Emergency Preparedness Towards Pandemic-Emergency Health Cases at Sulu Sanitarium and General Hospital: Nurses' Perspectives

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*ABSTRACT***.** This study examined the level of emergency preparedness for pandemic-related health emergencies within Sulu Sanitarium and General Hospital. Using a descriptive-correlational research design, the study involved 100 nurse participants who were chosen using purposive sampling. The data were examined through frequency analysis counts, percentages, weighted average, standard deviation, and Pearson correlation analysis, t-test, and ANOVA. The study focused on key areas of emergency preparedness, including manpower and staffing, facilities and equipment, protocols and guidelines, and the training and competency of nursing staff. It also considered respondents' demographic profiles such as their age, gender, and years of service area of assignment, as well as their employment status. Findings showed that the majority of the respondents were women nurses aged 31–40 years old, permanently employed, with 1–5 years of service, and primarily assigned to the outpatient department. Overall, respondents rated the hospital's emergency preparedness across all areas as highly satisfactory, reflected by consistently high agreement ratings. The results further revealed that nurses under contract-of-service employment tended to perceive the hospital's emergency preparedness more positively compared to other employment groups. In addition, a very strong positive and statistically significant correlation was identified among the variables studied. These findings support Donabedian's Quality of Care Framework, emphasizing that strong structural components contribute to effective emergency care processes and improved patient safety outcomes. The results also align with General the Systems Approach which sees organizations as interconnected systems in which each part affects the others overall performance. Overall, the study highlights the importance of sustained funding, strengthened policies, and continuous capacity-building initiatives to improve hospital preparedness and response to future pandemic-emergent health situations.
KEYWORDS: Emergency, Preparedness, Pandemic, Health, Perspective

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Introduction

Pandemics have continuously challenged healthcare systems around the world as infectious diseases become more widespread and difficult to manage. worldwide public health crises such as the COVID-19 pandemic and Ebola outbreaks and the H1N1 influenza crisis demonstrated how important preparedness is in protecting both patients and healthcare workers. These events showed that hospitals must be equipped not only with adequate facilities and medical supplies, but also with competent healthcare professionals, clear protocols, and effective emergency response systems. International organizations stressed that healthcare institutions with strong preparedness measures are more capable of responding efficiently during public health emergencies. However, many countries, especially those with limited resources and geographically isolated communities, still experience difficulties related to staffing shortages, lack of equipment, and weak emergency response capacity (World Health Organization, 2020; International Council of Nurses, 2021; Labrague et al., 2021).

In the Philippines, the COVID-19 pandemic highlighted several weaknesses within the healthcare system, particularly in public hospitals located outside highly urbanized areas. Many healthcare institutions struggled with limited manpower, inadequate medical resources, inconsistent implementation of safety protocols, and unequal access to healthcare services. These challenges became more visible in geographically isolated and disadvantaged areas where hospitals often operated with limited funding and insufficient institutional support. Although the government introduced programs and policies aimed at improving emergency preparedness and strengthening healthcare facilities, studies focusing on the actual preparedness of hospitals in local communities, especially in Mindanao, remain limited (Department of Health, 2021; Council for Health and Development, 2020; Bacalso et al., 2025).

Within the Bangsamoro Autonomous Region in Muslim Mindanao, healthcare delivery continues to face various challenges brought about by geographic isolation, limited healthcare investments, and security-related concerns. Provinces such as Sulu experience additional difficulties in accessing healthcare services and maintaining institutional readiness during emergencies. While the region reported fewer COVID-19 cases compared to other parts of the country, the pandemic nonetheless revealed gaps in the healthcare system and affected the delivery of essential health services (United Nations Development Programme, 2021; Calubag et al., 2025).

Sulu Sanitarium and General Hospital serves as one of the major government hospitals in the province and plays an important role in providing healthcare services during emergencies and disease outbreaks. Nurses in the hospital are among the frontline workers directly involved in infection prevention, patient care, monitoring, and emergency response coordination. Their preparedness and ability to respond effectively during health crises are essential in ensuring patient safety and maintaining quality healthcare services (Carpio et al., 2024; Tubog, 2025).

Despite the important role of nurses during pandemics and other public health emergencies, there are still limited studies examining the preparedness of nurses working in geographically isolated hospitals such as those in Sulu. Most existing studies were conducted in urban hospitals or larger healthcare institutions, resulting in a gap in understanding of the experiences and level of preparedness of nurses in remote areas (Ang et al., 2025; Cutillas et al., 2025). This lack of localized research created the need to further examine how nurses in Sulu Sanitarium and General Hospital facility perceive emergency preparedness with regard to manpower and staffing, facilities and equipment, protocols and guidelines, and training and competency.

Anchored on Donabedian's Quality of Care Framework and General Systems Theory, this the study sought to assess the degree of emergency preparedness toward pandemic-emergent health cases among nurses in the hospital. It also explored whether demographic variables

including age, gender, and years of service area of assignment, and employment status influenced their perceptions of preparedness. The results of this study are anticipated to provide useful information that may help hospital administrators and policymakers strengthen emergency preparedness programs, improve healthcare delivery, and enhance institutional response strategies in geographically isolated healthcare settings (Verdeflor et al., 2025; Alcasoda et al., 2025; Labrague & De Los Santos, 2021; Shanafelt et al., 2020).

Research Questions

This study assessed the emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses, thus, it endeavored to achieve the following objectives:

1. To determine the demographic profile of the nurse-respondents in terms of age, gender, length of service, area of assignment, and status of employment.
2. To determine the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses, in context of manpower and staffing, facilities and equipment, protocols and guidelines, and training and competency of nursing staff.
3. To determine the significant difference in the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses when data are grouped according to age, gender, length of service, area of assignment, and status of employment.
4. To determine significant correlation among the sub-categories subsumed under emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in the context of manpower and staffing, facilities and equipment, protocols and guidelines, and training and competency of nursing staff.

Literature

The literature consistently shows that emergency preparedness is a vital factor in ensuring effective healthcare responses during pandemics and other disasters. Studies have highlighted that nurses play a crucial role in emergency situations, making their knowledge, skills, resilience, and access to institutional support essential for quality patient care.

Research by Labrague and De los Santos (2020) found that organizational support, social support, and personal resilience help reduce anxiety among frontline nurses during health crises. Similarly, Shaukat et al. (2020) reported that inadequate training, limited resources, and shortages of personal protective equipment (PPE) negatively affected the physical and mental well-being of healthcare workers during the COVID-19 pandemic. These findings emphasize the importance of both psychological and institutional preparedness.

Several studies have also shown that education and training are key components of nurse preparedness. Aiken et al. (2017) demonstrated that hospitals with better staffing levels and more highly educated nurses achieved better patient outcomes. Fernandez et al. (2020), Al Thobaity et al. (2017), and Labrague et al. (2018) further highlighted the need for continuous training, simulation exercises, and disaster drills to improve nurses' emergency response capabilities.

International organizations, particularly the World Health Organization (2020), stress the importance of investing in nursing education, leadership, and workforce development to strengthen health system resilience. Global evidence indicates that effective preparedness requires not only competent healthcare workers but also strong leadership, adequate resources, clear communication, and well-established emergency protocols.

In the Philippine context, national policies and local studies reveal ongoing challenges such as workforce shortages, limited resources, infrastructure constraints, and logistical difficulties, especially in geographically isolated areas. Research suggests that nurses who receive regular training, administrative support, and clear guidance are more confident and better prepared to respond to emergencies. Studies also highlight the importance of collaboration between hospitals, local government units, and communities to improve healthcare delivery during crises.

Overall, the literature demonstrates that emergency preparedness is influenced by a combination of individual factors, such as knowledge, skills, education, and resilience, and institutional factors, including leadership, resources, training opportunities, and organizational support. These findings support the need to assess the emergency preparedness of nurses at Sulu Sanitarium and General Hospital to identify strengths, gaps, and opportunities for improvement in pandemic response readiness.

Research Methodology

This study employed a descriptive-correlational research design to examine the degree of emergency preparedness among nurses at Sulu Sanitarium and General Hospital. According to Bless and Higson-Smith (1995), a research design serves as a systematic plan that directs the process of gathering, examining and interpreting data. In the same way, Babbie and Mouton (2001) described research design as a framework for a framework a structured plan for used to achieve the objectives of a study. The descriptive approach component of the study concentrated on assessing the extent of emergency preparedness in areas such as manpower and staffing, facilities and equipment, protocols and guidelines, and the training and competency of nurses. On the other hand, the correlational component aimed to assess whether significant relationships were present among these variables and if demographic factors including age, sex, and years of service area of assignment, and employment condition influenced nurses' perceptions of preparedness. This research design was implemented considered appropriate because it enabled the researcher to present the current condition of emergency preparedness while also examining possible relationships among the variables considered in the study. Through this approach, the study was able to provide a clearer understanding of the factors associated with hospital preparedness for pandemic-emergent health situations.

1. Population and Sampling Design

The research was carried out at Sulu Sanitarium and General Hospital during the School Year 2025–2026. The hospital is a government healthcare institution located in Jolo that offers a broad range of healthcare services, such as inpatient and outpatient care, as well as emergency treatment, and specialized nursing services. As one of the primary referral hospitals in the province, the institution plays an important role in managing pandemic-emergent health cases and responding to public health emergencies. Because of its active involvement in healthcare delivery during emergencies, the hospital was considered an appropriate setting for examining the preparedness of nurses in handling pandemic-related situations. The respondents of the study were composed of one hundred (100) nurses, including staff nurses and nurse supervisors, who were employed at Sulu Sanitarium and General Hospital during the School Year 2025–2026. The participants were chosen according to the following inclusion criteria: they must be presently employed at the hospital, directly involved in patient care and nursing services, have a minimum of six (6) months of work experience, and be willing to participate voluntarily by providing informed consent. These respondents were chosen because of their direct involvement in patient care and emergency response within the hospital setting. Their professional experiences and

responsibilities allowed them to provide relevant and reliable information regarding the hospital's level of emergency preparedness toward pandemic-emergent health cases.

2. Instruments

The study employed a structured survey questionnaire adapted from the study of Leodoro J. Labrague and Khaldoun Hammad (2019) on disaster preparedness among nurses. The instrument was designed to gather information relevant to the study and was divided into two main parts. The initial section covered the respondents' demographic profile, which included age, gender, length of service, area of assignment, and employment status. The second section evaluated the nurses' level of emergency preparedness in terms of manpower and staffing, facilities and equipment, protocols and guidelines, and the training and competency of nursing staff. The the questionnaire served as the main tool in collecting data needed to evaluate the preparedness of nurses toward pandemic-emergent health cases.

3. Data Gathering procedure

The data collection process followed a series of organized steps to ensure ethical conduct and reliable the process of gathering data. First, the researcher obtained formal permission to conduct the study from the Dean of Graduate Studies, which was then endorsed to the Chief of Hospital of Sulu Sanitarium and General Hospital. Once approval was approved, after which the researcher personally distributed the survey questionnaires among the respondents. Before answering, respondents were properly informed about the aim of the study and were were assured that their responses would be kept confidential and used only for academic purposes. The respondents were given adequate time to complete the questionnaire to allow thoughtful and honest answers. After completion, all questionnaires were collected, checked, and prepared for data encoding, analysis, and interpretation.

4. Data Analysis

Descriptive and inferential statistical tools were appropriately employed in the treatment of data gathered for this study, namely:

- For research problem number one, frequency counts and percentage were utilized to determine the demographic profile of the respondents in terms of age, gender, length of service, area of assignment, and status of employment.
- For research problem number two, mean and standard deviation were employed to determine the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses, in context of manpower and staffing, facilities and equipment, protocols and guidelines, and training and competency of nursing staff.
- For research problem number three, t-test for independent samples was employed to determine the significant difference when data was classified according to gender, while One-Way Analysis of Variance (ANOVA) was used to determine significant differences when data were grouped according to age, length of service, area of assignment, and status of employment.
- For research problem number four, Pearson Product Moment Correlation Coefficient (Pearson r) was employed to determine the degree of correlation among the subcategories subsumed under the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses.

Results

Quastion 2. What is the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in each of the following dimensions: Manpower and staffing, Facilities and equipment, Protocols and Guidelines, and Training and competency of nursing staff?

Table 2.1 Extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in terms of manpower and staffing

No	Statements	Mean	S.D.	Description
1	Adequate number of nurses are available to handle pandemic-emergent cases.	3.79	.93523	Agree
2	Workload distribution among nurses is manageable during pandemic surges.	3.87	.89505	Agree
3	Additional staff are mobilized or re-assigned when cases increase.	4.08	.74779	Agree
4	Staffing policies support adequate rest periods to prevent burnout.	3.81	.92872	Agree
5	The hospital maintains an updated roster of available relief or volunteer nurses.	3.79	.91337	Agree
6	Staffing plans include backup personnel for emergency deployment.	3.61	1.02391	Agree
7	Nurse-to-patient ratio remains within acceptable limits during pandemic surges.	3.85	.99874	Agree
8	Staffing adjustments are based on patient acuity levels.	4.08	.84900	Agree
9	Coordination with other departments ensures adequate manpower support.	4.08	.90654	Agree
10	Human resource management provides incentives or support during pandemic duty.	3.92	.92856	Agree
	Weighted Mean	**3.888**	**.76743**	**Agree**

Legend: (5) 4.50 – 5.00= Strongly Agree; (4) 3.50 – 4.49= Agree; (3) 2.50 – 3.49=Neutral; (2)1.50 – 2.49=Disagree; (1)1.00 – 1.49=Strongly Disagree

Table 2.1 The table shows the nurses' perceptions of emergency preparedness in terms of manpower and staffing at Sulu Sanitarium and General Hospital. Overall, the respondents rated this area positively, with a composite mean of 3.888 with a standard deviation of 0.76743, interpreted as "Agree." This suggests that, in general, the nurses believe that the hospital demonstrates a satisfactory level of preparedness when it comes to staffing and workforce management during pandemic-related health situations. Looking more closely at the indicators, several items received the highest mean score of 4.08. These include statements indicating that additional staff are mobilized or reassigned when patient numbers increase, that staffing adjustments are made based on patient acuity levels, and that coordination with other departments helps ensure sufficient manpower support. These consistent ratings reflect that nurses perceive the hospital as responsive and flexible in managing its human resources during periods of increased demand. Overall, the results suggest that the hospital has established a functional system of collaboration and staff redistribution to address potential workforce shortages during emergencies. This indicates a relatively strong internal coordination mechanism that supports service delivery during crisis situations. This finding is in line with the observation of Harid et al. (2024), who emphasized that institutional support and effective human resource management play a vital role in maintaining nurses performance and ensuring continuity of care during health emergencies.

Table 2.2 Extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in terms of facilities and equipment

No	Statements	Mean	S.D.	Description
1	The hospital has sufficient isolation rooms for infectious patients.	4.23	.67950	Agree
2	Personal protective equipment (PPE) is readily available at all times.	4.17	.80472	Agree
3	Ventilators and other critical care machines are accessible when needed.	4.08	.83702	Agree
4	Adequate stockpile of essential medical supplies is maintained.	3.93	.87911	Agree
5	The hospital has a designated triage area for pandemic cases.	4.21	.74257	Agree
6	Negative pressure rooms or isolation facilities are functional and well-maintained.	4.12	.84423	Agree
7	Communication equipment (e.g., radios, phones) is available for emergency coordination.	4.29	.71485	Agree
8	Proper waste management systems are in place for infectious materials.	4.29	.60794	Agree
9	Ambulances and transport facilities are equipped for infectious disease transfer.	4.22	.66027	Agree
10	Facility layout supports infection control and patient flow management.	4.11	.76403	Agree
	Weighted Mean	**4.165**	**.60676**	**Agree**

Legend: (5) 4.50 – 5.00= Strongly Agree; (4) 3.50 – 4.49= Agree; (3) 2.50 – 3.49=Neutral; (2)1.50 – 2.49=Disagree; (1)1.00 – 1.49=Strongly Disagree

Table 2.2 The table shows the nurses' perceptions of emergency preparedness in terms of facilities and equipment at Sulu Sanitarium and General Hospital. Overall, the respondents rated this area positively, with a composite average score of 4.165 and a standard deviation of 0.60676, interpreted as "Agree." This indicates that, in general, the nurses perceive that the hospital has adequate facilities and equipment to support safe and effective care during pandemic-emergent health situations. In terms of specific indicators, several items received the highest mean score of 4.29. These include the availability of communication equipment such as radios and telephones for emergency coordination, the presence of proper waste management systems for infectious materials, and the sufficiency of isolation rooms for patients with infectious diseases. Additionally, the availability of isolation rooms also received a high rating with a mean of 4.23, further supporting the perception that essential infrastructure is in place. Taken together, these results suggest that nurses view the hospital as relatively well-prepared in terms of physical resources needed for infection control and emergency response. This reflects a stronger sense of readiness in managing pandemic-related cases safely and efficiently. This finding is supported by Leodoro J. Labrague et al. (2020), who stated that when nurses perceive adequate availability of equipment and essential resources, their anxiety related to pandemics tends to decrease, allowing them to perform their duties with greater confidence and stability.

Table 2.3 Extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in terms of protocols and guidelines

No	Statements	Mean	S.D.	Description

1	Standard operating procedures (SOPs) for pandemic response are clearly disseminated.	4.24	.72641	Agree
2	Infection control guidelines are consistently implemented and monitored.	4.27	.75015	Agree
3	Updated protocols are communicated promptly to all nursing staff.	4.20	.71067	Agree
4	Coordination with national or regional pandemic guidelines is evident.	4.24	.69805	Agree
5	There are clear protocols for isolation, testing, and quarantine procedures.	4.31	.61455	Agree
6	The hospital has a written pandemic preparedness plan.	4.10	.82266	Agree
7	Protocols are reviewed and updated regularly based on current evidence.	4.27	.67950	Agree
8	Staff compliance with safety protocols is routinely evaluated.	4.25	.72995	Agree
9	Communication channels for protocol updates are well-established.	4.22	.70467	Agree
10	The hospital conducts periodic audits to ensure adherence to pandemic guidelines.	4.23	.67950	Agree
	Weighted Mean	**4.233**	**.63135**	**Agree**

Legend: (5) 4.50 – 5.00= Strongly Agree; (4) 3.50 – 4.49= Agree; (3) 2.50 – 3.49=Neutral; (2)1.50 – 2.49=Disagree; (1)1.00 – 1.49=Strongly Disagree

Table 2.3 The table shows the nurses' perceptions of emergency preparedness in terms of protocols and guidelines at Sulu Sanitarium and General Hospital. Overall, the respondents rated this area positively, with a composite average score of 4.233 with a standard deviation of 0.63135, interpreted as "Agree." This suggests that, in general, nurses perceive that clear and workable protocols are in place to guide hospital responses during pandemic-emergent health situations. Looking at the specific indicators, the highest-rated item (mean = 4.31) refers to the presence of clear protocols for isolation, testing, and quarantine procedures. Other highly rated items, both with a mean of 4.27, include the consistent implementation and monitoring of infection control guidelines and the regular review and updating of protocols based on current evidence and emerging health needs. Taken together, these results indicate that the hospital's policies and clinical guidelines are not only well established but also actively applied and updated in practice. Nurses appear to have a clear understanding of these procedures, which supports more coordinated and effective responses during health emergencies. This finding is aligned with the work of Khatri et al. (2023), who stressed that strong health system preparedness allows institutions to better absorb shocks during crises and implement effective mitigation and response strategies.

Question 3. Is there a significant difference in the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses when the data are grouped according to the respondents' profile in terms of: Age; Gender; Length of service; Area of assignment; and Status of employment?

Table 3.1 Differences in the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in terms of age

SOURCES OF VARIATION		Sum of Squares	df	Mean Square	F	Sig.	Description
Manpower and staffing	Between Groups	.937	2	.469	.792	.456	Not Significant
	Within Groups	57.368	97	.591			
	Total	58.306	99				
Facilities and equipment	Between Groups	.490	2	.245	.661	.519	Not Significant
	Within Groups	35.957	97	.371			
	Total	36.447	99				
Protocols and Guidelines	Between Groups	1.336	2	.668	1.700	.188	Not Significant
	Within Groups	38.125	97	.393			
	Total	39.461	99				
Training and competency of nursing staff	Between Groups	1.514	2	.757	1.665	.195	Not Significant
	Within Groups	44.094	97	.455			
	Total	45.608	99				

Significance at alpha 0.05

Table 3.1 The table presents the variations in nurses' perceptions of emergency preparedness for pandemic-emergent health cases at Sulu Sanitarium and General Hospital when grouped according to age. Based on the results, the computed F-ratios and corresponding p-values show that no statistically significant difference exists across age groups. This means that regardless of whether the respondents were younger, middle-aged, or older nurses, their perceptions of the hospital's level of emergency preparedness remained largely similar. The consistency of responses suggests that age does not appear to influence how nurses view the hospital's readiness in handling pandemic-related health emergencies. Consequently, the null hypothesis stating that no significant difference exists in the extent of emergency preparedness when respondents grouped according to age is accepted.

Table 3.2 Differences in the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in terms of gender

VARIABLES	Grouping Ss	Mean	S. D.	Mean Difference	t	Sig.	Description
Manpower and staffing	Male	3.860	.81599	-.03733	-.210	.834	Not Significant
	Female	3.897	.75605				
Facilities and equipment	Male	4.088	.65468	-.10267	-.731	.467	Not Significant
	Female	4.190	.59233				
Protocols and guidelines	Male	4.216	.60600	-.02267	-.155	.877	Not Significant
	Female	4.238	.64345				
Training and competency of nursing staff	Male	4.064	.86837	-.15733	-1.004	.318	Not Significant
	Female	4.221	.60455				

Significance at alpha 0.05

Table 3.2 The table shows the differences in nurses' perceptions of emergency preparedness for pandemic-emergent health cases at Sulu Sanitarium and General Hospital when categorized according to gender. The results indicate that the computed mean differences and t-values indicate no statistically significant difference between males and female respondents. This indicates that both male and female nurses share similar views regarding the hospital's level of preparedness for handling pandemic-related health emergencies. In other words, gender does not appear to influence how nurses assess the effectiveness of emergency preparedness measures in the institution. Based on these findings, the null hypothesis stating that no significant difference exists in the extent of emergency preparedness when respondents are categorized according to gender is therefore accepted.

Table 3.3 Differences in the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in terms of length of service

SOURCES OF VARIATION		Sum of Squares	df	Mean Square	F	Sig.	Description
Manpower and staffing	Between Groups	4.577	3	1.526	2.726	.048	Significant
	Within Groups	53.728	96	.560			
	Total	58.306	99				
Facilities and equipment	Between Groups	2.587	3	.862	2.444	.069	Not Significant
	Within Groups	33.861	96	.353			
	Total	36.447	99				
Protocols and Guidelines	Between Groups	2.564	3	.855	2.224	.090	Not Significant
	Within Groups	36.897	96	.384			
	Total	39.461	99				
Training and competency of nursing staff	Between Groups	1.353	3	.451	.978	.406	Not Significant
	Within Groups	44.255	96	.461			
	Total	45.608	99				

Significance at alpha 0.05

Table 3.3 The table shows the differences in nurses' perceptions of emergency preparedness for pandemic-emergent health cases within Sulu Sanitarium and General Hospital when grouped according to years of service. The results indicate that, in most areas, the computed F-ratios and p-values show no statistically significant differences across groups, with the exception of the manpower and staffing dimension. This suggests that, regardless of whether nurses are newly hired or have many years of experience, they generally share similar perceptions of the hospital's level of preparedness. The consistency in responses implies that length of service does not substantially influence how nurses evaluate most aspects of emergency preparedness within the institution. Based on these findings, the null hypothesis stating that no significant difference exists in the extent of emergency preparedness when respondents are categorized according to length of service is accepted. However, the notable exception in manpower and staffing may indicate that experience level influences perceptions in that specific area, which may warrant further attention.

Table 3.4 Differences in the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in terms of area of assignment

SOURCES OF VARIATION		Sum of Squares	df	Mean Square	F	Sig.	Description
Manpower and staffing	Between Groups	3.114	4	.779	1.340	.261	Not Significant
	Within Groups	55.192	95	.581			
	Total	58.306	99				
Facilities and equipment	Between Groups	3.076	4	.769	2.189	.076	Not Significant
	Within Groups	33.371	95	.351			
	Total	36.448	99				
Protocols and Guidelines	Between Groups	2.013	4	.503	1.277	.285	Not Significant
	Within Groups	37.448	95	.394			
	Total	39.461	99				
Training and competency of nursing staff	Between Groups	3.307	4	.827	1.857	.124	Not Significant
	Within Groups	42.300	95	.445			
	Total	45.608	99				

Significance at alpha 0.05

Table 3.4 The table presents the variations in nurses' perceptions of emergency preparedness for pandemic-emergent health cases within Sulu Sanitarium and General Hospital when grouped according to their area of assignment. The results show that the computed F-ratios and p-values generally indicate no statistically significant differences across the various hospital units. This suggests that nurses, regardless of whether they are assigned to the surgical ward, medical ward, or other departments, tend to share similar views regarding the hospital's level of preparedness. The findings imply that the perception of emergency preparedness is relatively consistent across different areas of assignment within the institution. Based on these findings, the null hypothesis stating that There is no meaningful difference in the extent of emergency preparedness when respondents are categorized based on area of assignment is therefore accepted.

Table 3.5 Differences in the extent of emergency preparedness towards pandemic-emergent health cases at Sulu Sanitarium and General Hospital as perceived by nurses in terms of status of employment

SOURCES OF VARIATION		Sum of Squares	df	Mean Square	F	Sig.	Description
Manpower and staffing	Between Groups	5.163	2	2.582	4.712	.011	Significant
	Within Groups	53.142	97	.548			
	Total	58.306	99				
Facilities and equipment	Between Groups	3.148	2	1.574	4.584	.013	Significant
	Within Groups	33.300	97	.343			
	Total	36.448	99				
Protocols and Guidelines	Between Groups	2.816	2	1.408	3.728	.028	Significant
	Within Groups	36.645	97	.378			
	Total	39.461	99				
Training and competency of nursing staff	Between Groups	3.944	2	1.972	4.592	.012	Significant
	Within Groups	41.663	97	.430			
	Total	45.608	99				

Significance at alpha 0.05

Table 3.5 The table shows the differences in nurses' perceptions of emergency preparedness for pandemic-emergent health cases at the Sulu Sanitarium and General Hospital when grouped according to their status of employment. The results show that the computed F-ratios and p-values indicate a statistically significant difference among the groups. This finding suggests that a nurse's employment status plays a meaningful role in how they perceive the hospital's level of emergency preparedness. In particular, differences in employment arrangements appear to influence how nurses evaluate the institution's readiness in responding to pandemic-related health cases. From these results, the null hypothesis stating that there is no meaningful difference in the extent of emergency preparedness when respondents are categorized based on status of employment is therefore rejected.

Discussion

The results of this study provide an overall an understanding of how nurses perceive emergency preparedness for pandemic-emergent health cases at the Sulu Sanitarium and General Hospital. In general, the results show that the hospital is viewed as well-prepared, although some areas are stronger than others, and a few differences exist depending on employment status.

Looking at the demographic characteristics of the respondents, most of the nurses are aged 31 to 40 years predominantly female, and relatively early in their careers with 1–5 years of experience. A large proportion are permanent employees, and many are assigned to the outpatient department. This suggests that the nursing workforce is generally young, still building experience, and heavily involved in direct patient care. These characteristics may shape how nurses view preparedness, as those who are still early in their careers often rely more on established systems and hospital support structures when assessing readiness.

In terms of emergency preparedness, all four areas—manpower and staffing, facilities and equipment, protocols and guidelines, and training and competency—were rated positively. Among these, protocols and guidelines stood out as the strongest area, suggesting that nurses clearly understand hospital procedures and find them reliable during emergency situations.

Training and competency also received high ratings, indicating that nurses feel reasonably equipped to perform their duties in pandemic-related cases. Facilities and equipment were likewise rated positively, showing that essential resources are generally available. Although manpower and staffing obtained the lowest rating among the four, it still reflected a positive perception, which suggests that teamwork and coordination help the hospital manage staffing challenges when patient demand increases.

When differences were analyzed across demographic variables, no significant variation was found with regard to age, gender, and length of service,or area of assignment. This means that nurses, regardless of these characteristics, generally share similar views about the hospital's level of preparedness. However, a significant difference was observed when grouped according to employment status. Contract-of-service nurses tended to view emergency preparedness more positively compared to other employment groups. This may be linked to differences in job expectations, exposure, or how institutional support is experienced across employment types.

The correlation results further highlight that the different components of emergency preparedness are closely connected. Protocols and guidelines, facilities and equipment, manpower and staffing, and training and competency all appear to work together rather than independently. When one area improves, it seems to support and strengthen the others. This shows that preparedness in the hospital is not built on a single factor but on a combination of systems working in coordination.

Overall, the study suggests that emergency preparedness at Sulu Sanitarium and General Hospital is generally strong and well-structured. While there are slight differences in perception based on employment status, the findings point to a fairly consistent and interconnected system that supports nurses in responding to pandemic-emergent health situations effectively.

Conclusion

The study found that the nursing workforce at Sulu Sanitarium and General Hospital is mostly made up of early-career, permanent staff, primarily female nurses aged 31–40 and assigned largely in the outpatient department. This indicates a relatively young but stable workforce that is still gaining experience while actively engaged in patient care. Overall, nurses rated the hospital's emergency preparedness for pandemic-emergent health cases positively across all areas, suggesting that the institution is generally well-prepared and capable of responding to health emergencies. No significant differences were observed in perceptions when categorized according to age, gender, length of service, or area of assignment, meaning nurses generally share similar views. However, differences were noted based on employment status, with contract-of-service nurses showing a slightly more positive perception. The results also show that key components of preparedness staffing, facilities, and protocols are closely connected and work together to support effective emergency response, reflecting a coordinated and stable hospital system.

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