



Long Paper

Health Care Practices in the Implementation of Safety Protocols

Laline O. Salvador

Institute of Graduate and Advanced Studies, Urdaneta City University, Philippines
lalineonia@yahoo.com

Date received: August 13, 2023

Date received in revised form: October 9, 2023

Date accepted: October 25, 2023

Recommended citation:

Salvador, L. O. (2024). Health Care Practices in the Implementation of Safety Protocols. *Puissant*, 5, 1902-1928.

Abstract

This study aimed to evaluate the level of healthcare practices in the implementation of safety protocols during the COVID-19 pandemic among nurses and tackle their problems while dealing with it. The descriptive method was used in this research to properly assess the nurse's compliance, fears, and situation at the hospitals through a questionnaire for data gathering. To effectively render quality care to COVID-19 patients and others, the hospital administration must hire more nursing staff who are equipped with knowledge and skills and who are willingly assigned to all areas of the hospital. They also need to procure more PPE and medical supplies to reduce transmission of infection. The nurses, regardless of their age and years of service, must continuously update their knowledge of health care practices and safety protocols for them to be qualified when they handle COVID-19 patients and other communicable diseases in the future. It is recommended that nurses undergo seminars or trainings such as infection control and prevention, screening, and triage to enrich their knowledge and skills in the care of patients during the pandemic and enhance their compliance to effectively handle COVID-19 patients.

Keywords – health care practices, safety protocol, infection control, pandemics, screening



INTRODUCTION

This paper presents the background of the study, synthesis, and gist of the relevant scholarly literature and previously conducted studies reviewed and digested by the researcher, as well as those found to have a specific bearing on the general theme and specific concerns of this current study. This information was used as a basis and significant input in the conceptualization of identifying the level of healthcare practices in the implementation of safety protocols during the COVID-19 pandemic in selected hospitals in Pangasinan. Scholarly assertions and contentions from the literature cited were also invoked in the interpretation of the data findings of this study.

Nurses' roles are now more critical than ever. Nurses are often the last thread of compassion for patients. They perform screenings, take care of the critically ill, implement triage protocols, communicate with families, and attend to the dying. Nurses in every role are loaded. They must work in areas of the hospital that are not their average specialty. Nurses are asked to learn new skills and take on new roles—as safety officers and taking care of critically ill patients. They are making triage plans operational. They have to reallocate their resources profoundly, and nurses are innovating and leading amid the crisis (Pearce, 2020).

There are reports that many health care workers (HCWs) got affected or incurred death because of COVID-19. HCW is composed of at least 14% of the total COVID-19 cases in Spain. Hospitals and isolation centers are loaded with patients, and essential medical equipment is inadequate. Healthcare workers are lacking. The high viral load in hospital settings may make healthcare workers particularly susceptible to the disease. The implications of infection in HCWs are severe, and they can spread the illness to colleagues, family members, friends, and patients. India has incurred a shortage of healthcare workers, and the high incidence of COVID-19 is high and cannot be prevented. Many personnel will be needed if the healthcare workers get infected. They will be isolated, and more healthcare workers are required (Vaishya, 2020).

Globally, nurses participate in detecting COVID-19 cases and give comfort and care even if they are dying. They provide health education on measures to prevent the spread of the virus. Nurses are overworked during the pandemic due to healthcare shortages like a lack of personal protective equipment and attending to an overwhelming number of patients. Nurses and other health and emergency workers suffer physical and emotional stress and moral distress from conflicting professional values. They experience unfavorable, complex ethical issues in practice, with moral conflicts, high levels of understanding, patient deaths, and long working hours. A rising number of nurses are infected with SARS-CoV-2 or die in the line of duty. Nurses need solid moral courage, stamina, and resilience to work on the front lines of the pandemic, often while separated from their loved ones (Turale et al., 2020).

President Rodrigo Duterte ordered his coronavirus task force to address the concerns of more than a million doctors and nurses who called for reviving strict lockdowns after the

third day of record infections. However, the government cast doubt on the request of the frontline healthcare workers to restore strict lockdowns of the populated areas in and around the capital, Manila.

Eighty thousand doctors and many nurses mentioned that our country had failed to fight against the COVID-19 virus, which contributed to the failure of our healthcare system. Our health workers experienced stress and anxiety due to the influx of patients for treatment and care (Morales, 2020). Since the World Health Organization declared COVID-19 a pandemic on March 11, 2020, the global science community has demonstrated that science can respond quickly with advanced techniques and technologies, and the immediate dissemination of research results in a largely transparent and focused science research effort. For example, it is no surprise that the SARS-CoV-19 viral genome was made public within two weeks. Rapid communication and publication have allowed the global public to recognize the seriousness of COVID-19.

This is due to the increased capability of the data sciences to model epidemic trajectories and to show the statistical models as probability distributions, a.k.a. curves. Filipino data scientists initially did this as citizens to provide the initial basis for policy decisions. Their efforts have made one phrase enter the Filipino lexicon: "flattening the curve". These efforts, while they have resulted in a positive outcome in suppressing COVID-19 infections, reveal gaps in the channeling of scientific advice to the government, especially in a crisis, and the need for a more coordinated scientific policy structure for emergencies.

While COVID-19 can be considered a "black swan" event with its low probability of occurrence and high impact, this has been mentioned since SARS in 2002. A coronavirus outbreak was deemed possible with very uncertain consequences; COVID-19 is a life-and-death risk. Those who came from travel abroad have more significant chances of infecting other people or being infected, so they must undergo a 14-day quarantine and monitor their health condition.

The stay-at-home orders are also to minimize risk but not eliminate it. Washing hands with soap and water for 20 seconds, wearing masks, social distancing, using alcohol and hand sanitizers, and keeping the environment clean are other ways to lower risks. These recommendations need long-term positive behavioral reinforcement.

Republic Act 11469, or the Bayanihan to Heal as One Act (BAHO), was signed into law by President Duterte on March 24, 2020. It mandates the application of WHO recommendations to Philippine pandemic health management and policy. It grants special powers to the executive department to provide public and private hospitals with other support, such as the procurement of equipment and engaging temporary human resources, such as other doctors and staff. It also directs hospitals and health care facilities to function as COVID-19 or quarantine facilities, including rapid testing for patients, and provides compensation insurance for front-line health workers. It also offers social amelioration

financial assistance to low-income households and enforces laws on giving profit and price ceilings (Vallejo, 2020).

Healthcare workers reported their preparedness in different areas to fight against COVID-19. All 367 (100%) HCWs who participated in the study stated that they checked adequate supplies of goggles, masks, and gowns on hand for emergencies; 99.7% cited they prepared links and were in contact with external resource centers for COVID-19, such as the Center for Disease Control or WHO; 98% evaluated the patient care equipment, including portable ventilators (preparation and patient handling checklists); and 83.4% checked and prepared an alternative supplier list of specific personal protective equipment, among others. Surprisingly, 18.3% of the respondents are unaware of any preparation, and 4.5% do not find it necessary.

In the study conducted by Limbu et al. (2020), healthcare workers' adherence to prevention and control measures is affected by their knowledge, attitudes, and practices (KAP) towards COVID-19. This study evaluated the KAP among healthcare workers towards COVID-19 during the ongoing pandemic. Universal College of Medical Sciences Teaching Hospital (UCMSTH), in Bhairahawa, Nepal, assessed the attitudes and practices towards COVID-19, including questions on behavior and changes in preparations made towards the COVID-19 response. Knowledge scores were calculated and compared by demographic characteristics, attitudes, and practices towards COVID-19.

They concluded that there is comparably better knowledge regarding COVID-19 among healthcare workers. Appropriate methods correlate with better ability, and a positive attitude towards COVID-19 infection is evident with increasing age. Hence, training on protection and protective measures is necessary to foster a positive attitude among healthcare workers in the fight against COVID-19 disease.

Wise, 2020, studied "Why self-care is important during COVID-19," especially for healthcare workers. Doing self-care relieves us from stress and mental problems during a pandemic, thereby improving health outcomes. The Canadian Mental Health Association endorses caring for oneself as a coping mechanism.

The World Health Organization defines self-care as "the ability of individuals, families, and communities to promote health, prevent disease, maintain health, and cope with illness and disability with or without the support of a healthcare provider." It includes details of eating habits, caring for ourselves, our attitudes, behavior, and concern for the environment. Because many of us are self-isolating or in quarantine, at-home self-care activities are essential. These include listening to music, gardening, meditating, calling a friend or loved one, taking prescribed medications, and showering. They emphasized getting adequate sleep, taking breaks without feeling guilty, and maintaining a routine. It also mentioned that it is essential to engage in activities and distractions that people typically enjoy.

Nashwan 2020, in his study, revealed the role of the pandemic. He categorized them as working willingly on high-risk and low-risk patients. Nurses assigned to clients with COVID-19 were provided with a higher allowance than those in the low-risk category. Notably, there is a relationship between the compensation and the risk the nurse will handle.

Worldwide, nurses played an essential role during the pandemic. They give direct bedside care to COVID-19 patients and are ready to attend to people affected by the disease and to coordinate with government authorities and the public health sector to research improving the health system. Nurses comprise the essential personality in nursing care. They advocate for best practices and health equality.

Nurses know about disease prevention and control, emergency and critical care, palliative care, and public health conditions. They are part of the success and failure of the healthcare system. Nurses must be adaptable to preserve human dignity and ease suffering. A nurse's call of duty is different from that of other health professionals. They give direct bedside care to patients admitted to the hospital. They are exposed to threats and infections due to their presence at the bedside, and there is inadequate personal protective equipment. Nurses maintain the well-being and safety of clients, especially during pandemics. They are there to attend to the influx of COVID-19 patients in health facilities. Nurses face challenges in the care of critical clients, both in curative and palliative cases. Nurses give practical, solution-based remedies to help strengthen the COVID-19 response (Schwerdtle, 2020).

In disasters, nurses are on the front lines and responsible for providing holistic care for all patients. Because nurses constitute the majority of healthcare providers, they have a critical function in healthcare systems. Their roles in treating patients with COVID-19 involve triaging patients and detecting alleged cases of infections; providing essential treatment in an emergency and dealing with suspected patients with precautions; helping in decontamination and coordination with other healthcare providers; supplying holistic nursing practices for managing multiple infections simultaneously; playing critical roles in expanding care services; and dealing with relatives. In crises, they have more tasks to satisfy patients and their families; therefore, nurses must be well equipped with essential knowledge and skills in managing situations involving clinical treatment, decontamination, isolation, communication, triaging, psychological support, and palliative care if necessary. However, when they respond to a situation such as COVID-19, they face problems that hinder them from caring for the infected patients.

Exploring the issues that nurses face when caring for patients with COVID-19 will help increase nurse and hospital resilience in response to the situation and enhance preparedness and recovery from the crisis. Additionally, understanding these issues will help support nurses by informing leaders and decision-makers about these issues and providing recommendations and implications. Therefore, the study aims to explore the nurse's preparedness and the problems facing them during their response to the COVID-19 crisis. It indicates a shortage of nurses when dealing with the mass of patients affected by the coronavirus. Moreover, the severity of this problem is not just a shortage of trained nurses.

providing total care for patients in isolation or intensive care units with COVID-19. Indeed, this problem is quite evident regarding other emergencies and disasters. In addition, the situation becomes apparent in regular daily routines. The suggested solution for improving staffing for COVID-19 might involve a call for all experts—retired or staff nurses with essential knowledge, skills, and attitudes—to help provide holistic care for patients infected with COVID-19. This will ensure that hospitals can increase their capacity and receive more patients when nurses are available. Volunteers are recommended, such as nursing interns, and students who are willing and have experience working in a clinical setting would be beneficial. However, nurses must have clear plans to manage and supervise volunteers when identifying their roles and the tasks that must be done. With the COVID-19 pandemic, there was an inadequate supply of personal protective equipment for health workers all over the country. However, the government ensured the readiness of the public health personnel to attend to this critical health problem. According to the United Nations International Strategy for Disaster Reduction, preparedness refers to government initiatives that call for the participation of the community, people, and organizations to be ready to respond to possible threats from the COVID-19 virus (Hou et al., 2020).

Among healthcare providers, nurses incur the highest risks because of their long working hours and close contact with patients. Nurses encountered intense physical and psychological challenges during the SARS epidemic. Moreover, many front-line nurses learn of a patient's SARS-related diagnosis late and the potential dangers in the practice setting; neither were they warned nor provided with adequate protection to ensure their safety. Finally, feelings of being devalued, sacrificed, and other related complaints came out and were discussed by nurse clinicians and leaders from nursing associations, legislators, and schools of nursing. 80,000 doctors and many nurses mentioned that our country had failed to fight against the COVID-19 virus, which contributed to the downfall of our healthcare system. Our health workers experienced stress and anxiety due to the influx of patients for treatment and care (Morales, 2020).

Statement of the Problem

Nurses are the front-line workers in caring for any types of patients admitted to the hospital, particularly during this COVID-19 pandemic. This study determined the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic in selected hospitals in Pangasinan.

Specifically, it sought to answer the following sub-problems:

1. What is the profile of the respondents in terms of age, **sex**, civil status, highest educational attainment, number of years in the service, and area of assignment?
2. What is the level of healthcare practices in the implementation of safety protocols during the COVID-19 pandemic while in triage, during admission, and upon discharge?
3. What are the common issues faced by nurses in their response to COVID-19 patients?
4. Is there a significant difference between the level of healthcare practices and the implementation of safety protocols across selected profile variables?

5. Is there a significant relationship between the level of healthcare practices and the implementation of safety protocols across selected profile variables?
6. What plan of action can be proposed to improve healthcare practices through the implementation of safety protocols?

Conceptual Framework

The present study adapted the theory of human care by Jean Watson, a nursing theorist. It focused on the art and science of human care. According to Watson, caring is the essence of nursing and the most central and unifying focus of nursing practice. This theory offers a new way of conceptualizing and maximizing human-to-human transactions that occur daily in nursing practice (DeLaune & Ladner 2006).

With the above premise, a conceptual framework is formulated and presented in Figure 1. It is reflected in the figure on the next page for the independent variables, which include their age, sex, civil status, highest educational attainment, number of years in service, and area of assignment. The dependent variables dealt with the healthcare practices in implementing safety protocols among nurses during the COVID-19 pandemic and the common issues faced by the nurses in response to the COVID-19 pandemic, and lastly, the output is the proposed intervention program to improve the healthcare practices of nurses during the COVID-19 pandemic.

Independent Variables

Profile of the respondents

- a. age;
- b. sex;
- c. civil status
- d. highest educational attainment
- e. number of years in service and
- f. area of assignment

Dependent Variables

A. Level of health care practices in the implementation of safety protocols along,

- a. triage;
- b. during admission; and
- c. upon discharge

B. Common issues faced by nurses in response to COVID-19 pandemic

Output

Proposed intervention program to increase the health care practices of nurses during the COVID 19 pandemic

Figure 1. Paradigm shows the relationship between the Independent and Dependent Variables of the Study

To improve the control of COVID-19, the proactive and effective preparedness of organizations and individuals in public health systems is therefore required. However, there is a question about how nurses implement healthcare practices and safety protocols during the COVID-19 pandemic. It is in this scenario that the researcher will be interested in conducting the study on the level of health care practices in the implementation of safety protocols along triage, upon admission, discharge, and the common issues that face them.

METHODOLOGY

The methodology includes discussions on the research design, population, and locale of the study, data collection instruments, data collection procedures, and data treatment.

Research Design

The study employed the descriptive method of research, which is the process of collecting and tabulating the gathered information. An interpretation of the findings will be made, noting the similarities and differences between the results. This method is suited to this study in obtaining the needed information from all respondents.

Population and Locale of the Study

The respondents to this study were the nurses in selected public and private hospitals in Pangasinan. It was composed of 150 nurses from different areas of the hospital. The locale of the study was Hospital A (100 respondents), a level 2 government hospital; Hospital B (30 respondents), level 2 and a private institution; and Hospital C (20 respondents), level 1 managed by the provincial government. Purposive sampling was utilized because the researcher had decided to involve respondents in different hospitals that cater to COVID-19 patients.

Data Collection Instrument

The study utilized the questionnaires of the respondents as the data gathering tool. The survey questions were taken from related studies and the World Health Organization guidelines on safety. Part I includes the profile of the nurses, like age, sex, civil status, highest educational attainment, number of years in service, and area of assignment. Part II dealt with the level of healthcare practices in the implementation of safety protocols, and Part III focused on the common issues faced by nurses during the COVID-19 pandemic.

Data Collection Procedure

Upon approval of the instrument, the researcher asked permission to float a questionnaire noted by the research adviser. A letter was made to the Chief of Hospitals through the Chief Nurses. It was administered online, through email, and some were

personally administered to the respondents observing safety protocols. The purpose of the study was oriented toward the respondents online and through email for a clearer understanding of the study. Confidentiality of information was observed, the anonymity of participants was noted, and their privacy was respected. Results were then collated, tabulated, and tallied before being subjected to data treatment.

Treatment of Data

The following statistical tools were utilized in the analysis and interpretation of the data gathered:

- for the first research problem, i.e., the profile of the respondents, the study employed frequency counts and percentage,
- for the second research problem, i.e., on the level of health care practices in the implementation of safety protocols during the COVID-19 pandemic, the weighted mean was used,
- for third research problem, i.e., the common issues faced by the nurses, frequency ranking was used, and finally,
- for the fourth and fifth problems, i.e., finding the significant relationship among and difference between variables, Analysis of Variance (ANOVA), Scheffe, and t-test were used.

Table 1. Point Value Classification and its Corresponding Verbal Values

Point Value Classification	Mean Scale	Descriptive Equivalent	Interpretation
5	4.50 - 5.00	Always	Highly Compliant
4	3.50 - 4.49	Often	Compliant
3	2.50 - 3.49	Sometimes	Moderately Compliant
2	1.50 - 2.49	Seldom	Slightly Compliant
1	1.00 - 1.49	Never	Not Compliant

RESULTS AND DISCUSSIONS

This chapter presents the tabulation of the information gathered with the corresponding evaluation and elucidation of healthcare practices in the implementation of safety protocols.

Respondent's Profile

Age. The respondents were in the age bracket of 31–34, with a frequency of 52, or 34.7%; 26–30, 45, or 30%; 36–40, 36, or 24%; and 21–25, 12–8%. It showed that most of the respondents were young and gaining experience in the clinical area (Table 1).

Table 1. Demographics

Profile Variables	Frequency	Percentage
Age (in years)		
21 – 25	12	8.0
26 – 30	45	30.0
31 – 35	52	34.7
36 – 40	36	24.0
51 and above	5	3.3
Sex		
Male	53	35.3
Female	97	64.7
Civil Status		
Single	30	20.0
Married	120	80.0
Highest Educational Attainment		
Bachelor's Degree	129	86.0
With Master's units	13	8.7
MAN/MS graduate	8	5.3
Number of Years in Service		
1 – 3	89	59.3
4 – 6	24	16.0
7 – 10	24	16.0
11 and above	13	8.7
Area of Assignment		
Emergency room	56	37.3
Medical	48	32.0
Triage	16	10.7
COVID ward	30	20.0

Gender. Most of the respondents were female, with a frequency of 97, or 64.7%, compared to the males, composed of 53, or 35.3%. It implies that the respondents were female-dominated. The nursing profession is still comprised of women, even in the early days. Among 1,000 participants, 36.7% were HCWs, 53.9% were female, and 44.1% were aged \geq 30.

Civil status. Most of the respondents were married, with a frequency of 120 or 80%, while those who were single had a frequency of 30 or 20%. It means that the majority of them have their own families.

Educational attainment. Most respondents were bachelor's degree holders, with a frequency of 129 or 86%; those with units, with a frequency of 13 or 8.7%; and MAN degree holders, with a frequency of 8 or 5.3%. The nurses did not pursue a higher learning degree after their baccalaureate degree.

Years in the service. As gleaned from the table, the majority of the respondents were in the service for 1-3 years with a frequency of 89 or 59.3%, those for 4-4 and 7-10 years with a frequency of 24 or 16%, and those 11 years and older with a frequency of 12 or 8.7%. It implied that most of them were employed for a few years in the hospital.

Area of assignment Most of the nurses were in the emergency room, with a frequency of 56 or 37.5%; in the medical ward, with a frequency of 48 or 32%; in the COVID-19 ward, with a frequency of 30 or 20%; and in triage, with a frequency of 16 or 10.7%. It implied that most were assigned to the emergency room due to the influx of patients during this pandemic.

Table 2 presents the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic along with triage. As revealed from Table 2, item numbers 1,3, 6,7, and 10 were the highest rating "Installation of physical barriers (e.g., glass or plastic screens) in the triage area," "wearing gowns, gloves, medical mask and eye protection during physical examination of patients with symptoms suggestive of COVID-19," "Limit the number of accompanying family members in the waiting area for suspected COVID-19 patients," "perform hand hygiene, and advise patients on the proper use of medical masks, hand hygiene, and separation from other patients," and "perform hand hygiene with soap and water or alcohol-based hand rub before and after attending to patients," with a weighted mean of 4.64, 4.51, 3.76, 4.64, and 4.56 or highly compliant. It implied that the nurses made sure to observe the safety protocols when the patient was still in the triage area.

The World Health Organization (2020) had recommended the following practices to eliminate the virus: washing hands with soap and water for 20 seconds; wearing masks; social distancing; and using alcohol and hand sanitizers. Moreover, keeping the environment clean is another way to even lower risks. The lowest item is number 5, "RT PCR swab test is done, and wait for the result in the isolation area in the emergency room," with a weighted mean of 2.87, or moderately compliant. It was the lowest because this procedure is expensive, and most patients cannot afford to undergo it all at once while in the triage area.

Overall, the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic, along with triage, got an average weighted mean of 4.34, or compliant. The respondents perform the health care practices; however, some factors hinder their compliance.

Table 2 . Health care practices along with Triage

Indicators	Weighted Mean	Descriptive Equivalent
1. Installation of physical barriers (e.g., glass or plastic screens) in the triage area	4.64	Highly Practiced
2. Taking temperatures with infrared thermometers and other vital signs at a distance of at least one meter	4.34	Practiced
3. Wearing gowns, gloves, medical masks, and eye protection during physical examination of patients with symptoms suggestive of COVID-19	4.51	Highly Practiced
4. Nurses who come in contact with suspected or confirmed COVID-19 patients wear appropriate PPE	4.43	Practiced
5. RT PCR swab test is done and wait for the result is in the isolation area in the emergency room	2.87	Moderately Practiced
6. Limit the number of accompanying family members in the waiting area for suspected COVID-19 patients	4.76	Highly Practiced
7. Perform hand hygiene, and advise patients on the proper use of medical masks, hand hygiene, and separation from other patients.	4.64	Highly Practiced
8. Maintain social distance by staying at least one meter away from the patient	4.31	Practiced
9. Perform hand hygiene with soap and water or alcohol-based hand rub before and after attending to patients	4.56	Highly Practiced
Average Weighted Mean	4.34	Practiced

Table 3 presents the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic during admission. The highest indicators are items numbers 1, 5, and 8: "Getting the consent of the client or the relatives on admission," "Visitors and patients are not permitted to smoke or use tobacco products within the hospital or on hospital grounds," and "Safe handling and disposal of sharps," with a weighted mean of 4.68, 4.63, and 4.51, or highly compliant.

It implied that the nurses practiced safety protocols, particularly getting consent before a patient is admitted to the hospital and handling and disposing of sharps to prevent needle prick injury and transmission of microorganisms. These are necessary when the patient is admitted to the hospital.

The remaining indicators item numbers 2,3,4, 6,7,9, and 10 are "explaining to any invasive or non-invasive procedure," "Biological and contaminated waste are carefully disposed of properly," "Use of proper PPE is worn during the entire shift", "Hand hygiene before and after doing patient care," "Using proper PPE while attending patients in the ward," "Cleaning blood spills or anybody discharge of patients," and "Proper cleaning, disinfection, and sterilization on surfaces in the ward," with a weighted mean of 4.43, 4.36, 4.32, 4.48, 4.38,

4.39, and 4.35, or compliant. It goes to show that the nurses practice the different cited indicators as part of their responsibility at the ward or any unit of the hospital.

Overall, the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic admission got an average weighted mean of 4.45, or compliant. The nurses utilized all possible protocols during the COVID-19 pandemic. Almost all healthcare facilities are entirely at capacity, and some hospitals are closed, giving way to COVID-19 patients. On the other hand, due to the influx of many patients, health workers are stressed, with many patients going to the hospital for emergency care and admission (Morales, 2020).

Table 3. Health care practices during Admission

Indicators	Weighted Mean	Descriptive Equivalent
1. Getting the consent of the client or the relatives on admission	4.68	Highly Practiced
2. Explaining any invasive or non-invasive procedure	4.43	Practiced t
3. Biological and contaminated waste is carefully disposed of properly	4.36	Practiced
4. Use of proper PPE is worn during the entire shift	4.32	Practiced
5. Visitors and patients are not permitted to smoke or use tobacco products within the hospital or on hospital grounds.	4.63	Highly Practiced
6. Hand hygiene before and after doing patient care	4.48	Practiced
7. Using proper PPE while attending to patients in the ward	4.38	Practiced
8. Safe handling and disposal of sharps	4.51	Highly Practiced
9. Cleaning blood spills or anybody discharging patients immediately	4.39	Practiced
10. Proper cleaning, disinfection, and sterilization of surfaces in the ward	4.35	Practiced
Average Weighted Mean	4.45	Practiced

Table 4 presents the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic upon discharge. The highest indicators are items numbers 1, 2, 3, and 10: "Check the discharge order of the attending physician, "Giving instructions on the proper taking of medications, " "Instruction on the observance of safety protocols like wearing of face masks, face shields, and use of antiseptics, "and disinfection of the patient's room is made, and the use of blue light for disinfection for hours with a weighted mean of 4.64, 4.56, and 4.51 or highly compliant.

The remaining indicators, item numbers 4,5, 6, 7, 8, and 9, were rated as compliant: "Ensure that the patient is clinically stable before discharge", "Proper handling of waste like used syringes, vials, ampules, and disposal to the trash bin provided,"Prescribing the medications ordered for use at home",COVID-19 testing is not done before discharge unless positive signs are observed,"Giving instructions on the next appointment visit to his attending physician, and Removal of used linens" "with" "care"," with a weighted mean of"4.27, 4.28, 4.39, 4.28, and 4.33.

Overall, the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic upon release had an average weighted mean of 4.41, or compliance. It implied that the nurses practiced the safety protocols when the patient was sent home. This also showed that the nurses performed their responsibilities before patient discharge during the pandemic.

Table 4. Health care practices upon Discharge

Indicators	Weighted Mean	Descriptive Equivalent
1. Check the discharge order of the attending physician	4.64	Highly Practiced
2. Giving instructions on the proper taking of medications	4.56	Highly Practiced
3. Instruction on the observance of safety protocols like wearing face masks, face shields, and use of antiseptics	4.51	Highly Practiced
4. Ensure that the patient is clinically stable before discharge	4.27	Practiced
5. Proper handling of waste like used syringes, vials, ampules and disposal to the trash bin provided	4.27	Practiced
6. Prescribing the medications ordered for use at home	4.39	Practiced
7. COVID-19 testing is not done before discharge unless positive signs are noted	4.28	Practiced
8. Giving instructions on the next appointment visit to his attending physician	4.39	Practiced
9. Removal of used linens with care	4.33	Practiced
10. Disinfection of the patient's room is done and the use of blue light for disinfection for hours	4.51	Highly Practiced
Average Weighted Mean	4.41	Practiced

Table 5 presents the level of healthcare practices implementing safety protocols during the COVID-19 pandemic. It can be gleaned from the table that the three indicators—triage, admission, and upon discharge—were rated as compliant with an average weighted mean of 4.40. This revealed that the nurses practiced the safety protocols during the COVID-19 pandemic. The nurses, as front-liners, implement safety protocols to prevent the spread and transmission of the virus. Wise 2020 mentioned that practicing self-care could minimize the stress and anxiety of clients brought about by the pandemic and create better patient outcomes.

Table 5. Compliance

Indicators	Average Weighted Mean	Descriptive Equivalent
Triage	4.34	Practiced
During Admission	4.45	Practiced
Upon Discharge	4.41	Practiced
Overall Weighted Mean	4.40	Practiced

Table 6 presents the common issues faced by nurses in response to the COVID-19 pandemic, ranked according to their perceptions of the different topics. The table dealt with the issues faced by the nurses during the pandemic. The issues were numbered according to their perceptions.

Table 6. Common issues dealt by the Health Care Worker

Indicators	Weighted Mean	Rank
1. nursing staff shortage	5.17	1
2. shortage of PPE supply provided by the hospital	5.90	3
3. vulnerable to becoming infected with the virus	5.72	2
4. encountered severe psychological stress	11.71	12
5. felt nervous and anxious handling patients with or without symptoms	6.20	4
6. feeling of fear on increasing death among nurses handling COVID-19 patients	10.19	10
7. exhaustion due to long working hours	12.10	15
8. inadequate medical supplies	8.98	7
9. restriction on the movement of people	15.29	19
10. nurses' families are worried about contracting the virus and infecting family members	8.28	5
11. medical risks such as injuries, infection, and depression	11.99	13
12. anxiety about their health due to infection and stress concerning the workload associated with patients with COVID-19	8.90	6
13. nurses on the front lines of the healthcare response find themselves making high-stakes decisions for patients and their own lives	12.03	14
14. overworked, understaffed, possibly heartbroken and anxious, but always courageous	11.43	11
15. delayed payment of risk/hazard pay	9.35	8
16. accepting the reality of our current situation and acknowledging we're making decisions under constrained and difficult circumstances	12.81	16
17. The risk of burnout is very high	12.94	17
18. underprepared health systems and supply chain failures	13.12	18
19. rising number of nurses infected with SARS-CoV-2 or dying in the line of duty	10.09	9
20. suffering physical and emotional stress, and moral distress from conflicting professional values	13.67	20

The top 10 issues the nurses perceived include: 1) a nursing staff shortage; 2) vulnerable to becoming infected with the virus, 3). shortage of PPE supplies provided by the hospital, 4). felt nervous and anxious handling patients with or without symptoms (5). Nurses' families are worried about contracting the virus and infecting family members (6). anxiety about their health due to infection and stress concerning the workload associated with patients with COVID-19; 7) inadequate medical supplies; 8). delayed payment of risk/hazard pay, 9). rising

number of nurses infected with SARS-CoV-2 or dying in the line of duty, and 10). feeling of fear of increasing death among nurses handling COVID-19 patients to the profession. Even though they recognized personal risk, their duty to care took priority.

It revealed that the nursing staff shortage was the biggest issue faced by the respondents. Most hospitals had inadequate nurses and medical staff to attend to patients undergoing consultation or admission. Nurses and other health workers are affected by the disease. They needed to undergo isolation or home quarantine.

Table 7 presents the difference in the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic across the variable ages. The computed F-values suggest significant results, which means that the level of health care practices of the respondents varies in terms of age during triage, admission, and discharge. Specific age groups that have shown significant differences are presented in the following table.

The findings are related to the study of Limbu et al. (2020), where they concluded that there is comparably better knowledge regarding COVID-19 among healthcare workers. Appropriate practice correlates with better understanding, and a positive attitude towards COVID-19 infection is noted with increasing age. Hence, training on protection and protective measures for having a positive attitude among healthcare workers is necessary for the fight against the COVID-19 infection.

Table 7. Differences across the variable age

	Source of Variation	Sum of Squares	Df	Mean Squares	F-value	Sig	Remarks
Triage	Between Groups	98.968	4	24.742	236.069	.000	Significant
	Within Groups	15.197	145	0.105			
	Total	114.165	149				
During Admission	Between Groups	149.262	4	37.315	937.340	.000	Significant
	Within Groups	5.772	145	0.040			
	Total	155.034	149				
Upon Discharge	Between Groups	149.595	4	37.399	1234.621	.000	Significant
	Within Groups	4.392	145	0.030			
	Total	153.988	149				
Overall	Between Groups	130.840	4	32.710	736.698	.000	Significant
	Within Groups	6.438	145	0.044			
	Total	137.278	149				

Table 8 shows the results of the Scheffe Test on the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic to determine the age groups that have shown significant results across age. The negative mean differences between the compared groups indicate that the older age groups have shown a higher level of healthcare practices than the younger ones.

Table 8. Scheffe Test result across the age

Aspect	Compared Age Groups	Mean Difference	Sig
Triage	21-25 vs 26-30	-2.882	.000
	21-25 vs 31-35	-3.046	.000
	21-25 vs 36-40	-2.978	.000
	21-25 vs 51&above	-3.200	.000
During Admission	21-25 vs 26-30	-3.451	.000
	21-25 vs 31-35	-3.700	.000
	21-25 vs 36-40	-3.767	.000
	21-25 vs 51&above	-3.900	.000
	26-30 vs 31-35	-0.249	.000
	26-30 vs 36-40	-0.316	.000
	26-30 vs 51&above	-0.449	.000
Upon Discharge	21-25 vs 26-30	-3.300	.000
	21-25 vs 31-35	-3.723	.000
	21-25 vs 36-40	-3.767	.000
	21-25 vs 51&above	-3.900	.000
	26-30 vs 31-35	-0.423	.000
	26-30 vs 36-40	-0.467	.000
Overall	26-30 vs 51&above	-0.600	.000
	21-25 vs 26-30	-3.206	.000
	21-25 vs 31-35	-3.488	.000
	21-25 vs 36-40	-3.501	.000
	21-25 vs 51&above	-3.660	.000
	26-30 vs 31-35	-0.281	.000
	26-30 vs 36-40	-0.295	.000
	26-30 vs 51&above	-0.454	.000

Table 9 shows the differences in the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic across sexes. The computed t-values generated significance values that are higher than the set .05 level of significance, clearly suggesting insignificant results. This implies that sex does not cause variation in the healthcare practices of the respondents. Both males and females had experiences based on the knowledge they gained while performing their nursing care duties.

Table 9. Differences across sexes

Aspect	Sex	N	Mean	Mean Difference	Standard Error Difference	df	t-value	Sig	Remarks
Triage	Male	53	4.47	0.198	0.149	148	1.325	0.187	Not Significant
	Female	97	4.27						
During Admission	Male	53	4.62	0.258	0.174	148	1.487	0.139	Not Significant
	Female	97	4.36						
Upon Discharge	Male	53	4.46	0.071	0.174	148	0.406	0.685	Not Significant
	Female	97	4.39						
Overall	Male	53	4.52	0.175	0.164	148	1.066	0.288	Not Significant

Table 10 on the next page displays the difference in the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic across civil statuses. The computed t-values suggest insignificant differences in the level of health practices during triage, during admission, and upon discharge of patients during the COVID-19 pandemic when the nurses are ranked according to civil status. This implies that single and married respondents share the same level of health care practices.

Table 10. Differences across civil status

Aspect	Civil Status	N	Mean	Mean Difference	Standard Error Difference	df	t-value	Sig	Remarks
Triage	Single	30	4.59	0.314	0.177	148	1.771	0.079	Not Significant
	Married	120	4.28						
During Admission	Single	30	4.72	0.335	0.101	148	1.618	0.108	Not Significant
	Married	120	4.39						
Upon Discharge	Single	30	4.63	0.273	0.207	148	1.320	0.189	Not Significant
	Married	120	4.36						
Overall	Single	30	4.65	0.308	0.195	148	1.582	0.116	Not Significant

Table 11 displays the difference in the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic across the highest educational attainment. The computed F-value of 3.275 with a significance value of 0.041 indicates a significant difference in the level of healthcare practices in the implementation of safety protocols, particularly on triage, when the respondents are ranked according to educational attainment. With the results, further testing has been employed, as shown in Table 12.

Table 11. Differences across the highest educational attainment

	Source of Variation	Sum of Squares	Df	Mean Squares	F-value	Sig	Remarks
Triage	Between Groups	4.870	2	2.435	3.275	.041	Significant
	Within Groups	109.295	147	.744			
	Total	114.165	149				
During Admission	Between Groups	2.636	2	1.318	1.271	.283	Not Significant
	Within Groups	152.398	147	1.037			
	Total	155.034	149				
Upon Discharge	Between Groups	3.916	2	1.958	1.918	.151	Not Significant
	Within Groups	150.072	147	1.021			
	Total	153.988	149				
Overall	Between Groups	3.679	2	1.840	2.024	.136	Not Significant
	Within Groups	133.599	147	.909			
	Total	137.278	149				

Table 12 confirms the existence of significant differences across educational attainment, particularly along triage. The negative mean difference indicates that the

respondents with units in the Master's level have a higher level of healthcare practices in the implementation of safety protocols along triage as compared to those who have finished their bachelor's degree.

Table 12. Significant differences across educational attainment(triage)

Aspect	Compared Groups	Mean Difference	Sig
Triage	Bachelor's Degree vs. Master's units	-0.631	0.045

Table 13 presents the difference in the level of healthcare practices in the implementation of safety protocols during the COVID-19 pandemic across the number of years in service. The computed F-values suggest significant results, as indicated by the significance values that are lower than the set.05 level of significance. Hence, there is a need for a further test with the results shown in the next table.

Table 13. Differences across the number of years in service

	Source of Variation	Sum of Squares	df	Mean Squares	F-value	Sig	Remarks
Triage	Between Groups	14.300	3	4.767	6.969	.000	Significant
	Within Groups	99.865	146	.684			
	Total	114.165	149				
During Admission	Between Groups	17.435	3	5.812	6.167	.001	Significant
	Within Groups	137.599	146	.942			
	Total	155.034	149				
Upon Discharge	Between Groups	23.250	3	7.750	8.655	.000	Significant
	Within Groups	130.737	146	.895			
	Total	153.988	149				
Overall	Between Groups	17.872	3	5.957	7.284	.000	Significant
	Within Groups	119.406	146	.818			
	Total	137.278	149				

Table 14 displays the results of the Scheffe test on the significant difference in the level of healthcare practices in implementing safety protocols during the COVID-19 pandemic across the number of years in service. The negative mean differences between the compared groups imply that the respondents with greater length of service have higher levels of healthcare practices than those who are younger in the service.

Table 15 shows the difference in the level of healthcare practices in the implementation of safety protocols during the COVID-19 pandemic across the area of assignment. The computed F-values have generated significance values that are lower than the set .05 level of significance; hence, significant differences exist. This means that the area of assignment of the respondents has caused variation in their level of health care practices.

Table 14. Scheffe test result across the number of years in service

Aspect	Compared Groups	Mean Difference	Sig
Triage	1-3 vs 4-6	-0.609	.019
	1-3 vs 7-10	-0.709	.004
During Admission	1-3 vs 7-10	-0.725	0.017
	1-3 vs 11 & above	-0.825	0.046
Upon Discharge	1-3 vs 4-6	-0.743	.010
	1-3 vs 7-10	-0.860	.002
Overall	1-3 vs 4-6	-0.638	.028
	1-3 vs 7-10	-0.766	.005

Table 15. Differences across the area of assignment

	Source of Variation	Sum of Squares	Df	Mean Squares	F-value	Sig	Remarks
Triage	Between Groups	17.203	3	5.734	8.635	.000	Significant
	Within Groups	96.962	146	.664			
	Total	114.165	149				
During Admission	Between Groups	34.864	3	11.621	14.119	.000	Significant
	Within Groups	120.171	146	.823			
	Total	155.034	149				
Upon Discharge	Between Groups	23.818	3	7.939	8.905	.000	Significant
	Within Groups	130.170	146	.892			
	Total	153.988	149				
Overall	Between Groups	24.603	3	8.201	10.627	.000	Significant
	Within Groups	112.675	146	.772			
	Total	137.278	149				

Table 16 confirms the existence of significant differences in the level of healthcare practices in the implementation of safety protocols during triage, during admission, and upon discharge of patients during the COVID-19 pandemic. The positive mean differences indicate that the respondents who were assigned to the emergency room and triage had higher levels of healthcare practices as compared to those who stayed in the medical area.

Table 16. Significant differences of safety protocols among areas

Aspect	Compared Groups	Mean Difference	Sig
Triage	ER vs Medical	.749	.000
	Triage vs Medical	.833	.007
Upon Admission	ER vs Medical	1.060	.000
	Triage vs Medical	1.142	.000
Upon Discharge	ER vs Medical	.868	.000
	Triage vs Medical	1.000	.005
Overall	ER vs Medical	.891	.000
	Triage vs Medical	.988	.002

Table 17 presents the relationship between the level of healthcare practices in implementing safety protocols during COVID-19 and the profile variables of the respondents. In terms of age, a significant relationship exists. This is presented in the significant positive R-values along triage, during admission, and upon discharge of patients. The older the period, the higher the level of health care practices among the respondents. The same trend is seen in the variable number of years in service. It suggests that the longer the length of service of the respondents, the higher their level of healthcare practices in implementing safety protocols during triage, admission, and discharge of patients during the COVID-19 pandemic.

Table 17. Demographics and its level of health care practices

Profile Variable	Triage		During Admission		Upon Discharge		Overall	
	r-value	sig	r-value	Sig	r-value	sig	r-value	Sig
Age	.501*	.000	.567*	.000	.605*	.000	.566*	.000
Sex	-.108	.187	-.121	.139	-.033	.685	-.087	.288
Civil Status	-.144	.079	-.132	.108	-.108	.189	-.129	.116
Highest Educational Attainment	.079	.338	.081	.327	.084	.304	.083	.315
Number of Years In Service	.292*	.000	.320*	.000	.348*	.000	.325*	.000
Area of Assignment	.003	.976	.037	.649	.023	.780	.022	.792

*Significant at .05 level

Table 18 shows the proposed program to improve the health care practices in the implementation of safety protocols to improve the health care practices of nurses in the implementation of health care protocols.

Table 18. Proposed Program

Area	Objectives	Activities	Persons Involved	Timetable	Expected Outcome
Triage	To ensure the swab test is done in the triage area	Assist the patients to undergo swab test	Nurse Medical Technologist Resident on duty Nursing aides	Done immediately	When a patient is negative proceed to the room of choice If positive then the patient is placed in an isolation area or ICU if severe
During admission	To strictly follow the use of PPE in the entire shift	Proper use of PPE and strict supervision by the nurse supervisor	Nurse supervisor Chief Nurse Nurses Medical Technologist	Within the shift	Use of PPE during the entire shift Provision of PPE to the staff by the hospital Prevent transmission of the COVID-19 virus
	To observe proper cleaning, disinfecting, and sterilization of surfaces	Water, soap, and disinfectants should be available during the shift Requisition of supplies used during the shift	Nurses Nursing aides Hospital administration	Available during the shift	Minimize infection and transmission

Table 18. Proposed Program (cont.)

Area	Objectives	Activities	Persons Involved	Timetable	Expected Outcome
During discharge	To ensure the patient is clinically stable during discharge	Check doctor's order on discharge Assessment of the patient	Nurses Attending Physician/Resident on duty Nursing aides	Check discharge order after the doctor's rounds	Well patients
Common Issues faced by nurses	To ensure staffing of the unit	Observance of the staffing process The hiring of additional personnel	Hospital administration Chief Nurse Nurses	As soon as possible	Well-staffed unit The nursing shortage is resolved
	To ensure adequate PPE for the use of staff	Requisition from the supply officer Procurement of PPE by the hospital administration	Hospital administration Supply officer Nurses	Available stocks of PPE	Resolve the inadequacy of PPE
	To relieve anxiety and stress in handling COVID-19 patients	Following strictly protocols Submission for COVID-19 vaccination Proper use of PPE Taking multivitamins and an adequate diet	Nurses Hospital administration Nurses Nursing aides	During and after duty	Stress and anxiety relieved on handling COVID-19 patients Minimizing the transmission of infection Stronger immunity

CONCLUSIONS

Based on the study's findings, several key insights emerge. First, the respondents in this study were predominantly young adults, predominantly female, with families of their own, holding bachelor's degrees, and having several years of service experience, often rotating to

the emergency room. Second, the nurses' compliance with safety protocols during the COVID-19 pandemic was generally rated as satisfactory. However, they encountered various challenges during the pandemic, with their primary concern being the inadequacy of nurses to handle patients. Other concerns included their vulnerability to viral infections and a shortage of personal protective equipment (PPE) in the workplace. Third, the level of healthcare practices among respondents varied, particularly in the context of age and length of service. Older respondents with more extended service experience tended to exhibit higher levels of adherence to safety protocols during triage, admission, and patient discharge in the COVID-19 pandemic. Lastly, A program was introduced to enhance nurses' healthcare practices during pandemics.

RECOMMENDATIONS

Based on the conclusions provided, several recommendations are provided. First, the nurses must undergo seminars or training to enrich their knowledge and skills in the care of patients during the pandemic. Second, the respondents must enhance their compliance with handling COVID-19 patients by observing safety protocols virtually. Third, the nursing service must hire more nurses to render quality care effectively to COVID-19 patients and other infectious diseases. The hospital administration must procure more PPE and supplies to minimize the transmission of infection. Nurses and their families must submit for vaccination to minimize infection.

Fourth, nurses who are older in the service must coach or supervise those nurses who are new in the service. They must also be assigned to different wards to experience other areas of nursing practice. Fifth, the nurses must continuously update their knowledge of healthcare practices and safety protocols to be ready when they handle COVID-19 patients and other communicable diseases. Sixth, the program is proposed for adaptation to different hospitals in Pangasinan. Finally, future studies can be replicated using other variables from a broader perspective.

RESEARCH IMPLICATIONS

Lack of workforce is very evident in every hospital that participated in this study, which became one of the biggest impacts of poor handling of COVID-19 patients, and it was also attributed to their fears of becoming infected by this disease. Inadequacy of training in dealing with cases like COVID-19 is also observed in most of the respondents. The shortage of medical supplies is also a burden on every healthcare provider. For our health care provider to become fully equipped, the administration of its hospital must hire a resource speaker who is qualified to conduct seminars and pieces of training like infection control and prevention to enhance the capabilities and boost the confidence of our nurses in dealing with communicable diseases such as COVID-19. They also needed more support from society, especially from the leaders in different agencies in our government, for them to be empowered.

ACKNOWLEDGEMENT

The author would like to thank the participants of the study.

FUNDING

This paper is partially funded by the affiliation of the author.

DECLARATIONS

Conflict of Interest

The author declares no conflict of interest in this study.

Informed Consent

Participants were informed about the study.

Ethics Approval

Ethics approval was secured at the institution.

Acknowledgment

For the successful completion of this piece of work, the researcher acknowledges with deepest gratitude and sincerest appreciation, the invaluable and unselfish contribution, guidance, inspiration, and support of special people and experts in the completion of this study. It is therefore proper to acknowledge the following:

Atty. Dar A. Diga, the Acting University President for his approval of the conduct of the study and his words of encouragement.

Dr. Zosima C. Garin, Adviser for her guidance and assistance in putting the manuscript of this study in its proper perspective.

Dr. Adeltrudes B. Caburian, Dr. May Rhea S. Lopez, and Dr. Freda B. Lopez, the Panel Members for sharing their professional expertise in research and their valuable suggestions for the improvement of this study.

Dr. Virgilio U. Manzano, Dean, Institute of Graduate and Advanced Studies for his kindness and great moral assistance, and his encouragement to pursue this thesis.

To my family for their encouragement in the completion of this study.

To the Nurses, Head Nurses, and Supervisors who helped and cooperated in gathering and retrieving the questionnaire.

Above all, to the Almighty Father for making this piece of work a reality.

REFERENCES

- Al Thobaity, A., & Alshammari, F. (2020). Nurses on the frontline against the COVID-19 pandemic: an integrative review. *Dubai medical journal*, 3(3), 87-92.
- Bhattacharai, N., & Timsina, S. (2021). *Psychological challenges faced by nurses during covid19* (unpublished manuscript). LAB University of Applied Sciences, Lahti, Finland. Retrieved from <https://www.theseus.fi/bitstream/handle/10024/498488/Thesis.pdf?sequence=2>
- Goldenberg, D. (2021). *COVID's Impact on Health and Healthcare Workers*. Oxford University Press.
- Hou, Y., Zhou, Q., Li, D., Guo, Y., Fan, J., & Wang, J. (2020). Preparedness of our emergency department during the coronavirus disease outbreak from the nurses' perspectives: a qualitative research study. *Journal of Emergency Nursing*, 46(6), 848-861.
- Limbu, D. K., Piryani, R. M., & Sunny, A. K. (2020). Healthcare workers' knowledge, attitude and practices during the COVID-19 pandemic response in a tertiary care hospital of Nepal. *PloS One*, 15(11), e0242126.
- Morales, N. (2020). Losing battle: Philippine doctors, nurses urge new COVID-19 lockdowns as infections surge. *Reuters*. Retrieved from <https://www.reuters.com/article/us-health-coronavirus-philippines-idUSKCN24X3IA>.
- Nashwan, A. J., Abujaber, A. A., Mohamed, A. S., Villar, R. C., & Al-Jabry, M. M. (2021). Nurses' willingness to work with COVID-19 patients: the role of knowledge and attitude. *Nursing open*, 8(2), 695-701.
- Schwerdtle, P. N., Connell, C. J., Lee, S., Plummer, V., Russo, P. L., Endacott, R., & Kuhn, L. (2020). Nurse expertise: a critical resource in the COVID-19 pandemic response. *Annals of Global Health*, 86(1). Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7227394/pdf/agh-86-1-2898.pdf>
- Temsah, M. H., Al Huzaimi, A., Arabiaah, A., Alamro, N., Al-Sohime, F., Al-Eyadhy, A., ..., & Somily, A. M. (2021). Changes in healthcare workers' knowledge, attitudes, practices, and stress during the COVID-19 pandemic. *Medicine*, 100(18). Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8104280/>
- Vaishya, R. (2020). Health Care Workers are Facing Several Challenges During COVID-19 Pandemic. *Times of India*. <https://timesofindia.indiatimes.com/readersblog/newspost/health-care-workers-are-facing-several-challenges-during-covid-19-pandemic-dr-prof-raju-vaishya-11529>.
- Vallejo Jr, B. M., & Ong, R. A. C. (2020). Policy responses and government science advice for the COVID 19 pandemic in the Philippines: January to April 2020. *Progress in Disaster Science*, 7, 100115.
- Vijay Raghavan, N. J., & Ahmady, A. (2020). *Health Worker's perception survey on COVID 19 knowledge, attitude and practice assessment in eight provinces of Afghansitan*. The

Johannietr International Assistance.

Tripathi, R., Alqahtani, S. S., Albarraq, A. A., Meraya, A. M., Tripathi, P., Banji, D., ... & Alnakhli, F. M. (2020). Awareness and preparedness of COVID-19 outbreak among healthcare workers and other residents of South-West Saudi Arabia: a cross-sectional survey. *Frontiers in Public Health*, 8, 482.

Turale, S., Meechamnan, C., & Kunaviktikul, W. (2020). Challenging times: ethics, nursing and the COVID-19 pandemic. *International nursing review*, 67(2), 164-167.

Author's Biography

Laline O. Salvador, RN, was born in 1988 and graduated with a Bachelor's Degree in Nursing in 2008 from the University of the Cordilleras, Baguio City. She is a wife and mother of one. She started her nursing career as a volunteer nurse at Pangasinan Provincial Hospital in 2011 and was hired as a contractual nurse the following year. In 2014, she was granted a transfer to Umingan Community Hospital, which is also managed by the Provincial Government of Pangasinan. With her experience and perseverance, she was promoted from contractual to permanent status in 2016.