

# RESEARCH ARTICLE: Assessing Workforce Capacity and Service Delivery Efficiency at Sulu Sanitarium and General Hospital: Nurses' Perspectives

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**ABSTRACT.** This study assessed the workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses using a descriptive-correlational research design. A purposive sampling method was employed to select 100 nurse-respondents. Data were analyzed using frequency, percentage score, weighted mean, standard deviation, Pearson's test of correlation, t-test, and ANOVA. The findings revealed that most respondents were 20-30 years old, female, had 1 to 5 years of service, were single, and were primarily contractual employees. Workforce capacity, in terms of staffing adequacy and workforce availability, competency and professional development, and workload management and support system, and service delivery efficiency, in terms of timeliness of care delivery, quality and patient-centered care, and resource utilization and workflow efficiency, were generally rated 'Agree.' No significant differences were found in workforce capacity and service delivery efficiency across demographic variables. A very high positive significant correlation was observed between workforce capacity and service delivery efficiency. The findings highlight the interrelationship between workforce capacity and efficient, timely, and quality patient-centered healthcare delivery.

**KEYWORDS:** *Workforce Capacity, Service Delivery Efficiency, Nursing Workforce, Staffing Adequacy, Workforce Availability, Workload Management, Patient-Centered Care*

## ARTICLE DETAILS

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## Introduction

Healthcare systems face increasing pressure to provide quality services amid workforce shortages, rising patient demands, and complex health conditions. Workforce capacity, particularly among nurses, is essential to efficient service delivery, as inadequate staffing and uneven workloads may contribute to delayed care, medical errors, and reduced patient satisfaction. In contrast, adequate staffing, fair workload distribution, professional development, and supportive work environments can improve care coordination, responsiveness, and continuity (World Health Organization, 2020; Aiken et al., 2018). Nurses' perspectives are valuable in identifying staffing concerns, workflow inefficiencies, and operational challenges that affect healthcare delivery.

Additionally, sufficient clinical exposure and practical experience can enhance nurses' confidence and readiness to provide effective patient care (Carpio et al., 2025).

In the Philippines, challenges in workforce distribution, retention, and capacity continue to affect government hospitals and rural health facilities. Staffing shortages related to migration, contractual employment, and limited career advancement may increase workloads and contribute to job dissatisfaction and burnout, potentially affecting the quality and timeliness of patient care, particularly in geographically isolated areas (Department of Health, 2022; Labrague & De los Santos, 2021). Supportive workplace conditions and effective organizational systems are also important in enabling healthcare workers to respond to workplace challenges (Chavez et al., 2024).

These concerns are especially relevant in Sulu, where geographical isolation, limited infrastructure, and constrained human and material resources may influence workforce capacity and service delivery. As a key public healthcare facility in the province, Sulu Sanitarium and General Hospital relies heavily on nurses to provide and coordinate patient care. Thus, this study assessed workforce capacity and service delivery efficiency from nurses' perspectives to identify gaps and areas for improvement that may inform institutional strategies and policy recommendations.

### **Research Questions**

1. What is the demographic profile of the respondents in terms of:
  - 1.1. Age;
  - 1.2. Gender;
  - 1.3. Civil Status;
  - 1.4. Employment Status; and
  - 1.5. Length of Service?
2. What is the extent of workforce capacity at Sulu Sanitarium and General Hospital as perceived by nurses in the context of:
  - 2.1. Staffing adequacy and workforce availability;
  - 2.2. Competency and professional development; and
  - 2.3. Workload management and support systems?
3. What is the extent service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses in the context of:
  - 3.1. Timeliness of care delivery;
  - 3.2. Quality and patient-centered care; and
  - 3.3. Resource utilization and workflow efficiency?
4. Is there a significant difference in the extent of workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses when data are grouped according to the respondents' demographic profile, in terms of:
  - 4.1. Age;
  - 4.2. Gender;
  - 4.3. Civil Status;
  - 4.4. Employment Status; and
  - 4.5. Length of Service?
5. Is there a significant correlation among the subcategories subsumed under the extent of workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses?

### **Literature**

## Foreign Studies and Literature

*Workforce Capacity and Healthcare Performance.* An adequately staffed, competent, and well-distributed health workforce is essential to effective healthcare delivery and overall health system performance. Global evidence identifies staffing shortages, inequitable workforce distribution, and inadequate investment in education and leadership as major factors affecting healthcare delivery and system efficiency (World Health Organization [WHO], 2007, 2020).

*Nurse Staffing and Patient Outcomes.* Adequate nurse staffing and appropriate skill mix are consistently associated with reduced workload, better patient outcomes, improved safety, and more efficient hospital services. In contrast, insufficient staffing increases workload and is associated with adverse patient outcomes and reduced quality of care (Aiken et al., 2002; Duffield et al., 2011; Needleman et al., 2015; Twigg et al., 2016).

*Work Environment and Nursing Performance.* Workforce capacity also involves the quality of the nursing work environment, including staffing adequacy, leadership support, professional participation, and organizational resources. Supportive work environments and manageable workloads contribute to better nurse performance, while excessive workload and inadequate organizational support may contribute to burnout and reduced service efficiency (Dyrbye et al., 2020; Lake, 2002; Lee & Chiang, 2019).

*Service Delivery Efficiency.* Healthcare quality and service efficiency are influenced by structural resources, care processes, and resulting outcomes. Workforce capacity represents an important structural factor that can affect the efficiency, responsiveness, reliability, and quality of healthcare services (Donabedian, 1988; Parasuraman et al., 1988).

## Local Studies and Literature

*Philippine Health Workforce Challenges.* The Philippine healthcare system continues to experience workforce shortages, uneven distribution of health professionals, nurse migration, and retention challenges, particularly in resource-limited areas. These conditions may affect the capacity of health institutions to provide accessible and efficient healthcare services (Department of Health [DOH], 2022).

*Workload, Support, and Nurse Performance.* Filipino nurses face workload and organizational challenges that may affect job satisfaction, retention, and performance. Organizational support and effective workplace policies are important in protecting and supporting health workers (Chavez et al., 2023). Rural health facilities also experience staffing shortages, heavy workloads, limited resources, and inadequate support systems that may hinder service delivery (Labrague & De los Santos, 2021; Philippine Journal of Nursing, 2020). Resource limitations can further constrain workers' ability to perform effectively (Chavez, 2020). Moreover, supportive leadership, professional development, coaching, mentoring, and feedback can enhance employee motivation, productivity, and performance (Ang et al., 2025; Amerol et al., 2025).

*Synthesis.* The literature indicates that adequate staffing, competent personnel, appropriate skill mix, and supportive work environments are important to efficient healthcare delivery. However, limited studies have examined these factors in geographically isolated hospitals such as Sulu Sanitarium and General Hospital. This study addresses this contextual gap by assessing workforce capacity and service delivery efficiency from nurses' perspectives.

## Methodology

### 1. Research Design

This study employed a quantitative descriptive-correlational research design. It aimed to determine the levels of workforce capacity and service delivery efficiency among nurses at Sulu Sanitarium and General Hospital (SSGH) and examine the relationship between these variables.

## 2. Research Participants and Sampling

The study involved 100 nurses employed at SSGH during Fiscal Year 2025, selected through purposive sampling. Participants were required to be currently employed, directly involved in patient care, have at least six months of work experience, and provide informed consent. Ethical considerations included voluntary participation, confidentiality, anonymity, protection from harm, and the right to withdraw without penalty. Ethics clearance was obtained from the appropriate Ethics Committee of Sulu State College.

Distribution Table of Respondents According to Unit

| Unit Assignment        | No. of Respondents |
|------------------------|--------------------|
| Medical Ward           | 15                 |
| Surgical Ward          | 14                 |
| OB-Gyne Ward           | 14                 |
| Pediatrics Ward        | 14                 |
| Out-Patient Department | 14                 |
| Emergency Room         | 15                 |
| Non-Basic Units        | 14                 |
| <b>Total:</b>          | <b>100</b>         |

## 3. Research Instruments

Data were collected using a structured survey questionnaire adapted and modified from the World Health Organization health workforce framework (2020) and SERVQUAL-based service quality indicators by Parasuraman et al. (1988). The instrument consisted of three parts: demographic profile, workforce capacity covering staffing adequacy and availability, competency and professional development, and workload management and support systems; and service delivery efficiency covering timeliness of care, quality and patient-centered care, and resource utilization and workflow efficiency. A 5-point Likert scale was used. The instrument was reviewed by at least two experts from the School of Graduate Studies to establish content validity.

## 4. Data Gathering Procedure

Formal permission to conduct the study and administer the research instrument was sought from the Office of the Dean of Graduate Studies and endorsed to the Chief of Hospital of Parang District Hospital. Upon approval, the researcher personally distributed and administered the questionnaires. Respondents were given sufficient time to complete the survey, after which the questionnaires were retrieved for encoding, analysis, and interpretation.

## 5. Data Analysis

Frequency and percentage were used to determine the demographic profile of respondents. Mean and standard deviation were used to determine the extent of workforce capacity and service delivery efficiency. One-Way Analysis of Variance (ANOVA) was used to determine significant differences when data were grouped according to demographic characteristics. Pearson Product-Moment Correlation Coefficient (Pearson  $r$ ) was used to determine the relationship between workforce capacity and service delivery efficiency.

# Results and Discussion

*Question 1. What is the demographic profile of nurse-respondents in terms of: Age, Gender, Civil Status, Length of service, and Employment status?*

## *In terms of age*

**Table 1.1** Demographic profiles of the nurse-respondents in terms of age

| Age                    | Number of Respondents | Percent     |
|------------------------|-----------------------|-------------|
| 20 to 30 years old     | 50                    | 50%         |
| 31 to 40 years old     | 45                    | 45%         |
| 41 to 50 years old     | 5                     | 5%          |
| 51 years old and above | 0                     | 0%          |
| <b>Total</b>           | <b>100</b>            | <b>100%</b> |

Table 1.1 shows the demographic profile of nurse-respondents in Sulu Sanitarium and General Hospital in terms of age. It can be gleaned from this table that out of 100 nurse-respondents, 50% aged 20 to 30 years old, 45% aged between 31 to 40 years old, and 5% aged between 41 to 50 years old. This implies that most of the nurse-respondents aged between 20 to 30 years old.

#### *In terms of gender*

**Table 1.2** Demographic profiles of the nurse-respondents in terms of gender

| Gender       | Number of Respondents | Percent     |
|--------------|-----------------------|-------------|
| Male         | 29                    | 29%         |
| Female       | 71                    | 71%         |
| <b>Total</b> | <b>100</b>            | <b>100%</b> |

Table 1.2 shows the demographic profile of nurse-respondents in Sulu Sanitarium and General Hospital in terms of gender. It can be gleaned from this table that out of 100 nurse-respondents, 29% were male while 71% were female. This implies that majority of the nurse-respondents were female.

#### *In terms of civil status*

**Table 1.3** Demographic profiles of the nurse-respondents in terms of civil status

| Civil status       | Number of Respondents | Percent     |
|--------------------|-----------------------|-------------|
| Single             | 52                    | 52%         |
| Married            | 45                    | 45%         |
| Separated/Divorced | 3                     | 3%          |
| Widow/er           | 0                     | 0%          |
| <b>Total</b>       | <b>100</b>            | <b>100%</b> |

Table 1.3 shows the demographic profile of nurse-respondents in Sulu Sanitarium and General Hospital in terms of civil status. It can be gleaned from this table that out of 100 nurse-respondents, 52% were single, 45% were married, and 3% were separated/divorced. This implies that majority of the nurse-respondents were single.

#### *In terms of employment status*

**Table 1.4** Demographic profiles of the nurse-respondents in terms of employment status

| Status of employment | Number of Respondents | Percent     |
|----------------------|-----------------------|-------------|
| Permanent            | 44                    | 44%         |
| Contractual          | 4                     | 4%          |
| Job Order            | 52                    | 52%         |
| <b>Total</b>         | <b>100</b>            | <b>100%</b> |

Table 1.4 shows the demographic profile of nurse-respondents in Sulu Sanitarium and General Hospital in terms of employment status. It can be gleaned from this table that out of 100 nurse-respondents, 44% were permanent nurses, 4% were in contract of service, and 52% were job order nurses. This implies that most of the nurse-respondents were job order nurses at SSGH.

#### *In terms of length of service*

**Table 1.5** Demographic profiles of the nurse-respondents in terms of length of service

| Length of service | Number of Respondents | Percent |
|-------------------|-----------------------|---------|
| 1 to 5 years      | 63                    | 63%     |
| 6 to 10 years     | 30                    | 30%     |
| 11 to 20 years    | 6                     | 6%      |

|                    |            |             |
|--------------------|------------|-------------|
| 21 to 30 years     | 1          | 1%          |
| 31 years and above | 0          | 0%          |
| <b>Total</b>       | <b>100</b> | <b>100%</b> |

Table 1.5 shows the demographic profile of nurse-respondents in Sulu Sanitarium and General Hospital in terms of length of service. It can be gleaned from this table that out of 100 nurse-respondents, 63% served for 1 to 5 years, 30% served for 6 to 10 years, 6% served for 11 to 20 years, and 1% served for 21 to 30 years. This implies that most of the nurse-respondents have been serving for 1 to 5 years.

*Question 2. What is the extent of workforce capacity at Sulu Sanitarium and General Hospital as perceived by nurses in terms of: Staffing adequacy and workforce availability, Competency and professional development, and Workload management and support system?*

#### ***In terms of staffing adequacy and workforce availability***

**Table 2.1** Extent of workforce capacity at Sulu Sanitarium and General Hospital as perceived by nurses in terms of staffing adequacy and workforce availability

| Statements                                                            | Mean         | S.D.          | Description  |
|-----------------------------------------------------------------------|--------------|---------------|--------------|
| 1. There are sufficient nurses assigned in my unit during each shift. | 3.58         | 1.04621       | Agree        |
| 2. The nurse-to-patient ratio is appropriate for safe patient care.   | 3.64         | .91585        | Agree        |
| 3. Staffing schedules are fairly distributed among nurses.            | 3.83         | .89955        | Agree        |
| 4. There are enough staff to handle emergency situations effectively. | 3.61         | .91998        | Agree        |
| 5. Overtime work is minimized due to adequate staffing.               | 3.38         | 1.00282       | Neutral      |
| 6. Replacement staff are readily available when needed.               | 3.39         | 1.03372       | Neutral      |
| 7. The hospital ensures proper allocation of nurses across units.     | 3.69         | .89550        | Agree        |
| 8. Patient load is manageable during regular shifts.                  | 3.86         | .86480        | Agree        |
| 9. There is adequate coverage during night shifts and weekends.       | 3.67         | .88825        | Agree        |
| 10. Staff shortages rarely affect the quality of patient care.        | 3.48         | 1.07760       | Neutral      |
| <b>Weighted Mean</b>                                                  | <b>3.613</b> | <b>.78285</b> | <b>Agree</b> |

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 presents the extent of workforce capacity at SSGH in terms of staffing adequacy and workforce availability. The respondents obtained a composite mean score of 3.613 (SD=0.78285), interpreted as “Agree.” These findings suggest that staffing schedules are fairly distributed, nurses are properly allocated across units, and patient loads are manageable during regular shifts. This supports Bautista et al. (2019), who noted that workload management is related to nurses’ job satisfaction, while Aytona et al. (2022) found that staffing shortages in Philippine health facilities were associated with high workload pressure among nurses.

#### ***In terms of transactional leadership***

**Table 2.2** Extent of leadership style among nursing staff at Sulu Sanitarium and General Hospital in terms of transactional leadership

| Statements                                                                   | Mean         | S.D.          | Description  |
|------------------------------------------------------------------------------|--------------|---------------|--------------|
| 1. I possess the necessary clinical skills to perform my duties effectively. | 4.28         | .66788        | Agree        |
| 2. The hospital provides regular training and seminars for nurses.           | 3.99         | .81023        | Agree        |
| 3. Continuing professional development is encouraged in the institution.     | 4.16         | .77486        | Agree        |
| 4. I am confident in handling complex patient cases.                         | 4.26         | .61332        | Agree        |
| 5. There are opportunities to enhance my clinical competencies.              | 4.18         | .78341        | Agree        |
| 6. The hospital supports attendance in workshops and conferences.            | 4.07         | .80723        | Agree        |
| 7. New nurses receive adequate orientation and training.                     | 3.95         | .98857        | Agree        |
| 8. Supervisors provide guidance to improve clinical performance.             | 3.95         | .88048        | Agree        |
| 9. Training programs are relevant to my area of assignment.                  | 4.08         | .90654        | Agree        |
| 10. I am updated with current nursing practices and standards.               | 4.09         | .81767        | Agree        |
| <b>Weighted Mean</b>                                                         | <b>4.101</b> | <b>.63873</b> | <b>Agree</b> |

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 presents the extent of workforce capacity at SSGH in terms of competency and professional development. The respondents obtained a composite mean score of 4.101 (SD=0.63873), interpreted as “Agree.” These findings suggest that nurses possess the necessary clinical skills, are confident in handling complex cases, and have opportunities to enhance their competencies. This supports the findings of Melendres et al. (2024), who found that Filipino nurses perceived themselves as competent across several core professional domains and emphasized that supportive work environments, including opportunities and support for training and professional development, facilitate nurses’ continuing competency development.

### ***In terms of workload management and support system***

**Table 2.3** Extent of workforce capacity at Sulu Sanitarium and General Hospital as perceived by nurses in terms of workload management and support system

| Statements                                                                | Mean         | S.D.          | Description  |
|---------------------------------------------------------------------------|--------------|---------------|--------------|
| 1. My workload is fairly distributed among staff.                         | 3.88         | .78212        | Agree        |
| 2. I receive adequate support from supervisors and colleagues.            | 4.02         | .82853        | Agree        |
| 3. Administrative support is sufficient to facilitate my work.            | 3.83         | .81718        | Agree        |
| 4. Tasks are clearly assigned and well-organized.                         | 3.94         | .70811        | Agree        |
| 5. I have enough time to complete my assigned duties.                     | 4.00         | .77850        | Agree        |
| 6. Support staff are available to assist with non-nursing tasks.          | 3.93         | .79462        | Agree        |
| 7. 8Communication among staff is effective in managing workload.          | 4.12         | .72864        | Agree        |
| 8. The hospital provides adequate resources needed for patient care.      | 3.67         | .89955        | Agree        |
| 9. Work-related stress is manageable in my unit.                          | 3.92         | .82487        | Agree        |
| 10. There are systems in place to assist during high workload situations. | 3.78         | .85965        | Agree        |
| <b>Weighted Mean</b>                                                      | <b>3.909</b> | <b>.64809</b> | <b>Agree</b> |

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 presents the extent of workforce capacity at SSGH in terms of workload management and support system. The respondents obtained a composite mean score of 3.909 (SD=0.64809), interpreted as “Agree.” These findings suggest that nurses experience effective communication, adequate support from supervisors and colleagues, and sufficient time to complete assigned duties. This aligns with Javier (2019), who found that Filipino staff nurses reported a favorable work environment, particularly in terms of nurse manager support, leadership, and adequate staffing and resources.

*Question 3. What is the extent of service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses in terms of: Timeliness of care delivery; Quality and patient-centered care; and Resource utilization and workflow efficiency?*

### ***In terms of timeliness of care delivery***

**Table 3.1** Extent of service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses in terms of timeliness of care delivery

| Statements                                                         | Mean | S.D.   | Description |
|--------------------------------------------------------------------|------|--------|-------------|
| 1. Patients receive care promptly upon arrival.                    | 4.29 | .67112 | Agree       |
| 2. Nursing interventions are delivered without unnecessary delays. | 4.21 | .68601 | Agree       |
| 3. Response time to patient needs is efficient.                    | 4.33 | .60394 | Agree       |
| 4. Emergency cases are attended to immediately.                    | 4.41 | .62109 | Agree       |
| 5. There are minimal delays in treatment and procedures.           | 3.94 | .89691 | Agree       |
| 6. Coordination among healthcare staff improves service speed.     | 4.30 | .70353 | Agree       |
| 7. Patient waiting time is within acceptable limits.               | 4.22 | .79874 | Agree       |
| 8. Documentation is completed on time.                             | 3.93 | .81965 | Agree       |
| 9. Referrals and endorsements are done promptly.                   | 4.14 | .66697 | Agree       |
| 10. Delays rarely affect patient outcomes.                         | 3.95 | .80873 | Agree       |

|  |                      |              |               |              |
|--|----------------------|--------------|---------------|--------------|
|  | <b>Weighted Mean</b> | <b>4.172</b> | <b>.56319</b> | <b>Agree</b> |
|--|----------------------|--------------|---------------|--------------|

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 3.1 presents the extent of service delivery efficiency at SSGH in terms of timeliness of care delivery. The respondents obtained a composite mean score of 4.172 (SD=0.56319), interpreted as “Agree.” These findings suggest that the hospital demonstrates efficient and timely care delivery, particularly in attending to emergency cases, responding to patient needs, and coordinating among healthcare staff. This supports the findings of Labrague (2021), who reported that nurse staffing levels and patient safety culture were significant factors associated with missed nursing care and the quality of care among frontline nurses in the Philippines.

### ***In terms of quality and patient-centered care***

**Table 3.2** Extent of service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses in terms of quality and patient-centered care

| <b>Statements</b>                                                   | <b>Mean</b>          | <b>S.D.</b>  | <b>Description</b> |
|---------------------------------------------------------------------|----------------------|--------------|--------------------|
| 1. Patients receive safe and high-quality care.                     | 4.27                 | .73656       | Agree              |
| 2. Nursing care is delivered according to established standards.    | 4.33                 | .62044       | Agree              |
| 3. Patients’ needs and preferences are considered in care delivery. | 4.33                 | .65219       | Agree              |
| 4. Communication with patients is clear and effective.              | 4.34                 | .66999       | Agree              |
| 5. Patient safety is always prioritized in the unit.                | 4.44                 | .64071       | Agree              |
| 6. Care provided meets patients’ expectations.                      | 4.28                 | .68283       | Agree              |
| 7. Nurses demonstrate compassion and professionalism.               | 4.35                 | .67232       | Agree              |
| 8. Errors in patient care are minimized.                            | 4.20                 | .69631       | Agree              |
| 9. Patient satisfaction is consistently high.                       | 4.22                 | .73278       | Agree              |
| 10. Ethical standards are strictly followed in patient care         | 4.33                 | .68490       | Agree              |
|                                                                     | <b>Weighted Mean</b> | <b>4.310</b> | <b>.57586</b>      |
|                                                                     |                      |              | <b>Agree</b>       |

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 3.2 presents the extent of service delivery efficiency at SSGH in terms of quality and patient-centered care. The respondents obtained a composite mean score of 4.310 (SD=0.57586), interpreted as “Agree.” These findings suggest that the hospital demonstrates quality and patient-centered care, particularly in prioritizing patient safety, showing compassion and professionalism, and maintaining clear and effective communication. This supports the findings of Madayag et al. (2024), who found that effective nurse-patient communication promotes patient-centered care through empathy, compassion, active listening, and improved patient experience among Filipino nursing students.

### ***In terms of resource utilization and workflow efficiency***

**Table 3.3** Extent of service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses in terms of resource utilization and workflow efficiency

| <b>Statements</b>                                               | <b>Mean</b>          | <b>S.D.</b>  | <b>Description</b> |
|-----------------------------------------------------------------|----------------------|--------------|--------------------|
| 1. Medical supplies and equipment are used efficiently.         | 3.98                 | .86433       | Agree              |
| 2. Resources are readily available when needed.                 | 3.25                 | 1.12254      | Neutral            |
| 3. There is minimal wastage of hospital resources.              | 3.82                 | .88054       | Agree              |
| 4. Work processes are well-coordinated among staff.             | 4.07                 | .75552       | Agree              |
| 5. Equipment and facilities support efficient service delivery. | 3.88                 | .83218       | Agree              |
| 6. Tasks are completed with minimal duplication of effort.      | 3.96                 | .69515       | Agree              |
| 7. Workflow processes are organized and systematic.             | 4.06                 | .67898       | Agree              |
| 8. Time and resources are maximized during patient care.        | 4.07                 | .70000       | Agree              |
| 9. Delays due to lack of resources are minimal.                 | 3.54                 | 1.13191      | Agree              |
| 10. Hospital systems support efficient service delivery.        | 3.99                 | .78490       | Agree              |
|                                                                 | <b>Weighted Mean</b> | <b>3.862</b> | <b>.64897</b>      |
|                                                                 |                      |              | <b>Agree</b>       |

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 3.3 presents the extent of service delivery efficiency at SSGH in terms of resource utilization and workflow efficiency. The respondents obtained a composite mean score of 3.862 (SD=0.64897), interpreted as “Agree.” These findings suggest that the hospital maintains efficient workflows and resource utilization, particularly through coordinated work processes, maximization of time and resources, and organized workflow. This supports the findings of Estreller et al. (2025), who found that limited staffing and resource scarcity can hinder nurse productivity and healthcare delivery efficiency in Philippine hospitals.

*Question 4. Is there a significant difference in the extent of workforce capacity and service delivery efficiency 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; Civil Status; Length of service; and Employment status?*

### In terms of age

**Table 4.1** Differences in the extent of workforce capacity and service delivery efficiency 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     |
|----------------------------------------------|----------------|----------------|----|-------------|-------|------|-----------------|
| <b>Workforce Capacity</b>                    |                |                |    |             |       |      |                 |
| Staffing adequacy and workforce availability | Between Groups | 1.970          | 2  | .985        | 1.628 | .202 | Not Significant |
|                                              | Within Groups  | 58.703         | 97 | .605        |       |      |                 |
|                                              | Total          | 60.673         | 99 |             |       |      |                 |
| Competency and professional development      | Between Groups | 1.769          | 2  | .884        | 2.221 | .114 | Not Significant |
|                                              | Within Groups  | 38.621         | 97 | .398        |       |      |                 |
|                                              | Total          | 40.390         | 99 |             |       |      |                 |
| Workload management and support system       | Between Groups | 1.550          | 2  | .775        | 1.878 | .158 | Not Significant |
|                                              | Within Groups  | 40.032         | 97 | .413        |       |      |                 |
|                                              | Total          | 41.582         | 99 |             |       |      |                 |
| <b>Service Delivery Efficiency</b>           |                |                |    |             |       |      |                 |
| Timeliness of care delivery                  | Between Groups | 1.041          | 2  | .520        | 1.662 | .195 | Not Significant |
|                                              | Within Groups  | 30.361         | 97 | .313        |       |      |                 |
|                                              | Total          | 31.402         | 99 |             |       |      |                 |
| Quality and patient-centered care            | Between Groups | .570           | 2  | .285        | .857  | .427 | Not Significant |
|                                              | Within Groups  | 32.260         | 97 | .333        |       |      |                 |
|                                              | Total          | 32.830         | 99 |             |       |      |                 |
| Resource utilization and workflow efficiency | Between Groups | 1.530          | 2  | .765        | 1.847 | .163 | Not Significant |
|                                              | Within Groups  | 40.166         | 97 | .414        |       |      |                 |
|                                              | Total          | 41.696         | 99 |             |       |      |                 |

Significance at alpha 0.05

Table 4.1 presents the difference in the extent of workforce capacity and service delivery efficiency at SSGH according to age. The results showed no significant difference, as indicated by the obtained F-ratios and p-values. These findings suggest that nurses, regardless of age, have similar perceptions of workforce capacity and service delivery efficiency. Therefore, the hypothesis stating that there is no significant difference when respondents are grouped according to age is accepted.

### In terms of gender

**Table 4.2** Differences in the extent of workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses in terms of gender

| VARIABLES | Grouping Gender | Mean | S.D. | Mean Difference | t | Sig. | Description |
|-----------|-----------------|------|------|-----------------|---|------|-------------|
|-----------|-----------------|------|------|-----------------|---|------|-------------|

| <i><b>Workforce Capacity</b></i>             |        |       |        |        |       |      |                 |
|----------------------------------------------|--------|-------|--------|--------|-------|------|-----------------|
| Staffing adequacy and workforce availability | Male   | 3.624 | .86588 | .01569 | .090  | .928 | Not Significant |
|                                              | Female | 3.608 | .75285 |        |       |      |                 |
| Competency and professional development      | Male   | 4.200 | .68972 | .13944 | .990  | .324 | Not Significant |
|                                              | Female | 4.060 | .61725 |        |       |      |                 |
| Workload management and support system       | Male   | 3.972 | .54504 | .08932 | .623  | .534 | Not Significant |
|                                              | Female | 3.883 | .68764 |        |       |      |                 |
| <i><b>Service Delivery Efficiency</b></i>    |        |       |        |        |       |      |                 |
| Staffing adequacy and workforce availability | Male   | 4.296 | .60503 | .17542 | 1.421 | .159 | Not Significant |
|                                              | Female | 4.121 | .54140 |        |       |      |                 |
| Competency and professional development      | Male   | 4.389 | .61374 | .11219 | .883  | .379 | Not Significant |
|                                              | Female | 4.277 | .56092 |        |       |      |                 |
| Workload management and support system       | Male   | 3.875 | .63339 | .01952 | .136  | .892 | Not Significant |
|                                              | Female | 3.856 | .65960 |        |       |      |                 |

Significance at alpha 0.05

Table 4.2 presents the difference in the extent of workforce capacity and service delivery efficiency at SSGH according to gender. The results showed no significant difference, as indicated by the obtained mean differences and t-values. These findings suggest that male and female nurses have similar perceptions of workforce capacity and service delivery efficiency. Therefore, the hypothesis stating that there is no significant difference when respondents are grouped according to gender is accepted.

#### ***In terms of civil status***

**Table 4.3** Differences in the extent of workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses in terms of civil status

| SOURCES OF VARIATION                         |                | Sum of Squares | df | Mean Square | F     | Sig. | Description     |
|----------------------------------------------|----------------|----------------|----|-------------|-------|------|-----------------|
| <i>Workforce Capacity</i>                    |                |                |    |             |       |      |                 |
| Staffing adequacy and workforce availability | Between Groups | .438           | 2  | .219        | .352  | .704 | Not Significant |
|                                              | Within Groups  | 60.235         | 97 | .621        |       |      |                 |
|                                              | Total          | 60.673         | 99 |             |       |      |                 |
| Competency and professional development      | Between Groups | .997           | 2  | .498        | 1.227 | .298 | Not Significant |
|                                              | Within Groups  | 39.393         | 97 | .406        |       |      |                 |
|                                              | Total          | 40.390         | 99 |             |       |      |                 |
| Workload management and support system       | Between Groups | .860           | 2  | .430        | 1.024 | .363 | Not Significant |
|                                              | Within Groups  | 40.722         | 97 | .420        |       |      |                 |
|                                              | Total          | 41.582         | 99 |             |       |      |                 |
| <i>Service Delivery Efficiency</i>           |                |                |    |             |       |      |                 |
| Timeliness of care delivery                  | Between Groups | .313           | 2  | .156        | .488  | .616 | Not Significant |
|                                              | Within Groups  | 31.089         | 97 | .321        |       |      |                 |
|                                              | Total          | 31.402         | 99 |             |       |      |                 |
| Quality and patient-centered care            | Between Groups | .026           | 2  | .013        | .038  | .963 | Not Significant |
|                                              | Within Groups  | 32.804         | 97 | .338        |       |      |                 |
|                                              | Total          | 32.830         | 99 |             |       |      |                 |
| Resource utilization and workflow efficiency | Between Groups | .318           | 2  | .159        | .373  | .689 | Not Significant |
|                                              | Within Groups  | 41.377         | 97 | .427        |       |      |                 |
|                                              | Total          | 41.696         | 99 |             |       |      |                 |

Significance at alpha 0.05

Table 4.3 presents the difference in the extent of workforce capacity and service delivery efficiency at SSGH according to civil status. The results showed no significant difference, except in staffing adequacy and workforce availability, as indicated by the obtained F-ratios and p-values.

These findings suggest that nurses, regardless of civil status, generally have similar perceptions of workforce capacity and service delivery efficiency. Therefore, the hypothesis stating that there is no significant difference when respondents are grouped according to civil status is accepted.

### ***In terms of employment status***

**Table 4.4** Differences in the extent of workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses in terms of employment status

| SOURCES OF VARIATION                         |                | Sum of Squares | df | Mean Square | F    | Sig. | Description     |
|----------------------------------------------|----------------|----------------|----|-------------|------|------|-----------------|
| <i>Workforce Capacity</i>                    |                |                |    |             |      |      |                 |
| Staffing adequacy and workforce availability | Between Groups | .706           | 2  | .353        | .571 | .567 | Not Significant |
|                                              | Within Groups  | 59.967         | 97 | .618        |      |      |                 |
|                                              | Total          | 60.673         | 99 |             |      |      |                 |
| Competency and professional development      | Between Groups | .158           | 2  | .079        | .190 | .827 | Not Significant |
|                                              | Within Groups  | 40.232         | 97 | .415        |      |      |                 |
|                                              | Total          | 40.390         | 99 |             |      |      |                 |
| Workload management and support system       | Between Groups | .473           | 2  | .237        | .558 | .574 | Not Significant |
|                                              | Within Groups  | 41.109         | 97 | .424        |      |      |                 |
|                                              | Total          | 41.582         | 99 |             |      |      |                 |
| <i>Service Delivery Efficiency</i>           |                |                |    |             |      |      |                 |
| Timeliness of care delivery                  | Between Groups | .399           | 2  | .199        | .623 | .538 | Not Significant |
|                                              | Within Groups  | 31.003         | 97 | .320        |      |      |                 |
|                                              | Total          | 31.402         | 99 |             |      |      |                 |
| Quality and patient-centered care            | Between Groups | .151           | 2  | .075        | .224 | .800 | Not Significant |
|                                              | Within Groups  | 32.679         | 97 | .337        |      |      |                 |
|                                              | Total          | 32.830         | 99 |             |      |      |                 |
| Resource utilization and workflow efficiency | Between Groups | .578           | 2  | .289        | .682 | .508 | Not Significant |
|                                              | Within Groups  | 41.118         | 97 | .424        |      |      |                 |
|                                              | Total          | 41.696         | 99 |             |      |      |                 |

Significance at alpha 0.05

Table 4.4 presents the difference in the extent of workforce capacity and service delivery efficiency at SSGH according to employment status. The results showed no significant difference, as indicated by the obtained F-ratios and p-values. These findings suggest that nurses, regardless of employment status, have similar perceptions of workforce capacity and service delivery efficiency. Therefore, the hypothesis stating that there is no significant difference when respondents are grouped according to employment status is accepted.

### ***In terms of length of service***

**Table 4.5** Differences in the extent of workforce capacity and service delivery efficiency 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     |
|----------------------------------------------|----------------|----------------|----|-------------|------|------|-----------------|
| <i>Workforce Capacity</i>                    |                |                |    |             |      |      |                 |
| Staffing adequacy and workforce availability | Between Groups | .927           | 3  | .309        | .496 | .686 | Not Significant |
|                                              | Within Groups  | 59.746         | 96 | .622        |      |      |                 |
|                                              | Total          | 60.673         | 99 |             |      |      |                 |
| Competency and professional development      | Between Groups | 1.219          | 3  | .406        | .996 | .398 | Not Significant |
|                                              | Within Groups  | 39.171         | 96 | .408        |      |      |                 |
|                                              | Total          | 40.390         | 99 |             |      |      |                 |
| Workload management and support system       | Between Groups | 1.069          | 3  | .356        | .844 | .473 | Not Significant |
|                                              | Within Groups  | 40.513         | 96 | .422        |      |      |                 |
|                                              | Total          | 41.582         | 99 |             |      |      |                 |
| <i>Service Delivery Efficiency</i>           |                |                |    |             |      |      |                 |

|                                              |                |        |    |      |       |      |                 |
|----------------------------------------------|----------------|--------|----|------|-------|------|-----------------|
| Timeliness of care delivery                  | Between Groups | 1.314  | 3  | .438 | 1.397 | .248 | Not Significant |
|                                              | Within Groups  | 30.088 | 96 | .313 |       |      |                 |
|                                              | Total          | 31.402 | 99 |      |       |      |                 |
| Quality and patient-centered care            | Between Groups | .370   | 3  | .123 | .364  | .779 | Not Significant |
|                                              | Within Groups  | 32.460 | 96 | .338 |       |      |                 |
|                                              | Total          | 32.830 | 99 |      |       |      |                 |
| Resource utilization and workflow efficiency | Between Groups | 2.117  | 3  | .706 | 1.712 | .170 | Not Significant |
|                                              | Within Groups  | 39.579 | 96 | .412 |       |      |                 |
|                                              | Total          | 41.696 | 99 |      |       |      |                 |

Significance at alpha 0.05

Table 4.5 presents the difference in the extent of workforce capacity and service delivery efficiency at SSGH according to length of service. The results showed no significant difference, as indicated by the obtained F-ratios and p-values. These findings suggest that nurses, regardless of length of service, have similar perceptions of workforce capacity and service delivery efficiency. Therefore, the hypothesis stating that there is no significant difference when respondents are grouped according to length of service is accepted.

*Question 5. Is there a significant correlation among the sub-categories subsumed under the extent of workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses?*

**Table 5.1** Correlation among the sub-categories subsumed under the extent of workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses

| Variables                                    | Pearson r | Sig. | N   | Description           |
|----------------------------------------------|-----------|------|-----|-----------------------|
| Staffing adequacy and workforce availability |           |      |     |                       |
| Competency and professional development      | .740**    | .000 | 100 | Very High Correlation |
| Workload management and support system       | .817**    | .000 | 100 | Very High Correlation |
| Timeliness of care delivery                  | .641**    | .000 | 100 | High Correlation      |
| Quality and patient-centered care            | .537**    | .000 | 100 | High Correlation      |
| Resource utilization and workflow efficiency | .546**    | .000 | 100 | High Correlation      |
| Competency and professional development      |           |      |     |                       |
| Workload management and support system       | .805**    | .000 | 100 | Very High Correlation |
| Timeliness of care delivery                  | .719**    | .000 | 100 | Very High Correlation |
| Quality and patient-centered care            | .601**    | .000 | 100 | High Correlation      |
| Resource utilization and workflow efficiency | .528**    | .000 | 100 | High Correlation      |
| Workload management and support system       |           |      |     |                       |
| Timeliness of care delivery                  | .707**    | .000 | 100 | Very High Correlation |
| Quality and patient-centered care            | .538**    | .000 | 100 | High Correlation      |
| Resource utilization and workflow efficiency | .605**    | .000 | 100 | High Correlation      |
| Timeliness of care delivery                  |           |      |     |                       |
| Quality and patient-centered care            | .722**    | .000 | 100 | Very High Correlation |
| Resource utilization and workflow efficiency | .581**    | .000 | 100 | High Correlation      |
| Quality and patient-centered care            |           |      |     |                       |
| Resource utilization and workflow efficiency | .601**    | .000 | 100 | High Correlation      |

Legend: \*\* Correlation Coefficient is significant at alpha .01 level,

\* Correlation Coefficient is significant at alpha .05 level,

Correlation Coefficient Scales Adopted from Hopkins, Will (2002): 0.0-0.1=Nearly Zero; 0.1-0.30=Low; 0.3-0.5=Moderate; 0.5-0.7=High; 0.7-0.9= Very High; 0.9-1=Nearly Perfect

Table 5.1 illustrates the correlation among the sub-categories of workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses. The Pearson Correlation Coefficients (Pearson r) reveal significant positive correlations among all sub-categories at  $\alpha=0.05$ .

Results show high to very high positive and significant relationships among the variables. The strongest correlations are between staffing adequacy and workforce availability and workload management and support system ( $r=.817$ ;  $p=.000$ ), competency and professional development and workload management and support system ( $r=.805$ ;  $p=.000$ ), staffing adequacy and workforce availability and competency and professional development ( $r=.740$ ;  $p=.000$ ), and timeliness of care delivery and quality and patient-centered care ( $r=.722$ ;  $p=.000$ ). Other sub-categories also demonstrated significant positive correlations, with coefficients ranging from .528 to .641.

Overall, the findings indicate significant positive relationships among the sub-categories of workforce capacity and service delivery efficiency. Therefore, the hypothesis asserting that there is no significant correlation among the sub-categories subsumed under the extent of workforce capacity and service delivery efficiency at Sulu Sanitarium and General Hospital as perceived by nurses is rejected.

## **Conclusion**

The study reveals that most nurses at Sulu Sanitarium and General Hospital are young professionals, predominantly female, aged 20-30 years old, contractual, and with less than five years of service. Workforce capacity and service delivery efficiency were consistently rated “Agree” across all dimensions, indicating positive perceptions of staffing, workflow, resource utilization, and quality patient care. No significant differences were found when perceptions were grouped according to age, gender, civil status, length of service, and employment status.

The findings support Donabedian’s Structure-Process-Outcome Model, the WHO Health Systems Framework, Lake’s Practice Environment Scale of the Nursing Worklife, and Parasuraman et al.’s SERVQUAL Model, emphasizing the interconnectedness of adequate staffing, institutional support, efficient processes, and quality patient-centered care. The study recommends strengthening workforce retention, staff allocation, professional development, feedback mechanisms, community participation, and institutional and policy support, while encouraging future research using mixed-method and comparative approaches.

*(Disclaimer: While artificial intelligence (AI) was used for language enhancement, all concepts that were generated are entirely original.)*

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