

**THE INFLUENCE OF NURSING STUDENTS' LEVEL OF KNOWLEDGE
AND READINESS ON SELF - EFFICACY ON DISASTER RESPONSE**

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**THE INFLUENCE OF NURSING STUDENTS' LEVEL OF KNOWLEDGE AND
READINESS ON SELF - EFFICACY IN DISASTER RESPONSE**

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Presented to the Faculty of the College of Nursing,
Midwifery and Radiologic Technology
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In Partial Fulfillment of the
Requirement for the Degree
Bachelor of Science in Nursing

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CERTIFICATE OF PANEL APPROVAL

In partial fulfillment of the requirements for the Bachelor of Science in Nursing degree, this research study entitled, **“THE INFLUENCE OF NURSING STUDENTS’ LEVEL OF KNOWLEDGE AND READINESS ON SELF - EFFICACY IN DISASTER RESPONSE”**, prepared and submitted by Serencio, Joshua R., Sumampong, Star O., has been examined and recommended for acceptance and approval.

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ABSTRACT

The Philippines, highly susceptible to geological and hydrometeorological disasters, demands proficient medical support for effective disaster response. This study assesses the disaster response capabilities of fourth-year nursing students by evaluating their factual and procedural knowledge, readiness in assessment, planning, and implementation, and self-efficacy as caregivers, educators, and case managers, addressing a critical gap in nursing education. It also examines the relationships between knowledge, readiness, and self-efficacy, while identifying key predictors of self-efficacy to enhance nursing education for disaster response. Anchored in Benner's Novice to Expert Theory, Roy's Adaptation Model, and Jennings-Sanders Disaster Management Model. Using a quantitative descriptive-correlational design, data were gathered from 118 fourth-year nursing students at a private university in Northern Mindanao, Philippines, during the 2024-2025 academic year, selected via stratified random sampling. Validated researcher-made questionnaires assessed knowledge, readiness, and self-efficacy. Data analysis utilized mean, standard deviation, Pearson correlation, and regression analysis. Results indicate very high knowledge and self-efficacy, with high readiness. Significant positive correlations exist between knowledge, readiness, and self-efficacy, with procedural knowledge and implementation as key predictors. The findings emphasize the need for hands-on training and simulations in nursing curricula to enhance readiness and confidence, supporting policy reforms for mandatory disaster education. Practical training and structured disaster education into nursing curricula to enhance students' preparedness and confidence.

Keywords: *case manager, disaster response, knowledge, readiness, self-efficacy*

DEDICATION

This study is more than deserving of a dedicated acknowledgement to express our profound gratitude and heartfelt appreciation to the individuals who have played important roles in its completion.

The Almighty God, whose boundless grace and divine guidance illuminated our path, provided strength and wisdom to overcome challenges and complete this study.

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The Researchers

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INTRODUCTION

Background of the Study

Disasters, as defined by the United Nations, are severe disruptions to a society or community, causing widespread loss and impacts that affect human life, property, and daily routines. These events, whether natural or human-induced, are often beyond human control and result in significant consequences for health, economies, and environments (Shuk Yu Hung et al., 2021). According to the Emergency Events Database (EM-DAT) (2023), 399 natural disasters occurred globally in 2023, affecting 93.1 million people and causing 86,473 fatalities, with 73.4% of these incidents occurring in Asian countries. The Philippines, located in a high-risk geographical zone, is particularly vulnerable to geological and hydrometeorological disasters, including typhoons, earthquakes, volcanic eruptions, floods, landslides, tsunamis, and storm surges (Cabilao-Valencia et al., 2019). With an average of 20 typhoons annually, five of which are destructive, and its position along the Pacific Ring of Fire, the country faces frequent and severe natural calamities (Asian Disaster Reduction Center, 2019; Lapada, 2022). This vulnerability underscores the critical need for well-prepared healthcare professionals, particularly nurses, who play a pivotal role in disaster response. This study focuses on assessing nursing students' knowledge, readiness, and self-efficacy in disaster response to inform the development of effective disaster nursing curricula.

Knowledge is a foundational element in preparing nursing students for effective disaster response. It encompasses both factual knowledge, which includes understanding disaster types, their impacts, and relevant policies, and procedural knowledge, which

involves the practical application of skills such as triage, first aid, and emergency protocols (Anderson & Krathwohl, 2001). Factual knowledge equips students with the theoretical foundation necessary for recognizing disaster risks and understanding response frameworks, while procedural knowledge enables them to execute practical interventions in high-pressure scenarios. Studies indicate that nursing students with robust knowledge of disaster management principles demonstrate improved decision-making and response effectiveness during simulations (Kim et al., 2022). However, gaps in integrating theoretical and practical knowledge persist, particularly in translating classroom learning into real-world applications (Al Harthi et al., 2021). Evaluating nursing students' knowledge levels is essential to ensure they are equipped with the cognitive and practical tools needed to address the complexities of disaster response, thereby enhancing their ability to contribute meaningfully to disaster management efforts.

Readiness refers to the preparedness of nursing students to respond effectively to disaster scenarios, encompassing the phases of assessment, planning, and implementation. Assessment involves evaluating risks, resources, and environmental factors to identify strengths and areas for improvement. Planning requires developing strategic protocols and fostering collaboration with stakeholders, while implementation entails executing these plans through training and real-world simulations (Jennings-Sanders, 2004). Research highlights that readiness is critical for minimizing the negative impacts of disasters, with students who participate in structured disaster training showing higher preparedness and confidence (Putra et al., 2021). In the Philippines, where disasters are frequent, readiness is particularly crucial for nursing students, who must be prepared to adapt to chaotic and resource-scarce environments. However, variability in readiness

levels, particularly in the implementation phase, suggests a need for enhanced practical training to bridge the gap between theoretical preparation and real-world application (Delgadillo et al., 2021). Assessing readiness ensures that nursing students are not only theoretically prepared but also practically equipped to handle disaster scenarios effectively.

Self-efficacy, defined as nursing students' belief in their ability to perform disaster response roles, is a critical determinant of their effectiveness in crises. It influences their confidence in assuming roles such as caregiver, educator, and case manager, which are essential for delivering direct care, educating communities, and coordinating resources during disasters (Jennings-Sanders, 2004). High self-efficacy is associated with better performance under stress and improved patient outcomes (Qiu et al., 2023). Studies show that disaster education and simulation-based training significantly enhance students' self-efficacy, particularly in roles requiring leadership and communication (Kim et al., 2022; Delgadillo et al., 2021). However, challenges remain in fostering self-efficacy for the caregiver role, where rapid clinical decision-making under pressure is required (Al Harthi et al., 2021). Understanding the factors that influence self-efficacy is vital for developing targeted educational interventions that boost students' confidence and competence in disaster response, ultimately strengthening the healthcare workforce's capacity to address emergencies.

Despite the growing body of research on disaster nursing, there remains a critical gap in understanding the interplay between knowledge, readiness, and self-efficacy among nursing students, particularly in the Philippine context. Existing studies have explored individual aspects, such as knowledge or readiness, but few have

comprehensively examined the relationships and collective impact on self-efficacy (Aurelio et al., 2022; Erkin et al., 2023). This study addresses these gaps by investigating how nursing students' levels of knowledge and readiness influence their self-efficacy in disaster response within a private higher education institution in Northern Mindanao.

The purpose of the study was to determine the level of knowledge and readiness on disaster response among nursing students, and its influence on self-efficacy in a private higher institution located in Northern Mindanao. Specifically, it aimed to identify the relationships between the level of knowledge and the level of readiness for disaster response. Conversely, it assesses the relationships between knowledge, readiness, and disaster response, as well as the self-efficacy among nursing students. In line with this, it identifies the predictors of self-efficacy in disaster response. By identifying these relationships and predictors of self-efficacy, the study aims to provide evidence-based insights to guide academic institutions and policymakers in designing curricula that enhance nursing students' preparedness for disaster scenarios. The findings will contribute to strengthening disaster nursing education, ensuring that future nurses are equipped to respond effectively to the Philippines' frequent and severe disasters, ultimately improving community health outcomes.

Theoretical Framework

This study is anchored in Novice to Expert (1984) by Patricia Benner, Adaptation Model (1991) by Sister Calista Roy, and Jennings Disaster Nursing Management Model (2004) developed by Andrea Jennings-Sanders. These theories provide a robust foundation to explore and examine the relationships among nursing students' knowledge, readiness, and self-efficacy in disaster response.

Patricia Benner's Novice to Expert Theory, introduced in 1984, adapts the Dreyfus Model of Skill Acquisition to nursing practice, delineating a five-stage continuum of skill development: novice, advanced beginner, competent, proficient, and expert (Benner, 1984). The theory suggests that nurses advance through various stages of development by engaging in experiential learning and reflecting on their experiences. This progression goes beyond simply acquiring technical skills to include both practical and theoretical knowledge. Benner differentiates between "knowing how," which refers to the practical knowledge gained through experience, and "knowing that," which is the theoretical knowledge that can be articulated. According to Benner, acquiring knowledge involves reflecting on situational experiences, where practice informs theory and vice versa, ultimately enhancing nursing competence.

In this study, Benner's theory relates to the variable of knowledge, particularly factual and procedural knowledge, as it emphasizes the importance of both theoretical understanding and practical application in disaster response. Factual knowledge aligns with "knowing that," encompassing nursing students' understanding of disaster-related concepts, such as types of disasters and relevant policies. Procedural knowledge corresponds to "knowing how," involving the practical skills needed to apply disaster response techniques effectively. The theory also connects to self-efficacy, as progression from novice to competent stages enhances students' confidence in their abilities through experiential learning. For instance, simulation-based training can facilitate this transition, boosting self-efficacy in roles such as caregiver or case manager.

Alim et al. (2018) applied the Novice to Expert framework to evaluate nursing students' disaster preparedness, finding that structured training programs help students

move from novice to competent levels, enhancing their procedural knowledge and self-efficacy in disaster response. Similarly, Kalanlar (2018) used Benner's model to assess how disaster nursing education advances students' practical skills, noting that experiential learning through simulations significantly improves their confidence and competence in emergencies. These studies underscore the theory's applicability to understanding how knowledge acquisition and practical experience foster self-efficacy in disaster contexts.

Sister Callista Roy's Adaptation Model, developed in 1991, views individuals as adaptive systems interacting with their environment through interconnected parts functioning as a whole (Roy, 1991). The model emphasizes adaptation as a response to internal and external stimuli, categorized as focal (immediate stimuli), contextual (environmental factors contributing to the focal stimulus), and residual (unclear environmental factors). Adaptation occurs at three levels: integrated (balanced functioning), compensatory (efforts to restore balance), and compromised (failure to adapt). Roy posits that nurses facilitate adaptation by assessing stimuli and promoting adaptive responses, particularly in response to stressors such as disasters.

In this study, the Adaptation Model relates to readiness for disaster response, as it employs the importance of assessing environmental stimuli (assessment), developing strategies to manage them (planning), and executing adaptive responses (implementation). Nursing students' readiness depends on their ability to adapt to the stressors of a disaster, such as resource scarcity or chaotic environments. The model also connects to self-efficacy, as successful adaptation enhances confidence in managing disaster scenarios. For example, students who effectively and confidently assess and plan for disaster stimuli are likely to feel more confident in their roles as caregivers, educators, or case managers.

Songwathana and Timalisina (2021) used the model to explore nurses' preparedness in developing countries, finding that adaptive responses, such as planning and implementation, significantly enhance readiness for disaster response. The study highlighted that nurses who effectively manage focal and contextual stimuli during disasters report higher self-efficacy. Similarly, Emaliyawati et al. (2021) applied Roy's model to assess community health nurses' disaster management competencies, noting that structured training enhances adaptive behaviors, thereby increasing confidence in handling emergencies. These findings affirm and support the model's utility in linking readiness and self-efficacy in disaster contexts.

Andrea Jennings-Sanders' Disaster Nursing Management Model (2004) provides a structured framework for nurses' roles in disaster management, encompassing four phases: Pre-disaster, Disaster, Post-disaster, and Positive Client/Population Outcomes (Jennings-Sanders, 2004). The Pre-disaster phase involves assessment (identifying risks and resources), planning (allocating resources and defining roles), and implementation (practicing disaster plans). The Disaster phase assigns nurses roles as caregivers (triaging and providing care), educators (delivering secondary prevention), and case managers (coordinating care). The Post-disaster phase focuses on reassessment, replanning, and implementing revised plans, culminating in positive outcomes for clients and populations.

The Disaster Nursing Management Model directly relates to all three variables: knowledge, readiness, and self-efficacy. Knowledge is critical and vital in the Pre-disaster phase, where factual knowledge informs risk assessment and procedural knowledge guides the development of disaster plans. Readiness is embodied in the model's emphasis on assessment, planning, and implementation, which prepare nurses for

effective disaster response. Self-efficacy is demonstrated through the confidence nurses gain as they master their roles (caregiver, educator, case manager) in the disaster phase. The model's structured approach ensures that knowledge and readiness translate into confident, role-specific actions during crises.

Aurelio et al. (2022) used the model to assess nursing students' knowledge, attitudes, and practices in disaster preparedness, finding that structured education aligned with the model's phases enhances students' readiness and self-efficacy across caregiver, educator, and case manager roles. Similarly, Tussing et al. (2022) applied the model to evaluate disaster preparedness training, noting that programs incorporating the model's phases improve students' procedural knowledge and confidence in disaster response. These studies validate the model's role in linking knowledge, readiness, and self-efficacy in nursing education.

In summary, Benner's theory emphasizes the development of knowledge and self-efficacy through experiential learning, aligning with the study's focus on factual and procedural knowledge as foundations for confident disaster response. Roy's model highlights the adaptive processes underlying readiness, connecting assessment, planning, and implementation to students' ability to manage disaster stressors. Jennings-Sanders' model ties these elements to specific nursing roles, offering a practical structure for applying knowledge and readiness to achieve self-efficacy in disaster scenarios. Together, these theories elucidate how nursing students' knowledge and readiness contribute to their confidence in disaster response, supported by empirical studies that validate their relevance.

Conceptual Framework

This study focuses on two sets of variables: the independent variable and the dependent variable. It focuses on the self-efficacy of nursing students in disaster response as the independent variable. Conversely, the study examines how the level of knowledge and readiness on disaster response influence the self-efficacy of nursing students in disaster response as the dependent variable.

Level of Knowledge in Disaster Response. In this study, the focus is on nursing students' understanding and knowledge regarding disasters and disaster response. It is assessed using factual knowledge and procedural knowledge. These constructs are based on Bloom's Taxonomy. Philosophers like Habermas and Donald Davidson have categorized knowledge as technical, practical, and cognitive (Kaba & Ramaiah, 2019). Knowledge is created and refined through the acquisition of information, shaped by an individual's unique personality, behaviors, and experiences. For it to be meaningful and effective, knowledge must also be tailored to the specific context in which it is applied.

Factual knowledge involves the basic information and data that should be made aware of regarding disasters and disaster response. According to an updated version of Bloom's Taxonomy (2024), factual knowledge involves remembering and recalling information, defining and describing constructs, and understanding ideas and concepts. As stated by Anderson and Krathwohl (2001), it refers to terms, facts, and detailed information. This information includes the types of disasters, their prevalence and impact, relevant policies and regulations, and key terminology.

Factual knowledge serves as the foundation where critical thinking and quick decision-making are built, especially in stressful and high-stakes situations such as

disaster scenes. Studies conducted by Kim et al. (2022) revealed that nursing students who have solid basis of factual knowledge are much more equipped to understand the disaster context and thus respond more effectively during simulations. Additionally, Putra et al. (2021) noted that factual knowledge was positively correlated with early-stage preparedness behaviors, including hazard recognition and information seeking. They were a strong predictor of students' disaster awareness.

Procedural knowledge involves the practical application of knowledge acquired. In disaster and disaster response, it includes skills and procedures that nursing students must practice and master to perform effectively and efficiently in disaster emergencies. According to Hurrell (2020), procedures are actions that are performed to finish a task or achieve a goal. Based on this, procedural knowledge enables the practical application of techniques and methods.

Instead of focusing on the 'what', like factual knowledge. Procedural knowledge highlights knowing 'how'. According to Delgadillo et al. (2021), simulation-based disaster response training improves students' confidence in performing emergency procedures such as CPR, rapid assessment, and incident command communication. Furthermore, students with more developed procedural knowledge were much more prepared and had more confidence in assuming different roles during disaster drills (Al Harthi et al., 2021).

Readiness for Disaster Response. The study defines this as the extent to which nursing students believe they are prepared and capable of effectively handling emergencies during disasters. It is the combination of procedures and policies prior to a disaster event occurring that helps lessen the negative impact that the event would have

otherwise caused. It is based on Assessment, Planning, and Implementation. If a disaster were to occur, nurses play a vital part at every stage of the disaster cycle (Songwathana & Timalisina, 2020). That is why nursing students need to possess the knowledge, skills, and mental readiness to face stressful situations during a disaster.

Assessment is a phase where nursing students examine their existing competencies in disaster readiness, evaluate resource availability, and analyze environmental surroundings to identify strengths and areas for improvement. According to Olorunfemi and Adesunloye (2024), determining the impact of risks on readiness is crucial. Therefore, individuals who recognize the possibility of a disaster will prioritize readiness more seriously.

There have been recent studies that support the significance of this phase in building and improving readiness and self-efficacy. As an example, Kim et al. (2022) noted that students who participate in organized disaster risk assessment activities have a higher level of confidence and preparedness during simulations. Additionally, environmental hazards awareness enables nursing students to feel more capable of coordinating an appropriate disaster response.

The *Planning* phase is when nursing students develop comprehensive and detailed plans and protocols that are essential to disaster readiness. During this stage, students apply their knowledge and engage in collaborative planning, which fosters teamwork and interpersonal collaboration. This is the point at which we see a chance to bring together emergency management and planning to share knowledge to improve cooperation methods with other stakeholders, the general public, and other professional fields (Shmueli et al., 2021).

Delgadillo et al. (2021) found that students who have participated in structured planning workshops were more likely to be prepared to take on leadership roles and make timely decisions during emergencies. Putra et al. (2021) also noted that planning competence and having increased disaster readiness are closely associated. The planning phase enables nursing students to acquire tools for anticipating and organizing responses, thereby boosting their confidence to lead and collaborate in disaster situations.

Implementation is the phase that involves executing the plans and protocols effectively. This includes organizing training sessions, taking part in drills, and working with other medical professionals and community groups in order to ensure an organized response in the event of an emergency (Lin et al., 2023). Their research showed that students' response times, role clarity, and confidence during crisis improved significantly through participation in realistic training simulations and community-wide emergency drills.

Moreover, Putra et al. (2021) highlighted that regular involvement in disaster implementation exercises develops a stronger sense of resilience and role ownership, assisting students in developing the skills they need to perform well in both controlled hospital settings and uncertain field conditions. As a result, the implementation phase represents the peak of readiness, combining planning, knowledge, teamwork, and adaptability.

Self-efficacy in Disaster Response. In the study, this refers to the nursing students' belief in their capacity to assume roles, make decisions, and take action in regard to disaster response. The roles are categorized as caregiver role, the educator role, and the case manager role. Self-efficacy helps improve disaster readiness and response,

which contributes to better evacuation during disasters (Qui et al., 2023). In an important note, the self-efficacy of nurses and nursing students influences their attitude and behavior (Hasan et al., 2024). Greater self-efficacy tends to increase the likelihood of performing better in disaster situations. It influences how nursing students approach the training they receive and how they perform in real-life scenarios.

The caregiver role is a key part of nurses' responsibilities in disaster management, where they are expected to provide direct, compassionate, and effective care to individuals affected by disaster. According to Jennings (2004), it is the nurse's responsibility to respond to those in need of help and provide care to those who are suffering. Triage is what the nurse caregiver does in order to have a systematic way of providing the most appropriate and effective care to clients (Ochs et al., 2024). Rapid assessment of the client and quick thinking and response should be the primary focus of the triage process (Clarkson & Williams, 2023).

Considering the high stakes associated with disaster caregiving, nursing education must give students both technical triage competencies and the psychological strength to make rational decisions under stressful situations. Future nurses must be prepared to carry out their responsibilities with competence and confidence in disaster situations through training programs that include quick assessment drills, simulation-based triage, and ethical decision-making exercises.

The nurse *educator role* follows another key aspect of nurses' responsibilities in disaster nursing management. Their responsibilities encompass activities that range from preparation for, responding to, and recovering from disasters. Nurse educators are the

ones who provide secondary prevention to clients (Jennings, 2004). That is why nurses must have the utmost confidence in order to provide the most efficient care.

Nursing students' self-efficacy in conducting patient and community education during emergencies was considerably higher after taking part in disaster education seminars (Kim et al., 2022). Similarly, students who had previously received simulation-based disaster education also felt more prepared to reach others on emergency preparedness and recovery, according to Delgadillo et al. (2021).

The nurse *case manager* plays a crucial role in disaster nursing, serving as the coordinator of care and the central point of communication among the healthcare team, patients, family, and external agencies. According to Jennings (2004), they operate by coordinating care, managing resources, and facilitating communication among healthcare teams. Self-efficacy influences their ability to respond to crises, manage situations, and provide care under pressure.

Recent studies have highlighted the connection between self-efficacy and effective case management during disasters. For instance, Putra et al. (2021) discovered that during simulation-based crises, nursing students who had greater levels of self-efficacy were noticeably more skilled at managing complex systems and coordinating patient care. Also, according to Lin et al. (2023), case management positions require a high level of organizational abilities and decision-making skills, both of which can be improved with consistent practice and formal training.

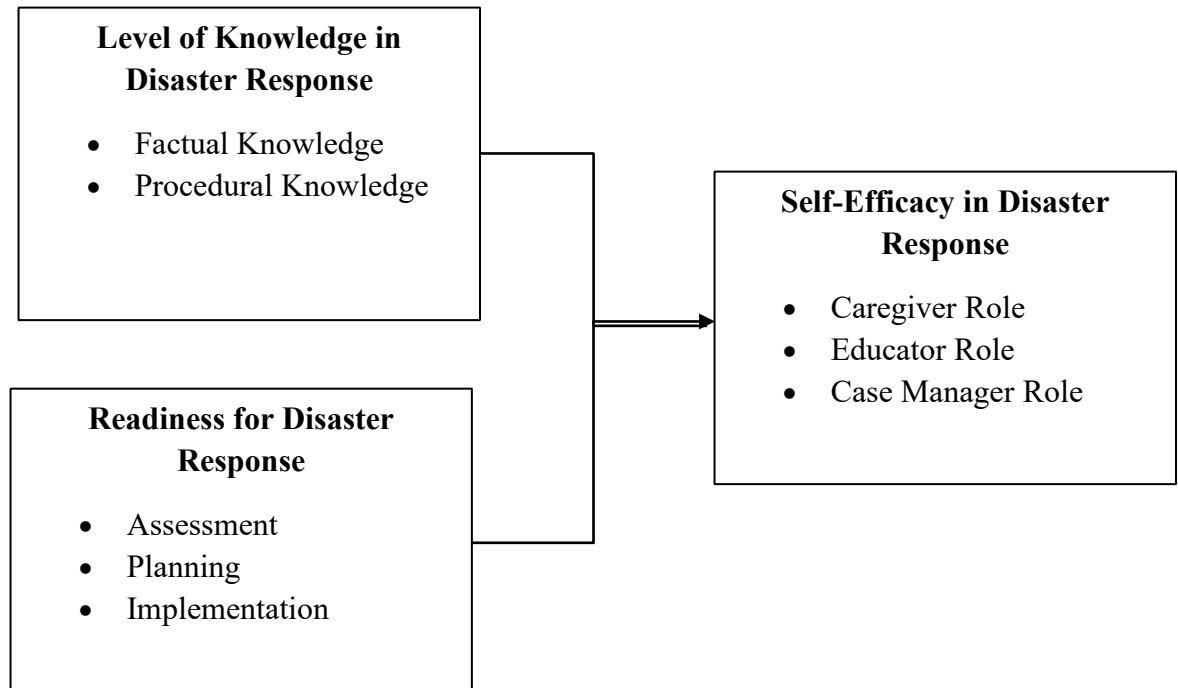


Figure 1. Schematic Presentation of the Study

Objectives of the Study

This study assesses the respondents' level of knowledge, readiness, and self-efficacy in disaster response among nursing students in one of the higher education institutions in Northern Mindanao.

This study sought to answer the following: (1) Assess the respondents' level of knowledge in terms of factual knowledge, and procedural knowledge; (2) Determine the respondents' readiness in terms of assessment, planning, and implementation; (3) Identify the respondents' self-efficacy in terms of being a caregiver, educator, and case manager; (4) Determine the significant relationship between the respondents' level of knowledge and self-efficacy in disaster response; (5) Determine the significant relationship between the respondents' readiness and self-efficacy in disaster response; and (6) Determine the predictor of nursing students' level of self – efficacy.

It is hypothesized that: (Ho1) There is no significant relationship between the respondents' level of knowledge and self-efficacy in disaster response. (Ho2) There is no significant relationship between the respondents' readiness and self-efficacy in disaster response, and (Ho3) There are no predictors in the nursing students' level of self–efficacy.

Significance of the Study

This study provides valuable insights into how well nursing students are prepared to respond to disasters. It also provides support in the development of an effective curriculum on disaster nursing. It will aid in the support of policy changes that mandate disaster training as a core competency in nursing education.

Nursing Students. This study can help nursing students to assess their level of knowledge in disaster response, readiness, and self-efficacy during a disaster emergency.

Moreover, it will equip them with the essential knowledge and skills needed to effectively respond during disaster events. It will also help them to prepare and develop plans and protocols for effective response during disaster emergencies.

Academic Institutions. This study can help develop more effective curricula and training programs to ensure that future nurses are well-prepared for disaster situations, which can contribute to community and public health efforts during disasters and in building a healthcare workforce that can effectively respond to emergencies, ultimately benefiting society as a whole.

Policymakers. This study aims to support policy changes that mandate disaster readiness training as a core component of nursing education, ensuring students receive adequate training in this critical area. The findings of this research will also help improve the overall response to emergencies and disasters by guiding the development of evidence-based guidelines for disaster response. In addition, the results of the study will provide an outline for assessing the effectiveness of disaster readiness training programs, promoting continual improvement and development.

RESEARCH METHODOLOGY

This section describes the research design, setting, respondents, sampling method, instruments used, data-gathering procedure, ethical considerations, and data analysis techniques.

Design

This study employed a quantitative methodology, utilizing a descriptive-correlational research design. Quantitative methodology was used as this study dealt with numerical data and statistical analysis to answer each research question. To evaluate the relationship among variables, the researchers utilized a Descriptive-Correlational research design, as "it aims to describe the relationship among variables rather than to infer cause and effect relationships" (Lappe, 2000). In addition, the research design was suitable for the study as the goal was to describe the variables and their relationship. This study examined and attempted to describe and determine the relationship between the nursing students' level of knowledge, readiness, and self-efficacy in Disaster response.

Environment

This study was conducted at a private, non-sectarian, higher educational institution in Northern Mindanao, Philippines. The primary setting of this research was the College of Nursing which has a large population of students from different cities and municipalities across the region. The college strictly adheres to the curriculum sets established by different agencies to meet standards, thereby ensuring the environment is conducive to the study's conduct. This is achieved through the following criteria and standards that align with the researchers' goals and needs. In addition, the chosen

environment's accessibility and efficiency are appropriate for completing the study within a given period.

Respondents of the Study/ Unit of Analysis and Sampling Procedure

The study included 118 bona fide students from the institution, with the total population of 168 students. The inclusion criteria for the selection were the following: (1) currently enrolled in the School Year 2024-2025; (2) taking up Bachelor of Science in Nursing on their fourth-year level; (3) enrolled in the professional course of Nursing Care Management 120 with descriptive title of Disaster Nursing; and (4) willing to participate in the study. Respondents were identified randomly using a stratified random sampling. The number of respondents was computed using the Raosoft calculator with a 95% level of confidence and 5% margin of error.

Data Gathering Instruments

The researchers utilized a researcher-made questionnaire that was developed specifically for this study.

A. Respondents' Level of Knowledge Questionnaire. This tool assesses the respondents' level of knowledge in terms of factual and procedural knowledge of disaster response. It contains five questions of each of the following constructs: factual and procedural. It is a 5-point Likert scale with the following responses: 5 - Strongly Agree; 4 - Agree; 3 - Moderately Agree; 2 - Disagree; 1 - Strongly Disagree.

B. Respondents' Readiness in Disaster Response Questionnaire. This tool determines the respondents' readiness for disaster response. It contains five questions of each of the following constructs: assessment, planning, and implementation. It is a 5-point Likert Scale with the following responses: 5 -

Always; 4 - Often; 3 - Seldom; 2 - Rarely; 1 - Never.

C. Respondents' Self-Efficacy in Disaster Response Questionnaire. This tool determines the self-efficacy of the respondents in regard to disaster response. It contains five questions of each of the following constructs: caregiver role, educator role, and case manager role. It is a 5-point Likert Scale with the following responses: 5 - completely confident; 4 - Confident; 3 - Moderately Confident; 2 - Less Confident; 1 - Not at All Confident.

Data Gathering Procedures

The researchers asked for permission from the Dean of the College of Nursing. After the approval, the researchers coordinated with the College Secretary to obtain the list of students enrolled in Nursing Care Management 120: Disaster Nursing and to confirm that they are bona fide Level IV students enrolled in the School Year 2024 - 2025. The purpose and aim of the study were explained to the respondents, and a consent form was presented for them to sign and confirm their willingness to participate in the study. Consent of the respondents was obtained by assuring them of the principle of beneficence, respect for human dignity, and justice. The researchers also ensured that the results were used solely for research and education purposes, respecting the Nursing students' decision to participate or not in the study. To encourage cooperation from the respondents, the researcher distributed the printed questionnaire to them individually, allowing sufficient time for them to complete the survey.

Validity and Reliability of the Instruments

The researcher developed questionnaires that were evaluated and validated by a panel of experts and underwent pilot testing for reliability among 20 respondents not

included in the study. The reliability statistics yielded a computed Cronbach's alpha value of 0.85 for the Level of Knowledge variable, 0.87 for the Level of Readiness variable, and 0.90 for the self-efficacy variable, indicating that the set of statements in the questionnaire was considered valid and reliable.

Scoring Guidelines

The researcher-made questionnaire was evaluated based on the continuum as follows:

- A. Respondents' Level of Knowledge Questionnaire: In evaluating the level of knowledge of the respondents on disaster response, the following scale was utilized:

Responses	Continuum	Interpretation
5	4.21 - 5.00	Very High (VH)
4	3.41 - 4.20	High (H)
3	2.61 - 3.40	Moderately High (MH)
2	1.81 - 2.60	Low (L)
1	1.00 - 1.1.8	Very Low (VL)

- B. Respondents' Readiness in Disaster Response Questionnaire: In evaluating the readiness on disaster responses of the respondents, the following scale was utilized:

Responses	Continuum	Interpretation
5	4.21 - 5.00	Very High (VH)
4	3.41 - 4.20	High (H)
3	2.61 - 3.40	Moderately High (MH)
2	1.81 - 2.60	Low (L)
1	1.00 - 1.1.8	Very Low (VL)

- C. Respondents' Self-Efficacy in Disaster Response Questionnaire: In evaluating the self-efficacy on disaster response of the respondents, the following scale was utilized:

Responses	Continuum	Interpretation
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5	4.21 - 5.00	Very High (H)
4	3.41 - 4.20	High (H)
3	2.61 - 3.40	Moderately High (MH)
2	1.81 - 2.60	Low (L)
1	1.00 - 1.1.8	Very Low (VL)

Mode of Analysis/ Statistical Treatment

The data, through the use of questionnaires, were tabulated, evaluated, and interpreted using appropriate statistical tools.

Mean and Standard Deviation. This tool was used to analyze the level of knowledge, readiness, and self-efficacy on disaster response of the respondents.

Pearson Product–Moment Correlation (Pearson r). This tool was used to test and analyze the relationships between knowledge and self-efficacy, and readiness and self-efficacy, as it tests the linear relationships between the variables.

Regression Analysis. This tool was used to analyze and investigate the relationship between variables, as it helps in predicting the outcomes and changes in dependent variables based on the relationship between dependent and independent variables. It analyzed the predictors of nursing students' level of self-efficacy.

Ethical Considerations

The researchers sought approval and personally handed in a consent letter to seek permission from the College Dean prior to conducting the study. The consent letter cited the objectives, aims, and significance of the present study. Once the approval was given, informed consent was sought from the research respondents with a letter of consent.

The respondents were given adequate time to consider their participation. The researcher ensured that each respondent understood they could withdraw from the study at any time without penalty and were willing to participate by agreeing to complete the self-report questionnaire. The researchers ensured to strictly follow the proper handling of data, implementing data privacy and confidentiality, and following the principles of beneficence, respect for human dignity, and justice.

In summary, these principles guided the researchers to conduct a research study that is fair, humane, and just without violating any laws and policies that protect life and dignity. Moreover, the researchers also assured that the results will not be used for purposes other than the study undertaken.

RESULTS AND DISCUSSIONS

This section presents and discusses the significant findings of the study on the relationship between nursing students' level of knowledge, readiness, and self-efficacy in disaster response.

Respondents' Level of Knowledge

Table 1 shows the nursing students' level of knowledge on disaster response in terms of factual knowledge and procedural knowledge. Based on the table, the respondents have a very high understanding of disaster response in terms of both types of knowledge (WM=4.45). This suggests that nursing students have a strong factual and practical foundation regarding disaster response. The overall standard deviation is 0, 47 making it relatively low. This data indicates that nursing students achieved a very high level of knowledge and that there was consistency in their responses.

The results show that respondents' factual knowledge on disaster response has a very high mean score (WM=4.54). This indicates that the respondents possess a very high understanding of the fundamental principles and theories regarding disaster response. The students are well-informed about the different core concepts of disaster response, which are an essential foundation in having effective decision-making and response during catastrophic situations. The standard deviation of 0.48 shows a low level of variability in the responses. This indicates that the students have a high level of consistency in their factual knowledge. This is similar to the results of Al Thobaity et al.'s (2019) study, which reported that nursing students had adequate knowledge about disaster preparedness, especially when it came to hazard identification and disaster planning. Nursing students who took part in structured educational programs demonstrated significant improvements

in their disaster management, suggesting that incorporating disaster education into nursing programs helps to improve nursing students' factual understanding (Zhang et al., 2021).

The respondents' procedural knowledge also reported a very high mean score (WM=4.54). This reflects the students' grasp of different procedures that can be applied in situations appropriate for disaster response. The low standard deviation (StDev=0.46) shows that there is a low variability of the students' responses, indicating that there is a strong consistency in their procedural competence. Nursing students who participate in simulation-based training demonstrated enhanced practical skills (Smith et al., 2023). Similarly, some studies also found that there is a positive correlation between the amount of training students have and their readiness level in handling emergencies (Johnson et al., 2024).

Table 1

Nursing Students' Level of Knowledge in Disaster Response
(n=118)

Level of Knowledge	Mean	StDev	Interpretation
Factual Knowledge	4.54	0.48	VH
Procedural Knowledge	4.54	0.46	VH
Overall Mean	4.54	0.47	VH
Legend: 4.21- 5.00 – Very High (VH) 3.41- 4.20 – High (H) 2.61- 3.40 – Moderately High (MH)			
		1.81- 2.60 – Low (L) 1.00- 1.80 – Very Low (VL)	

Respondents' Level of Readiness

Table 2 shows the respondents' level of readiness in terms of Assessment, Planning, and Implementation. Based on the table, the respondents have a high overall level of readiness when responding to a disaster (WM=4.11). Among the three constructs, assessment scored the highest readiness level with a mean of 4.24, interpreted as very high. Meanwhile, planning and implementation both fall into the high category, with the means of 4.12 and 3.98, respectively. The overall standard deviation of 0.64 is not very low, indicating that students' responses exhibit a moderate degree of variation. These data suggest that although students are generally well-prepared, there is a lack of confidence and more variability in areas involving strategic execution and practical implementation.

The results show that the respondents have a very high readiness level when it comes to Assessment (WM=4.24). This indicates that nursing students feel well-prepared to assess and evaluate findings about disaster response. The standard deviation of 0.58 indicates that there is moderate consistency among the students' responses. This implies that while most students feel highly ready, there may be some students who have slightly lower levels of readiness. This finding is supported by research that suggests that having excellent assessment skills is essential for rapid and appropriate disaster response (Jones et al., 2022). Similarly, disaster management training significantly improved students' confidence in situational awareness and risk assessment, two important skills needed in the assessment phase (Yildirim & Korkmaz, 2020). These findings emphasize the importance of assessment training in nursing education.

The respondents have a high readiness level on disaster response in terms of planning (WM=4.12). This indicates that nursing students are well-prepared to develop

strategic plans in response to a disaster. However, the slightly higher standard deviation (StDev=0.66) suggests that there is a greater variability in the responses of students. In other words, not all students feel equally prepared for the planning aspect of disaster management. Effective planning is necessary to make sure that resources are appropriately distributed and that response actions are coordinated (Miller et al., 2023). Students demonstrated developed planning skills and strategic thinking in a disaster environment after participating in a structured disaster management program (Yildirim & Korkmaz, 2020).

The respondents also have a high readiness level on disaster response in terms of implementation (WM=3.98, StDev=0.69). Scoring the lowest among the three phases, this indicates that respondents feel less confident but are still adequately prepared to put their plans into action. This category scored the highest standard deviation (StDev=0.69), suggesting that there is a wide variation in the students' confidence or experience. Students usually find it challenging to apply their disaster knowledge into clinical action, especially under stressful situations (Usher et al., 2022). It emphasizes the importance of simulation-based training in improving implementation abilities. Similarly, Roberts et al (2023) study that also states that practical training and simulations can significantly enhance implementation skills.

The overall findings suggest that students' readiness starts high during the assessment phase but then slightly declines in the more active and operational phases. This is consistent with studies suggesting that, unless students are exposed to practical exercises, nursing students often perform better in cognitive tasks than in hands-on disaster response activities (Alamer et al., 2025).

Table 2**Respondents' Level of Readiness**

(n=118)

Readiness	Mean	StDev	Interpretation
Assessment	4.24	0.58	VH
Planning	4.12	0.66	H
Implementation	3.98	0.69	H
Overall Mean	4.11	0.64	H

Legend: 4.21- 5.00 – Very High (VH) 1.81- 2.60 – Low (L)
3.41- 4.20 – High (H) 1.00- 1.80 – Very Low (VL)
2.61- 3.40 – Moderately High (MH)

Respondents' Self-efficacy

Table 3 shows an overview of the respondents' self-efficacy on disaster response in terms of assuming the role of a caregiver, an educator, and a case manager. Based on the table, the respondents have a very high level of self-efficacy when responding to disaster (WM=4.23), indicating that nursing students perceive themselves as highly confident in assuming various roles during disaster situations. Among the three roles, the educator had the highest mean score (WM=4.25), followed closely by case manager (WM=4.24), and lastly, with a slightly lower mean (WM=4.20), caregiver. The overall standard deviation of 0.58 shows a moderate level of variability, which indicates that while the majority of students feel confident, some vary in their self-perception.

Respondents reported the highest out of the three with very high self-efficacy in the Educator role (WM=4.25). This indicates that in moments when disaster occurs, nursing students feel particularly confident in providing health education, promoting public awareness, and guiding individuals and the community during crises. The standard deviation of 0.58 indicates some variability in the responses, but the overall confidence of

the students is substantial. Effective education is essential for disseminating knowledge and skills to peers and the community (Hernandez et al., 2023). This aligns with the findings from Rahman et al. (2024), who stated that students were more confident in public health communication and educational tasks and less so in the other areas that were studied.

Respondents also reported very high self-efficacy for the case manager role (WM=4.24). This suggests that respondents also demonstrated exceptionally high confidence in being able to perform roles as a case manager, such as identifying and securing necessary resources for disaster response. There is greater variability with the slightly higher standard deviation (0.62), indicating that some students may not feel as prepared to handle the administrative or logical areas of case management. According to Roberts et al. (2023), strong case management skills are very important for coordinating care and resources in emergencies. Students' ability to coordinate care in multidisciplinary settings during simulations is improved by disaster nursing education (Kalanlar, 2018).

The respondents showed a high level of self-efficacy for the caregiver role (WM=4.20), indicating that they are confident, but just below the Very High level, in assuming the caregiver role and providing clinical care in a disaster setting. The relatively low standard deviation (StDev=0.55) suggests that the students have a similar level of confidence in this role. Students who felt more confident in their ability to provide care were more likely to engage in proactive behaviors, which led to better patient outcomes (Thompson et al., 2022).

These findings suggest that nursing students are more confident in assuming roles that require leadership and knowledge dissemination. This may be due to the fact that in an academic setting, there is a focus on communication, health education, and the coordination of care in disasters. The slightly lower score for the caregiver role may reflect nursing students' awareness of the physical and emotional demands of hands-on patient care during crises that involve rapid decision making, clinical judgment, and resource management under stressful circumstances.

Table 3

Respondents' Self-efficacy

(n=118)

Self-efficacy	Mean	StDev	Interpretation
Caregiver Role	4.20	0.55	H
Educator Role	4.25	0.58	VH
Case Manager Role	4.24	0.62	VH
Overall Mean	4.23	0.58	VH

Legend: 4.21- 5.00 – Very High (VH) 1.81- 2.60 – Low (L)
 3.41- 4.20 – High (H) 1.00- 1.80 – Very Low (VL)
 2.61- 3.40 – Moderately High (MH)

Significant Relationship Between the Respondents' Level of Knowledge and Self-Efficacy in Disaster Response

Table 4 presents the correlations between nursing students' level of knowledge, encompassing factual and procedural knowledge, and their self-efficacy in performing disaster response roles as caregivers, educators, and case managers. The table evaluates the strength and significance of these relationships using Pearson's r and corresponding p-values, testing the null hypothesis (Ho1) that there is no significant relationship between knowledge and self-efficacy.

The table revealed that out of six correlations tested, five showed significant or highly significant relationships ($p \leq 0.05$), and one correlation was not statistically significant (Educator role with the Factual Knowledge, $p = 0.007$). This indicates that, overall, there is a significant correlation between students' knowledge of disasters and their self-efficacy to perform specific roles during disaster emergencies. These findings align with Benner's Novice to Expert Theory (1984), which posits that knowledge acquisition through experiential learning enhances nursing competence and confidence. The theory's distinction between "knowing that" (factual knowledge) and "knowing how" (procedural knowledge) supports the stronger correlations observed with procedural knowledge, as practical experience fosters progression from novice to competent stages, thereby boosting self-efficacy.

These results indicate that procedural knowledge is a more robust predictor of self-efficacy across all roles compared to factual knowledge, which is less influential in the educator role. The low standard deviations in knowledge measures (0.48 for factual, 0.46 for procedural) suggest consistent responses among students, reflecting uniform knowledge acquisition within the curriculum. This consistency implies that the educational program effectively equips students with both theoretical and practical knowledge, though practical training has a greater impact on confidence.

This general pattern supports the idea that knowledge is a significant factor of self-efficacy in disaster response (Bandura, 1997). Having a good grasp of both factual and procedural knowledge in disaster preparedness training can significantly improve students' readiness to perform under pressure, since self-efficacy increases motivation and task performance (Schunk & DiBenedetto, 2020). The weaker correlation between

factual knowledge and the educator role may reflect the role's reliance on communication skills, which may be less directly tied to theoretical knowledge (Kim et al., 2022). The strong correlation of procedural knowledge with all three roles also emphasizes the importance of hands-on skills and practical training in nursing students' self-efficacy (Labrague et al., 2018).

Table 4

Significant Relationship Between the Respondents' Level of Knowledge and Self-Efficacy in Disaster Response.

Variables	Test Statistics		Remarks
	r-value	p-value	
<u>Factual Knowledge:</u>			
Caregiver			
Educator	0.387	0.00**	Reject the Null Hypothesis
Case Manager	0.167	0.07	Accept Null Hypothesis
	0.182	0.05*	Reject the Null Hypothesis
<u>Procedural Knowledge:</u>			
Caregiver			
Educator	0.500	0.00**	Reject the Null Hypothesis
Case Manager	0.196	0.03*	Reject the Null Hypothesis
	0.233	0.01**	Reject the Null Hypothesis

Ho1: There is no significant relationship between the respondents' level of knowledge and self-efficacy on disaster response.

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

Significant Relationship Between the Respondents' Readiness and Self-Efficacy in Disaster Response

Table 5 illustrates the correlations between nursing students' readiness, measured through assessment, planning, and implementation, and their self-efficacy in the caregiver, educator, and case manager roles during disaster response. The table uses Pearson's r and p -values to assess the strength and significance of these relationships, testing the null hypothesis (H_0) that there is no significant relationship between readiness and self-efficacy. The p -values in the table for all pairs are 0.00, which reveals a strong, positive, significant correlation across all dimensions and roles. These findings suggest that as nursing students' readiness in disaster response increases, so does self-efficacy to perform the various roles.

The strongest correlations were observed in the Implementation phase, with the values being caregiver ($r=0.586$), educator ($r=0.505$), and case manager ($r=0.530$). This indicates that students who feel more prepared to take action during disasters are also more confident in their ability to perform necessary roles during disaster response. Implementation responsibilities require quick decision-making, resource coordination, and high-level clinical skills. That is why the strong correlation implies that readiness plays a vital role in acquiring the confidence to act effectively in real disaster scenarios. Nursing students with higher levels of self-reported readiness were significantly more confident in their ability to function in disaster roles, particularly in implementation (Al Harthi, M. et al., 2021).

Similarly, in the Planning phase, moderate to strong correlations were observed with the different roles ($r=0.438$), educator ($r=0.474$), and case manager ($r=0.453$). These results suggest that a greater sense of self-efficacy can be the result of preparedness in terms of developing strategies, assigning tasks, and making plans for disaster response.

Planning requires being proactive and having organizational skills that are enhanced through hands-on training and real-world simulations (World Health Organization [WHO], 2011). That is why students who are equipped with this readiness are more confident in leading and coordinating disaster response plans effectively.

In the Assessment phase, the correlations are slightly lower, yet remain statistically substantial across all roles ($r=0.415$), educator ($r=0.398$), and case manager ($r=0.412$). Disaster assessment skills are a foundation in building confidence and promoting an effective and efficient response to disaster. Preparedness training that includes risk identification and assessment scenarios significantly improves nursing students' self-efficacy in making clinical judgments during emergencies (Kim et al., 2022). These findings are supported by Roy's Adaptation Model (1991), which emphasizes adaptive responses to environmental stimuli through assessment, planning, and implementation. The model posits that effective adaptation to disaster stressors enhances confidence, aligning with the strong correlations observed, particularly in implementation, where practical application of plans directly boosts self-efficacy. Additionally, Jennings-Sanders' Disaster Nursing Management Model (2004) supports these findings, as its structured phases (assessment, planning, implementation) align with readiness constructs, fostering role-specific confidence.

Table 5:

Significant Relationship Between the Respondents' Readiness and Self-Efficacy in Disaster Response.

Variables	Test Statistics		Remarks
	r-value	p-value	
<u>Assessment and:</u>			
Caregiver	0.415	0.00**	Reject the Null Hypothesis
Educator	0.398	0.00**	Reject the Null Hypothesis
Case Manager	0.412	0.00**	Reject the Null Hypothesis
<u>Planning and:</u>			
Caregiver	0.438	0.00**	Reject the Null Hypothesis
Educator	0.474	0.00**	Reject the Null Hypothesis
Case Manager	0.453	0.00**	Reject the Null Hypothesis
<u>Implementation and:</u>			
Caregiver	0.586	0.00**	Reject the Null Hypothesis
Educator	0.505	0.00**	Reject the Null Hypothesis
Case Manager	0.530	0.00**	Reject the Null Hypothesis

Ho1: There is no significant relationship between the respondents' readiness and self-efficacy in disaster response.

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

Predictors of Nursing Students' Level of Self-efficacy

Table 6 presents the predictors of nursing students' level of self-efficacy, the two variables, level of knowledge with factual or conceptual knowledge and procedural knowledge, and level of readiness with assessment, planning, and implementation as constructs. The table tests the null hypothesis (Ho3) that there are no predictors of self-efficacy, with p-values indicating the significance of each predictor. The results indicate that construct procedural knowledge ($p=0.01$) and implementation ($p=0.01$) are significant predictors of respondents' self-efficacy.

Procedural knowledge significantly influences nursing students' confidence in their abilities, emphasizing that mastery experience is a key source of self-efficacy. This is consistent in a study that shows students who perform well academically and have extensive clinical experience tend to have higher self-efficacy, as they develop both theoretical knowledge and practical skills (Erkin et al., 2023). The learning environment, including institutional support and mentorship, significantly impacts the procedural knowledge of the respondents, thus boosting their self-efficacy. Studies suggest that supportive educational settings, regular feedback, and mentorship opportunities enhance students' confidence in their abilities (Wang et al., 2023).

Implementation is also a significant predictor of nursing students' self-efficacy, which notes that hands-on experiences and real-world simulations are effective in increasing the self-efficacy of nursing students. Students who participated in simulated disaster response scenarios had significantly higher self-efficacy levels due to the practical experience gained (Kamanyire et al., 2021). This approach provides a safe environment for students to practice critical skills without the pressure of real-world consequences. Clinical performance (akin to implementation) strongly predicts self-

efficacy, supporting the significance of implementation in the readiness model (Cheraghi et al., 2016). These findings are supported by Benner's Novice to Expert Theory, which highlights that practical experience (procedural knowledge) drives competence and confidence through experiential learning. Similarly, Jennings-Sanders' Disaster Nursing Management Model emphasizes implementation as a critical phase where nurses apply plans in real-world scenarios, enhancing role-specific self-efficacy. Roy's Adaptation Model further supports the significance of implementation, as adaptive responses in high-stress environments boost confidence. The low standard errors (0.109 for procedural knowledge, 0.0689 for implementation) indicate precise estimates, reinforcing the reliability of these predictors.

The results suggest that hands-on experiences, embodied in procedural knowledge and implementation, are critical for fostering self-efficacy, with the higher R^2 for readiness indicating its more substantial influence. The low standard errors reflect consistent responses, suggesting that practical training uniformly enhances confidence across the cohort.

Simulation-based training significantly boosts self-efficacy by providing practical experience, supporting the role of implementation (Kamanyire et al., 2021). Procedural knowledge, developed through clinical practice, is a key driver of confidence (Kamanyire et al., 2021). The non-significance of factual knowledge contradicts some studies (Kim & Shin, 2021), possibly due to curriculum designs that prioritize practical over theoretical training. The low standard errors indicate minimal variability in predictor estimates, suggesting that the educational program consistently fosters self-efficacy through practical training.

In summary, the result demonstrates that procedural knowledge and implementation are highly significant predictors of nursing students' self-efficacy, rejecting the null hypothesis. These findings underscore the importance of practical training in nursing education. The R-squared values indicate that the readiness model (44.39%) is more robust than the knowledge model (14.17%), suggesting that readiness factors (particularly implementation) are more closely tied to self-efficacy.

Table 6

Predictors of Nursing Students' Level of Self-efficacy

Term	Coef	SE Coef	T-Value	P-Value
<u>Level of Knowledge:</u>				
Factual Knowledge	0.139	0.104	1.34	0.18
Procedural Knowledge	0.310	0.109	2.86	0.01**
R-sq: 14.17%				
Regression Equation: Self-efficacy = 2.191 + 0.139 FKAVE + 0.310 PKAVE				
<u>Level of Readiness:</u>				
Assessment	0.1257	0.0748	1.68	0.10
Planning	0.1273	0.0714	1.78	0.08
Implementation	0.3220	0.0689	4.67	0.01**
R-sq: 44.39%				
Regression Equation: Self-efficacy = 1.893 + 0.1257 AAVE + 0.1273 PAVE + 0.3220 IAVE				
Ho3: There are no predictors in the nursing students' level of self-efficacy.				
Legend: 0.00-0.01** Highly Significant, 0.02-0.05* Significant, above 0.05 Not Significant				

Significant Predictors (p< 0.05)

- Procedural Knowledge
- Implementation

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the findings, the researchers were able to conclude the following:

1. Theoretical knowledge is robust among nursing students, providing a solid foundation for gaining confidence in responding to various calamities. This shows that the students are knowledgeable about disaster response principles. This is mainly supported by comprehensive disaster preparedness modules in their curriculum, which contributed to the high scores in both types of knowledge, indicating an effective educational delivery. To maintain and improve this aspect, it is vital to continue providing proper and supportive education among nursing students, along with access to structured resources, to promote awareness and education.
2. The level of readiness among respondents is regarded as significantly very high, specifically in the assessment phase. This means that nursing students can assess during disaster response, indicating they are aware of and understand the importance of assessment before responding to disasters. The planning and implementation phase is regarded as high, which implies that confidence starts high during the assessment phase but then slightly declines in the more active and operational phases. Readiness in terms of disaster response has a pivotal role in a proper and well-managed response when disaster strikes. It claims that nursing students are well-prepared to assess the situation during a disaster response. The understanding of the importance of strategic planning and implementation in response to disaster catastrophes plays a vital role in disaster response.

3. Theoretical knowledge and readiness are insufficient without self-efficacy in disaster response. The nursing students' level of self-efficacy is considered very high, in terms of educator and case-manager roles. Factors, including nursing leadership and health education, which are embedded in their curricula, may influence the result. Nursing students feel particularly confident in educating patients, peers, and communities. The respondents also demonstrated exceptionally high confidence in being able to perform roles as a case manager, such as identifying and securing necessary resources for disaster response. The caregiver role, on the other hand, is regarded as highly demanding; they may feel slightly less prepared due to the need for rapid clinical decision-making and response under stressful situations.
4. The study demonstrates a significant positive relationship between nursing students' level of knowledge, particularly procedural knowledge, and their self-efficacy in disaster response across caregiver, educator, and case manager roles. Procedural knowledge consistently shows a stronger correlation with self-efficacy compared to factual knowledge, emphasizing the critical role of practical, hands-on training in enhancing students' confidence and competence in disaster management. This is also because having high confidence requires a deep understanding of various nursing procedures during disaster response.
5. The study reveals a strong, positive, and significant correlation between nursing students' disaster readiness, encompassing assessment, planning, and implementation phases, and their self-efficacy across caregiver, educator, and case manager roles in disaster response. Higher readiness, particularly in the

implementation phase, markedly enhances students' confidence, underscoring the critical role of practical, applied experience in fostering effective disaster response capabilities. This is important as the institution plays a significant role in preparing and tailoring the nursing students' readiness for disaster response. With this significant relationship, the institution can now have a structured plan to improve and maintain the nursing students' level of readiness while enhancing their level of self-efficacy.

6. The study establishes that procedural knowledge and implementation are significant predictors of nursing students' self-efficacy in disaster response. These findings highlight the critical role of practical training and hands-on experiences in enhancing students' confidence, with the readiness model, particularly implementation, demonstrating a more substantial influence on self-efficacy compared to the knowledge model. These predictors demonstrate the importance of combining balanced theoretical knowledge with practical implementation in contributing to a high level of self-efficacy.

Recommendations

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

1. The academic institution should provide essential, structured disaster education and comprehensive disaster response training tailored to nursing students in order to maintain and improve high levels of knowledge and readiness in disaster response. Structured disaster education enhances self-efficacy. By incorporating

simulated disaster response scenarios, crisis communication skills, and interdisciplinary teamwork exercises, individuals will develop standard and effective responses during disaster events. Enhance curricula with structured disaster education, emphasizing simulation-based training to strengthen procedural knowledge and implementation skills, thereby boosting self-efficacy in all disaster response roles.

2. The academic institution should conduct regular assessments of disaster competency and readiness, and ongoing assessment and evaluation of nursing students' disaster preparedness must be implemented to track progress and identify areas for improvement. This approach not only reinforces learning but also enables institutions to tailor training programs to address specific weaknesses and refine policies and regulations to meet the specific needs of their students.
3. The academic institution should continue to improve the implementation of structured resources for disaster readiness, thereby fostering a learning experience that enables nursing students to apply their knowledge and sensibly evaluate their skills. In this way, their skills are harnessed while boosting their self-efficacy.
4. The policymakers should mandate disaster readiness training as a core nursing competency. In partnership with implementing national agencies like the (National Disaster Risk Reduction Management Council (NDRRMC), Bureau of Fire Protection (BFP), Philippine Red Cross (PRC), and partner local hospitals) to conduct real-world disaster scenarios and management, and evaluate response efficacy.

5. Nursing students should apply the theories and related learning experiences regarding disaster nursing, while improving their skills in disaster management. Actively engaging in disaster response training will foster better self-efficacy in managing disasters. Applying theoretical and procedural knowledge through seminars and drills will help improve readiness and self-efficacy.
6. For future researchers, more research is needed to explore the evolving needs of nursing students in disaster readiness. This includes examining the psychological impacts of disaster response and developing innovative educational strategies that adapt to changing healthcare landscapes. In addition, more research should be conducted to explore the factors that influence the nursing students' knowledge, readiness, and self-efficacy on disaster response.

REFERENCES

- Al Harthi, M., Al Thobaity, A., & Al Ahmari, A. (2021). Nursing students' perceptions and self-efficacy regarding disaster preparedness: A cross-sectional study. *International Emergency Nursing*, 59, 101100. Retrieved on June 28, 2025 from <https://doi.org/10.1016/j.ienj.2021.101100>
- Alim, S., Kawabata, M., & Nakazawa, M. (2018). Evaluation of disaster preparedness training and disaster drill for nursing students. *Nurse Education Today*, 65, 15–21. Retrieved on May 15, 2025 from <https://doi.org/10.1016/j.nedt.2018.02.024>
- Allen, M. (2017). The SAGE encyclopedia of communication research methods (Vols. 1-4). Thousand Oaks, CA: SAGE Publications, Inc. Retrieved on October 18, 2024 from <https://tinyurl.com/mtawzsab>
- Alshahrani, S. M., & Alshahrani, A. A. (2022). Determinants of nurses' readiness for disaster response: A systematic review. *Journal of Nursing Management*, 30(5), 1234-1245. Retrieved on May 17, 2025 from <https://doi.org/10.1111/jonm.13245>
- Alshammari, F., & Alshammari, M. (2025). Radiological disaster response self-efficacy of final-year nursing students and interns at Jazan University, Saudi Arabia. *BMC Medical Education*, 25, 69. Retrieved on May 14, 2025
- Al Thobaity, A. Overcoming challenges in nursing disaster preparedness and response: an umbrella review. *BMC Nurse* 23, 562 (2024). Retrieved on May 15, 2025 from <https://doi.org/10.1186/s12912-024-02226-y>
- Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of bloom's taxonomy of educational objectives*. Pearson. Retrieved on October 24, 2024.
- Asian Disaster Reduction Center (2024). Information on Disaster Risk Reduction of the Member Countries. Retrieved on October 28, 2024 from <https://tinyurl.com/3chfmea>
- Aurelio, H. S., Bautista, B. J., Casimiro, R. M., Dichoso, N. K., Endaya, R. A., Ignacio, S. K., & Mallari, C. (2022). Knowledge, attitude, and practices of nursing students on disaster preparedness. *Proceedings Series on Health & Medical Sciences*, 2, 13-20. Retrieved on September 21, 2024 from <https://tinyurl.com/2jusw6k5>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman and Company. Retrieved on June 28, 2025

- Barrow, J., Brannan, G., & Khandar, P., 2022. Research Ethics - National Library of Medicine. *National Center for Biotechnology Information*. Retrieved on December 14, 2024 from <https://tinyurl.com/5n7727nx>
- Bloom's taxonomy*. (24, June 12). Center for Teaching Excellence - The University of Utah. Retrieved on December 15, 2024 from <https://tinyurl.com/33fb99e6>
- Cabilao-Valencia, M. I., Ali, M., Maryani, E., & Supriatna, N. (2019). Integration of disaster risk reduction in the curriculum of Philippine educational institutions. *Proceedings of the 3rd Asian Education Symposium (AES 2018)*. Retrieved on November 2, 2024 from <https://tinyurl.com/3wydwrhu>
- Canlas, I. P. (2023). Three decades of disaster risk reduction education: A bibliometric study. *Natural Hazards Research*, 3(2), 326-335. Retrieved on October 24, 2024 from <https://tinyurl.com/24674t44>
- Celik, S., & Simsek, S. (2020). Evaluating nursing students' knowledge and attitudes toward disaster preparedness. *Journal of Nursing Education and Practice*, 10(6), 18–25. Retrieved on May 15, 2025 from <https://doi.org/10.5430/jnep.v10n6p18>
- Cheraghi, F., Hassani, P., & Riazi, H. (2016). Correlation between self-efficacy and clinical performance of nursing students. *Journal of Nursing Education*, 5(3), 32–38.
- Clarkson, L. & Williams, M. (2023, August 8). EMS mass casualty triage. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan. PMID: 29083791. Retrieved on November 25, 2024 from <https://tinyurl.com/bdhkbzdz>
- Cruz, J. P., et al. (2022). Disaster response self-efficacy of nursing students: Perceived level and associated factors. *Nurse Education Today*, 59, 16–20. Retrieved on May 15, 2025 from <https://doi.org/10.1016/j.nedt.2022.105029>
- Delgadillo, J., Henshall, C., & Tesch, M. (2021). Disaster preparedness and response: Enhancing nursing students' self-efficacy through simulation-based education. *Journal of Professional Nursing*, 37(6), 1200–1207. Retrieved on June 20, 2025 from <https://doi.org/10.1016/j.profnurs.2021.09.002>
- Emaliyawati, E., Ibrahim, K., Trisyani, Y., Mirwanti, R., Ilhami, F. M., & Arifin, H. (2021). Determinants of nurse preparedness in disaster management: A cross-sectional study among the community health nurses in coastal areas. *Open Access Emergency Medicine*, 13, 373-379. Retrieved on September 21, 2024 from <https://tinyurl.com/43fmx3t3>

- Erkin, Ö., Konakçı, G., & Arkan Üner, G. (2023). The effect of disaster nursing course on nursing students' perceptions of disaster awareness, preparedness, response self-efficacy. *Afet ve Risk Dergisi*, 6(4), 1234-1246. Retrieved on September 21, 2024 from <https://tinyurl.com/yc8b7rrd>
- Farokhzadian, J., Farahmandnia, H., Tavan, A., Taskiran Eskici, G., & Soltani Goki, F. (2023). Effectiveness of an online training program for improving nurses' competencies in disaster risk management. *BMC Nursing*, 22(1). Retrieved on October 25, 2024 from <https://tinyurl.com/eb75neas>
- Hasan, M. K., Uddin, H., & Younos, T. B. (2022). Bangladeshi nursing students' perceived preparedness and readiness for disaster management. *International Journal of Disaster Risk Reduction*, 81, 103303. Retrieved on October 25, 2024 from <https://tinyurl.com/5byupuza>
- Huang, Y., & Jin, C. (2020). Current situation and influencing factors of classroom situation deviant behavior of undergraduate nursing students in colleges of traditional Chinese medicine. *Nursing Communications*, 4(2), 50. Retrieved on September 21, 2024 from <https://tinyurl.com/46ajweht>
- Hung, M. S., Lam, S. K., Chow, M. C., Ng, W. W., & Pau, O. K. (2021). The effectiveness of disaster education for undergraduate nursing students' knowledge, willingness, and perceived ability: An evaluation study. *International Journal of Environmental Research and Public Health*, 18(19), 10545. Retrieved on September 21, 2024 from <https://tinyurl.com/3jzu9ny5>
- Hung, C. C., Kao, H. F., & Liu, H. C. (2022). Academic self-efficacy, resilience, and social support as predictors of clinical performance among nursing students. *Nurse Education Today*, 108, 105184. Retrieved on May 4, 2025
- Hurrell, D. (2021). Conceptual knowledge OR procedural knowledge or conceptual knowledge AND procedural knowledge: Why the conjunction is important to teachers. *Australian Journal of Teacher Education*, 46(2), 57-71. Retrieved on November 22, 2024 from <https://tinyurl.com/3pebuvtx>
- Hurrell, S. A. (2020). *Procedural knowledge: The key to workplace competency*. In J. Higgs et al. (Eds.), *Practice-based education: Advancing social justice and sustainability in global settings* (pp. 91–104). Springer. Retrieved on June 28, 2025 from https://doi.org/10.1007/978-981-15-6968-7_8
- Jafari, M. J., et al. (2024). Overcoming challenges in nursing disaster preparedness and response: An umbrella review. *BMC Nursing*, 23, Article 2226. Retrieved on May 15, 2025 <https://doi.org/10.1186/s12912-024-02226-y>

- Jennings, B. M. (2004). The role of the nurse in disaster response. *Nursing Outlook*, 52(2), 66–71. Retrieved on June 20, 2025 from <https://doi.org/10.1016/j.outlook.2003.12.009>
- Jennings-Sanders, A. (2004). Teaching disaster nursing by utilizing the Jennings disaster nursing management model. *Nurse Education in Practice*, 4(1), 69-76. Retrieved on November 9, 2024 from <https://tinyurl.com/j2hwej8e>
- Jones, M. A., Smith, R. L., & Taylor, J. K. (2022). The impact of disaster preparedness training on nursing students' self-efficacy and response capabilities. *Journal of Nursing Education and Practice*, 12(3), 45-52. Retrieved on May 17, 2025 from <https://doi.org/10.5430/jnep.v12n3p45>
- Kaba, Abdoulaye and K. Ramaiah, Chennupati, "Measuring Knowledge Acquisition and Knowledge Creation: A Review of the Literature" (2020). Library Philosophy and Practice (e-journal). 4723. Retrieved on October 24, 2024 from <https://tinyurl.com/2tpxpnhn>
- Kalanlar, B. (2018). Effects of disaster nursing education on nursing students' knowledge and preparedness for disasters. *International Journal of Disaster Risk Reduction*, 28, 475–480. Retrieved on May 15, 2025 from <https://doi.org/10.1016/j.ijdr.2018.02.030>
- Kamanyire, J. K., Wesonga, R., Achora, S., Labrague, L. L., Malik, A., Alshaqsi, S., & Alhabsi, J. A. (2021). Nursing students' perceived disaster preparedness and response. *Sultan Qaboos University Medical Journal [SQUMJ]*, 21(4), 621-625. Retrieved on December 14, 2024 from <https://tinyurl.com/yvpbfcn2>.
- Khosravi, M., & Khosravi, S. (2023). A comparative study of nursing students' disaster literacy and self-efficacy in Türkiye and Iran. *Journal of Nursing Education and Practice*, 13(4), 45-52. Retrieved on May 17, 2025 from <https://doi.org/10.5430/jnep.v13n4p45>
- Kılınç İşleyen, E., & Demirkaya, Z. (2024). Relationship Between Disaster Response Self-Efficacy and Disaster Preparedness in Nursing Students: After-Earthquake Study. *Disaster Medicine and Public Health Preparedness*, 18, e83. Retrieved on May 15, 2025 from <https://doi.org/10.1017/dmp.2023.108>
- Kim, M., & Shin, S. (2021). The effect of a blended learning program on nursing students' knowledge, attitudes, and self-efficacy in palliative care. *Journal of Hospice & Palliative Nursing*, 23(4), 346–353
- Kim, Y., Kim, S. S., & Lee, H. (2022). Effects of disaster preparedness training on disaster awareness and self-efficacy in nursing students: A quasi-experimental study. *Nurse Education Today*, 110, 105282. Retrieved on June 20, 2025 from <https://doi.org/10.1016/j.nedt.2022.105282>

- Labrague, L. J., Yboa, B. C., McEnroe-Petitte, D. M., Lobrino, L. R., & Brennan, M. G. B. (2018). Disaster preparedness in Philippine nurses. *Journal of Nursing Scholarship*, 50(1), 98–105. May 15, 2025 from <https://doi.org/10.1111/jnu.12343>
- Lakbari, F., Heidari, M., & Moezzi, M. (2022). Designing a disaster training program and examining its impact on the level of competence of nursing students. *Disaster and Emergency Medicine Journal*, 7(3), 142-149. Retrieved on October 13, 2024 from <https://tinyurl.com/mry7m2cy>
- Lapada, A. (2022). Disaster risk reduction knowledge among Filipino senior high school students. *Journal of Social Sciences Review*, 2(1), 56-73. Retrieved on September 21, 2024 from <https://tinyurl.com/yyfntknx>
- Lappe, J. M. (2000). Taking the mystery out of research: Descriptive correlational design. *Orthopaedic Nursing*, 19(2), 81. Retrieved on October 30, 2024 from <https://tinyurl.com/bd97s6m5>
- Lee, J., & Kim, H. (2023). Challenges in disaster preparedness among nursing students: Bridging the gap between theory and practice. *Nurse Education Today*, 115, 105-112. Retrieved on May 17, 2025 from <https://doi.org/10.1016/j.nedt.2022.105112>
- Lin, C., Tzeng, W., Chiang, L., Lu, M., Lee, M., & Chiang, S. (2024). Effectiveness of a structured disaster management training program on nurses' disaster readiness for response to emergencies and disasters: A randomized controlled trial. *Journal of Nursing Management*, 2024(1). Retrieved on November 9, 2024 from <https://tinyurl.com/2fvtvh2f>
- Lin, C., Tzeng, W., Chiang, L., Lee, M., & Chiang, S. (2023). Determinants of nurses' disaster management competency: A cross-sectional study. Retrieved on December 3, 2024 from <https://tinyurl.com/bdh6e6tb>
- Lin, C. Y., Chang, Y. T., Huang, C. Y., & Fang, J. T. (2023). Strengthening disaster response through implementation-based simulation: Nursing students' preparedness and collaborative practice. *Nurse Education in Practice*, 70, 103662. Retrieved on June 20, 2025 from <https://doi.org/10.1016/j.nepr.2023.103662>
- Liou, S., Liu, H., Tsai, H., Chu, T., & Cheng, C. (2020). Relationships between disaster nursing competence, anticipatory disaster stress and motivation for disaster engagement. *International Journal of Disaster Risk Reduction*, 47, 101545. Retrieved on November 22, 2024 from <https://tinyurl.com/49tcfy9a>
- Lindell, M. K., & Perry, R. W. (2012). The protective action decision model: theoretical modifications and additional evidence. Risk analysis : an official publication of

the Society for Risk Analysis, 32(4), 616–632. <https://doi.org/10.1111/j.1539-6924.2011.01647.x>. Retrieved on December 8, 2024 from <https://pubmed.ncbi.nlm.nih.gov/21689129/>

Ochs, D. L., Romero, C. E., & Talbot, R. M. (2024). Prioritizing care through triage: Nurse responsibilities in mass casualty incidents. *International Journal of Emergency Nursing*, 61, 101210. Retrieved on October 23, 2024 from <https://doi.org/10.1016/j.ienj.2024.101210>

Olorunfemi, O., & Adesunloye, O. B. (2024). Disaster preparedness and first aid response: The role of emergency nurses. *Archives of Medicine and Health Sciences*, 12(2), 231-236. Retrieved on December 3, 2024 from <https://tinyurl.com/57pxwnst>

Pang, S. M., Chan, S. M., & Leung, A. W. (2019). Enhancing disaster preparedness among nursing students: A review of the literature. *Nurse Education Today*, 79, 94–99. Retrieved on May 15, 2025 from <https://doi.org/10.1016/j.nedt.2019.05.019>

Putra, K. A., Arifin, H., & Rahmawati, N. (2021). The influence of disaster preparedness training on self-efficacy and readiness of nursing students in Indonesia. *Nurse Media Journal of Nursing*, 11(2), 117–127. Retrieved on June 20, 2025 from <https://doi.org/10.14710/nmjn.v11i2.40610>

Qiu, D., Lv, B., Cui, Y., & Zhan, Z. (2023). The role of response efficacy and self-efficacy in disaster preparedness actions for vulnerable households. *Natural Hazards and Earth System Sciences*, 23(12), 3789-3803. Retrieved on October 24, 2024 from <https://tinyurl.com/5bdjvdnw>

Rahayu, A., Syah, A., & Najib, A. (2021). Higher order thinking skills students in mathematical statistics course base on revised bloom taxonomy in factual and conceptual knowledge dimension. *Journal of Physics: Conference Series*, 1918(4), 042076. Retrieved on November 9, 2024 from <https://tinyurl.com/273jsvcs>

Rahman, M. M., et al. (2024). Disaster response self-efficacy of nursing students. *International Journal of Disaster Risk Reduction*, 85, 103512. Retrieved on May 15, 2025

Raikes, J., Smith, T. F., Jacobson, C., & Baldwin, C. (2019). Pre-disaster planning and preparedness for floods and droughts: A systematic review. *International Journal of Disaster Risk Reduction*, 38, 101207. Retrieved on December 3, 2024 from <https://tinyurl.com/fv2k5uxs>

Roberts, A. B., & Smith, J. C. (2023). Enhancing case management skills in nursing education: Strategies for effective disaster response. *Journal of Nursing*

Education and Practice, 13(2), 78-85. Retrieved on May 17, 2025 from <https://doi.org/10.5430/jnep.v13n2p78>

- Said, N. B., Chiang, V. C. L., & Choi, K. C. (2020). Enhancing disaster preparedness and response competencies among undergraduate nursing students through simulation: A scoping review. *Nurse Education in Practice*, 45, 102799. Retrieved on May 15, 2025 from <https://doi.org/10.1016/j.nepr.2020.102799>
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social-emotional learning: Theory, research, and practice. In *The Cambridge Handbook of Motivation and Learning* (pp. 133–155). Cambridge University Press. Retrieved on June 28, 2025
- Seong, M., Ryu, D., & Sok, S. (2023). A study on the types of disaster awareness in nursing students: Q methodology. *BMC Nursing*, 22(1). Retrieved on December 14, 2024 from <https://tinyurl.com/55cxn2cb>
- Shmueli, A., Tzafrir, S., Sheaffer, Z., & Itzhak, B. (2021). Emergency preparedness and planning: Enhancing cooperation across agencies through shared disaster protocols. *International Journal of Disaster Risk Reduction*, 57, 102192. Retrieved on June 28, 2025 <https://doi.org/10.1016/j.ijdr.2021.10219>
- Shmueli, D. F., Ozawa, C. P., & Kaufman, S. (2021). Collaborative planning principles for disaster preparedness. *International Journal of Disaster Risk Reduction*, 52, 101981. Retrieved on December 3, 2024 from <https://tinyurl.com/bdeu48tz>
- Sims JM. (2010). A brief review of the Belmont report. *Dimens Crit Care Nurs*. 2010 Jul-Aug;29(4):173-4. PubMed. Retrieved on December 14, 2024 from <https://tinyurl.com/5n7727nx>
- Smith, J. A., Johnson, L. M., & Brown, R. T. (2023). Enhancing nursing students' disaster response skills through simulation-based training. *Nurse Education Today*, 115, 105-112. Retrieved on May 17, 2025 from <https://doi.org/10.1016/j.nedt.2023.105112>
- Songwathana, P., & Timalisina, R. (2021). Disaster preparedness among nurses of developing countries: An integrative review. *International Emergency Nursing*, 55, 100955. Retrieved on December 12, 2024 from <https://tinyurl.com/mthp5xzw>
- Tussing, T. E., Chesnick, H., & Jackson, A. (2022). Disaster Preparedness: Keeping Nursing Staff and Students at the Ready. *The Nursing clinics of North America*, 57(4), 599–611. Retrieved on May 15, 2025 from <https://doi.org/10.1016/j.cnur.2022.06.008>

- Usher, K., et al. (2022). Disaster Preparedness: Keeping Nursing Staff and Students at the Ready. *Journal of Emergency Nursing* Retrieved on June 20, 2025
- Yıldırım, N., & Korkmaz, F. (2020). The effect of the disaster management training program among nursing students. *Nurse Education Today*, 85, 104271. Retrieved on May 14, 202
- Yılmaz, D., & Buran, G. (2024). Disaster Response Self-Efficacy of Students in the Nursing Department: A Cross-Sectional Study. *Malaysian Journal of Health Research*, 28(1). Retrieved on May 15, 2025
- Zareipour, M. A., et al. (2023). Effectiveness of an online training program for improving nurses' competencies in disaster risk management. *BMC Nursing*, 22, Article 1497. Retrieved on May 15, 2025 from <https://doi.org/10.1186/s12912-023-01497-1>
- Zhang, Y., Li, X., & Wang, L. (2021). Disaster response self-efficacy of nursing students: Perceived level and associated factors. *International Journal of Nursing Sciences*, 8(3), 300-306. Retrieved on May 17, 2025 from <https://doi.org/10.1016/j.ijnss.2021.05.001>

APPENDIX A - Research Questionnaire

QUESTIONNAIRES ON THE INFLUENCE OF NURSING STUDENTS' LEVEL OF KNOWLEDGE AND READINESS ON SELF-EFFICACY IN DISASTER RESPONSE

A. RESPONDENTS' LEVEL OF KNOWLEDGE IN DISASTER RESPONSE QUESTIONNAIRE

Direction: Please answer the following statements honestly. Select and put a check on the appropriate response option for each statement based on your agreement or disagreement with the statement using the following scale: 5 – Strongly Agree (SA), 4 – Agree (A), 3 – Moderately Agree (MA) 2 – Disagree (DA), 1 – Strongly Disagree (SDA)

Factual Knowledge		5	4	3	2	1
1	I am familiar with the phases of disaster management (preparedness, response, recovery, and mitigation).					
2	I understand the importance of using personal protective equipment (PPE) during an infectious disease outbreak.					
3	I know the common types of injuries that can occur during various disasters.					
4	I am knowledgeable about the types of disasters that can occur in my community.					
5	I understand the importance of community preparedness in disaster response.					
Procedural Knowledge		5	4	3	2	1

APPENDIX A Cont'd

APPENDIX A Cont'd

1	I understand the steps involved in conducting a first aid assessment during a disaster.					
2	I know how to prioritize patients during a situation in a disaster.					
3	Disaster nursing procedures should include protocols for the distribution of medications and supplies.					
4	Disaster response training should include procedures for managing mass casualty incidents.					
5	Nurses should know how to implement infection control measures in disaster settings.					

B. RESPONDENTS' READINESS IN DISASTER RESPONSE QUESTIONNAIRE. Direction: Please answer the following statements honestly. Select and put a check on the appropriate response option for each statement based on your agreement or disagreement with the statement using the following scale: 5 – Always (A), 4 – Often (O), 3 – Seldom (S), 2 – Rarely (R), 1 – Never (N)

Assessment		5	4	3	2	1
1	I practice assessment skills that are applicable in disaster scenarios.					
2	I am prepared to conduct a rapid assessment of patients in a disaster situation.					

3	I am equipped to assess the physical needs of patients in a disaster setting.					
4	I am inclined to adapt my assessment techniques to different types of disasters.					
5	I am ready to conduct assessments in chaotic or high-stress environments.					
Planning		5	4	3	2	1
1	I regularly participate in planning exercises related to disaster response.					
2	I am prepared to develop a disaster response plan for a community.					
3	I am prepared to develop contingency plans for various types of disasters.					
4	I am equipped develop a plan for the safe transportation of patients during a disaster.					
5	I am equipped to develop a plan for the distribution of medical supplies during a disaster response.					
Implementation		5	4	3	2	1

APPENDIX B Cont'd

1	I am prepared to implement a disaster response plan in a real-world scenario.					
2	I am prepared to perform first-aid protocols during a disaster.					
3	I am equipped to provide immediate care to patients in a disaster situation.					
4	I am prepared to work in a chaotic environment during a disaster response.					
5	I am prepared to lead a team in the implementation of a disaster response plan.					

C. RESPONDENTS' SELF-EFFICACY IN DISASTER RESPONSE QUESTIONNAIRE. Direction: Please answer the following statements honestly. Select and put a check on the appropriate response option for each statement based on your agreement or disagreement with the statement using the following scale: 5 – Completely Confident (CC), 4 – Confident (C), 3 – Moderately Confident (MC), 2 – Less Confident (LC), 1 – Not at All Confident (NAC)

Caregiver Role		5	4	3	2	1
1	I can identify and transfer the injured people to suitable treatment areas.					

2	I can perform and apply emergency rescue techniques (e.g. Basic Life Support: BLS) effectively, during disaster response.					
3	I can provide immediate medical assistance to those injured or in critical condition, including first aid and triage.					
4	I can offer emotional support to patients and their families.					
5	I can manage medical supplies, ensuring that essential items like medications, bandages, and equipment are available.					
Educator Role		5	4	3	2	1
1	I can update and adapt nursing curricula to include disaster readiness, response, and recovery topics.					
2	I can detect the relative harm from the disaster and perform health education to mitigate the effect of the disaster.					

APPENDIX A Cont'd

APPENDIX A Cont'd

3	I can create educational materials, handouts, and online resources that provide information on disaster readiness for healthcare professionals and the public.					
4	I can provide education on recovery processes, including health screenings, follow-up care, and resources for ongoing support.					
5	I can assess the epidemic after the disaster, such as infectious diseases, environmental hazards or poisoning and provide proper health teaching.					
Case Manager Role		5	4	3	2	1
1	I can conduct thorough assessments of patients' physical, emotional, and social needs following a disaster.					
2	I can identify and secure necessary resources, such as medical supplies and medications.					

APPENDIX A Cont'd

3	I can quickly adapt to the work environment, be calm, and not panic in emergency situations.					
4	I can help facilitate access to mental health services, counseling, and support groups.					
5	I can collect and analyze data on patient outcomes and usage of resources to evaluate the effectiveness of disaster response efforts.					

APPENDIX B - Sample of Filled Out Questionnaire

QUESTIONNAIRES ON NURSING STUDENTS' LEVEL OF KNOWLEDGE, READINESS, AND SELF-EFFICACY ON DISASTER RESPONSE: A DESCRIPTIVE-CORRELATIONAL STUDY

A. RESPONDENTS' LEVEL OF KNOWLEDGE ON DISASTER RESPONSE QUESTIONNAIRE

Direction: Please answer the following statements honestly. Select and put a check on the appropriate response option for each statement based on your agreement or disagreement with the statement using the following scale: 5 – Strongly Agree (SA), 4 – Agree (A), 3 – Moderately Agree (MA), 2 – Disagree (DA), 1 – Strongly Disagree (SDA)

Factual Knowledge		5	4	3	2	1
1	I am familiar with the phases of disaster management (preparedness, response, recovery, and mitigation).			☒		
2	I understand the importance of using personal protective equipment (PPE) during an infectious disease outbreak.		☒			
3	I know the common types of injuries that can occur during various disasters.		☒			
4	I am knowledgeable about the types of disasters that can occur in my community.			☒		
5	I understand the importance of community preparedness in disaster response.			☒		
Procedural Knowledge		5	4	3	2	1
1	I understand the steps involved in conducting a first aid assessment during a disaster.			☒		
2	I know how to prioritize patients during a situation in a disaster.			☒		
3	Disaster nursing procedures should include protocols for the distribution of medications and supplies.			☒		
4	Disaster response training should include procedures			☒		

APPENDIX B Cont'd

	for managing mass casualty incidents.					
5	Nurses should know how to implement infection control measures in disaster settings.		/			

B. RESPONDENTS' READINESS ON DISASTER RESPONSE QUESTIONNAIRE.

Direction: Please answer the following statements honestly. Select and put a check on the appropriate response option for each statement based on your agreement or disagreement with the statement using the following scale: 5 – Always (A), 4 – Often (O), 3 – Seldom (S), 2 – Rarely (R), 1 – Never (N)

Assessment		5	4	3	2	1
1	I practice assessment skills that are applicable in disaster scenarios.		/			
2	I am prepared to conduct a rapid assessment of patients in a disaster situation.		/			
3	I am equipped to assess the physical needs of patients in a disaster setting.			/		
4	I am inclined to adapt my assessment techniques to different types of disasters.		/			
5	I am ready to conduct assessments in chaotic or high-stress environments.		/			
Planning		5	4	3	2	1
1	I regularly participate in planning exercises related to disaster response.			/		
2	I am prepared to develop a disaster response plan for a community.		/			
3	I am prepared to develop contingency plans for various types of disasters.			/		

APPENDIX B Cont'd

4	I am equipped develop a plan for the safe transportation of patients during a disaster.					
5	I am equipped to develop a plan for the distribution of medical supplies during a disaster response.					
Implementation		5	4	3	2	1
1	I am prepared to implement a disaster response plan in a real-world scenario.					
2	I am prepared to perform first-aid protocols during a disaster.					
3	I am equipped to provide immediate care to patients in a disaster situation.					
4	I am prepared to work in a chaotic environment during a disaster response.					
5	I am prepared to lead a team in the implementation of a disaster response plan.					

C. RESPONDENTS' SELF-EFFICACY ON DISASTER RESPONSE QUESTIONNAIRE.

Direction: Please answer the following statements honestly. Select and put a check on the appropriate response option for each statement based on your agreement or disagreement with the statement using the following scale: 5 – Completely Confident (CC), 4 – Confident (C), 3 – Moderately Confident (MC), 2 – Less Confident (LC), 1 – Not at All Confident (NAC)

Caregiver Role		5	4	3	2	1
1	I can identify and transfer the injured people to suitable treatment areas.					
2	I can perform and apply emergency rescue techniques (e.g. Basic Life Support: BLS) effectively, during disaster response.					
3	I can provide immediate medical assistance to those injured or in critical condition, including first aid and triage.					

APPENDIX B Cont'd

4	I can help facilitate access to mental health services, counseling, and support groups.				/	
5	I can collect and analyze data on patient outcomes and usage of resources to evaluate the effectiveness of disaster response efforts.			/		

APPENDIX C - Sampling Computation

Level 4 Blocks	Total Population	Percentage	Sample Population
A	42	25%	30
B	40	24%	28
C	40	24%	28
D	47	27%	32
Total:	168	100%	118

Appendix D - Informed Consent Form

Nursing Students' Level of Knowledge, Readiness and Self-Efficacy on Disaster Response: A Descriptive-Correlational Study

Dear Respondents,

We are third-year students of Misamis University taking up Bachelor of Science in Nursing. As a requirement of our course, we are conducting a research study entitled "Nursing Students' Level of Knowledge, Readiness, and Self-Efficacy on Disaster Response: A Descriptive Correlational Study." This study aims to assess the nursing students' level of knowledge, readiness, and self-efficacy on disaster response. The primary objective of this research is to understand and seek answers to the students' level of knowledge, readiness, and self-efficacy on disaster response and their correlation to one another.

Your participation in the survey is voluntary. All information provided will remain confidential and will be used solely for academic research purposes. No personal data will be shared or disclosed. Your cooperation and honesty in answering this survey will be highly appreciated. Thank you for your time and cooperation in this study.

Sincerely,

The Researchers

Consent Statement

I have read and understood the purpose of this research. I voluntarily agree to participate, knowing that my responses will remain confidential.

- ☐ I agree to participate in this study.
- ☐ I do not agree to participate in.

Signature: _____ Date: _____

Personal Information

Full Name: _____

Block/Section: _____

Appendix E - Approved Letter of Consent



Misamis University

Ozamiz City



MISAMIS UNIVERSITY RESEARCH CENTER

CERTIFIED: ISO 21001: 2018 Educational Organizations Management System by DNV
ACCREDITED: Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA)

MU-RC-042/13 November 2024

Thesis/Research Data Gathering Approval Form

Date: MARCH 21, 2025

Name of Authors: JOSHUA R. FERENCIO, STAR O. SUMAMPONG

College/Department: College of Nursing, Midwifery, and Radiologic Technology

Research Title: Nursing Student's Level of Knowledge, Readiness, and Self Efficacy on Disaster Response: A Descriptive Correlational Study

Data Gathering Procedure:

a. Type of Research: (Kindly check)

☒ Quantitative	☐ Qualitative	☐ Experimental
☒ Approved Research Title & Problem/Objectives	☒ Approved Data Gathering Procedure	☒ Approved Data Gathering Instrument/Data Sheets

b. Respondents/Participants/Subject/Samples to be Collected: Level 4 Nursing Students

c. Procedure:

☒ Survey	☐ Interview	☐ Experimentation	☐ Laboratory Testing
--	------------------------------------	--	---

d. Place of Implementation/Study Area: College of Nursing, Midwifery, and Radiologic Technology

If to be conducted outside the school campus, indicate the nature of transportation to be used:

☐ Own private vehicle	☐ public utility vehicle	☐ rental	☐ Others, please indicate _____
--	---	---------------------------------	--

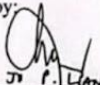
e. Date/s of Implementation/Sampling: March - April 2025

Attachments:

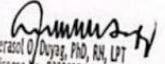
☒	Approved Letter of Consent from the designated authority in the area/place where the study is to be conducted
☐	Signed Parents' Consent

The thesis proposal mentioned above is hereby recommended for the commencement of data gathering implementation.

Recommended by:

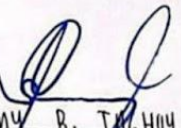


CHARLY J. F. LAR, MEd, EdD
Thesis/Research Adviser



ANGEL O. DUYO, PhD, RN, LPT
Thesis/Research Instructor

Approved by:



SAMMY B. TAYO, PhD, RN
College Dean

CONTROLLED DOCUMENT

Appendix E Cont'd



MISAMIS UNIVERSITY
Ozamiz City 7200, Philippines



CERTIFIED: ISO 21001: 2018 Educational Organizations Management System by DNV
ACCREDITED: Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA)

March 17, 2024

SAMMY B. TAGHOY, PhD, RN
Dean, College of Nursing, Midwifery
& Radiologic Technology,
Misamis University

Dear Dr. Sammy B. Taghoy,

Greetings of Peace!

We, the students of Misamis University, would like to formally request for your approval for the conduct of our quantitative research entitled "**Nursing Students' Level of Knowledge, Readiness and Self-Efficacy on Disaster Response: A Descriptive – Correlational Study.**" This study aims to assess the nursing students' level of knowledge, readiness, and self-efficacy on disaster response. The primary objective of this research is to understand and seek answers to the students' level of knowledge, readiness, and self-efficacy on disaster response and their correlation to one another. Given the critical role that the future healthcare workers uptake in disaster response, this study will provide valuable insights that can help modify and develop effective disaster nursing curricula and instruction that attends to the needs of the modern-day world.

We intend to conduct this research among the fourth-year level students enrolled in NCM 120: Disaster Nursing. With this, we would also like to request for access of the total number of students in their fourth-year level. Access to these students is essential for gathering accurate data and understanding their knowledge, readiness, and self-efficacy on disaster response.

We kindly request your support in facilitating access to the identified students via random sampling. Your endorsement will not only lend credibility to our research but also demonstrate the department's commitment to improving its nursing curricula and instruction for better service. We are committed to conducting this study ethically and respectfully, ensuring that all participants' rights are protected. We will adhere to all necessary protocols and guidelines throughout the research process.

We respectfully request your approval for this study. We believe that this research has the potential to make a significant impact on the future of the next generation of health care workers. If you have any questions or concerns, kindly contact us at (+63) 969 0750 409. We look forward to your positive response.

Thank you very much for your time and consideration.

Respectfully,

Joshua R. Serencio

Researcher

Star O. Sumampong

Researcher

Noted by:

Charry Jo P. Chan, MAN, RN
Research Adviser

Approved by:

Sammy B. Taghoy, PhD, RN
Dean

Appendix F - Statistical Computations

Table 1

Nursing Students' Level of Knowledge in Disaster Response

(n=118)

Level of Knowledge	Mean	StDev	Interpretation
Factual or Conceptual knowledge	4.54	0.48	VH
Procedural Knowledge	4.54	0.46	VH
Overall Mean	4.54	0.47	VH

Legend: 4.21- 5.00 – Very High (VH) 1.81- 2.60 – Low (L)
 3.41- 4.20 – High (H) 1.00- 1.80 – Very Low (VL)
 2.61- 3.40 – Moderately High (MH)

Table 2

Respondents' Level of Readiness

(n=118)

Readiness	Mean	StDev	Interpretation
Assessment	4.24	0.58	VH
Planning	4.12	0.66	H
Implementation	3.98	0.69	H
Overall Mean	4.11	0.64	H

Legend: 4.21- 5.00 – Very High (VH) 1.81- 2.60 – Low (L)
 3.41- 4.20 – High (H) 1.00- 1.80 – Very Low (VL)
 2.61- 3.40 – Moderately High (MH)

Table 3:

Respondents' Self-efficacy

(n=118)

Self-efficacy	Mean	StDev	Interpretation
Caregiver	4.20	0.55	H
Educator	4.25	0.58	VH
Case Manager	4.24	0.62	VH
Overall Mean	4.23	0.58	VH

Legend: 4.21- 5.00 – Very High (VH) 1.81- 2.60 – Low (L)
 3.41- 4.20 – High (H) 1.00- 1.80 – Very Low (VL)
 2.61- 3.40 – Moderately High (MH)

Table 4

Significant Relationship Between the Respondents' Level of Knowledge and Self-Efficacy in Disaster Response.

Variables	Test Statistics		Remarks
	r-value	p-value	
<u>Factual or Conceptual Knowledge and:</u>			
Caregiver	0.387	0.00**	Reject Null Hypothesis
Educator	0.167	0.07	Accept Null Hypothesis
Case Manager	0.182	0.05*	Reject Null Hypothesis
<u>Procedural Knowledge and:</u>			
Caregiver	0.500	0.00**	Reject Null Hypothesis
Educator	0.196	0.03*	Reject Null Hypothesis
Case Manager	0.233	0.01**	Reject Null Hypothesis

H₀₁: There is no significant relationship between the respondents' level of knowledge and self-efficacy on disaster response.

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

Table 5:
Significant Relationship Between the Respondents' Readiness and Self-Efficacy in Disaster Response.

Variables	Test Statistics		Remarks
	r-value	p-value	
<u>Assessment and:</u>			
Caregiver	0.415	0.00**	Reject Null Hypothesis
Educator	0.398	0.00**	Reject Null Hypothesis
Case Manager	0.412	0.00**	Reject Null Hypothesis
<u>Planning and:</u>			
Caregiver	0.438	0.00**	Reject Null Hypothesis
Educator	0.474	0.00**	Reject Null Hypothesis
Case Manager	0.453	0.00**	Reject Null Hypothesis
<u>Implementation and:</u>			
Caregiver	0.586	0.00**	Reject Null Hypothesis
Educator	0.505	0.00**	Reject Null Hypothesis
Case Manager	0.530	0.00**	Reject Null Hypothesis

H₀₁: There is no significant relationship between the respondents' readiness and self-efficacy in disaster response.

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

Table 6

Predictors of Nursing Students' Level of Self-efficacy

Term	Coef	SE Coef	T-Value	P-Value
<u>Level of Knowledge:</u>				
Factual or Conceptual Knowledge	0.139	0.104	1.34	0.18
Procedural Knowledge	0.310	0.109	2.86	0.01**

R-sq: 14.17%

Regression Equation: Self-efficacy = 2.191 + 0.139 FKAVE + 0.310 PKAVE

<u>Level of Readiness:</u>				
Assessment	0.1257	0.0748	1.68	0.10
Planning	0.1273	0.0714	1.78	0.08
Implementation	0.3220	0.0689	4.67	0.01**

R-sq: 44.39%

Regression Equation: Self-efficacy = 1.893 + 0.1257 AAVE + 0.1273 PAVE + 0.3220 IAVE

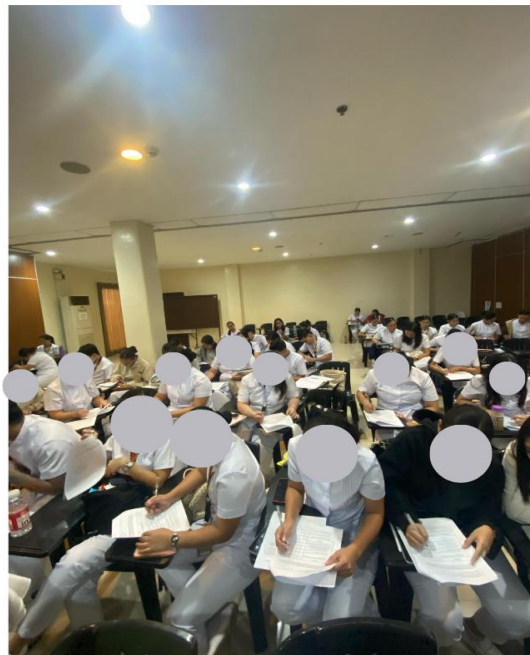
Ho3: There are no predictors in the nursing students' level of self-efficacy.

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

Significant Predictors (p< 0.05)

- Procedural Knowledge
- Implementation

Appendix G - Documentation (Photos)



Appendix H – Grammarly Report

Report: Serencio_Sumampong final (July 2025) for t

Serencio_Sumampong final (July 2025) for t

by Misamis University

General metrics

74,509	10,115	680	40 min 27 sec	1 hr 17 min
characters	words	sentences	reading time	speaking time

Writing Issues

 No issues found

Plagiarism

This text hasn't been checked for plagiarism

Appendix I - Turnitin Result



Page 2 of 73 - Integrity Overview

Submission ID: trncpid:28442106701596

24% Overall Similarity

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

Filtered from the Report

- Bibliography

Match Groups

- 197 Not Cited or Quoted** 21%
Matches with neither in-text citation nor quotation marks
- 29 Missing Quotations** 2%
Matches that are still very similar to source material
- 5 Missing Citation** 0%
Matches that have quotation marks, but no in-text citation
- 1 Cited and Quoted** 0%
Matches with in-text citation present, but no quotation marks

Top Sources

- 12% Internet sources
- 7% Publications
- 22% 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 : Joshua R. Serencio

Date of Birth : September 27, 2003

Place of Birth : City of Cotabato

Home Address : P-3, Texas St., Barangay Mialen, Clarin, Misamis
Occidental

Gender : Male

Civil Status : Single

Contact No. : 09327014821

Email : joshuareveloserencio@gmail.com



EDUCATIONAL BACKGROUND

Elementary : Vilo Central Elementary School
Don Roman Vilo Street, Poblacion 4, Cotabato City

Secondary : San Vicente Academy
Gov Gutierrez Avenue, Rosary Heights 7, Cotabato
City

Senior High School : Misamis University - Basic Education Department
H.T. Feliciano Street, Aguada, Ozamiz City

Tertiary : Misamis University
H.T. Feliciano Street, Aguada, Ozamiz City

CURRICULUM VITAE

PERSONAL DATA

Name : Star O. Sumampong

Date of Birth : April 1, 2004

Place of Birth : Ozamiz City

Home Address : P-5 Dona Consuelo, Ozamiz City, Misamis Occidental

Gender : Female

Civil Status : Single

Contact No. : 09618055997

Email : starosumampong@gmail.com



EDUCATIONAL BACKGROUND

Elementary : Dona Consuelo Elementary School
Dona Consuelo, Ozamiz City, Misamis Occidental

Secondary : FMC Ma School
Dap-dap Maningcol, Ozamiz City, Misamis Occidental

Senior High School : Misamis University - Basic Education Department
H.T. Feliciano Street, Aguada, Ozamiz City

Tertiary : Misamis University
H.T. Feliciano Street, Aguada, Ozamiz City