can confidently perform this skill in a real scenario. | 201 | 93.48 | 12 | 5.58 | 2 | 0.93 |
| 2. | I can apply my critical thinking to a similar actual situation. | 200 | 93.02 | 14 | 6.51 | 1 | 0.46 |
| 3. | I am confident in my ability to communicate effectively in a real-world setting. | 205 | 95.34 | 9 | 4.18 | 1 | 0.46 |
| 4. | I am emotionally and mentally prepared to handle a similar situation in a real clinical setup. | 199 | 92.55 | 16 | 7.44 | 0 | 00 |
| 5. | I can extend this knowledge and skill to any clinical situation. | 210 | 97.67 | 4 | 1.86 | 1 | 0.46 |
| 6. | I can reason about my decisions and actions in any situation. | 201 | 93.48 | 13 | 6.04 | 1 | 0.46 |
| 7. | I am familiar with the responsibilities of a nurse in any real-life scenario. | 211 | 98.13 | 4 | 1.86 | 0 | 00 |
| 8. | I am confident in my ability to take accountability in real-life situations. | 204 | 94.88 | 11 | 5.11 | 0 | 00 |
| 9. | I am sure of ensuring safety related to actual patient care. | 206 | 95.81 | 8 | 3.72 | 1 | 0.46 |
| 10. | I am confident about being an effective team member in a real situation. | 207 | 96.27 | 8 | 3.72 | 0 | 00 |

Table 4 above shows the descriptive findings regarding the impact of simulation on **readiness for future performance** in a clinical setup. Specifically, 93.48% of students felt confident performing the skills in actual scenarios, and 93.02% believed they could apply critical thinking effectively in similar real-life situations. Confidence in effective communication within a clinical environment was affirmed by 95.34% of students. Additionally, 92.55% reported feeling emotionally and mentally prepared to manage comparable clinical situations.

The majority (97.67%) agreed that the knowledge and skills gained could be extended to various clinical contexts. Students also expressed strong confidence in their ability to reason about their decisions and actions (93.48%), understand their nursing responsibilities (98.13%), and uphold accountability in real-world situations (94.88%).

Assurance in ensuring patient safety was reported by 95.81%, while 96.27% felt confident in their capacity to function as effective team members. These findings collectively indicated that the simulation experience significantly contributed to students' readiness for future performance in clinical practice, emphasizing skill competence, critical thinking, accountability, safety, and teamwork.




**Graph 3: Impact of simulation on readiness for future performance in a clinical setup**

Graph 3 illustrates that the overall impact of the simulation scenario on readiness for future performance in a clinical setting yields highly positive outcomes among nursing students. Most students (95%) reported feeling fully prepared and ready to apply the skills and knowledge gained through the simulation scenario in actual clinical settings. This strong sense of readiness suggests that the simulation experience not only boosted their confidence but also equipped them with practical competency essential for a real-world clinical setup. In contrast, a smaller proportion of students (5%) indicated that they were still developing their clinical skills and confidence and may require additional practice or experience to feel fully prepared. Importantly, none of the students reported feeling poorly prepared or needing further support before performing these clinical tasks, which highlights the overall effectiveness of the simulation program in bridging the gap between theoretical knowledge and clinical application.

These results underscore the importance of simulation as an effective and innovative teaching strategy that enhances self-confidence, fosters professional readiness, and prepares nursing students to meet the demands of a real clinical setting. By providing a safe and controlled space for deliberate practice and reflection, simulation helped students solidify their clinical skills, and greater student satisfaction with their educational experience ultimately contributes to improved patient care outcomes.

Inferential statistical analysis was performed using Pearson's correlation coefficient through the Data Analysis Toolpak *in* Microsoft Excel. This analysis aimed to examine the correlation between students' demographic variables and learning experience, confidence, and readiness for future performance in clinical setups. The results revealed a statistically significant positive correlation between familiarity with the equipment used in the simulation scenario and confidence levels ($p = 0.039$), indicating that increased familiarity with the equipment was associated with higher confidence levels in performing clinical tasks during simulation.

**IV. Discussion:**

The findings of this study demonstrated a highly positive impact of simulation scenarios on myocardial infarction (MI) management on nursing students' learning experience, confidence, and readiness for future performance in a clinical setting. A significant majority of students (95%) rated the simulation as an excellent learning method, highlighting its effectiveness in enhancing their engagement and knowledge retention. This is consistent with existing literature, which identifies simulation as a powerful pedagogical tool that supports experiential learning, critical thinking, and safe skill application in complex clinical situations. A quasi-experimental study on nursing students, comparing simulation-based training for cardiac arrest with traditional lectures. The simulation group showed significantly higher scores in knowledge, self-confidence, and clinical performance, suggesting it is a more effective educational method and should be applied to diverse clinical scenarios.[29] Another study concluded that when actively engaged, students can enhance learning outcomes and retention, which conveyed high levels of satisfaction and self-confidence, and enhanced their critical thinking skills following the HFS experience.[30-31]

The data revealed that 93% of students reported feeling completely confident in managing myocardial infarction as a critical simulation scenario. This high level of confidence is particularly significant, as confidence plays a crucial role in clinical decision-making and overall patient care competence. Similar findings were reported when simulation-based education incorporated repeated scenarios for specific conditions and allowed students to make mistakes in a safe environment without fear of harming patients.[32] These findings align with a study conducted by Tarhan and Yildirim (2023), which found that repeated multi-patient simulations significantly improved self-confidence and professional readiness among senior nursing students. This suggests that such experiences closely mirror real-world healthcare demands and better prepare students for clinical practice.[33]

Moreover, students' readiness for future performance in clinical settings was significantly positive, with 95% indicating that they were entirely ready to apply the skills they had learned during the simulation scenario. This result demonstrates the simulation's success in bridging the theory-practice gap and promoting clinical preparedness, a challenge that remains ongoing in nursing education. The findings also suggest that familiarity with the tools contributed to the increase in confidence level. Repeated and structured simulation exposure contributes to a deeper understanding, increased confidence in handling acute situations, and improved team coordination.[34] Despite these promising outcomes, a small percentage of students (5%) rated their learning experience as average, and 5% reported an average level of confidence. These variations may reflect individual learning styles, prior clinical experience, or comfort with simulation technology. Hence, faculty need to recognize and address these differences through tailored support and varied simulation scenarios that cater to the diverse needs of students.

In summary, the results confirm that the simulation is an effective teaching strategy for enhancing learning, confidence, and readiness for future clinical performance among nursing students. This underlines the importance of incorporating regular, structured simulation into nursing curricula to bridge the gap between theory and practice effectively and better prepare students for the complexities of real-world healthcare, especially in critical and emotionally charged situations such as end-of-life care.

**V. Limitations:**

Participants went through a short, timed simulation, which might not fully show the ongoing mental and physical fatigue they would face in real situations and may have limited how flexible they could be in making decisions.

**VI. Conclusion:**

By providing a safe, controlled, and immersive environment, simulation allows students to actively engage in complex clinical scenarios, reflect on their actions, and improve performance without the risk of harm to patients. This study demonstrated that simulation had a significant and positive impact on nursing students' learning experience, confidence, and readiness for future clinical performance. Most students reported high levels of confidence and readiness following the simulation. These findings underscore the importance of simulation as an effective and engaging educational strategy that not only enhances theoretical understanding but also develops the practical skills and self-confidence essential for real-world clinical practice.

**Consent to participate:** Informed consent was obtained from each participant. All methods were performed in accordance with the relevant guidelines and regulations.

**Funding source:** This research did not receive any grant from funding agencies.

**Conflicts of interest:** None.

**Acknowledgement:** The authors would like to express their appreciation to all students for taking the time to participate in the simulation scenario and sharing their experiences.

**Individual author contribution statement:** Dr Meena Ganapathy was the primary author and was involved in all stages of the study, including conceptualization, methodology, data curation, analysis, and manuscript drafting. Mrs. Nupoor Bhambid and Mrs. Shital Padalkar performed the statistical analysis, created the Fig.s, and wrote the manuscript. All authors read and approved the final manuscript.

**Declaration of generative AI and AI-assisted technologies in the writing process:** During the preparation of this work, the author used ChatGPT (OpenAI) to improve readability and language.

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