

**NURSING STUDENTS' PERCEIVED BENEFITS OF INFORMATICS
INTEGRATION TO THEIR CONFIDENCE IN
CLINICAL APPLICATION**

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MISAMIS UNIVERSITY

2025

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CLINICAL APPLICATION**

An Undergraduate Thesis

Presented to the Faculty of the
College of Nursing, Midwifery, and Radiologic Technology
Misamis University, Ozamiz City

In Partial Fulfillment of the
Requirements for the Degree
Bachelor of Science in Nursing

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ABSTRACT

As digital tools become more common in hospitals and clinical settings, nursing students are expected to learn how to use them effectively to provide safe and efficient patient care. Nursing informatics plays a vital role in helping students manage patient data, make better decisions, and communicate with other healthcare professionals. This study aimed to explore how nursing students perceive the benefits of integrating informatics into nursing and the relationship between these perceptions and students' confidence in applying informatics in clinical settings. It was guided by Benner's Novice-to-Expert Theory and Rogers' Diffusion of Innovations Theory, which explain how students develop competence over time and how they adopt new technologies. A quantitative, descriptive-correlational research design was used. The study was conducted at Misamis University and involved 147 third-year nursing students who had completed the Nursing Informatics course. Data were collected using a validated, researcher-developed questionnaire and analyzed using means, standard deviations, and Pearson's correlation. The findings showed that students rated informatics very highly. Students also reported high confidence in using informatics tools in their clinical practice. A significant, positive relationship was found between perceived benefits and students' level of confidence. The study recommends that nursing schools continue to assess and evaluate students' informatics competencies and perceptions throughout their academic careers. Additional research could examine other factors affecting students' competency and confidence in informatics.

Keywords: *clinical application, clinical confidence, health technology, nursing informatics, perceived benefits*

DEDICATION

The researchers dedicated this academic work to the people who supported us and made this journey possible. First and foremost, to Almighty God, who has been our source of strength, wisdom, and grace throughout this endeavor.

To the families – your patience, love, and sacrifices have inspired us to persevere through sleepless nights and demanding deadlines. Your encouragement served as the foundation of our motivation.

To the research adviser, Ms. Rojaida S. Tabanao, and the panel members, thank you for your persistent guidance, invaluable insights, and steady encouragement, which helped shape this study into what it is today. Your mentorship truly made a lasting impact.

To instructors, classmates, and friends – your support, collaboration, and understanding provided us with both professional growth and unforgettable memories. This work stands not only as an academic requirement but as a testament to teamwork, dedication, and shared success.

This research is also offered to all future nurses who will carry the torch of innovation and excellence in clinical practice.

The Researchers

ACKNOWLEDGEMENT

The researchers extend their most profound appreciation to everyone who contributed to the development of this study. First and foremost, heartfelt thanks go to God Almighty for providing strength, guidance, and clarity throughout this academic journey. Sincere gratitude is given to the families whose emotional, spiritual, and financial support served as a steady source of encouragement during challenging times.

Respect and acknowledgement to the research adviser, Ms. Rojaida S. Tabanao, and the panel members Mr. Sammy B. Taghoy, Ms. Maebil Marie B. Go, and Ms. Charry Jo P. Lian—for their valuable feedback, insights, and patience, all of which significantly shaped the outcome of this study. Acknowledgment is also due to the clinical instructors of the College of Nursing, Midwifery, and Radiologic Technology for their meaningful input and thoughtful evaluations throughout the research process.

Warm appreciation is given to Ms. Arnielyn M. Elmedulan, the statistician, for her professional and precise assistance in data analysis. Appreciation is likewise extended to classmates and peers for the cooperation, shared time, and exchange of ideas that contributed to the completion of this work.

Lastly, heartfelt thanks are given to the third-year nursing students who participated as respondents. Your honest contributions and willingness to take part made this study possible. This work stands as a testament to collaboration, resilience, and faith.

The Researchers

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INTRODUCTION

Background of the Study

The rapid advancement of healthcare technology has made it imperative for nursing education to integrate informatics into clinical training. Nursing informatics, which combines nursing science, computer science, and information technology, is essential for improving clinical decision-making, managing patient data, and enhancing overall healthcare quality (Saba & McCormick, 2020). The digital transformation in healthcare, including the widespread use of electronic health records (EHRs), telemedicine, and data analytics, requires nursing students to develop informatics competencies to meet the demands of modern clinical practice (Kleib & Nagle, 2021).

Informatics enables nursing students to develop better data management skills, which are essential in today's healthcare system. Effective data management allows nurses to track patient outcomes, identify trends, and implement evidence-based practices (Hussey et al., 2021). In clinical settings, data-driven decision-making is essential for ensuring patient safety and improving the quality of care. Nursing students who are exposed to informatics learn to collect, analyze, and interpret data, equipping them with the knowledge needed to improve patient outcomes and contribute to healthcare innovation (Kaya & Turan, 2020). Informatics competencies encompass both technical and cognitive elements; they serve as a foundation for clinical decision-making and evidence-based practice. Research indicates that familiarity with electronic health records (EHRs), data analytics, and clinical decision-support systems not only enhances students' technical proficiency but also boosts their confidence in clinical settings (Carroll et al., 2022). Confidence may support students during the transition from academic environments to hands-on patient

care, where quick and informed decisions are often required (Tabriz et al., 2024). Nursing informatics serves as the foundation for bridging traditional nursing care with emerging healthcare technologies. As hospitals and clinics adopt increasingly complex systems, nurses must be fluent in digital tools to avoid medical errors and deliver efficient care (Hess & Alper, 2024). Technology now touches every aspect of patient care—from admission to discharge—underscoring the importance of informatics training. Electronic documentation ensures legal accuracy, data consistency, and accountability in patient care workflows (Awad et al., 2021). Furthermore, with the rise of big data in healthcare, informatics enables nurses to participate in population health analytics and predictive modelling. These competencies enable nurses not only to care for individual patients but also to contribute to broader healthcare system planning (Awrahaman et al., 2022).

Informatics is crucial to modern nursing, but its integration into nursing education faces significant hurdles. Research shows that limited access to technology, insufficient informatics training, and even some instructors' reluctance to adopt new teaching methods are major roadblocks (Darvish et al., 2020). Many nursing students say they feel not well-equipped to use electronic health records (EHRs) and other essential informatics tools during their clinical rotations. This may affect patient care and their own learning (Hunter et al., 2022). When integration is achieved, informatics in nursing education has been associated with certain benefits. Students who are proficient in informatics can improve their clinical decision-making processes, reduce medical errors, and enhance communication within interdisciplinary teams (Wang et al., 2021). The use of informatics tools such as simulation software and digital patient records can enhance students' critical thinking skills and prepare them for real-world clinical scenarios (Lee & Park, 2020).

Perceived benefits also include improved ability to organize care plans and delegate tasks using digital systems that enhance coordination (Bhati et al., 2023). Moreover, information systems reduce service duplication by providing access to patient histories and current treatments, enabling students to learn evidence-based interventions more efficiently (Adeniyi et al., 2024). These systems promote standardization in care delivery, which enhances safety and consistency across different patient populations – students who recognize these advantages are more likely to engage in proactive learning and contribute meaningfully during clinical practice (Joseph A., 2023). Perceived benefits also extend to time management, as informatics tools can streamline documentation and reduce redundant tasks. When students see firsthand how digital systems reduce stress and increase efficiency, they are more motivated to master them (Aeon et al., 2023). When students feel supported by reliable systems, their performance improves under pressure, and by recognizing these advantages, they build not only competence but also a deeper appreciation of their professional role (Hoferichter et al., 2022).

The benefits of integrating informatics into nursing education have been linked to broader global health goals, such as patient safety and quality improvement. By mastering informatics, nursing students may contribute to these goals through accurate documentation, enhanced professional communication, and efficient resource management (Lim et al., 2022). These skills not only enhance individual competencies but also foster a culture of innovation and collaboration within healthcare systems. Integrating informatics into nursing education is a vital step in preparing students to navigate the complexities of modern healthcare. The findings of this study may offer valuable insights for nursing education and contribute to improving the overall quality of patient care delivered by future

healthcare professionals (Hebda, Hunter, & Czar, 2019). This digital literacy allows students to engage more meaningfully in quality assurance processes within clinical settings. It also increases the speed and accuracy of nursing interventions by reducing delays in information retrieval and communication (Macalindin et al., 2024). As nursing roles expand in leadership and advanced practice, informatics skills provide the tools to analyze population health data and implement change. Informatics also supports seamless care transitions by making records accessible across departments and institutions (Swider et al., 2023). Ultimately, informatics integration builds a strong foundation for lifelong learning, adaptability, and contribution to healthcare innovation. Its benefits go beyond convenience—they represent a shift toward safer, smarter, and more patient-centered nursing care (Mlambo et al., 2021)

Confidence in clinical application is a multifaceted concept encompassing technical expertise, decision-making skills, and self-assurance. Some studies have found that students who engage with informatics tools during their education report greater readiness to handle complex patient care situations (Zadvinskis et al., 2021). However, the extent to which students perceive the benefits of informatics integration as influencing their confidence levels has not been thoroughly examined. Despite its recognized importance, integrating informatics into nursing curricula poses challenges. Faculty shortages, limited technological infrastructure, and inconsistent curriculum standards have been cited as significant barriers (Ng et al., 2021). These obstacles can create disparities in students' access to informatics training, potentially impacting their readiness to apply these skills in real-world clinical scenarios (Kleib, Nagle, & Furlong, 2017). Confidence does not emerge solely from lectures or demonstrations—it is built through repeated practice, constructive

feedback, and supportive environments. When students are given regular opportunities to interact with digital tools, they begin to trust both the systems and their own ability to navigate them (Michael A., 2021). Using EHRs in lab settings gives students hands-on experience that mimics real clinical documentation. Confidence also stems from understanding the logic behind the systems—why specific steps are required, how alerts are triggered, and how information is stored (Kleib et al., 2021). In high-pressure environments such as emergency departments, confident students adapt better because they understand how to prioritize and access essential data; those lacking confidence may experience stress and confusion, which can compromise patient care and learning outcomes (Garcia et al., 2020).

This study aims to investigate nursing students' perceptions of the benefits of informatics integration and its impact on their confidence in clinical application. By examining these perceptions, the researchers sought to uncover the factors that influence students' readiness to leverage informatics in real-world practice. Such insights are crucial for educators and curriculum developers striving to equip future nurses with the competencies required in a technology-driven healthcare environment. Moreover, this research aligns with broader discussions on the transformative role of informatics in healthcare. Focusing on the unique perspectives of nursing students contributes to a growing body of knowledge on tailoring educational strategies to meet the needs of emerging healthcare professionals. Understanding these dynamics is essential to creating robust, adaptive nursing programs.

Although the use of nursing informatics in education is growing, little is known about how students themselves perceive its effects, particularly regarding its impact on

confidence in actual clinical situations (O'Connor & Larue, 2021). Few studies truly examine how informatics equips nursing students to feel more confident and adept at the bedside; most available studies focus on technical skills or curriculum design (Altmiller & Pepe, 2022). This disparity underscores the importance of hearing students' opinions and experiences to fully understand whether and how digital tools enable them to practice clinically.

Theoretical Framework

This study is anchored in Benner's Novice-to-Expert Theory (1982) and Rogers' Diffusion of Innovations Theory (1962) to explore the level of Nursing Students' perceived benefits from informatics integration and their confidence in its clinical application.

Patricia Benner's "Novice to Expert" model outlines the progression of nursing competence from the novice stage, where individuals rely heavily on rules and guidelines, to the expert stage, where nurses possess a deep, intuitive understanding and proficiency in patient care. According to Benner 1982, clinical experience is a key driver of professional growth. Nursing students start as novices, strictly adhering to protocols without fully understanding the broader context, and develop over time through real-world exposure and reflective practice. It established five levels of skill acquisition and development for the profile that a nurse experiences: beginner, advanced beginner, competent, efficient, and expert (Carchi et al., 2021).

In the context of this study, the integration of nursing informatics in the curriculum is seen as a supportive tool that can enhance students' clinical judgement and decision-making skills early in their learning. By using digital health technologies and data

management systems, nursing students are better able to understand clinical situations, which accelerates their progression from novice to more competent levels. The perceived benefits of informatics, such as improved efficiency, accuracy, and patient safety, contribute to greater confidence during clinical practice, supporting their growth along Benner's model (Kleib et al., 2024). The novice-to-expert theory also encourages educators to scaffold learning by gradually increasing the complexity of informatics tasks at early stages. Students benefit from structured experiences such as form-based documentation and simulations (Jin et al., 2021). As they move forward, they can be introduced to advanced features such as decision support systems, data analysis, and patient portals. Benner's theory validates the importance of integrating informatics early in clinical training to build foundational confidence. It emphasizes experiential learning, where technology becomes a natural extension of nursing care rather than a separate skill (Chen et al., 2023). Meanwhile, Everett Rogers' "Diffusion of Innovations" model provides a framework for understanding how new ideas, practices, and technologies are adopted over time within a social system. The theory categorizes adopters into innovators, early adopters, early majority, and laggards, and identifies factors that influence adoption: relative advantage, compatibility, complexity, and observability.

Applying this theory to nursing informatics, the extent to which students perceive informatics as beneficial and compatible with their learning and clinical needs will affect how readily they adopt and use these tools (Cohen et al., 2022). If students view informatics as easy to use, relevant, and advantageous in improving patient care and clinical decision-making, they are more likely to integrate it confidently into their practice. Their confidence grows as they witness positive outcomes from the use of informatics, reinforcing their

willingness to adopt new technologies in both academic and clinical environments (Ibrahim & Najjar, 2022).

By combining Benner's developmental competence with Rogers' emphasis on innovation adoption, this framework explains how nursing students' perceived benefits of informatics integration influence their confidence in clinical application. Informatics not only supports their skills development but also fosters a positive attitude toward the evolving technological landscape of healthcare.

Conceptual Framework

This research investigates the relationship between nursing students' Perceived Benefits of Informatics Integration and their Confidence in Clinical Application.

Perceived Benefits of Informatics Integration refers to the positive effects and advantages that nursing associates perceive from the use of informatics in their clinical practice. Informatics has the potential to enhance documentation accuracy, reduce human error, and provide real-time patient information to support clinical decision-making (Saba & McCormick, 2020). These tools, such as digital technologies, provide students with opportunities to learn to manage patients' data and collaborate effectively with multidisciplinary teams (McGowan et al., 2020). Informatics fosters evidence-based practice by offering access to up-to-date research and analytics, which can improve care strategies (Harries et al., 2023). Students who are introduced to informatics early in their training are more likely to understand its role in improving healthcare outcomes. Their perception is shaped by the accessibility, usability, and functionality of these systems in real-world practice (Chipps et al., 2022). A positive perception can influence how actively

and confidently students use these tools in clinical tasks. These benefits may also reduce students' anxiety about complex procedures by offering structured support (Vazquez-Parra et al., 2024). When informatics is viewed as a learning aid rather than a barrier, students tend to approach clinical experiences with greater readiness. This perspective helps bridge the gap between classroom theory and clinical practice (Timotheou et al., 2022). Understanding informatics gives students a sense of control over information and care processes. It fosters a sense of preparedness in navigating modern healthcare environments (Haleem et al., 2022).

Informatics integration improves the speed and accuracy of documentation, allowing students to manage time more effectively. Digital technologies enable faster, more informed decision-making (Nashwan et al., 2025). Decision support systems offer alerts and reminders that reinforce safe practices. As a result, students feel more competent in applying their knowledge during patient care. The efficiency of these tools reduces stress and enhances their overall clinical performance (Sutton et al., 2020).

Digital tools improve communication among healthcare teams, helping students practice proper reporting and documentation (Patrick F. 2023). Informatics systems promote continuity of care by providing clear, accessible records for all providers. Students gain confidence as they participate in digital handoffs, charting, and interprofessional collaborations (Alam et al., 2024). Exposure to informatics in clinical training settings prepares them for real-world hospital workflows. Ultimately, students who perceive informatics as beneficial are more likely to embrace it confidently during practice (Hare et al., 2022).

The incorporation of informatics in healthcare is rapidly expanding. Competency in informatics is essential for nurses across various clinical settings. With the increasing emphasis on nurses obtaining a Bachelor of Science in Nursing (BSN) degree, BSN completion programs play a critical role in addressing this need. Findings from this study suggest that while nurses entering BSN programs often perceive themselves as competent in informatics, they may still benefit from targeted instruction in specific areas, such as utilizing remote communication tools and conducting effective literature searches. Nursing informatics also promotes interdisciplinary collaboration, enabling students to work efficiently within teams and leverage shared technologies to enhance patient outcomes (Kennedy, 2019). Familiarity with digital communication tools enhances their ability to communicate with colleagues and patients (Saba & McCormick, 2020). However, students may face challenges, such as the steep learning curve associated with rapidly changing technologies and technical difficulties during training, which can disrupt their learning and confidence (Deering et al., 2022). Despite these challenges, students recognize that informatics can improve patient engagement and education, leading to better health outcomes while prompting meaningful discussions about privacy, security, and ethical considerations in data use (Fitzgerald et al., 2023). Nursing students view informatics as a component that supports their educational experience, prepares them for future challenges, and improves patient care, indicating the need for ongoing training and support in this evolving field (Timmons et al., 2019).

Research on nursing informatics highlights its potential in healthcare education and practice. Studies emphasize that integrating informatics into nursing curricula equips students with critical competencies for managing patient data, improving communication,

and making evidence-based decisions (Hübner et al., 2021). For example, recent research by Kleib and Nagle (2021) found that nursing students who engaged with informatics tools, such as electronic health records and simulation software, demonstrated enhanced clinical reasoning and decision-making skills. A study by Hunter et al. (2022) explored the impact of informatics education on nursing students' confidence, reporting improvements in their ability to navigate complex digital systems and collaborate in interdisciplinary teams. These findings underline the importance of structured informatics training in preparing nurses to meet the demands of an increasingly data-driven healthcare environment while also addressing challenges such as data privacy and ethical considerations.

Confidence in Clinical Application refers to the ability to apply technology in clinical settings, such as using an infusion pump, an electrocardiogram, a digital thermometer, and other digital technologies. Confidence in clinical application reflects a student's belief in their ability to perform nursing procedures safely and accurately. This includes tasks such as administering medications, monitoring vital signs, and assessing patients (Swift et al., 2022). Repeated practice and supervision help students develop hands-on competence. Successful experiences reinforce their sense of mastery and reduce hesitation. Over time, they begin to take care of themselves, take the initiative, and actively participate in patient care (Alrashidi et al., 2023). When students perceive informatics as beneficial to patient care, their confidence in using these tools is likely to increase, leading to more effective decision-making and collaboration in clinical environments (Kirkpatrick et al., 2022). However, inadequate training, resistance to technological change, and the complexity of evolving systems may negatively impact students' confidence, highlighting the need for comprehensive training programs and ongoing support to address these

challenges. By providing structured learning opportunities and access to necessary resources, educators can help strengthen students' confidence and competence in utilizing informatics tools in clinical practice (Darvish, Bahramnezhad, Keyhanian, & Navidhamidi, 2020).

The rapid uptake of technology is transforming how health professionals deliver care to patients and communities. While this shift offers opportunities to improve care, it also requires graduates to possess the knowledge, skills, and attitudes to effectively use available technologies and data. Despite this need, valid and comprehensive nursing informatics (NI) competencies remain insufficiently defined. Nursing leaders are increasingly advocating for the integration of NI into nursing curricula. These competencies include not only technical or computer-related skills but also the broader knowledge and attitudes essential for safe and effective nursing practice in a digital healthcare environment (Hunter, McGonigle, & Hebda, 2021).

Clinical informatics competence encompasses the ability to proficiently utilize digital health technology to enhance clinical decision-making and care coordination. In contemporary healthcare environments, such competencies not only improve nursing efficiency but also significantly contribute to positive patient outcomes by facilitating timely access to accurate and comprehensive health information (Nazeha et al., 2020).

Developing confidence in applying informatics tools during clinical exposure is essential for nursing students as they transition from academic settings to professional practice. Although nursing curricula increasingly integrate informatics training, student confidence levels vary, influenced by prior digital literacy, the quality and extent of instructional support, and opportunities for experiential learning (Alquraini, Alhashem,

Shah, & Chowdhury, 2020). Research indicates that lower levels of confidence may reduce students' engagement with informatics systems, which can impact their clinical performance and professional growth (Kinnunen, Peltonen, & Tuomikoski, 2019).

Confidence also involves making sound clinical judgements based on assessment findings and patient data. Students who can analyze situations and prioritize interventions feel more capable in clinical settings (Tabriz et al., 2024). Informatics tools further support this by offering timely data and guidelines. As they become more comfortable interpreting information, students make decisions with greater clarity and confidence. This leads to better outcomes and reinforces their trust in their clinical abilities (Javaid et al., 2024).

Competency in clinical informatics develops through academic preparation and clinical practice. Students who develop competence during their education can further enhance their use of informatics systems through ongoing professional development (Collins, Yen, Phillips, & Kennedy, 2017). This development underscores the importance of nurse educators and academic institutions reviewing curricula and conducting research to identify best practices aligned with the technological competencies required across various clinical settings (World Health Organization, 2023). Effective communication is another sign of clinical explaining procedures or collaborating with the healthcare team. Students who express themselves clearly and listen actively are more trusted by both peers and patients (Jorge O., 2024). As they receive feedback and validation, their professional identity begins to form. They start viewing themselves not just as learners but as future nurses. This strengthens their readiness to practice competently and responsibly and boosts their confidence in clinical settings (Schubert et al., 2023).

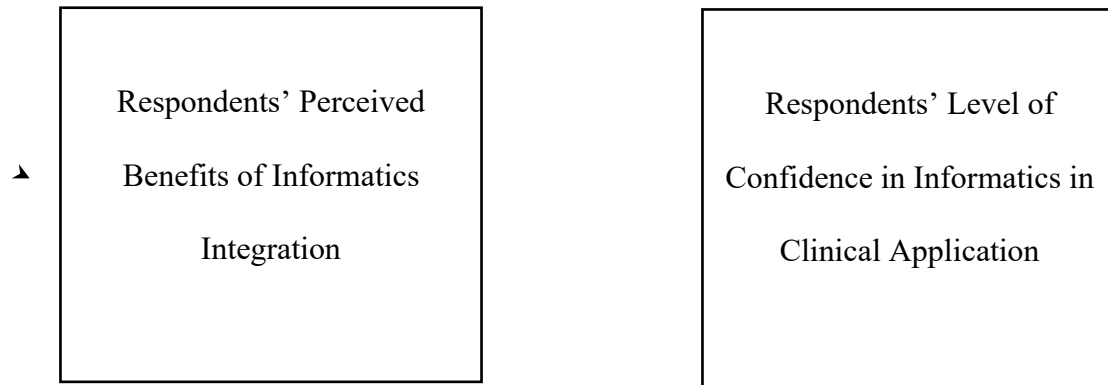


Figure 1. Schematic Presentation of the Study

Objectives of the Study

This study aimed to evaluate the perceived benefits of integrating informatics into clinical applications and to develop strategies to enhance its use in nursing curricula. The following are the specific objectives: (1) Determine the nursing students' level of perceived benefits of informatics integration; (2) Assess the nursing students' level of confidence in informatics in clinical application; (3) Explore the significant relationship between perceived benefits and confidence in clinical application.

It is hypothesized that there is no significant relationship between the perceived benefits of information integration and confidence in using informatics clinical application among nursing students.

Significance of the Study

This study is significant because it highlights the growing importance of informatics in developing competent, confident nursing professionals.

Nursing Students. This research was vital for nursing students, providing valuable insights into integrating informatics into their education and clinical practice. By understanding the benefits and challenges of informatics adoption, students were better able to appreciate how technology enhanced learning and clinical decision-making. The findings also helped students prepare for real-world challenges, enabling them to confidently apply informatics tools in clinical settings. Ultimately, this study aimed to enhance students' readiness for practice and their ability to deliver high-quality, technology-supported patient care.

Clinical Instructors. This research offered a deeper understanding of how students perceived and engaged with informatics in their education. The study's insights highlighted students' needs and the obstacles they faced with technology, enabling instructors to refine their teaching strategies and curriculum design. By effectively integrating informatics into nursing courses, instructors ensured that students were equipped to thrive in a healthcare environment increasingly reliant on technology.

Nursing Schools. This study provided valuable guidance for curriculum development and instructional improvement. Nursing schools were expected to continuously adapt to technological advancements in healthcare. The study highlighted how students' perceptions of informatics directly impacted their clinical confidence. These findings also had the potential to influence accreditation standards and institutional priorities. Schools that prioritized the integration of informatics produced nurses who were competent, confident, and aligned with current healthcare demands.

Policy Makers/Nursing Regulatory Bodies (CHED). This study carries significant implications for policymakers responsible for shaping nursing education and healthcare standards. It provided evidence that students' confidence in clinical settings was linked to their perception of informatics integration. By prioritizing informatics integration, policy leaders promoted safer, more efficient patient care. This study informed evidence-based decisions that impacted the future of nursing education and practice.

Future Researchers. This research laid a foundation for future studies on the integration of informatics in nursing education and practice. It identified key factors that influenced students' readiness to adopt informatics tools and highlighted potential barriers. Future researchers could build on these findings by exploring innovative solutions,

assessing the long-term impacts of informatics adoption, or examining additional factors that contributed to successful technology integration in healthcare. By deepening understanding of informatics' role in nursing and healthcare education, this study inspired further research that advanced nursing practice.

RESEARCH METHODOLOGY

This section outlines the methodology used in the study. This included the research design, research environment, participants, Sampling, data-gathering instruments, data-gathering procedure, mode of data analysis, and ethical considerations.

Design

This study employed a quantitative, descriptive-correlational research design. The descriptive-correlational design aims to explain the relationship between two or more variables without making causal claims. (Aithor, 2024). This design enabled systematic data collection and analysis to provide a detailed understanding of phenomena, contexts, or populations since the study investigates the relationship between nursing students' perceived benefits of informatics integration and their confidence in informatics in clinical application.

Environment

The study was conducted at a Higher Education Institution (HEI) in Ozamiz City, Misamis Occidental, Philippines, known for its forward-thinking and dynamic learning environment. This upholds the principle that education is a service to both God and the nation, with faith at its core. The research specifically focused on the College of Nursing and involved students who had already completed the Nursing Informatics course. These respondents, mostly in their third year, had been exposed to both intensive academic instruction and practical clinical experiences, equipping them with foundational knowledge and firsthand application of informatics in real healthcare settings.

Respondents of the Study/Unit of Analysis and Sampling Procedure

The respondents in this study were third-year nursing students currently enrolled in S.Y. 2024-2025 at a Higher Education Institution. To ensure a focused and relevant sample, specific selection criteria were applied. Respondents were selected based on the following criteria: (1) currently enrolled in S.Y. 2024-2025 as third-year nursing students, (2) completion of the Nursing Informatics course, and (3) willingness to participate in the study.

A systematic sampling method involves selecting respondents from the population of third-year nursing students enrolled in the S.Y. 2024-2025. Each section was surveyed to compile a comprehensive list of all third-year nursing students who took informatics during the summer class (not sure abt this), serving as the sampling frame. It was utilized to ensure that the sample was both representative and inclusive of key subgroups within the target population. The third-year nursing students were divided into strata based on relevant characteristics, such as academic sections or groups, clinical rotations, or other logical divisions determined by the institution's organizational structure. From each stratum, respondents were randomly selected to ensure proportional representation of each subgroup in the final sample.

The researchers computed the number of respondents from the total proportion, $N=235$, using the Raosoft sample size calculator with a 7.29% margin of error. The computed sample size is 147 respondents. This sample size was determined to provide adequate statistical power and reliability while capturing the diversity within the population. Systematic Sampling enabled more precise and reliable data collection,

ensuring the sample reflected the population's structure and avoided over- or underrepresentation of any subgroup.

This approach aimed to capture a comprehensive range of perspectives and experiences among third-year nursing students, offering insights into their perceived benefits of informatics integration and their confidence in applying informatics competencies in clinical practice.

Data Gathering Instruments

The researcher developed a questionnaire specifically for this study, consisting of two sections. Part A: Respondents' Perceived Benefits of Informatics Integration Questionnaire. This tool assesses nursing students' perceived benefits of integrating informatics into their clinical application and practice. Responses are measured on a 5-point Likert scale with the following options: 5 - Strongly Agree; 4 - Agree; 3 - Neutral; 2 - Disagree; 1 - Strongly Disagree. Part B: Respondents' Confidence in Clinical Application Questionnaire. This tool evaluates nursing students' confidence in applying informatics competencies in clinical practice. Responses are measured on a 5-point Likert scale with the following options: 5 - Very Confident, 4 - Confident, 3 - Neutral, 2 - Slightly Confident, 1 - Not Confident.

Data Gathering Procedure

The study used a self-administered questionnaire to collect data. The researchers first requested approval from the Dean of the College of Nursing. Once approval was

granted, the researchers coordinated with the College of Nursing to identify eligible third-year nursing students who were willing to participate in the study.

The purpose and objectives of the study were thoroughly explained to the respondents, and an informed consent form was provided for them to sign, confirming their voluntary participation. Consent was obtained by assuring respondents that their answers would remain confidential and their identities would remain anonymous. The researcher emphasized that the collected data would be used solely for this study and that the decision to participate would be respected without any pressure or coercion.

To facilitate data collection, the researchers distributed the questionnaire individually to the eligible students. The data collection process spanned three weeks to achieve the required number of responses based on the predetermined sample size.

Validity and Reliability of the Instrument

The questionnaire was evaluated and validated by a panel of nursing and research experts. It was pilot-tested for reliability with 20 third-year nursing students who were not included in the main study sample. The reliability statistics were computed using Cronbach's alpha (<0.7) for each variable, indicating that the questionnaire's set of statements was valid and reliable.

Scoring Guidelines

The first and second parts of the researcher-made questionnaire will be assessed based on the continuum as follows:

A. **Respondents' Perceived Benefits of Informatics Integration.** In assessing the perceived benefits of informatics integration in nursing education, the following scale was used:

B. Respondents' Confidence in Clinical Application.	Weight	Responses	Continuum	Interpre
In assessing the level of confidence in informatics integration in nursing education, the	5	Strongly Agree (SA)	4.21-5.0	Very H
	4	Agree (A)	3.41-4.20	Hig
	3	Neutral (N)	2.61-3.40	Fai
	2	Disagree (D)	1.81-2.60	Low
	1	Strongly Disagree (SD)	1.00-1.80	Very

following scale was used:

Weight	Responses	Continuum	Interpretation
5	Very Confident (VC)	4.21-5.0	Very High
4	Confident (C)	3.41-4.20	High
3	Neutral (N)	2.61-3.40	Fair
2	Slightly Confident (SC)	1.81-2.60	Low
1	Not Confident (NC)	1.00-1.80	Very Low

Mode of Analysis/Statistical Treatment

The questionnaire data will be tabulated, evaluated, analyzed, and interpreted using appropriate statistical tools.

The mean was used to identify the level of informatics competency among nursing students and the benefits of informatics integration as perceived by the respondents.

Standard Deviation is used to describe how dispersed the data are around the mean.

Pearson r - Correlation Coefficient used to examine the relationship between the benefits of informatics integration and the level of informatics competency among nursing students.

Ethical Consideration

This study adhered to the core ethical principles outlined in the Belmont Report—respect, beneficence, and justice—to protect the rights, safety, and well-being of all participants. After obtaining the Dean of the College of Nursing's approval, informed consent was obtained from all research participants. Respect was upheld by providing participants with a clear, detailed consent letter that outlined the study's purpose and procedures. They were given enough time to decide whether or not to participate. The researchers also emphasized that participation was entirely voluntary and that respondents had the right to withdraw from the study at any time without penalty. Beneficence was observed by ensuring that no harm would come to the participants during the study. The privacy and confidentiality of all respondents were strictly maintained. Identities were kept anonymous, and all collected data were used solely for the stated academic purpose. Justice was ensured by treating all participants fairly and equally. Systematic Sampling was used to give each third-year nursing student an equal opportunity to be included in the study.

All data were securely stored and protected throughout the research process and remained confidential until the completion or publication of the study.

RESULTS AND DISCUSSIONS

This chapter presents the findings and their interpretation in relation to the study's objectives. It focuses on determining the nursing students' perceived benefits of informatics integration, assessing their confidence in applying informatics in clinical settings, and exploring the relationship between these two variables. The results are discussed with reference to relevant literature to provide meaningful insights into the role of informatics in nursing education and clinical practice.

Respondents' Perceived Benefits of Informatics Integration

Table 1 outlines third-year nursing students' overall responses regarding the perceived benefits of using informatics integration in clinical practice. The data obtained a mean score of 4.07 (SD=0.70) for perceived benefits of informatics integration, which was classified as high. This reflected that student generally recognized the value of informatics in enhancing their clinical competencies and learning experience. The consistently high responses indicated that students viewed informatics as a key component in modern nursing education. Nursing Informatics was perceived as improving efficiency, promoting accurate documentation, and enhancing decision-making skills, all of which are vital to future clinical performance.

Furthermore, informatics encourages independent learning, better access to patient data, and effective communication within healthcare teams. This is additionally supported by the findings of McGowan et al. (2020) and Kleib & Nagle (2021), who asserted that exposure to informatics not only improved documentation and workflow but also prepared nursing students for real-world challenges. It empowered them to work more efficiently,

boosted their confidence in clinical judgments, and enabled them to become active participants in interdisciplinary healthcare.

In summary, this indicated that students were aware of the practical benefits of informatics and acknowledged its contribution to advancing healthcare services.

Table 1.

Respondents' Level of Perceived Benefits of Informatics Integration

n=147

Legend:	4.21-5.00 – Very High (VH); 3.41-4.20 – High (H); 2.61-3.40 – Fair (F)	Variable	Overall Mean	StDev	I
		Perceived Benefits of Informatics Integration	4.07	0.70	High
	1.81-2.60 – Low (L); 1.00-1.80 – Very Low (VL)				

Respondents' Level of Confidence in Clinical Application

Table 2 summarizes nursing students' level of confidence in applying informatics in clinical applications. With a mean score of 3.88 (SD=0.68), this is also interpreted as high. This indicated that students felt reasonably confident in utilizing informatics tools and systems in real-world clinical scenarios. Students expressed confidence in their ability to use medical technologies such as ECG machines, digital thermometers, and blood pressure monitors. These findings implied that students were not only learning informatics in theory but were also developing a practical and applied sense of its value in real clinical settings. Correspondingly, this aligned with Hunter et al. (2022), who found that consistent exposure to informatics tools and systems in nursing education significantly improved students' competence and comfort in using these tools during patient care.

Hence, this finding highlighted the importance of sustained informatics education to strengthen students' readiness for clinical practice.

Table 2.

Respondents' Level of Confidence in Clinical Application

n=147

Legend: 4.21-5.00 – Very High (VH); 3.41-4.20 – High (H); 2.61-3.40 – Fair (F)

1.81-2.60 – Low (L); 1.00-1.80 – Very Low (VL)

Variable	Overall Mean	StDev	I
Confidence in Clinical Application	3.88	0.68	Hig

Significance Relationship Between Perceived Benefits and Confidence in Clinical Application

Table 3 highlights the correlation between nursing students' perceptions of the benefits of informatics and their confidence in its clinical application. A Pearson correlation coefficient ($r = 0.682$) and a p-value of 0.000 indicated a highly significant, positive relationship between the two variables.

These results were consistent with previous research, such as Al Masoud et al. (2023), which demonstrated that positive perceptions of informatics were strongly associated with greater competence and confidence among nursing students. When students recognized the value and benefits of informatics in clinical settings, they were more likely to engage with and apply these tools effectively. This finding suggested that enhancing perceived benefits—through early exposure, practical training, and the integration of informatics content into nursing curricula—could be a strategic means of boosting students' confidence in using technology during clinical practice. As demonstrated by the significant correlation in this study ($r = 0.682$, $p = 0.000$), perception

and confidence were closely linked, and educational strategies that build both may better equip future nurses for the demands of technology-driven healthcare environments.

Table 3.

Significance Relationship Between Perceived Benefits and Confidence Using the Informatics Clinical Application

n=147

Ho: There is no significant relationship between the perceived benefits of informatics integration and confidence in using informatics clinical applications among nursing students.	Variable	Test Statistics		Remarks
		r-value	p-value	
	Perceived Benefits of Informatics and Confidence Using Informatics Clinical Application Among Nursing Students	0.682	0.000	Reject Null Hyp

Legend: 0.000-0.01 – Highly Significant, 0.02-0.05 – Significant, above 0.05 – Not Significant

CONCLUSIONS AND DISCUSSIONS

This section wraps up the study by providing conclusions, offering recommendations for students and institutions, and proposing areas for future research.

Conclusions

Based on the findings and statistical outcomes of this study, the researchers were able to conclude the following:

1. Perceived benefits of informatics integration have a mean score that is interpreted as high. This suggests that nursing students recognize informatics as an essential component of their education, contributing significantly to the delivery of safe, accurate, and efficient patient care.

2. Respondents' level of confidence in informatics clinical application has a mean score that is interpreted as high. This indicates that students feel adequately prepared to use informatics tools such as electronic health records, automated devices, and digital communication systems in clinical settings.

3. The relationship between perceived benefits and level of confidence in informatics clinical application has a computed value that is interpreted as a significant relationship. This confirms that students who view informatics as beneficial are more likely to express greater confidence in applying it during clinical practice.

Recommendations

Based on the findings of this study, the researchers made recommendations as follows:

1. Nursing schools should continue and enhance the integration of informatics across all year levels. This is to ensure that students develop strong competencies in using digital tools, electronic health records, and data management systems, which are essential in delivering safe, efficient, and evidence-based patient care in today's technology-driven healthcare environment.

2. Advanced Training is the significant positive correlation between perceived benefits and confidence; it is essential to promote positive attitudes toward nursing informatics through sustained educational efforts. This can be achieved by implementing continuous training programs, recognizing students' digital literacy achievements, and integrating real-world success stories in informatics into the curriculum. Showcasing examples of how informatics has improved patient outcomes can inspire nursing students to value and master these tools, ultimately enhancing their readiness for modern clinical environments.

3. Relationship of Variables is recommended to explore how confidence in nursing informatics develops post-graduation and during the transition into the workforce. Longitudinal studies that track nursing graduates can provide valuable insights into how early exposure to informatics education influences real-world performance, adaptability, and patient care outcomes. In addition, qualitative methods such as interviews and focus groups with newly licensed nurses can reveal how they apply informatics skills in high-

pressure clinical settings and identify the challenges they encounter in navigating evolving technologies.

4. Future Researchers should prioritize the continuous assessment and evaluation of students' informatics competencies and perceptions throughout their academic journey. Incorporating regular formative feedback, practical skill assessments, and reflective learning activities can enable educators to identify knowledge gaps and areas requiring targeted reinforcement. This approach ensures that students not only graduate with confidence in their informatics abilities but also demonstrate verified competence in applying informatics effectively in clinical practice.

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APPENDICES

Appendix A: Research Questionnaire

Perceived Benefits of Informatics Integration Questionnaire

Directions: Read each statement carefully and tap the number that best represents your response. Please indicate how strongly you agree or disagree with the following statements regarding informatics integration in your nursing education. Your answers will be kept confidential and will be used solely for research purposes. Please indicate your level of agreement with each statement by selecting the appropriate box using the scale below:

5 – Strongly Agree 3 – Neutral

4 – Agree 2 – Disagree

1 – Strongly Disagree

<i>I believe that informatics integration is...</i>					
1. A helpful tool which are easy to use and navigate.	☐ 5	☐ 4	☐ 3	☐ 2	
2. An approach that enhances my understanding of patient care.	☐ 5	☐ 4	☐ 3	☐ 2	
3. Helpful in supporting my decision-making for patient care.	☐ 5	☐ 4	☐ 3	☐ 2	
4. A key part of nursing education that increases my ability to provide safe and accurate care.	☐ 5	☐ 4	☐ 3	☐ 2	

Level of Confidence in Clinical Application of the Informatics Questionnaire Directions: Read each statement carefully and tap the number that best represents your response. Please indicate your level of confidence with the following statements	<i>I believe that informatics integration is...</i>					
	5. Relevant to the clinical tasks I will perform in the future.	☐ 5	☐ 4	☐ 3	☐ 2	
	6. An aid to have enough access to informatics tools in my nursing program.	☐ 5	☐ 4	☐ 3	☐ 2	
	7. Valuable in helping me manage patient data efficiently during clinical training.	☐ 5	☐ 4	☐ 3	☐ 2	
	8. Beneficial in improving my problem-solving abilities through the use of informatics tools.	☐ 5	☐ 4	☐ 3	☐ 2	
	9. A contributor to my ability to collaborate effectively with interdisciplinary healthcare teams.	☐ 5	☐ 4	☐ 3	☐ 2	
	10. A factor that makes my clinical learning experiences more interactive and engaging.	☐ 5	☐ 4	☐ 3	☐ 2	

regarding the application of informatics tools during clinical practice. Your answers will be kept confidential and will be used solely for research purposes. Please indicate your level of agreement with each statement by selecting the appropriate box using the scale below:

5 – Very Confident 3 – Neutral

4 – Confident 2 – Slightly Confident

1 – Not Confident

<i>In clinical application of informatics...</i>					
1. I am confident in following proper protocols when using ECG machines and other cardiac monitoring devices.	☐ 5	☐ 4	☐ 3	☐ 2	☐
2. I feel confident in operating automated medical equipment, such as digital sphygmomanometers and pulse oximeters, to enhance patient care.	☐ 5	☐ 4	☐ 3	☐ 2	☐
3. I feel confident in applying informatics tools to make clinical decisions	☐ 5	☐ 4	☐ 3	☐ 2	☐
4. I am confident in documenting and interpreting patient data collected from electronic medical devices.	☐ 5	☐ 4	☐ 3	☐ 2	☐
5. I am confident in working with interdisciplinary teams using informatics tools for better communication.	☐ 5	☐ 4	☐ 3	☐ 2	☐
6. I am confident in using basic electronic medical records (EMRs) commonly available in local hospitals.	☐ 5	☐ 4	☐ 3	☐ 2	☐

In clinical application of informatics...

7. I am confident in searching for patient information using digital hospital databases or patient logs.	☐ 5	☐ 4	☐ 3	☐ 2	☐
8. I am confident in maintaining patient confidentiality and data security while using digital tools in clinical practice.	☐ 5	☐ 4	☐ 3	☐ 2	☐
9. I feel confident in adapting to new healthcare technologies introduced during my clinical rotations.	☐ 5	☐ 4	☐ 3	☐ 2	☐
10. I feel confident in using digital thermometers, blood pressure monitors, and other electronic medical devices for patient assessment.	☐ 5	☐ 4	☐ 3	☐ 2	☐

Appendix B: Sample of Filled Out Questionnaire

Perceived Benefits of Informatics Integration

Questionnaire

Direction: Read each statement carefully and tap the number that best represents your response.

Please indicate how strongly you agree or disagree with the following statements regarding informatics integration in your nursing education. Your answers will be kept confidential and will be used solely for research purposes. Please indicate your level of agreement with each statement by selecting the appropriate box using the scale below:

5 – Strongly Agree 3 – Neutral

4 – Agree 2 – Disagree

1 – Strongly Disagree

<i>I believe that informatics integration is...</i>					
1. A useful tool which are easy to use and navigate.	☐	☒	☐	☐	☐
	5	4	3	2	1
2. An approach that enhances my understanding of patient care.	☐	☒	☐	☐	☐
	5	4	3	2	1
3. Helpful in supporting my decision-making for patient care.	☐	☒	☐	☐	☐
	5	4	3	2	1

Appendix B Con't.

4. A key part of nursing education that increases my ability to provide safe and accurate care.	☐	☒	☐	☐	☐
	5	4	3	2	1
5. Relevant to the clinical tasks I will perform in the future.	☐	☒	☐	☐	☐
	5	4	3	2	1
6. An aid to have enough access to informatics tools in my nursing program.	☐	☒	☐	☐	☐
	5	4	3	2	1
7. Valuable in helping me manage patient data efficiently during clinical training.	☐	☒	☐	☐	☐
	5	4	3	2	1
8. Beneficial in improving my problem-solving abilities through the use of informatics tools.	☐	☒	☐	☐	☐
	5	4	3	2	1
9. A contributor to my ability to collaborate effectively with interdisciplinary healthcare teams.	☐	☒	☐	☐	☐
	5	4	3	2	1
10. A factor that makes my clinical learning experiences more interactive and engaging.	☐	☒	☐	☐	☐
	5	4	3	2	1

Appendix B Con't.

Level of Confidence in Clinical Application of Informatics

Questionnaire

Direction: Read each statement carefully and tap the number that best represents your response.

Please indicate your level of confidence with the following statements regarding application of informatics tools during clinical practice. Your answers will be kept confidential and will be used solely for research purposes. Please indicate your level of agreement with each statement by selecting the appropriate box using the scale below:

5 – Very Confident 3 – Neutral

4 – Confident 2 – Slightly Confident

1 – Not Confident

<i>In clinical application of informatics...</i>					
1. I am confident in following proper protocols when using ECG machines and other cardiac monitoring devices.	☐ 5	☐ 4	☒ 3	☐ 2	☐ 1
2. I feel confident in operating automated medical equipment, such as digital sphygmomanometers and pulse oximeters, to enhance patient care.	☐ 5	☒ 4	☐ 3	☐ 2	☐ 1
3. I feel confident in applying informatics tools to make clinical decision	☐ 5	☐ 4	☒ 3	☐ 2	☐ 1

Appendix B Con't.

4. I am confident in documenting and interpreting patient data collected from electronic medical devices.	☐	☐	☒	☐	☐
	5	4	3	2	1
5. I feel confident in working with interdisciplinary teams using informatics tools for better communication.	☐	☐	☒	☐	☐
	5	4	3	2	1
6. I feel confident in using basic electronic medical records (EMRs) commonly available in local hospitals.	☐	☐	☐	☒	☐
	5	4	3	2	1
7. I am confident in searching for patient information using digital hospital databases or patient logs.	☐	☐	☒	☐	☐
	5	4	3	2	1
8. I am confident in maintaining patient confidentiality and data security while using digital tools in clinical practice.	☐	☐	☒	☐	☐
	5	4	3	2	1
9. I feel confident in adapting to new healthcare technologies introduced during my clinical rotations.	☐	☐	☒	☐	☐
	5	4	3	2	1
10. I feel confident in using digital thermometers, blood pressure monitors, and other electronic medical devices for patient assessment.	☐	☐	☒	☐	☐
	5	4	3	2	1

Appendix C: Sampling Computation

Appendix D: Informed Consent Form



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INFORMED CONSENT FORM (PORMA SA NASABTAN NGA PAGTUGOT)

Researcher/Investigator (Nagtuon): **Pinky Rose Laride, Reggie Vienest Leopoldo, Mae Ann Babes Lumingo, Diana Mae A. Pableo, March Gene Pasok**

Course: Bachelor of Science in Nursing

College: College of Nursing, Midwifery, and Radiologic Technology

Email / Contact Number: luningomacann@gmail.com or 09682839582

Thesis Title: Nursing Students Perceived Benefits Of Informatics Integration To Their Confidence In Clinical Application

PART I. INFORMATION SHEET	
Introduction (Pasiuna)	Good day! We are Pinky Rose Laride, Reggie Vienest Leopoldo, Mae Ann Babes Lumingo, Diana Mae A. Pableo, March Gene Pasok, the principal researcher/investigator of the study entitled "Nursing Students Perceived Benefits Of Informatics Integration To Their Confidence In Clinical Application." We are students under the program, Bachelor of Science in Nursing at Misamis University in Ozamiz City. We are to conduct the research with third year nursing students as our respondent. In this vein, I am respectfully seeking your voluntary participation, being qualified to give your informed consent to take part in this study. Before you decide whether to participate or not in this study, please read the succeeding information about the study and feel free to ask questions anytime should there be anything you do not understand or want to clarify. If you agree to answer the questionnaire, you will be asked to affix your name and signature on this form for which you will be given a copy. <i>(Maayong adlaw! Kami si Pinky Rose Laride, Reggie Vienest Leopoldo, Mae Ann Babes Lumingo, Diana Mae A. Pableo, March Gene Pasok, ang nagpahigayon sa pagtuon kabahin sa "Nursing Students Perceived Benefits Of Informatics Integration To Their Confidence In Clinical Application." Kami usa ka estudyante sa Misamis University sa Ozamis City. Kami nagapili kanimo isip partisipante nga maoy mutubag sa gikinahagnglang impormasyon niining gihimong pagtuon. Kami matinahurong naghangyo sa inyong bulontaryo nga pag-apil niini nga pagtuon. Gikinahanglan nga ikaw naa sa saktong edad ug naay kakayahan nga mohatag sa pagtugot aron makaapil niini nga pagtuon. Sa dili pa ka mohukom sa pag-apil niini nga pagtubag sa kwestyunaryo, palihug sa pagbasa sa mga impormasyon sa ubos ug gawasnon ka nga makapangutana kon adunay wala nimo nasabtan o gusto nimong iklaro. Kung motugot ka sa pagahimoon nga interview, papirmahon ka niini nga porma ug tagaan usab ka ug imong kaugalingong kopya.)</i>
Purpose (Katuyoan)	The purpose of this study is to evaluate the perceived benefits and barriers of integrating informatics into clinical nursing education, with the goal of developing effective strategies to enhance its use within the nursing curriculum. Specifically, the study aims to understand nursing students' perceptions of informatics, assess their confidence in applying informatics in clinical settings, and examine the relationship between these perceptions and their confidence levels. Through this, the study seeks to support the development of a more technology-competent nursing workforce, inform curriculum improvements, and provide insights that benefit educators, practitioners, healthcare institutions, and future researchers. <i>(Ang tumong niining pagtuon mao ang pagsusi sa gituohang mga benepisyo ug mga babag sa integrasyon sa informatics sa klinikal nga edukasyon sa mga estudyanteng nars, aron makabuo og epektibong mga estratehiya nga makapalambo sa paggamit sa informatics sa kurikulum sa nursing. Partikular, ang pagtuon nagtumong sa pagsabot sa panan-aw sa mga estudyante bahin sa informatics, pagtasa sa ilang kumpiyansa sa pag-aplikar nini sa klinikal nga kahimtang, ug pagsusi sa kalambigitan tali sa ilang panan-aw ug kumpiyansa sa paggamit sa informatics. Pinaagi niini, ang pagtuon nagtinguha sa pagpalambo sa teknolohikal nga kahibalo sa mga estudyanteng nars, paghatag og impormasyon alang sa kalambuan sa kurikulum, ug paghatag og kasayuran nga mapuslan sa mga magtutudlo, praktisyoner, institusyon sa healthcare, ug mga umaabot nga mananaliksik.)</i>



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Type of Research Intervention (Matang sa Interbensyon sa Pagtuon)	This study will be conducted through the use of questionnaires. The gathering of data will be conducted in person. (Kining pagtuon pagabuhaton pinaagi sa kwestyunaryo. Personal ang pagkuha sa datos.)
Selection of Participants (Pagpili sa mga Partisipante)	The selection of the participants in this study is based on specific inclusion criteria. The respondents will be nursing students, chosen using Raosoft sampling with a 95% confidence level and a 7.29% margin of error, resulting in a computed sample size of 147 participants. Only those nursing students who have experienced clinical duties and have been exposed to informatics-integrated learning environments will be eligible. Those with multiple clinical rotations will be counted as a single respondent. (Ang pagpili sa mga partisipante niini nga pagtuon gibase sa tinino nga inclusion criteria. Ang mga partisipante mao ang mga estudyanteng nursing nga napili gamit ang Raosoft sampling nga adunay 95% nga level of confidence ug 7.29% nga margin of error, nga nakahatag og sample size nga 147 ka partisipante. Ilang apilan lamang kadtong mga estudyante nga nakasinati og klinikal nga katungdanan ug natudloan gamit ang informatics-integrated nga palibot sa pagtungha. Ang mga estudyante nga adunay daghang klinikal nga rotations ihapong usa ka respondent.)
Voluntary Participation (Boluntaryo nga Partisipasyon)	Your participation has to be voluntary and will not affect your situation or status in any way, including your relationship with the researcher. Thus, you are free to decide if you will take part or not. If you decide to participate, you are free not to answer any question(s) if you choose not to, and you are free to withdraw or terminate participation at any stage of the study, without the need to give any reason. You will not be penalized in case of termination of participation. (Boluntaryo ang imong pag-apil ug kini dili makaapekto sa imong sitwasyon o estado apil na imong relasyon sa nagtuon. Gawasnon ka nga modesisyon kung kung moapil ka niini nga pagtoon o dili. Kung mo-desisyon ka nga moapil, gawasnon ka nga dili motubag sa bisan asa nga pangutana nga dili nimo gusto nga tubagon.)
Procedure (Pamaagi)	The respondents will be given ample time to read the items in the questionnaires. The retrieval of the answered questionnaire will be according to the schedule agreed upon. The researcher will personally retrieve the questionnaires. Tallying of the research data will follow. Aside from answering the questionnaires, you may be asked to provide a demographic profile as deemed necessary for the study. The personal information which includes name, age, civil status, (etc.) will be utilized in the discussion of the findings of the study. The information and data provided by you as a respondent will be utilized for this study alone and will be treated with utmost confidentiality. (Ang mga partisipante pagahatagan og igong panahon sa pag-apil sa pag tubag sa kwestyunaryo. Ang pag tubag sa kwestyunaryo pwedeng himoon kausa nga higayon o sa makadaghan depende sa panginanghalanon. Ang mga impormasyon ug datos nga nakuha gikan kanimo isip ka partisipante gamiton lamang niining research og hatagan og tumang pag-amping nga dili mabutyag.)
Duration (Gidugayon)	The gathering of data through the survey will last for 10-15 minutes. (Ang pagkuha sa datos pinaagi sa interview mokabat ngadto sa 10 minutos hangtod 15 minutos.)
Risks and Discomforts (Risiko ug Kahasol)	The respondents will be protected from any physical, social, or economic risks throughout the conduct of this study. If any of the questions in the survey become too personal or cause discomfort, you may opt to decline answering specific items or withdraw your participation entirely at any point you choose. Your autonomy is respected, and your well-being is a priority. (Ang mga partisipante protektado gikan sa pisikal, sosyal, o ekonomikanhong risiko sulod sa pagpatuman sa pagtuon. Kung adunay mga pangutana nga imong gibati nga personal



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	<i>ra kaayo o makahatag og kakulba, ikaw mamahimong mobalitbad sa pagtubag sa pipila o tanang mga pangutana ug moatras sa imong pag-apil bisan kanus-a nga imong gusto. Gihatagan og bilihon nga pagtagad ang imong kagawasan ug kuayohan.)</i>
Benefits (Kaayohan)	This study will enable you to shed light on or provide understanding about the perceived benefits of informatics integration in relation to nursing students' confidence in clinical application. Your responses are highly valued as they hold significance in shaping nursing education, particularly in enhancing clinical preparedness and technological competence. <i>(Kini nga pagtuon makapahimo kanimo sa paghatag og katin-awan o pagpasahot kabahin sa mga benepisyo nga nakita sa mga estudyanteng nursing sa integrasyon sa informatics ug ang ilang kumpiyansa sa klinikal nga aplikasyon. Ang imong mga tubag hatagan og dakong bili nga giisip nga importante sa kalamboan sa edukasyon sa nursing, ilabi na sa pagpauswag sa klinikal nga kasinatian ug teknolohikal nga kahanas.)</i>
Reimbursements (Hulip nga bayad)	There will be no monetary expenses or costs on your part as a respondent, nor any monetary compensation for your participation in this study. <i>(Wala kay magasto sa imong pag-apil niini nga pagtuon ug dili usab ka bayaran ug kwarta sa imong pag-apil niini nga pagtuon.)</i>
Confidentiality of Data (Pag-amping sa Datos)	Only the researcher will have access to the information and responses of the participants. The personal identifying information of the respondents will only be used for research analysis and will be treated with the utmost confidentiality. During the study, all data will be kept in a locked, secure filing cabinet, of which will be discarded 6 months after the publication of the results. <i>(Ang nagtuon lamang ang makakita sa mga impormasyon ug tubag sa respondents. Ang mga datos nga makuha i-analisa ug hatagan og tumang pag-amping aron dili ibutyag. Sa panahon sa pagtuon, ipahimutang sa usa ka selyudong filing cabinet ang tanang datos nga pagagub-on human sa 6 kabulan gikan sa pag-publish sa resulta.)</i>
Sharing of Findings (Pagpaambit sa Nakaplagan)	The results of this study will be presented during the thesis/dissertation final defense of the researcher. Also, the research findings may be shared through publications and conferences with the assurance that the identities of the respondents will remain confidential. A printed copy of the completed study will be provided to the participants. <i>(Ang mga resulta niini nga pagtuon ipresenta sa panahon sa final defense sa thesis/dissertation sa nagtuon. Ang mga nakaplagan sa pagtuon posible nga ipaambit pinaagi sa mga publications ug conferences nga adunay kapanigurohan nga dili mabutyag ang pagkatawo sa mga partisipante. Pagahatagan og isa ka giimprinta nga kopya sa kumpleto nga pagtuon ang mga partisipante.)</i>
Rights to Refuse or Withdraw (Katungod sa Pagpalibabad o Pag-undang)	You are free to withdraw or terminate participation at any stage of the study, without the need to give any reason. You will not be penalized in case of termination of participation. <i>(Gawasnon ka nga moatras or moundang sa pag-apil sa bisan asa nga punto sa pagtuon nga dili na magkinahanglan pa ug rason. Dili ka ipamulta sa pag-atras o pag-undang.)</i>



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mahimong respondent sa nining pagtuon.)

Print Name of Respondent (Ngalan sa Partisipante): _____

Signature of Respondent (Pirma sa Partisipante): _____

Date: [MM/DD/YYYY] _____

If Illiterate (Kung dili makasulat ug makabasa)

If the respondent is illiterate, a witness who is literate will sign. The respondent will choose him/ her and who is without connection with the researcher or the research group to attest this undertaking. The respondent will affix his thumb print.

[Kung ang participant kay dili makabasa o makasulat, mopirma ang usa ka makabasa ug makasulat nga testigo. Ang respondent ang mopili kaniya nga walay koneksyon sa nagtuon o sa iyang grupo para mopamatuod sa gimbuhaton. Ang respondent mobutang sa iyang tamla (thumb print)].

Name and Signature of the Witness
(Ngalan ug Pirma sa Testigo)

Thumb mark

Appendix E: Approved Letter of Consent



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CERTIFIED: ISO 21001:2018 Educational Organizations Management System by DNV
ACCREDITED: Philippine Association of Colleges and Universities Commission on Accreditation (PACUOCA)
GRANTED: AUTONOMOUS STATUS by the Commission on Higher Education (CHED)

April 29, 2021

DR. SAMMY B. TAGHOY
Dean, College of Nursing, Midwifery and Radiologic Technology
Misamis University

Dear Dr. Taghoy,

Good day!

We are 3rd year students of Misamis University, Ozamiz City taking up Bachelor of Science in Nursing and are currently working on research study titled "Nursing Students' Perceived Benefits of Informatics Integration in Relation to Their Confidence in Clinical Application." This study seeks to examine the impact of informatics integration on the confidence of nursing students in the clinical setting. We believe that findings from this research will offer valuable insights into how informatics can enhance nursing education and practice.

In light of this, we respectfully request your kind approval to conduct the study in the College of Nursing, Midwifery and Radiologic Technology.

We will ensure that we will adhere to all university policies and ethical standards.

Rest assured that all information derived herein will be treated with utmost confidentiality.

Thank you very much and God bless.

Sincerely yours,

PINKY ROSE T. LARIDE

REGGIE VENEST LEOPOLDO

MAE ANN TABES P. LUMINGO

DIANA MAE A. PABLEO

MARCH GENAB PASOK
Researchers

Noted by:

MS/ROJaida S. TABANAO
Research Adviser

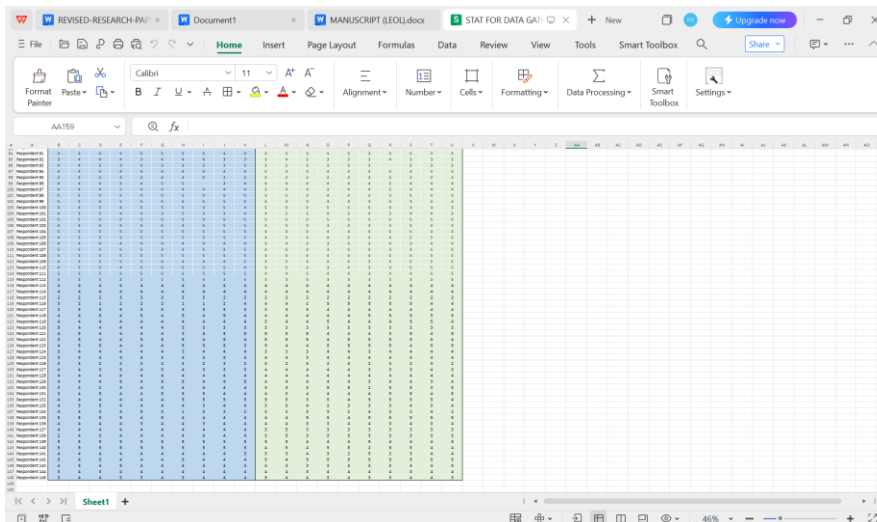
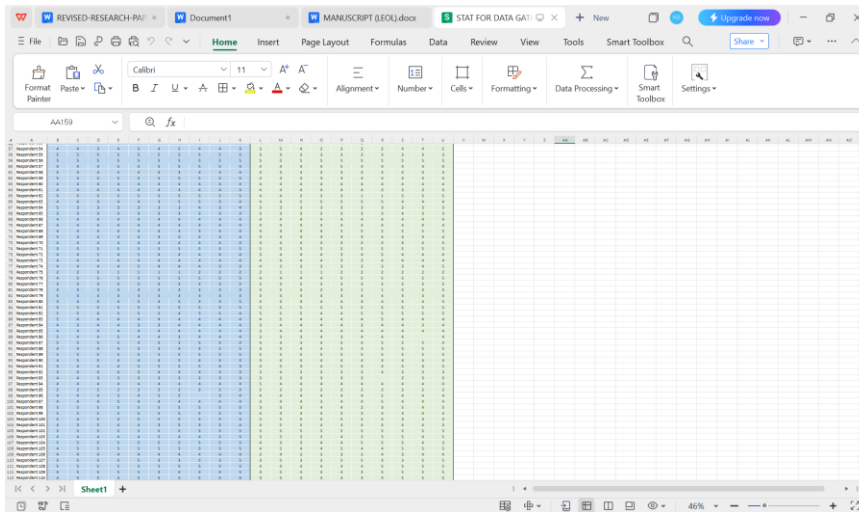
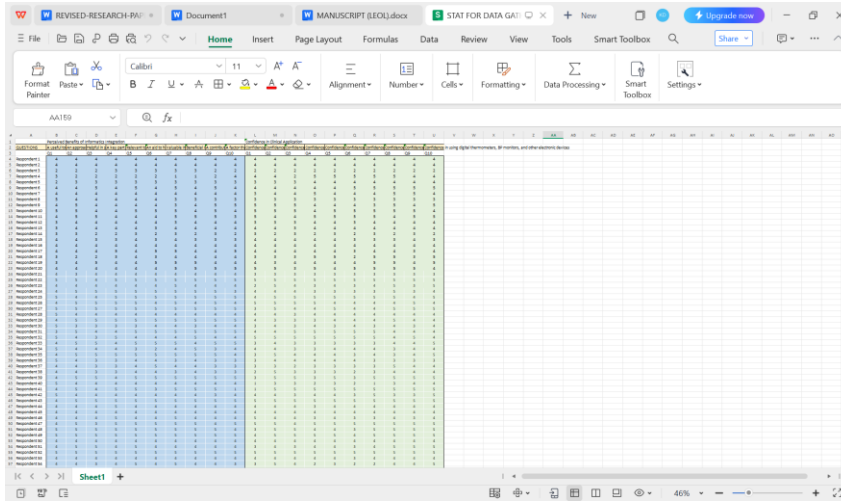
Approved by:

DR. SAMMY B. TAGHOY
Dean, College of Nursing, Midwifery and Radiologic Technology

Appendix F: Documentation



Appendix G: Statistical Computation



Appendix H: Grammarly Report and Turnitin Results

Grammarly Report:

LARIDE 1

by Misamis University

General metrics

32,895	4,644	283	18 min 34 sec	35 min 43 sec
characters	words	sentences	reading time	speaking time

Writing Issues

✓ No issues found

Plagiarism

This text hasn't been checked for plagiarism

LARIDE 2

by Misamis University

General metrics

44,581	5,881	658	23 min 31 sec	45 min 14 sec
characters	words	sentences	reading time	speaking time

Writing Issues

✓ No issues found

Plagiarism

This text hasn't been checked for plagiarism

Turnitin Results

26% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography

Match Groups

-  **141 Not Cited or Quoted** 22%
Matches with neither in-text citation nor quotation marks
-  **31 Missing Quotations** 4%
Matches that are still very similar to source material
-  **0 Missing Citation** 0%
Matches that have quotation marks, but no in-text citation
-  **0 Cited and Quoted** 0%
Matches with in-text citation present, but no quotation marks

Top Sources

- 12%  Internet sources
- 8%  Publications
- 23%  Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

No suspicious text manipulations found.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

CURRICULUM VITAE

PERSONAL DATA

Name:	Laride, Pinky Rose T.
Date of Birth:	April 05 , 2004
Place of Birth:	Baroy Provincial Hospital
Home Address:	Pinpin , Tubod Lanao del Norte
Gender:	Female
Civil Status:	Single
Contact No.:	09489207924
Email:	laridepinkyrose@gmail.com



EDUCATIONAL BACKGROUND

Elementary:	Pinpin Elementary School
Secondary:	Teofila C. Quibranza National High School Pualas, Tubod Lanao del Norte, Philippines
Senior High School:	Teofila C. Quibranza National High School Pualas, Tubod Lanao del Norte, Philippines
College:	Misamis University H.T. Feliciano St. Aguada, Ozamiz City, Philippines

CURRICULUM VITAE

PERSONAL DATA

Name:	Leopoldo, Reggie Vienest
Date of Birth:	June 20, 2003
Place of Birth:	Cagayan De Oro Hospital
Home Address:	P-4, Basirang, Tudela, Mis Occidental
Gender:	Female
Civil Status:	Single
Contact No.:	09639259350
Email:	reggievienestleopoldo@gmail.com



EDUCATIONAL BACKGROUND

Elementary:	Iligan City Central School Mahayahay, Iligan City, Lanao del Norte, Philippines
Secondary:	Tudela National Comprehensive High School P-4, Basirang, Tudela, Misamis Occidental, Philippines
Senior High School:	Tudela National Comprehensive High School Centru Napu, Tudela, Misamis Occidental, Philippines
College:	Misamis University H.T. Feliciano St. Aguada, Ozamiz City, Philippines

CURRICULUM VITAE

PERSONAL DATA

Name: Lumingo, Mae Ann Babes P.
Date of Birth: March 23, 2004
Place of Birth: Mahayag, Zamboanga del Sur
Home Address: Molave, Zamboanga del Sur
Gender: Female
Civil Status: Single
Contact No.: 09682839582
Email: mae.lumingo0123@gmail.com



EDUCATIONAL BACKGROUND

Elementary: Potter's Young Friends Learning Center
Secondary: Molave Vocational Technical School
Senior High School: Molave Vocational Technical School
College: Misamis University
H.T. Feliciano St. Aguada, Ozamiz City,
Philippines

CURRICULUM VITAE

PERSONAL DATA

Name:	Pableo, Diana Mae A.
Date of Birth:	April 11, 2004
Place of Birth:	Baroy Provincial Hospital
Home Address:	P-2, Poblacion, Sapad, Lanao del Norte
Gender:	Female
Civil Status:	Single
Contact No.:	09615810670
Email:	dianamaepableo112@gmail.com



EDUCATIONAL BACKGROUND

Elementary:	Sapad Integrated School Poblacion, Sapad, Lanao del Norte, Philippines
Secondary:	Bible Baptist Christian Academy Maranding, Lala, Lanao del Norte, Philippines
Senior High School:	Bible Baptist Christian Academy Maranding, Lala, Lanao del Norte, Philippines
College:	Misamis University H.T. Feliciano St. Aguada, Ozamiz City

CURRICULUM VITAE

PERSONAL DATA

Name: Pasok, March Gene B.
Date of Birth: March 21, 2004
Place of Birth: MHARS-MC
Home Address: Manga, Tangub City, Miss Occidental
Gender: Male
Civil Status: Single
Contact No.: 09308602443
Email: marchgenpasok@gmailcom



EDUCATIONAL BACKGROUND

Elementary: St.Michael's High School
Tangub City, Misamis Occidental, Philippines
Secondary: St.Michael's High School
Tangub City, Misamis Occidental, Philippines
Senior High School: St.Michael's High School
Tangub City, Misamis Occidental, Philippines
College: Misamis University
H.T. Feliciano St. Aguada, Ozamiz City, Philippines