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# A Correlational Study on the Level of Disaster Preparedness and Emergency Response Confidence Levels of Nursing Students of St. Mary's College of Baliuag, Inc., A.Y. 2025–2026

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## ABSTRACT

The development of disaster preparedness and emergency response competencies is one of the most important areas of education that all nursing students need to acquire because they will be on the front lines during a disaster. Therefore, this study investigated Nursing students' preparedness behavior, knowledge of disaster related terms, and their confidence to respond in emergencies. In addition, it examined the relationships between the three variables. Descriptive and correlational methods were used. Altogether 215 BSN students completed a written survey designed to collect data. The results indicated a high degree of BSN students' preparedness behavior (mean percent = 61.86%), primarily through receiving information about disasters. However, there were some low scores when students answered questions about their preparation for planning and having access to emergency telephone numbers. The BSN students had moderate knowledge regarding disaster preparedness (overall mean = 57.21%). These findings indicate that the students have limited knowledge about the specifics of what to do during a disaster. Although the BSN students stated they were confident in responding to emergencies (overall mean = 3.98), the correlation between their knowledge and confidence was not significantly related (r = .369). The implications of these findings suggest that confidence cannot be solely based on theory or knowledge; therefore, including hands-on practice, simulations, and drills should be included in the BSN program to develop both competency and readiness for disaster situations.

**Keywords**: Disaster preparedness; Emergency Response; Knowledge; Confidence; BSN Students; Correlational Study

## INTRODUCTION

The Philippines is a country prone to several natural disasters as it lies in the Pacific Ring of Fire as well as the Western Pacific Typhoon belt making it number one on the list in the World Risk Index for countries prone to natural disasters. The recent disasters in the country have been Typhoon Kalmaegi in 2025 that brought about widespread flooding and displacement as well as a 6.9 magnitude quake that brought about severe infrastructure destruction in northern Cebu. The above-mentioned makes it clear how necessary it is to prepare for disasters. It is important that nurses should learn to deal with such situations. The current study will focus on assessing disaster preparedness as well as the level of confidence in emergency response among nursing students in St. Mary's College of Baliuag, Inc. in the academic year 2025-2026. Other variables will include knowledge of flood disasters, self-efficacy and risk perception.

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# REVIEW OF RELATED LITERATURE

Hashish, et al. (2023) examined the attitudes, knowledge, and perceptions of disaster preparedness among nursing students in Saudi Arabia. The study found that while most students demonstrated positive attitudes and perceived competence in disaster response, their actual knowledge of disaster nursing concepts was insufficient. The findings highlighted a gap between confidence and foundational knowledge, emphasizing the need for stronger disaster education. The authors recommended integrating disaster nursing and preparedness into undergraduate nursing curricula through simulations and training to better equip future nurses for disaster situations. Hasan et al. (2024) found that nursing students in Bangladesh demonstrated moderate levels of disaster preparedness, disaster knowledge, disaster skills, and disaster response self-efficacy. The study revealed significant positive relationships among these factors, indicating that greater knowledge and skills contribute to better preparedness and confidence in disaster situations. However, the moderate levels observed suggest a need for further improvement. The authors recommended integrating disaster management education, including training, workshops, drills, and simulations, into nursing curricula to enhance students' disaster preparedness and response capabilities. Aurelio et al. (2022) examined the knowledge, attitudes, and practices of disaster preparedness among nursing students in the Philippines. The study found that students generally possessed good knowledge of disaster preparedness concepts and positive attitudes toward disaster readiness. However, many were not consistently mentally and physically prepared for disasters. A significant relationship was found between knowledge and preparedness practices, suggesting that greater understanding promotes more proactive disaster preparedness. The authors recommended incorporating continuous education, training workshops, and disaster drills into nursing programs to further strengthen students' preparedness.

Kang, et. al. (2022) found that nursing students with higher levels of disaster preparedness and a greater willingness to participate in disaster response demonstrated stronger disaster nursing competency. The study also revealed that disaster awareness was significantly associated with students' willingness to engage in disaster response activities. These findings highlight the importance of disaster-related education and training in improving nursing students' confidence, preparedness, and competency. The authors recommended integrating structured disaster preparedness programs into nursing curricula to enhance disaster awareness and response capabilities among future nurses.

**Statement of the Problem**

This study aims to assess the level of disaster preparedness and emergency response confidence among Bachelor of Science in Nursing (BSN) students at St. Mary's College of Baliuag, Inc. for the Academic

Year 2025–2026. It seeks to determine the extent to which nursing students possess the necessary preparedness behaviors and knowledge toward disasters and to examine whether these factors are significantly related to their confidence in responding effectively during emergency situations.

Specifically, it aims to answer the following research questions:

1. What is the level of disaster preparedness of nursing students in terms of:

   1.1 preparedness behaviors, including the possession and utilization of evacuation plans, emergency kits, emergency hotlines, disaster plans, and reliable sources of disaster information and;

   1.2 knowledge of disaster-related concepts regarding appropriate actions before, during, and after disasters

2. What is the level of emergency response confidence of nursing students during disaster and emergency situations?

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3. Is there any significant relationship between the nursing students' level of disaster preparedness and their level of emergency response confidence?

# METHODS

A descriptive-correlational research design was used to gather data and examine relationships between variables without changing them. This study took place at St. Mary's College of Baliuag, Inc. located in Racelis St., Poblacion, Baliuag, Bulacan, Philippines. The college was chosen because it has a population of nursing students from different backgrounds.

The study included 215 Bachelor of Science in Nursing (BSN) students for the Academic Year 2025–2026. These students were selected using a method called random sampling. This ensured that students from all levels and sections of all year were represented proportionally. A special questionnaire was used to collect data. It was divided into sections that assessed preparedness behaviors, knowledge of disaster-related concepts and confidence in emergency response.

Data collection started with getting approval from the college administration. Then informed consent was obtained from the participants. Surveys were given during time to avoid disrupting classes. Confidentiality and voluntary participation were strictly observed.

Data were analyzed using statistics such as frequency, percentage and weighted mean. These helped determine levels of preparedness, knowledge and confidence. A statistical test called Pearson's product-moment correlation coefficient was used to test the relationship between variables. The study followed standards, including anonymity and compliance with the Data Privacy Act of 2012. Proper disposal of data, after analysis was also ensured.

**Data Presentation and Analysis**

Table 1. BSN Students' Level of Preparedness Behaviors

| Preparedness Behaviors | No. Responses | % | VD |
|---|---|---|---|
| 1. Do you have any emergency kits in your household? | 161 | 74.88 | HP |
| 2. Do you have any evacuation plans in your household? | 111 | 51.63 | MP |
| 3. Aside from "911," do you know any official emergency hotline numbers to call in case of an emergency? | 53 | 24.65 | LP |
| 4. Do you check social media for updates on typhoons, flooding, or earthquakes? | 207 | 96.28 | VHP |
| Total / Overall Mean Percentage | n = 215 | 61.86 | HP |

| Legend: | Percentage Range | Verbal Description |
|---|---|---|
| | 80 - 100 | Very High Preparedness (VHP) |
| | 60 - 79 | High Preparedness (HP) |

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| | | |
|---|---|---|
| | 40 - 59 | Moderate Preparedness (MP) |
| | 20 - 39 | Low Preparedness (LP) |
| | 0 - 19 | Very Low Preparedness (VLP) |

The computed overall mean percentage registers at 61.86%, with a verbal description of High Preparedness (HP). The results show that although BSN students exhibit a high level of preparedness behaviors, they are more likely to engage in passive and information-based practices, such as keeping an eye on social media updates, than in active and structured preparedness measures, such as creating evacuation plans and being aware of emergency hotlines. This underscores the necessity of increased awareness and training programs that concentrate on comprehensive disaster preparedness, especially in enhancing the planning and communication aspects.

Table 2. BSN Students' Level of Knowledge of Disaster-related Concepts

| Knowledge of Disaster-related Concepts | No. Responses | % | VD |
|---|---|---|---|
| A. Preparedness Phase | | | |
| 1. Your live in a flood-prone area. Water levels are approaching critical threshold without evidence of active flooding. Which action demonstrates the BEST anticipatory planning? | 133 | 61.86 | HP |
| 2. An earthquake warning is issued while you're in the school hall. What should you do before it happens? | 65 | 30.23 | LP |
| 3. You have limited space in your emergency kit. Which of the following sets of items should you prioritize in case a disaster strikes? | 160 | 74.42 | HP |
| Total / Weighted Mean Percentage | n = 215 | 55.50 | MP |
| B. Response Phase | No. Responses | % | VD |
| 1. During evacuation, someone struggles in fast-moving water. As a nursing student, what should you do? | 154 | 71.63 | HP |
| 2. During an earthquake, you are in your classroom together with your classmates, chairs and equipment are sliding, and the ceiling is shaking. Which is the safest approach? | 111 | 51.63 | MP |
| 3. You are in a classroom surrounded by flames, and a classmate catches fire. What is the safest immediate action during the fire? | 119 | 48.37 | MP |
| Total / Weighted Mean Percentage | n = 215 | 59.53 | MP |
| C. Recovery Phase | No. Responses | % | VD |
| 1. Floodwaters have receded, but debris, slippery surfaces, and live wires remain. You're heading to an evacuation center. What should you do first? | 159 | 73.95 | HP |

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| | | | |
|---|---|---|---|
| 2. Supplies at the shelter are limited, and several people need help. If you are to help as a student nurse, who should get care first? | 93 | 43.26 | MP |
| 3. After a fire, you find a classmate with severe burns on the arms and torso. What is the most appropriate immediate action? | 113 | 52.56 | MP |
| Total / Weighted Mean Percentage | n = 215 | 56.59 | MP |
| Overall Mean Percentage | | 57.21 | MP |

| Legend: | Percentage Range | Verbal Description |
|---|---|---|
| | 80 - 100 | Very High Preparedness (VHP) |
| | 60 - 79 | High Preparedness (HP) |
| | 40 - 59 | Moderate Preparedness (MP) |
| | 20 - 39 | Low Preparedness (LP) |
| | 0 - 19 | Very Low Preparedness (VLP) |

The overall computed mean percentage records at 57.21%, described as Moderate Preparedness (MP). It reveals that BSN students possess an overall moderate level of knowledge of disaster-related concepts across all phases. While relatively higher knowledge is observed in certain preparedness and recovery situations, lower scores in specific items, particularly in anticipatory and response actions, are evident. This suggests inconsistencies in understanding and highlights the need for strengthened instruction and training focused on comprehensive disaster management, especially in enhancing critical thinking and decision-making skills across all disaster phases.

Table 3. BSN Students' Level of Emergency Response Confidence

| Item Statement | Mean | VD |
|---|---|---|
| 1. I am confident in my ability to decide what actions to take in an actual emergency. | 3.96 | HL |
| 2. I can prioritize tasks effectively when multiple people need help during an immediate disaster. | 3.87 | HL |
| 3. I am confident in recognizing situations that require immediate referral to higher authorities or professionals during a disaster. | 4.01 | HL |
| 4. I am confident in providing basic first aid to injured individuals during a disaster. | 3.93 | HL |
| 5. I am confident in protecting myself from hazards while helping others. | 4.15 | HL |
| 6. I am confident in taking initiative in emergencies without waiting for instructions. | 3.84 | HL |
| 7. I am confident in working as part of a team during disaster response activities. | 4.11 | HL |

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| | | |
|---|---|---|
| 8. I am confident in managing fear, anxiety, or stress while responding to emergencies. | 3.95 | HL |
| 9. I am confident in guiding or instructing others safely during a disaster situation. | 4.00 | HL |
| 10. I am confident in using emergency equipment (e.g., fire extinguisher, first aid kit, evacuation tools) during a disaster. | 3.96 | HL |
| Overall Mean and Verbal Description | 3.98 | HL |

| Legend: | |
|---|---|
| Scale | Verbal Description |
| 4.21 – 5.00 | Strongly Agree (SA)/Very High Level (VHL) |
| 3.41 – 4.20 | Agree (A)/High Level (HL) |
| 2.61 – 3.40 | Moderately Agree (MA)/Moderate Level (ML) |
| 1.81 – 2.60 | Disagree (D)/Low Level (LL) |
| 1.00 – 1.80 | Strongly Disagree (SD)/Very Low Level (VLL) |

The highest mean score of 4.15, with a verbal description of High Level (HL). Meanwhile, the lowest mean score of 3.84 is recorded in "I am confident in taking initiative in emergencies without waiting for instructions," which is also described as High Level (HL). Furthermore, the computed overall mean score registers at 3.98, which is verbally interpreted as High Level (HL).

Table 4. The Correlation Analyses on the Relationship between the BSN Students' Level of Knowledge of Disaster-related Concepts and Emergency Response Confidence

| Variables | r-value | p-value |
|---|---|---|
| Knowledge of Disaster-related Concepts & Emergency Response Confidence | 0.369 | 0.328 |

Legend: ** = highly significant ($p \leq 0.01$) * = significant ($p \leq 0.05$)

Numbers not enclosed with parentheses are computed r-value (Correlation Value) Numbers enclosed with parentheses are probability values

These findings imply that while knowledge of disaster-related concepts may support confidence, it is not the sole factor influencing BSN students' readiness. It suggests that practical experience, hands-on training, teamwork, and stress management are likely to play a stronger role in shaping emergency response confidence. Therefore, integrating theoretical instruction with experiential learning, simulation exercises, and real-life exposure is essential to further enhance both the competence and confidence of BSN students in disaster situations.

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These findings are consistent with the current study, which revealed a positive correlation (r = 0.369) between knowledge and emergency response confidence.

## RECOMMENDATIONS

Based on the results of the findings and conclusions gathered, the researchers would like to recommend the following:

1. The SMCB College of Nursing could enhance the curriculum by integrating theoretical instruction with experiential learning, simulation exercises, and real-life exposure is essential to further enhance both the competence and confidence of BSN students in disaster situations. As well as more exposure to task prioritization suggests opportunities for further training, simulation exercises, and real-life exposure to enhance their readiness and independence during disaster situations rather than pure basic first-aid training and fire or earthquake drill. The findings underscore the necessity of increased awareness and physical training programs that concentrate on comprehensive disaster preparedness, especially in enhancing the planning and communication aspects.

2. Faculty members and clinical instructors could reinforce more real-life situation occurrence that involves initiatives, proper way of communication, and concentrates on comprehensive disaster preparedness as part of the return demonstrations. They should adopt innovative and experiential teaching strategies such as inclusion of case-based learning, simulations, and scenario-based exercises.

3. Nursing students could be encouraged to be involved in comprehensive training about what to do during the occurrence of a disaster such as what management and responsibility does they hold in and be engaged in active planning.

4. Future researchers are encouraged to expand the scope of respondents and explore this study to further analyze the other factors such as psychological experiences that influence disaster preparedness, confidence and responses of BSN students.

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