Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province

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AVAILABILITY, ACCESSIBILITY, AND JOB SATISFACTION OF NURSES WITH PPEs DURING THE COVID-19 PANDEMIC IN A HOSPITAL IN ILOILO PROVINCE

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ABSTRACT

The Coronavirus Disease (COVID-19) was an infectious disease caused by a novel strain of coronavirus. This novel virus and disease were unknown before the outbreak emerged in Wuhan, China, in December 2019. Personal protective equipment (PPE) was an important component in promoting patient safety and increasing nurse safety in healthcare settings. With the advent of the COVID-19 pandemic in 2020, nurses across the health care industry prioritized optimal and proper PPE use. The descriptive correlational study sought to investigate the availability, accessibility, and job satisfaction of nurses wearing personal protective equipment during the COVID-19 pandemic in an Iloilo Province hospital. Data were gathered from the 65 nurses who had agreed to take part in this study. The questionnaires given were validated researcher-made questionnaire checklists. Data were analyzed using SPSS. Descriptive statistics (mean, frequency, percentage, and tables) and correlation statistics (Spearman's Rho) were used. The

majority of the nurses found that Personal Protective Equipment (PPE) was usually available and accessible when they needed it. PPE was typically within reach and there was an ample supply when required and it was generally easy for them to obtain when needed. The majority of nurses were very satisfied with the availability and accessibility of Personal Protective Equipment (PPE). Job satisfaction regarding PPE availability and accessibility was particularly high. Nurses were very satisfied with their use of PPE. Furthermore, there was a significant correlation between the availability, accessibility, and job satisfaction of nurses about the use of Personal Protective Equipment (PPE) in a specific district hospital in Iloilo province. With these findings, the researchers concluded that the availability and accessibility of Personal Protective Equipment (PPEs) were critical to nurses' job satisfaction.

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CHAPTER 1

Introduction

Background of the Study

Dr. Maricar Limpin, Vice President of the Philippine College of Physicians, stated in 2021 that a scarcity of personal protective equipment (PPE) was a major concern in the Philippines just a few months after the COVID-19 pandemic began to spread rapidly in 2020. Some healthcare center staff resorted to wearing trash bags as makeshift protective equipment. At that time, healthcare centers relied on donations from private organizations and individuals. Prices have risen greatly after the COVID-19 outbreak began. Since the pandemic began, surgical mask prices have grown sixfold, N95 respirators have tripled, and protective gowns have doubled. Supplies take months to arrive, and market control is widespread, with stocks being sold to the highest bidder.

In a healthcare setting during the pandemic, the Occupational Safety and Health Standards Act states that "it is required that healthcare workers use proper PPE when exposed to a patient with suspected or confirmed COVID-19 or other sources of SARS-CoV-2 (WHO, n.d.)", as to why hospitals are expected to provide PPEs in accordance with the mandate. Personal Protective Equipment (PPE) is critical in promoting and increasing patient and healthcare worker safety in healthcare settings. It was essential to

ensure that PPE was readily available and easily accessible to healthcare workers to enhance their working satisfaction. PPE serves as a physical barrier, protecting nurses from blood, body secretions, excretions, and infectious airborne particles that can be transmitted through direct contact with patients and their surroundings. PPE protects nurses, as well as patients during nursing care by reducing the spread of pathogens in healthcare settings.

When personal protective equipment (PPE) is widely available and accessible, healthcare personnel, particularly nurses, can feel more secure and at ease in their abilities to execute their duties while guaranteeing their and their patients' safety. On the other hand, a lack of proper PPE can cause heightened anxiety and stress about their safety, reducing job satisfaction and overall well-being.

PPE must be readily available since it is critical to healthcare workers' ability to continue serving patients safely while ensuring their own safety (NFDA, 2020). All hospital staff, patients, and visitors must wear PPE when in contact with blood or other bodily fluids, or when exposed to airborne diseases like COVID-19 (MedlinePlus, 2021). This can reduce the risk of infection for healthcare providers while minimizing exposure to other patients they care for, resulting in fewer healthcare needs and helping to sustain the workforce (McCarthy et al., 2020). PPE design should not be overlooked because it is vital to maximizing user protection while providing acceptable comfort during the production process (McCarthy et al., 2020).

During the researchers' visit to a selected district hospital in the province of Iloilo, they discovered that nurses were dissatisfied with the PPEs provided to them and had to seek alternatives to do their jobs effectively. When asked about their experiences during the peak of the pandemic, nurses stated that they encountered a number of difficulties due to the availability and accessibility of PPEs. To deal with this, some nurses began reusing PPE after washing and sanitizing them. It was also found that the new set of PPEs was delivered late, making it impossible for nurses to provide patient care while assuring their own and their patients' safety. As a result, several factors may have an impact to the availability, accessibility, and job satisfaction of healthcare personnel using PPE in a selected district hospital in Iloilo Province. First, the hospital budgeting systems were inadequate, causing them to prioritize cost savings above maintaining adequate PPE stocks. Second, a rush in demand caused by the healthcare system's needs, along with overwhelmed market behavior, depleted PPE supplies. Third, the government failed to manage and distribute domestic PPE inventories. The mismatch between PPE demand and supply could be attributed to the pursuit of profits and the lack of proper government intervention. The government's significant lapses in manufacturing, procuring, and distributing PPE in ways that cannot be accomplished through the market system were likely to have long-term effects. For example, Pharmally, a Davao City-based company managed by Chinese merchants, supplied the government with old and defective face shields for use by healthcare workers, a practice that senators condemned as illegal and potentially corrupt. Subsequently, significant outages in the global supply chain of PPE resulted in a sharp reduction in PPE supplies in hospitals, which were already heavily reliant on globally procured PPE. As a result of market and government failings,

hospitals, healthcare providers, corporations, individuals, and governments had to compete for PPE, which was time-consuming and expensive.

Due to shortages in PPE, hospitals were forced to buy from unknown distributors. Manufacturing where cheap labor and poor working conditions were still common and can, and often do, affect quality. The commissioner may allow unapproved PPE to be used in an emergency caused by a chemical, biological, radiological, or nuclear threat when there were no alternatives. In terms of quality, doctors recommended N95 masks. N95 masks are US-certified. The National Institute of Occupational Safety and Health suggests a denser network of fibers than surgical or fabric masks. This tighter mesh, along with an electrostatic charge in the material, makes N95 masks more effective at trapping greater droplets and aerosols inhaled by the wearer. It also performs better in preventing such particles from being ingested. When properly fitted, certified N95 masks may remove up to 95% of airborne pollutants.

Due to the great demand for PPE with the rapid spread of COVID-19, some resource-challenged areas were left without adequate PPE. Along with increasing demand came a scarcity of supplies, putting health care personnel at jeopardy Healthcare professionals were more likely to fall unwell if they did not wear sufficient personal protective equipment. A decrease in healthcare supply coincides with increased demand for care. PPE for healthcare workers was an important component in infection prevention and control; protecting health care workers equals enhanced containment for everyone. During the COVID-19 outbreak in a selected district hospital in Iloilo Province,

healthcare workers were faced with a critical shortage of PPE as they worked tirelessly to protect public safety. Because of this, they were deprived of accessing PPE, leading to them being forced to ration and reuse in order to protect themselves from the virus. For this reason, the aim of this study was to identify areas for improvement in healthcare system delivery in terms of standard precautions, with a focus on PPE.

There had been no study on the availability, accessibility, and job satisfaction of nurses with PPEs in a selected district hospital in Iloilo Province, which led the researchers to the purpose of this study, which was to determine the relationship between the availability, accessibility, and job satisfaction of nurses with PPEs in a selected district hospital in Iloilo Province during the COVID 19 pandemic. The World Health Organization (WHO) has raised concerns about the global supply chain disruptions for PPEs caused by increased demand, panic buying, and hoarding, which could endanger lives not only in the face of the coronavirus but also other infectious diseases (WHO, 2020). Additionally, Healthcare workers and patients complained of its unavailability and inaccessibility. Putting them at risk due to inadequate protection. Healthcare practitioners such as nurses depend on personal protective equipment to prevent exposure and transmission of infectious agents and keep their patients safe; however, the insufficiency of PPEs put them in danger which generated a deep concern among healthcare workers. To ensure the effectiveness of PPEs for infection prevention and control, they must be readily available, easily accessible, and meet the job satisfaction of nurses. Providing PPEs that are comfortable, well-fitting, and adequate in number can improve the job satisfaction of nurses, leading to better compliance with PPE use and ultimately,

improved patient safety. The availability, accessibility, and job satisfaction of nurses with PPE are critical in maximizing security and creating a physical barrier against contamination and infectious diseases within the healthcare setting. While PPEs are in high demand, effective distribution and management of PPEs, specifically N95 masks, can prevent emergencies resulting from inhalation, absorption, or prolonged exposure to hazardous substances. While distribution is of high importance, awareness on how to properly use PPE should be also be raised. It does not only reduce accidents but also promotes better health outcomes for patients and healthcare workers, creating a safer and more secure work environment (Everlast Editorial, 2015).

General Objectives

The study aimed to determine whether PPEs were available and accessible, and if nurses were satisfied with their availability and accessibility, as well as the relationship between the availability and accessibility of PPEs in a certain District Hospital in Iloilo Province.

Specific Objectives

Specifically, the study aimed to determine:

1. the availability of PPEs among the respondents in a certain District Hospital in Iloilo Province;
2. the accessibility of PPEs among the respondents in a certain District Hospital in Iloilo Province;

3. the Job satisfaction of respondents in the use of PPEs in terms of the availability and accessibility in a certain District Hospital in Iloilo Province;
4. determine whether there was a significant relationship between the availability and accessibility of Personal Protective Equipment (PPEs) as perceived by the respondents in a certain District Hospital in Iloilo Province;
5. determine whether there was a significant relationship between the availability of Personal Protective Equipment (PPEs) and the Job satisfaction among respondents in the use of PPEs in a certain District Hospital in Iloilo Province; and,
6. determine whether there was a significant relationship between the accessibility of Personal Protective Equipment (PPEs) and the Job satisfaction among respondents in the use of PPEs and in a certain District Hospital in Iloilo Province.

Theoretical Framework of the Study

Availability and Job Satisfaction

This study is anchored on Frederick Herzberg's two-factor theory. It indicates that two types of factors influence job satisfaction and dissatisfaction: hygienic factors and motivators. Hygiene considerations were basic job requirements, such as working environment and compensation, which, if not met, might lead to dissatisfaction. In this study, the most exceptionally essential component of professional happiness was shown to be the one associated to personal success. This shows that, even in the middle of a pandemic, nurses' most important occupational values are meaningful accomplishments, the relevance of professional challenge, employment diversity and interest, personal

growth and development, and practice independence. The same finding of the importance of the perception of the job's merit, as well as a sense of having delivered skilled and quality care to patients, was reported in a 1993 study conducted in England, which used a similar methodology of factor analysis to reveal occupational satisfaction components (Traynor & Wade). Other components of occupational satisfaction, such as workload, work conditions, and reward (extrinsic factors according to Frederick Herzberg's two-factor theory (Herzberg, Bernard, & Barbara, 1959), were significantly less important in comparison to much stronger components related to personal accomplishment (intrinsic characteristics, according to "two-factor" theory). In relation to this theory, intrinsic factors such as work requiring high skill, recognition for better performance, responsibility, autonomy, meaningfulness, and involvement in decision making were the motivators that provided employees with positive satisfaction, arising from the intrinsic conditions of the job itself, such as recognition, achievement, and personal growth (Fauziah, Yusoff, Kian, Talha, and Idris, 2013). Managerial roles with greater independence/autonomy and responsibility were thought to give better levels of happiness for people who held them (Savitsky, Radomislensky, Hendel, 2021). Furthermore, Liebert and Morris' attentional interference theory indicated that anxiety includes worry and emotionality, and they believed that anxiety was a significant influence reducing employee performance. By adding these theories into the study, it is possible to conclude that access to PPEs, which continue to be a significant barrier between people and the virus in such an exposed work environment, may produce a high level of anxiety (fear and worry), influencing employees' work behavior.

Accessibility and Job Satisfaction

This study is anchored on Frederick Herzberg's two-factor theory. It indicates that two types of factors influence job satisfaction and dissatisfaction: hygienic factors and motivators. Hygiene considerations were basic job requirements, such as working environment and compensation, which, if not met, might lead to dissatisfaction. In this study, the most important component of occupational satisfaction was shown to be one connected with personal achievement.

The Job Demands-Resources (JD-R) theory stands as a comprehensive framework that merges diverse perspectives on job design, encompassing both stressors and motivators in the workplace. Essentially, this theory analyzes the relationship between job demands, resources, employee well-being, and, lastly, job satisfaction (Bakker et al., 2023). It discusses how the accessibility of Personal Protective Equipment (PPE) within this framework can have a substantial impact on job satisfaction. According to the JD-R theory, job demands refer to the physical, psychological, social, or organizational aspects of a job that require sustained effort or skills. On the other hand, job resources are the assets, elements, or factors, which arerepresented by the accessibility of Personal Protective Equipment (PPE), within the work environment that are functional in achieving work goals, reducing job demands, and stimulating personal growth and development (Bakker et al., 2023).

In terms of PPE accessibility, proper protective gear is a critical working resource that reduces the demands of potentially dangerous work situations. This accessibility not only provides physical safety, but also promotes employee security and well-being.

Workers' stress levels and overall job satisfaction improve when they believe their safety demands are satisfied with accessible PPE (Bakker et al., 2023). Furthermore, the availability of PPE serves as a proactive step, allowing employees to perform their tasks with confidence and autonomy while knowing they are fully protected. Conversely, the absence or inadequacy of PPEs might be viewed as a considerable job demand, resulting in increased stress, discontent, and even poor performance.

Furthermore, the JD-R the theory emphasizes how proactive and reactive work practices affect job performances. Employees that participate in proactive behaviors take the initiative to improve their work environment or anticipate future demands; whereas reactive, behaviors respond to current issues or pressures. Proactive behaviors in the context of PPE accessibility may include pushing for improved safety measures or taking part in training programs to raise safety awareness. Conversely, reactionary responses may include stress-related coping methods or seeking alternative job owing to safety concerns.

Overall, the JD-R the theory provides a solid framework for analyzing the complex link between PPE accessibility and job satisfaction. Recognizing PPE as a crucial job resource allows organizations to use its provision to promote employee well-being, increase job satisfaction, and eventually improve overall job performance and organizational results (Bakker et al., 2023).

Conceptual Framework of the Study

In order to determine the availability and accessibility of PPE, as well as the job satisfaction of healthcare workers during the COVID-19 pandemic in a district hospital in Iloilo Province, the researchers based on Frederick Herzberg's two-factor theory, and attentional interference theory by Liebert and Morris. Once the PPEs were readily available and accessible to healthcare workers, the researchers identified the specific needs based on the level of PPEs required in their respective work areas. Moreover, when the PPEs were available, accessible, and satisfaction towards work, healthcare workers were protected and safe from the dangers imposed by COVID-19 since job satisfaction was another way to ensure its effectiveness. In this light, it was critical to evaluate the availability and accessibility of PPE, as well as the level of satisfaction among healthcare personnel during the pandemic. In this study, the availability and accessibility of PPE are associated with job satisfaction of healthcare workers as presented in Figure 1.

Paradigm of Variables

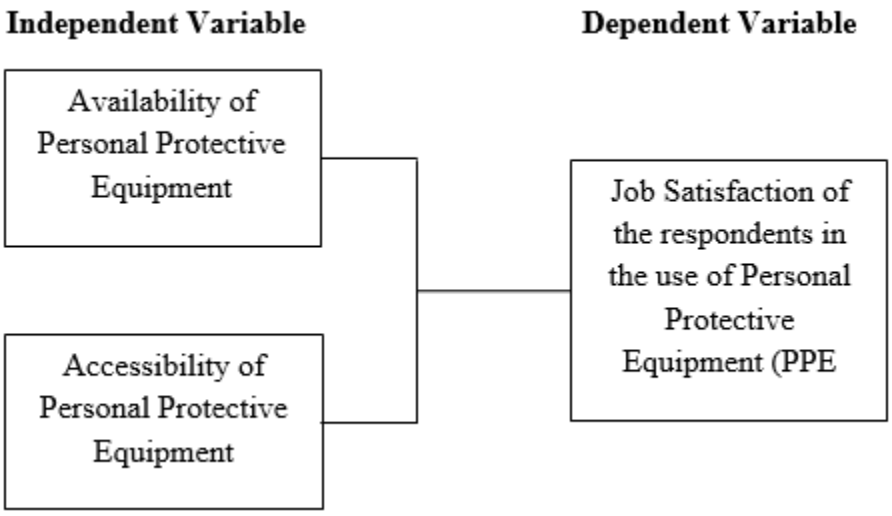

Figure 1. Schematic Diagram showing the assumed Relationship of Variable

Hypotheses

Based on the foregoing research objectives, the following hypotheses were drawn:

Ho1: There was no significant relationship between the availability of PPE and its accessibility in a certain District Hospital in Iloilo Province.

Ho2: There was no significant relationship between the availability of Personal Protective Equipment (PPEs) and Job satisfaction among respondents in the use of PPEs in a certain District Hospital in Iloilo Province.

Ho3: There was no significant relationship between the accessibility of Personal Protective Equipment (PPEs) and the Job satisfaction among respondents in the use of PPEs in a certain District Hospital in Iloilo Province.

Definition of Variables

The following terms are defined conceptually and operationally to provide clarity and understanding.

Independent Variable

Availability of Personal Protective Equipment

Availability is probable that the service is accessible during the last given time period (Zeng et al., 2003, Raj and Sasipraba, 2010)

Personal Protective Equipment (PPE) included various protective gear such as masks, gowns, gloves, surgical caps, face shields, and other equipment. Personal Protective Equipment is designed to safeguard the wearer against potential health and safety hazards in the workplace.

Adequate training, supervision, and clear instructions were crucial to ensure proper use of Personal Protective Equipment (PPE) and to achieve maximum protection against potential health and safety hazards in the workplace. Proper design, construction, and maintenance of Personal Protective Equipment (PPE) were essential to ensure a clean and hygienic environment and comfortable fit for users. Failure to meet these standards can result in inadequate coverage and potentially dangerous exposure, as well as discouraging use due to discomfort. The shortage of PPE during the current pandemic presented a significant challenge, leading to prolonged use of the same equipment, even during

extended periods of use such as performing multiple autopsies at a stretch for hours (Source: Raghvendra K Vidua, Vivek K Chouksey, Jitendra Kumar, 2020).

In this study, the availability of Personal protective equipment referred to the obtainability of PPE when needed by the healthcare worker and can be measured by a questionnaire assessed by the availability of Personal Protective Equipment. It was composed of ten (10) s and was answered as Personal Protective Equipment were always available within reach of the healthcare workers in the hospital, with enough quantity for the healthcare workers whenever needed (3) ; Personal Protective Equipment were sometimes within reach of the healthcare workers in the hospital, with enough quantity for the healthcare workers whenever needed (2); and Personal Protective Equipment were not always within reach of the healthcare workers in the hospital, with not enough quantity for the healthcare workers whenever needed (1). Scores were added and were categorized as high availability (20-30); moderate availability (10-19); and, low availability (below 10).

Accessibility of Personal protective equipment

Accessibility is defined as whether all users can obtain an equivalent user experience, regardless of how they interact with a product or service (Spillers, 2022).

In this study, accessibility refers to the ease or difficulty of obtaining Personal Protective Equipment (PPEs)by the health worker and was measured by a questionnaire that assessed the accessibility of PPEs by the number of minutes to obtain the PPEs. It

was composed of five (5) s and were answered as Personal Protective Equipment were easy to procure or readily accessible, acquired less than 5 minutes immediately upon request (3); Personal Protective Equipment were easy to procure but not readily available, acquired between 6 to 16 minutes upon request (2); and Personal Protective Equipment were difficult to procure and not readily accessible, acquired in more than 17 minutes or within a few days (1). Scores were added and categorized as highly accessible (10-15), moderately accessible (5-9), and poorly accessible (below 5).

Dependent Variable

job satisfaction, with the use of Personal Protective Equipment (PPE), is the level of fulfillment obtained from work and is a key predictor of employee effectiveness. According to Locke, job satisfaction is "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 1304). In the nursing profession, job satisfaction has been proven to be the most constant predictor of patient satisfaction, and it is positively connected with both quality of treatment and patients' perceptions of that quality.

In this study, job satisfaction refers to healthcare workers' safety and improved performance related with the use of PPEs, both of which reduced burnout and had an impact on the efficiency of healthcare organizations and were measured by a questionnaire that assessed their job satisfaction. It was composed of four (4) questions and answered as extremely satisfied (5), very satisfied (4), satisfied (3), dissatisfied (2), and very dissatisfied (1). Scores added and categorized as high satisfaction (16-20), moderate satisfaction (11-15), and low satisfaction (below 10).

Significance of the Study

This study was conducted with the aim to provide crucial information and knowledge to the following beneficiary:

Patients. The findings of this study provided patients with knowledge on the availability, accessibility, and quality of Personal Protective Equipment (PPE). This knowledge can be utilized to take safeguards against viruses spreading between patients and healthcare personnel.

Doctors and Nurses. The results of this study improved doctors' and nurses' understanding of the availability, accessibility, and quality of PPEs, allowing them to optimize their usage of PPE while lowering the risk of contamination and preserving patient security.

Nursing Administrators. The knowledge that the nursing administrators can get from the results of this study helped in providing, managing, rationing, and making available PPEs to the staff nurses.

Hospital Administrators. The results of this study may help hospital administrators to ensure adequate supplies of PPEs so that it is made accessible. As well as to emphasize the use of PPE to protect nurses against exposure to infections and guarantee safety within the healthcare environment.

DOH Personnel. For instance, if there is PPE shortage and difficulty in accessing it in the outcome of this study, the results helped the Department of Health (DOH) recognize the need to consistently provide PPEs to healthcare facilities across the nation; thus, ensuring the safety of all healthcare workers.

Hospital Purchasing Officers. The findings of the study provided vital data to Hospital Purchasing Officers in optimizing procurement strategies, ensuring the consistent availability and accessibility of Personal Protective Equipment (PPE) in healthcare facilities.

Quality Control Officers. The findings of the study assisted Quality Control Officers in ensuring manufactured PPE meets vital safety and performance standards, particularly in healthcare settings, guaranteeing evidence of quality level on personal protective equipment.

Personal Protective Equipment (PPE) Manufacturers. The findings of this study provided significant information to PPE manufacturers, aiding them in refining their production and distribution strategies to meet the needs of healthcare facilities.

Future Researchers. The findings of this study can be used by future researchers as a basis for their studies related to the availability, accessibility, and quality of Personal Protective Equipment (PPE) during the COVID-19 pandemic.

Scope and Limitations

This study aimed to determine whether Personal Protective Equipment were available, accessible and job satisfaction of nurses in a selected district hospital in Iloilo Province and if there was a relationship between availability, accessibility and job satisfaction of nurses with Personal Protective Equipment. No study has been done with regard to the availability, accessibility, and job satisfaction of nurses with Personal

Protective Equipment in a selected district hospital in Iloilo Province. Hence, there was a need to conduct this study.

This study is limited to only a selected district hospital in the province of Iloilo with only 66 nurses. The researchers took into account ethical and confidential considerations regarding the staff nurses who were the respondents, to ensure the integrity and safety of this study. This study utilized questionnaires to collect data through a researcher-made questionnaire checklist accomplished by the respondents face-to-face while observing health protocol.

CHAPTER 2

Review of Related Literature

This chapter is a discussion of the literature and the result of other related investigations to which the present study is related or has a few bearings or similarity. This gave the researchers sufficient background in understanding the study.

Conceptual Literature and Theories

COVID-19 Pandemic

The seventh human coronavirus, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was distinguished in January 2020 amid the later pneumonia epidemic in Wuhan, Hubei province, China. Middle East respiratory syndrome coronavirus (MERS-CoV), SARS-CoV, and SARS-CoV-2 all cause severe pneumonia with casualty rates of 2.9%; 9.6%; and, 36%, respectively (Ciotti, 2020). The World Health Organization on March 11, 2020, assigned the SARS-CoV-2 to be a worldwide pandemic due to its high contagiousness and quick worldwide expansion (Ahmad & Lone, 2020). Two thousand nineteen's coronavirus sickness was primarily spread through touch or droplet transmission due to relatively large respiratory particles

that were gravitationally attracted to and move only about one meter away from the infected individual (Ahmad & Lone, 2020).

Personal Protective Equipment

The World Health Organization (2020) defines Personal Protective Equipment (PPE) as equipment and/or clothes used by personnel to provide a barrier against biological agents, lowering the risk of exposure. PPE includes, but is not limited to, lab coats, gowns, full-body suits, gloves, protective footwear, safety glasses, goggles, masks, and respirators. PPE serves to prevent infections in Healthcare Personnel (HCP) by minimizing contamination of their hands and garments and reducing the risk of secondary spread to other HCP and patients (Kuhar et al., 2019).

Availability and Accessibility

Based on a risk assessment, WHO (2020) determined that the employer or institution was responsible for providing a sufficient selection of appropriate PPE for its employees. In order to ensure that each worker has access to the appropriate protective gear, the employer must offer a variety of options, such as a variety of N95 respirator models. In addition to the actual level of protection, comfort while wearing must also be taken into consideration.

Healthcare workers

Healthcare workers also utilized PPE to guarantee security amid working hours. Personal Protective Equipment (PPE) safeguards healthcare workers against two primary

hazards. Biological agents can spread from person to person through direct or indirect contact. Health workers maintained close contact with patients. In this way, they required PPE that secured them from potential transmission. The implementation of Infection Prevention and Control (IPC) principles ensured the safety of patients and healthcare personnel.

Related Studies

Availability and Accessibility

In a study by Madziatera, Msof, Phiri, Mkandawire and Comber (2020), PPE was available in 75.8% of hospital wards but not in 12.5%. Safety glasses were missing in 70.8% of departments. Personal protective equipment was out of reach of health workers in 71.4% of hospital wards and 28.6% not accessible to healthcare workers. Out of all the personal protective equipment, safety glasses (83.2%) and footwear (73.7%) were the most unavailable, while face masks, sterile and non-sterile gloves and aprons were readily available at most times. Non-sterile gloves were fully available and accessible at 100%. Thirteen point five percent of healthcare workers responded well to standard PPE procedures. Twenty-four hospital departments were used in this study. Seventy-six percent of personal protective equipment was sufficiently available, 13% was insufficient and 11% was not available in the hospital wards. A mask, sterile and non-sterile gloves were readily available, but protective eyewear were in short supply in the department. Findings from Malawi showed that availability of PPE was critical to its use. In most cases, more than one PPE was needed as part of a clinical strategy, so all PPE must be

reliably available on the wards. Healthcare workers needed a coordinated approach to PPE to follow Standard Precautions (SP). In some cases, PPE was placed away from nursing staff or even locked away, making it impossible to use in certain situations, such as an emergency. It was found that PPE was not consistently available and Healthcare workers without PPE did not follow standard precautions.

Job Satisfaction of Nurses

In a study by Hendel, Radomislensky, and Savitsky in 2021, A shortage of personal protective equipment (PPE) was reported by 103 nurses (79%); 35% of them said they were exposed to it during the pandemic's first month (March); 36% stated that it occurred within the first two months (March and April 2020); 9% said it lasted three months; and 19% said it lasted much longer. In both hospitals and the community, the same number of nurses reported a shortage of PPE. N95 and surgical masks were the most commonly lacking PPE. In comparison to nurses who were not exposed to working without PPE, those who did so reported poorer occupational satisfaction (3.4 vs. 3.8, p =.039). Healthcare staff had varying access to PPE, put in a lot of overtime, and, for the most part, had been away from their families for more than a month to prevent spreading the illness. Access to PPE was associated with improved physical health, greater job satisfaction, and less distress, proving its significance beyond physical protection (Jahanshahi,A., et al).

Personal Protective Equipment

In a recent study by Grisworld, Gempeler, Kolias, Hutchinson, and Rubiano (2021), there was a high certainty that using N95 respirators and surgical masks was associated with a lower risk of COVID-19 as compared to not using masks. In sites with a moderate-to-high risk of COVID-19 infection, N95 respirators provided stronger protection than surgical masks. Eye protection also helped to limit the danger of contagion in this scenario. UV germicidal irradiation, vaporous hydrogen peroxide, and dry heat were all efficient decontamination procedures for maintaining the performance and fit of PPE, including masks and respirators.

COVID-19 Pandemic

In a recent study conducted by Ha, J. F. (2020), the coronavirus disease 2019 (COVID-19) widespread had touched nearly each continent. Transmission can be reduced by implementing exposure control measures such as engineering, administrative, and environmental controls. Personal Protective Equipment (PPE) was the ultimate line of security for healthcare workers (HCW) particularly within the community transmission stage of the COVID-19 pandemic. Studies have reported infection rates ranging from 3.5% to 20% among healthcare workers (HCWs). Wang et al., found a nosocomial contamination rate of 41.3%. Among 138 patients in a case series, 29% (n=40) were healthcare workers (HCWs): 77.5% (n=31) worked on general wards, 17.5% (n=7) in the emergency department, and 5% (n=2) in the intensive care unit. Given the growing evidence of aerosol transmission during routine care and concerns about efficient human

transmission, airborne precautions were recommended, including the use of a fit-tested N95 respirator and other appropriate personal protective equipment (PPE).

Healthcare Workers

A recent study by Lee, Salahuddin, Gibson-Young, and Oliver (2021) demonstrated the need for existing PPE enhancement in terms of fit, comfort, donning, and doffing for Healthcare Workers' safety and health. Donning and doffing had a significant impact on Healthcare Workers' general willingness to use PPE for body protection. This study found that the majority of healthcare workers disposed of their PPE at a trashcan in a hospital unit, whereas non-disposed PPE was laundered at home, thus exposing their family members to a health risk if proper precautions were not taken.

The findings revealed that healthcare personnel frequently employed a face shield, mask, examination gloves, gown, head cover, and shoe cover to protect their eyes, nose and mouth, hands, body, head, and feet from a variety of known and unknown environmental hazards. This finding was supported by what frontline healthcare workers are already advised to wear for safety and protection against the COVID-19 pandemic. During the crisis, frontline personnel were frequently seen using personal protective equipment (PPE) such as masks, gloves, isolation gowns, N95 respirators, goggles, and face shields while caring for people afflicted with the virus.

Synthesis of Related Studies

The current novel coronavirus disease 2019 (COVID-19) pandemic has resulted in a substantial scarcity of personal protective equipment in several nations throughout the world, straining medical services during this crisis.

A recent study by Madziatera, D., Msofi, K. S., Phiri, T. V., Mkandawire, S. D. and Comber, A. (2020) found that PPE was available in 75.8% of hospital wards compared to 12.5%. Safety eyewear were missing in 70.8% of the wards. PPEs were 71.4% accessible and 28.6% inaccessible to healthcare staff on the wards. Goggles (83.2%) and footwear (73.7%) were the most inaccessible PPEs, while facemasks, sterile and non-sterile gloves, and aprons were widely available. Non-sterile gloves were completely available and accessible. Management can help enhance PPE availability and accessibility in wards by actively monitoring PPE use. The study can also help to design regulations and recommendations for the use of personal protective equipment, as it demonstrates that the majority of health workers require training in its proper usage. Furthermore, the researchers stated that in order to be effective in preventing infections, personal protective equipment must be easily available, accessible (simple to use), adequately selected, and effectively used. Poor availability of PPE leads to poor PPE selection, putting HCWs at risk of health hazards caused by insufficient protection. The availability and accessibility of Personal Protective Equipment (PPE) had a major impact on nurses' job satisfaction during the COVID-19 pandemic. For example, Liu et al. (2020) discovered that low PPE availability increased anxiety and discouragement among nurses. Huang et al. (2020) found that accessible PPE contributed to reduced stress and improved satisfaction. These findings revealed varied yet linked effects that PPE

availability and accessibility play in determining nurses' job satisfaction during health crises.

CHAPTER 3

Methodology

Research Design

This is a descriptive correlation study. A descriptive research intended to observe and describe occurrences in their natural setting without changing variables, so revealing insights into characteristics or behaviors within a certain group or situation. A correlational study, on the other hand, sought to identify relationships between variables by assessing how changes in one variable correspond to changes in another without implying causality (Leedy & Ormrod, 2018).

It described the variables and the relationships that occurred naturally between and among them. This study described the availability of personal protective equipment (PPE) during the COVID-19 pandemic. It also described the ease or difficulty with which these PPEs could be obtained. In addition, the study aims to evaluate the impact of PPE availability and accessibility on the job satisfaction levels of nurses.

This study explored the availability of PPEs utilized by staff nurses during the COVID-19 pandemic. The study described PPE accessibility and looked into the

relationship between PPE availability, accessibility, and job satisfaction among nurses. This also examined whether there was a relationship between availability and accessibility of PPEs, as well as nurse satisfaction with PPE availability and accessibility.

This study employed a researcher-developed questionnaire checklist and the McCloskey/Mueller Nurse Job Satisfaction Scale (MMSS) to gather data. Respondents completed the questionnaires in person while adhering to health protocols. In addition, both descriptive and inferential statistics were utilized to characterize the data and explore relationships between variables.

Study Population

The target population of this study was 66 staff nurses from the different departments in a certain district hospital in Iloilo Province.

This is a population study. This study used complete enumeration or census to collect data because it utilized all 66 staff nurses in a certain district hospital in Iloilo Province as respondents.

The total population was grouped according to their departments namely COVID/Triage, DR/OR, Station 1 (Medical - Surgical, and Private Rooms), Station 2 (OB and Pedia), Station 3 (Infectious cases), OPD, and ER.

Research Instrument

The research instruments that were used were content validated questionnaires. To get the appropriate data, the researchers used questionnaires with four (4) parts. The questionnaires were accomplished by the respondents face to face while observing health protocols.

Part I Profile of Respondents. The tool for profiling was made by the researchers; It determined the patient's age, gender, civil status, and hospital department to which they belong.

Part II Availability of PPE. This portion comprised of the level of availability of PPEs. This included a 5-item questionnaire, with a score of 3 indicating always being available within reach and having enough quantity when needed; a score of 2 indicating sometimes being within reach and having enough quantity when needed; and a score of 1 indicating not always being within reach and not having enough quantity when needed. It was categorized as high availability if the score was 20–30, moderate availability if the score was 10–19, and low availability if the score was below 10.

Part III Accessibility of PPE. This comprised of the level of accessibility of PPEs. This included a 5-item questionnaire and was measured by the number of minutes to obtain the PPEs. It was then categorized as a score of 3 if it was easy to procure or readily accessible, acquired in less than 5 minutes immediately upon request, a score of 2 if it

was sometimes easy to procure or readily accessible, acquired in 6 to 16 minutes upon request, and a score of 1 if it was difficult to procure or not readily accessible, acquired in more than 17 minutes or within a few days depending on the accessibility of stocks. It will be categorized as highly accessible if the score was 20–30, moderately accessible if the score was 10–19, and poorly accessible if the score was below 10.

(Based on the shortest and most prolonged time of procurement.)

Part IV. Job Satisfaction Using PPE. This part focused on the job satisfaction of nurses regarding the use of personal protective equipment (PPEs). This included a 4-item questionnaire that was categorized as a score of five (5) indicates that the nurse was extremely satisfied with the availability and accessibility of the PPEs, a score of four (4) indicates that the nurse was very satisfied with the availability and accessibility of the PPEs, a score of three (3) indicates that the nurse was satisfied with the availability and accessibility of the PPEs, a score of two (2) indicates that the nurse was dissatisfied with the availability and accessibility of the PPEs, a score of one (1) indicates that the nurse is very dissatisfied with the availability and accessibility of the PPEs. It was categorized as high satisfaction if the score was 16-20, moderate satisfaction if the score was 11-15, and low satisfaction if the score was below 10.

Validity of Instruments

To ensure the validity of the tools, three experienced nursing experts, each holding a Master of Arts in Nursing, conducted the validation. These experts are professionals with extensive backgrounds in clinical practice, nursing education, and research, making them highly qualified to assess the tool's validity and reliability. Each validator was provided with a standard validation sheet containing all the questions and options in the questionnaire. The validators assessed the clarity and relevance of the questions to the study objectives.

Reliability of Instruments

To determine the questionnaire's reliability, a pilot study was conducted using a sample of 10% (7) of the total population. The pilot study participants were not part of the actual study. According to experts, a standard sample size of 10% of the total population is appropriate for a pilot study (Whitehead, Julious, Cooper, & Campbell, 2015). As a result, the sample size of 7 participants used in the pilot study is appropriate. Furthermore, results of the pilot study showed reliability coefficient of 0.719 for availability, 0.719 for accessibility and 0.701 for job satisfaction. Correlation is significant at the 0.01 level (2-tailed). Therefore, the results of the study showed reliability coefficient of availability, accessibility and job satisfaction significant.

Ethical Consideration

The nature, purpose, and objectives of the study was communicated clearly to the respondents through a cover letter attached to every questionnaire. Respondents were asked to submit written consent, saying that they understood the study's information and agreed to participate voluntarily. Participants were advised that they could withdraw from the study at any moment, and that their information would be kept confidential and used only for the study's aims. Participants were required to sign an informed consent document before participating in the study. The research was subjected to an ethical review by the Central Philippine University's ethics committee to ensure that the study adheres to ethical principles. All feedback from the ethics committee was taken into account in revising the research paper.

Data Collection

Data were collected through hard copy questionnaires accomplished by the respondents while observing health protocols. Before accessing the questionnaire, informed consent was requested, and respondents were asked to sign or affix their signatures. The respondents of this study gathered without coercion and were informed about their rights to refuse and withdraw from the research study. The responses were encoded by the researchers after the collection of questionnaires. The data that was collected from this study is kept confidential. The data is treated with utmost confidentiality; it was not divulged to anybody and was solely utilized for research

purposes. To maintain anonymity and privacy, numbers rather than names of the respondents were used. Upon conclusion of the study, the researchers retain recorded interviews, field notes, and documented narratives for archival purposes. These research materials were disposed of when the researchers disseminated the study results.

Seeking Approval from the RERB office and other related offices/institutions

Ethical review ensures that research studies prioritize the safety, rights, and well-being of participants. It is crucial to emphasize the importance of obtaining ethical approval and adhering to established ethical principles in research. This includes obtaining the necessary permissions from the ethics committee of Central Philippine University's Research Ethics Review Board (RERB) office as a fundamental aspect of conducting responsible and morally sound research. It upholds the principles of respect for persons, beneficence, and justice, which are at the core of ethical research practices.

Risk Assessment

There is low risk involved in this study as it is designed to prioritize the safety and well-being of participants. The survey questions have been carefully constructed to be non-sensitive, aiming to prevent any potential harm to participant’s psychosocial, mental, medical, or physical well-being. Participants’ security and health are the researchers’ utmost priority, and the study's protocols have been meticulously established to uphold these principles.

Benefits Assessment

This study offers significant benefits, including improved safety for healthcare workers, better patient care, and informed decision-making for healthcare organizations and policymakers. It contributes to the overall resilience and preparedness of the healthcare system in the face of similar health crises in the future. This research can lead to better resource allocation, ensuring that nurses have adequate PPE to protect themselves and reduce the risk of infection. Furthermore, understanding the relationship between PPE availability and job satisfaction among nurses is essential. When nurses feel safe and supported, their job satisfaction is likely to improve. This can lead to lower turnover rates, improved patient care, and a more positive work environment. Lastly, research findings can inform hospital administrators and policymakers about the lessons learned during the COVID-19 pandemic. This can lead to improved preparedness for future pandemics and other healthcare emergencies.

Withdrawal Criteria of Participants

Participants can withdraw from the study at any time for any reason, without needing to provide an explanation.

Anonymity and Confidentiality of Participants

Each participant was assigned a unique and non-disclosive identification number (ID), ensuring their individual identities remained completely safeguarded. Furthermore, the data will be treated with the utmost respect for privacy, incorporating security protocols to prevent unauthorized access or disclosure. These measures will be

implemented to maintain participants' trust in the research process, ensuring their confidentiality and privacy will be upheld at every stage of the study.

Voluntary, Non-Coercive Recruitment of Participants

The participation of the respondents in this study is entirely voluntary, free from any form of bias or coercion, and granting respondents the freedom to refuse participation or withdraw at any stage, adhering strictly to ethical research guidelines. Importantly, there will be no penalties or consequences for their decisions, and they are not required to provide any reason for their choices. The researchers are committed to honoring the participants' decisions, understanding the importance of their voluntary engagement in contributing to the study's findings.

Disposal of Research Materials / Data

After the study, the research materials will be disposed of when the results of the study have been disseminated by the researcher. The digital data will be stored on a computer accessible exclusively to the researchers. Physical copies will be securely stored in a locked cabinet, accessible only to the researchers. The collected data will be retained until the research analysis is complete and researchers require it, after which it will be securely deleted. The study results will be formally presented to the panelists and during the defense presentation.

Contribution to Local Capacity Building and Benefits Local Communities

This study holds significant potential to contribute to local capacity building and benefit local communities in several ways.

Firstly, it provides a comprehensive understanding of the availability, accessibility, and job satisfaction with the use of Personal Protective Equipment (PPE), empowering local healthcare facilities and professionals to make well-informed decisions. This knowledge equips hospitals, clinics, and medical practitioners with the tools to procure and utilize PPE effectively, ensuring the safety of both healthcare workers and patients.

Secondly, the study's findings can lead to improved resource allocation within healthcare institutions. Nursing administrators and hospital executives can utilize the data to efficiently manage, distribute, and ration PPE supplies. This optimized approach not only guarantees the safety of medical staff but also elevates the overall efficiency of healthcare services. Consequently, the local community benefits by maintaining the continuity of essential medical care.

Furthermore, the study's findings can extend to policy-making bodies such as the Department of Health (DOH). By shedding light on PPE shortages or accessibility challenges, the research outcomes can guide policy decisions. This guidance prompts the DOH to establish consistent and reliable channels for the distribution of PPE across the

nation. This, in turn, enhances the resilience of local healthcare systems, ensuring the safety of healthcare workers and the community at large.

Lastly, the research findings can serve as a valuable resource for future researchers and academicians. By providing a foundational understanding of PPE availability and accessibility during the COVID-19 pandemic, this study can inspire further research initiatives. Future studies can build upon these findings, delving deeper into specific aspects, thus enriching the collective knowledge base and fostering continuous improvements in healthcare practices. Ultimately, this research acts as a catalyst for progress, ensuring safer environments for both healthcare providers and the communities they serve.

Incentives or Compensation for Participants

Participants in the research study will not receive any incentives or compensation, as no such rewards will be offered or determined. The distribution of survey questionnaires will be limited to individuals who willingly agree to participate, provided they give informed consent. This approach ensures that participation is entirely voluntary and driven by genuine interest, without any external inducements.

Disclosure or Declaration of Potential Conflict of Interest

The researchers declare that there is no conflict of interest in this study. Participants will receive the research questionnaires with full and impartial disclosure. Researchers are committed to transparency regarding the data they possess, and any unexpected conflicts will be meticulously examined. To prevent partiality that can

possibly result in biased participation, the data collected will be critically and independently explored and systematically analyzed.

Dissemination Plan

The results of this study will be shared following a thorough process involving analysis, interpretation, and revision. Respondents can view the results of surveys conducted at their convenience. All research outcomes will be readily available and accessible to participants whenever they wish to review them, ensuring transparency and openness.

The research study places a priority on making sure that participants' rights are protected to the maximum extent possible. It will be guaranteed that the results are for research purposes with the knowledge that it will be prevented from dissemination outside of the research context or to unauthorized persons. This dedication to transparency and participant welfare underscores the researchers commitment to ethical research practices.

Data Processing and Statistical Analysis

The gathered data was organized, evaluated, and tabulated. All data were processed and analyzed. The study population's data will be summarized using descriptive statistics such as frequency distribution tables, means, and percentages. Spearman Rank Correlation (Spearman’s rho), a symmetrical measure of association appropriate for use with nominal variables that are either dichotomous or ordinal was

used by the researchers as statistical tool. It gives us an idea of the strength of the link between two variables.

CHAPTER 4

RESULTS AND DISCUSSION

This chapter contains a comprehensive presentation and discussion of the findings, as well as data analysis and interpretation on the availability, accessibility, and job satisfaction of nurses using PPE during the COVID-19 pandemic in Iloilo Province. The correlation between these variables are shown and explained in the following portion of the chapter. The findings of the pertinent research and literature are also reviewed in order to make comparisons between the outcomes of this study and preceding ones.

Availability of PPEs in a certain District Hospital in Iloilo Province

The level of availability of PPEs in a certain District Hospital in Iloilo Province during COVID-19 Pandemic was measured by a 5-item researcher developed questionnaire and the McCloskey/Mueller Nurse Job Satisfaction Scale (MMSS) checklist. It was answerable by Not always being within reach and not having enough quantity when needed ‘1’, Sometimes being within reach and having enough quantity when needed ‘2’, Always being available within reach and having enough quantity when needed ‘3’.

Table 1. Distribution of respondents according to their responses to questions about level of availability during the COVID-19 Pandemic (Madziatera et al., 2020).

Availability of PPE						
	3 (Always being available within reach and having enough quantity when needed)		**2 (Sometimes being within reach and having enough quantity when needed)**		**1 (Not always being within reach and not having enough quantity when needed)**	
	f	%	f	%	f	%
Protective Masks	56	85	9	14	1	2
Gowns	40	61	23	35	3	5
Gloves	53	80	12	18	1	2
Surgical Cap	49	74	15	23	2	3
Face Shields	35	53	25	38	6	9

The distribution of respondents according to their response for the availability of Personal Protective Equipment (PPE) is presented in Table 1. Findings showed that during the COVID 19 Pandemic, Personal Protective Equipment (PPE) was always available within reach and had enough quantity when needed; masks (85%), gowns (61%), gloves (80%), surgical cap (74%), and face shields (53%).

Based on the findings, 9 out of 10 reported that protective masks were always available within reach and had enough quantity when needed; 6 out of 10 reported that gowns were always available within reach and had enough quantity when needed; 8 out

of 10 reported that gloves and surgical cap were always available within reach and had enough quantity when needed; and 5 out of 10 reported that face shields were always available within reach and had enough quantity when needed.

On the other hand, a lesser proportion of the respondents reported that Personal Protective Equipment (PPEs) were not always within reach and did not have enough quantity when needed; Protective Mask and Gloves (2%), Gowns (5%), Surgical cap (3%), and face shield (9%). In addition, 1 out of 10 reported that protective masks, gowns, gloves and surgical caps were not always within reach and did not have enough quantity when needed, while 2 out of 10 reported that face shields were not always within reach and did not have enough quantity when needed.

The results in table 1 were congruent to the results of the study conducted by Madziatera. Msoh Chivi Mkandawire and Comber (2020), in which the greatest percentage of specific Personal Protective Equipment (PPE) available were the protective masks and gloves. While the lowest percentage of specific Personal Protective Equipment (PPE) available were Face Shields.

This related to the 2020 study by Madziatera, Msof, Phiri, Mkandawire, and Comber wherein numerous nurses reported about the availability and accessibility of personal protective equipment (PPE) amidst the pandemic. The study's findings indicated a considerable number of respondents confirmed that personal protective equipment PPE were within reach and available in sufficient quantities when required during the

pandemic. It also emphasized the crucial role of PPE availability in ensuring its effective utilization.

Furthermore, Madziatera et al.'s study showed favorable results with regard to personal protective equipment availability; the greater level of availability most respondents reported demonstrated the significance of the study's findings. The availability of PPEs was imperative to address these challenges to ensure the safety of healthcare workers and patients, especially during infectious disease outbreaks and other healthcare emergencies.

Table 2. Distribution of Respondents according to Level of Availability of PPEs in a certain District Hospital in Iloilo Province (Madziatera et al., 2020).

Availability	**f**	**%**
Not always being within reach and not having enough quantity when needed	2	3.0
Sometimes being within reach and having enough quantity when needed	11	16.7
Always being available within reach and having enough quantity when needed	53	80.3
Total	66	100
Mean = 2.67 (Available) SD = 0.44		

Note: 1.00-1.49 (Poorly Available), 1.50-2.49 (Moderately Available), 2.50-3.00 (Highly Available)

Among the 65 samples studied, Table 2 shows the distribution of respondents according to the level of Availability of PPEs in a certain District Hospital in Iloilo Province. Based on the findings, one out of ten respondents reported that Personal Protective Equipment was not available (3.0%), two out of ten reported that Personal Protective Equipment was sometimes available (16.7%), and eight out of ten reported that Personal Protective Equipment was available (80.3%). The mean level of Availability of Personal Protective Equipment was 2.67, indicating that it was available and sufficient when needed.

The study by Madziatera et al. showed that PPE were available (80.3%), which emphasized how crucial it was to have it available and in appropriate quantities when needed. Additionally, it demonstrated the importance of the relationship between the availability of PPE and its effective utilization. Given that personal protective equipment (PPE) is commonly integral to clinical protocols, all varieties of personal protective equipment must be accessible for patient care. Healthcare professionals must uphold Standard Precautions by effectively managing personal protective equipment.

Accessibility of PPEs in a certain District Hospital in Iloilo Province

The level of accessibility of PPEs in a certain District Hospital in Iloilo Province during COVID-19 Pandemic was measured by a 5-item researcher developed questionnaire and the McCloskey/Mueller Nurse Job Satisfaction Scale (MMSS) checklist. It was answerable by Not Accessible ‘1’, Sometimes Accessible ‘2’, Accessible ‘3’.

Table 3. Distribution of respondents according to their responses to questions about level of accessibility during the COVID-19 Pandemic (Madziatera et al., 2020)

Accessibility of PPE's						
	3		**2**		**1**	
	(Easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request)		**(Easy to procure but not readily available, acquired between 6 to 16 minutes upon request)**		**(Difficult to procure and not readily accessible, acquired in more than 17 minutes or within a few days)**	
	f	%	f	%	f	%
Protective Masks	52	79	11	17	2	3
Gowns	41	63	21	32	4	6
Gloves	48	73	17	26	1	2
Surgical Cap	48	73	16	24	2	3
Face Shields	31	47	27	41	8	12

Table 3 shows the distribution of respondents according to their response for accessibility with Personal Protective Equipment (PPE). Findings showed that during the COVID 19 Pandemic, Personal Protective Equipment (PPE) were easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request; protective mask (79%), gowns (62%), gloves (73%), surgical caps (73%), and face shields (47%).

Based on the findings, 8 out of 10 reported that protective masks were easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request; 6 out of 10 reported that gowns were easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request; 7 out of 10 reported that gloves and

surgical caps were easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request; 5 out of 10 reported that face shields were easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request.

On the other hand, Personal Protective Equipment (PPE) were easy to procure but not readily available, acquired between 6 to 16 minutes upon request; protective mask (17%), gowns (32%), gloves (26%), surgical caps (24%), and face shields (41%).

Based on the findings, 2 out of 10 reported that protective masks were easy to procure but not readily available, acquired between 6 to 16 minutes upon request; 3 out of 10 reported that gowns were easy to procure but not readily available, acquired between 6 to 16 minutes upon request; 3 out of 10 reported that gloves were easy to procure but not readily available, acquired between 6 to 16 minutes upon request; 2 out of 10 reported that surgical caps were easy to procure but not readily available, acquired between 6 to 16 minutes upon request; 4 out of 10 reported that face shields were easy to procure but not readily available, acquired between 6 to 16 minutes upon request.

On the other hand, a lesser proportion of the Personal Protective Equipment (PPE) were difficult to procure and not easily accessible, acquired in more than 17 minutes or within a few days; protective mask (3%), gowns (6%), gloves (2%), surgical caps (3%), and face shields (12%).

Based on the findings, 1 out of 10 reported that protective masks, gowns, gloves, surgical caps, and face shields were difficult to procure and not easily accessible, acquired in more than 17 minutes or within a few days.

The results in Table 3 corresponded to the results of the study conducted by Madziatera, Msof, Phiri, Mkandawire and Comber (2020). According to their study, gloves and protective masks were consistently available as Personal Protective Equipment (PPE) for workers. Conversely, face shields emerged as the least accessible Personal Protective Equipment (PPE), with the lowest percentage of availability noted among surveyed workers.

This related to the results of the study conducted by Madziatera, Msof, Phiri, Mkandawire and Comber (2020) which highlighted the urgent need for improved accessibility and distribution of specific Personal Protective Equipment (PPE) to ensure adherence to safety protocols. Also, in some cases, Personal Protective Equipment (PPE) remained out of reach for many healthcare workers, impacting their ability to Standard Precautions (SP)

Table 4. Distribution of Respondents according to Level of Accessibility of PPEs in a certain District Hospital in Iloilo Province (Madziatera et al., 2020).

Accessibility of PPE's	**f**	**%**
Difficult to procure and not readily accessible, acquired in more than 17 minutes or within a few days	2	3.0
Easy to procure but not readily available, acquired between 6 to 16 minutes upon request	17	25.8

Easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request	47	71.2
Total	66	100.0
Mean = 2.62 (Accessible) SD = 0.46		

Note: 1.00-1.49 (Not Accessible), 1.50-2.49 (Sometimes Accessible), 2.50-3.00 (Accessible)

Among the 65 samples, Table 4 shows the distribution of respondents according to Level of Accessibility of PPEs in a certain District Hospital in Iloilo Province. Findings showed that 1 out of 10 (3.0%) of the respondents find that PPEs were not accessible, 3 out of 10 (25.8%) sometimes accessible, and 7 out of 10 (71.2%) accessible. When taken as a whole, the mean level of accessibility of PPEs was 2.62 which indicated it as accessible.

The study by Madziatera et al. found that PPE was widely available (75.8%). Protective masks and gloves were available in all circumstances. These findings highlighted the crucial role of Personal Protective Equipment (PPE) accessibility in supporting its successful usage by healthcare personnel. The availability and correct use of Personal Protective Equipment (PPE) are critical to protecting the health and safety of healthcare personnel and patients alike. Adequate access ensures timely protection against infectious organisms, which reduces the risk of transmission in healthcare facilities. Utilization adherence to standardized protocols maximizes the effectiveness of PPE, minimizing exposure risks and promoting optimal patient care.

Job satisfaction in terms of the availability and accessibility in a certain District Hospital in Iloilo Province

The level of Job satisfaction in terms of the availability and accessibility PPEs in a certain District Hospital in Iloilo Province during COVID-19 Pandemic was measured by a 4-item questionnaire that was categorized as a score of five (5) indicated that the nurse was extremely satisfied with the availability and accessibility of the PPEs, a score of four (4) indicates that the nurse was very satisfied with the availability and accessibility of the PPEs, a score of three (3) indicates that the nurse was satisfied with the availability and accessibility of the PPEs, a score of two (2) indicates that the nurse was dissatisfied with the availability and accessibility of the PPEs, and a score of one (1) indicated that the nurse was very dissatisfied with the availability and accessibility of the PPEs.

Table 5. Distribution of respondents according to their responses to questions about level of Job satisfaction of respondents in the use of PPEs in terms of the availability and accessibility in a certain District Hospital in Iloilo Province (Hendel et al., 2021).

	Job Satisfaction with PPE's									
	Extremely Satisfied (5)		**Very Satisfied (4)**		**Satisfied (3)**		**Dissatisfied (2)**		**Very Dissatisfied (1)**	
	f	**%**	**F**	**%**	**f**	**%**	**f**	**%**	**f**	**%**
1. I am satisfied with the current availability	33	50	14	21	17	26	2	3	0	0

	of PPE in my hospital during the COVID-19									
2.	I am satisfied with the current accessibility of PPE by health professionals in my hospital	32	49	16	24	16	24	1	2	1	2
3.	I am satisfied that the correct PPE (as recommended by WHO) is always available to me when managing suspected or confirmed COVID-19 patient in my hospital	34	52	13	20	16	24	2	3	1	2
4.	I am satisfied that the correct PPE (as recommended by WHO) is always available to me when treating non-COVID-19 patients in my hospital	32	49	15	23	17	26	2	3	0	0

Table 5 shows the distribution of respondents based on their response to job satisfaction with Personal Protective Equipment (PPE). Findings revealed that during the COVID 19 Pandemic, a higher proportion of the respondents were extremely satisfied

with the current availability of PPE (50%), accessibility of PPE (49%), correct PPE (as recommended by the World Health Organization) that was always available when managing suspected or confirmed COVID-19 (52%), and correct PPE (as recommended by the World Health Organization) that was always available when treating non-COVID-19 patients (49%).

Based to the findings, two (2) out of ten (10) people were satisfied with the existing availability of PPE (26%), as well as the correct PPE (as recommended by WHO) that was always available when treating non-COVID-19 patients. Furthermore, two (2) out of ten (10) were very satisfied with the present accessibility of PPE, as well as the suitable PPE (as recommended by WHO) that was always available while treating suspected or confirmed COVID-19 patients.

On the other hand, a fewer proportion of respondents were dissatisfied with the existing availability and accessibility of PPE (3% and 2%, respectively). Furthermore, one (1) out of ten (10) responders was very dissatisfied with the appropriate PPE (as recommended by WHO) that was always accessible while treating suspected or confirmed COVID-19 patients.

This was congruent to the study conducted by Hendel, Radomislensky, and Savitsky in 2021, where a shortage of personal protective equipment (PPE) was reported by a significant percentage of nurses. However, while the study by Hendel et al. focused on the shortage of PPE and its association with poorer occupational satisfaction, the result of this study presented a more positive perspective. The findings from this study indicated that a higher proportion of respondents were satisfied or extremely satisfied

with the availability, accessibility, and correctness of PPE during the pandemic. This stood in contrast to the findings of Hendel et al., where a shortage of PPE was reported by a significant majority of nurses, leading to poorer job satisfaction.

Moreover, while Hendel et al. highlighted the association between access to PPE and improved physical health, greater job satisfaction, and less distress, the findings of this study provided empirical evidence supporting this association. The higher levels of satisfaction reported by respondents regarding PPE availability and correctness suggested a positive impact on job satisfaction, potentially leading to improved overall well-being among healthcare workers during the pandemic.

Table 6. Distribution of Respondents according to Level of Job satisfaction of respondents in the use of PPEs in terms of the availability and accessibility in a certain District Hospital in Iloilo Province (Madziatera et al., 2020).

Job Satisfaction	**f**	**%**
Very Dissatisfied	0	0
Dissatisfied	2	3.0
Satisfied	16	24.2
Very Satisfied	16	24.2
Extremely Satisfied	32	48.5
Total	66	100
Mean = 4.17 (Very Satisfied) SD = 0.92		

Note: 1.00-1.49 (Very Dissatisfied), 1.50-2.49 (Dissatisfied), 2.50-3.49 (Satisfied), 3.50-4.49 (Very Satisfied), 4.50-5.00 (Extremely Satisfied)

Among the 65 samples studied, Table 6 shows the distribution of respondents in terms of their responses for the questions on level of job satisfaction of respondents in the use of PPEs in terms of the availability and accessibility in a certain District Hospital in Iloilo Province. Findings showed that 1 out of 10 of the respondents was dissatisfied (3.0%), 2 out of 10 are satisfied (24.2%), 2 out of 10 were very satisfied (24.2%), and 5 out of 10 were extremely satisfied (48.5%). When seen as a whole, the mean level of job satisfaction of respondents in the use of PPEs in terms of availability and accessibility was 4.17, indicating a high level of job satisfaction.

This confirmed the results of the study conducted by Jahanshahi et al. (2021), which highlighted the importance of access to personal protective equipment (PPE) in maintaining job satisfaction among healthcare workers during the COVID-19 pandemic. In the findings of this study, among the 66 respondents surveyed, a significant majority (48.5%) expressed being extremely satisfied with the use of PPEs in terms of availability and accessibility. This high level of satisfaction suggested that access to adequate PPE played a crucial role in enhancing job satisfaction among healthcare workers in a certain District Hospital in Iloilo Province during the pandemic. This alignment between the findings of this study and the literature by Jahanshahi et al. underscored the importance of ensuring sufficient access to PPE for healthcare workers. While previous studies, such as that by Hendel, Radomislensky, and Savitsky (2021), highlighted challenges related to PPE shortages and their adverse effects on job satisfaction, the findings of this study

offered a more optimistic perspective by showing high levels of satisfaction when adequate PPE was available and accessible.

Level of availability and accessibility of Personal Protective Equipment (PPEs)

Table 7. Relationship between the availability and accessibility of Personal Protective Equipment (PPEs) in a certain District Hospital in Iloilo Province (Madziatera et al., 2020).

	Rho	**P**	**Remarks**
Availability	0.719	0.000 *	Positive; Strong; Significant
Accessibility			

Note: Asterisk (*) means significant at 0.05 level.

Among the 66 samples studied, Table 7 shows the distribution of respondents in terms of their responses for the relationship between the availability and accessibility of Personal Protective Equipment (PPES) in a certain district hospital in Iloilo Province. Findings showed that Spearman's Rank Correlation for the given data was 0.719, indicating a strong positive correlation between these variables ($p < 0.000$), as evidenced by the p-value of 0.000. The value was significant at 0.05 level, which means that there was a strong correlation between the availability and accessibility of PPEs. This suggested that as the availability of PPEs increased, so did their accessibility of Personal Protective Equipment (PPES) in a certain district hospital in Iloilo Province.

This confirmed the results of the study conducted by Madziatera, Msof, Phiri, Mkandawire, and Comber (2020), which emphasized the critical relationship between the availability and accessibility of Personal Protective Equipment (PPE) in healthcare

settings. The findings underscored the importance of ensuring adequate access to PPE to facilitate its effective use by healthcare workers.

Based on the findings of this study, the Spearman's Rank Correlation analysis revealed a strong correlation (0.719) between the availability and accessibility of PPEs in a certain district hospital in Iloilo Province. This significant correlation suggested that when PPE was readily available, it was also more accessible to healthcare workers. This finding aligned with the observations made by Madziatera et al. (2020), who noted that the availability of PPE was critical to its use and adherence to Standard Precautions (SP) among healthcare workers.

Therefore, hypothesis one (1), which stated that there was no significant relationship between the availability of PPE and its accessibility in a certain District Hospital in Iloilo Province, was rejected.

Level of availability and job satisfaction of Personal Protective Equipment (PPES)

Table 8. Relationship between the availability of Personal Protective Equipment (PPEs) and the Job Satisfaction among respondents in the use of PPEs and in a certain District Hospital in Iloilo Province (Hendel et al., 2021).

	Rho	**p**	**Remarks**
Availability	0.660	0.000 *	Positive; Strong; Significant
Job Satisfaction			

Note: Asterisk (*) means significant at 0.05 level.

Among the 66 samples studied, Table 8 shows the relationship between the availability and job satisfaction of Personal Protective Equipment (PPES) in a certain district hospital in the study. Findings showed that Spearman's Rank Correlation for the given data was 0.660, indicating a strong positive correlation between these variables ($p < 0.000$), as evidenced by the p-value of 0.000. The value was significant at 0.05 level, which means that there was a strong correlation between the availability and job satisfaction of PPEs. This suggested that as the availability of PPEs increased, so did their job satisfaction of the use of Personal Protective Equipment (PPES) in a certain district hospital in Iloilo Province.

This is congruent with the results of the study conducted by Jahanshahi et al. (2021), which highlighted the significant correlation between the availability of Personal Protective Equipment (PPE) and healthcare workers' job satisfaction. Both studies underscored the pivotal role that the availability of PPE plays in shaping the satisfaction levels of healthcare professionals in their work environments.

Based on the results of this study, the Spearman's Rank Correlation analysis yielded a strong correlation coefficient of 0.660 between the availability of PPE and job satisfaction among respondents in a certain district hospital in Iloilo Province. This correlation indicated that as the availability of PPE increased, so did the level of job satisfaction among healthcare workers. This finding echoed the observations made by Jahanshahi et al. (2021), who reported that access to PPE was associated with greater job satisfaction among healthcare staff.

Therefore, Hypothesis two (2), which stated that there was no significant relationship between the availability of Personal Protective Equipment (PPEs) and job satisfaction among respondents in the use of PPEs in a certain District Hospital in Iloilo Province, was rejected.

Level of accessibility and job satisfaction of Personal Protective Equipment

Table 9. Relationship between the accessibility of Personal Protective Equipment (PPEs) and the Job Satisfaction among respondents in the use of PPEs and in a certain District Hospital in Iloilo Province (Hendel et al., 2021).

	Rho	**p**	**Remarks**
Accessibility	0.701	0.000 *	Positive; Strong; Significant
Job Satisfaction			

Note: Asterisk (*) means significant at 0.05 level.

Among the 66 samples studied, Table 9 shows the distribution of respondents in terms of their responses for the relationship between the accessibility and job satisfaction of Personal Protective Equipment (PPES) in a certain district hospital in Iloilo Province. Findings showed that Spearman's Rank Correlation for the given data was 0.701, indicating a strong positive correlation between these variables ($p < 0.000$), as evidenced by the p-value of 0.000. The value is significant at 0.05 level, which means that there was a strong correlation between the accessibility and job satisfaction of PPEs. This suggested that as the accessibility of PPEs increased, so did their job satisfaction of the

use of Personal Protective Equipment (PPES) in a certain district hospital in Iloilo Province.

This was congruent with the results of the study conducted by Madziatera, Msof, Phiri, Mkandawire, and Comber (2020), which also emphasized the significant correlation between the accessibility of Personal Protective Equipment (PPE) and healthcare workers' job satisfaction. Both studies highlighted the crucial role that accessibility plays in influencing the satisfaction levels of healthcare professionals in their workplace environments.

Based on the results of this study, the Spearman's Rank Correlation analysis yielded a strong correlation coefficient of 0.701 between the accessibility of PPE and job satisfaction among respondents in a certain district hospital in Iloilo Province. This significant correlation indicated that as the accessibility of PPE increases, so does the level of job satisfaction among healthcare workers. This finding aligned with the observations made by Madziatera et al. (2020), who reported that the availability of PPE was critical to its use and adherence to Standard Precautions (SP) among healthcare workers.

Therefore, Hypothesis three (3), which stated that there was no significant relationship between the accessibility of Personal Protective Equipment (PPEs) and job satisfaction among respondents in the use of PPEs in a certain District Hospital in Iloilo Province, was rejected.

Table 10. Cross Tabulation of the Availability and Accessibility Personal Protective Equipment (PPE)

Availability * Accessibility Crosstabulation

Count					
			Accessibility		**Total**
		Difficult to procure and not readily accessible, acquired in more than 17 minutes or within a few days	Easy to procure but not readily available, acquired between 6 to 16 minutes upon request	Easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request	
Availability					
	Not always being within reach and not having enough quantity when needed	2	0	0	2
	Sometimes being within reach and having enough quantity when needed	0	10	1	11
	Always being available	0	7	46	53

	within reach and having enough quantity when needed				
Total		2	17	47	66

As shown in table 10, it indicated the significant relationship between the availability and accessibility of Personal Protective Equipment (PPEs) in a certain District Hospital in Iloilo Province. The findings showed that 2 respondents reported that Personal Protective Equipment (PPEs) were not accessible and not available, 10 respondents reported that PPEs were sometimes accessible and sometimes available, one respondent reported that PPEs were accessible and sometimes available, 7 respondents reported that PPEs were sometimes accessible and was available and finally, the majority 46 of the respondents reported that Personal Protective Equipment (PPEs) were both accessible and available.

It signified the connection of Personal Protective Equipment (PPE) in terms of accessibility and availability which revealed a strong correlation between these two factors. This relationship was crucial because it ensured that healthcare workers could consistently adhered to safety protocols, reducing their risk of infection and ensuring a safer working environment. Furthermore, safety was critical for the healthcare team and the hospital's performance, as it was necessary for continuous service delivery, adherence to health regulations, and general patient care quality. Addressing any gaps in this

relationship improved the hospital's readiness and ability to respond to medical situations, which eventually helped medical personnel, especially during the height of the pandemic.

Table 11. Cross Tabulation of the Availability and Job Satisfaction with the use of Personal Protective Equipment (PPE)

Availability * Job Satisfaction Crosstabulation						
Count						
		Job Satisfaction				Total
		Dissatisfied	Satisfied	Very Satisfied	Extremely Satisfied	
Availability	Not always being within reach and not having enough quantity when needed	2	0	0	0	2
	Sometimes being within reach and having enough quantity when needed	0	9	1	1	11
	Always being available within reach and having enough	0	7	15	31	53

	quantity when needed					
Total		2	16	16	32	66

Table 11 shows that satisfaction levels were significantly higher when PPE was readily available. In cases where PPE was available within less than 5 minutes, the majority of respondents (31 extremely satisfied, 15 very satisfied, 7 satisfied) reported high levels of satisfaction, with none expressing dissatisfaction. In contrast, when PPE availability was inconsistent and availability took more than 17 minutes or several days, respondents expressed dissatisfaction. Furthermore, when PPE was moderately accessible, with availability times between 6 to 16 minutes, most respondents (11 total, with varying degrees of satisfaction) still reported positive satisfaction, and none were dissatisfied. This indicated that quick and reliable access to PPE was crucial for ensuring high job satisfaction among healthcare workers.

This suggested a strong correlation between availability and job satisfaction, highlighting the importance of having resources readily and promptly available to foster positive workplace experiences. Specifically, employees facing the most challenging availability conditions, marked by extended availability times or delays, consistently exhibited low levels of satisfaction, underscoring the negative impact of limited resource availability on workplace well-being. Conversely, the group benefiting from the highest availability levels, with immediate and easy procurement, showed a substantial prevalence of satisfaction, with the majority reporting very satisfied or extremely satisfied sentiments. These findings emphasized the significance of organizational efforts

to optimize resource availability to foster a positive work environment and enhance employee well-being; thereby, contributing to overall organizational effectiveness and success.

Table 12. Cross Tabulation of the Accessibility and Job Satisfaction with the use of Personal Protective Equipment (PPE)

Accessibility * Job Satisfaction Crosstabulation						
Count						
		Job Satisfaction				
		Dissatisfied	Satisfied	Very Satisfied	Extremely Satisfied	Total
Accessibility	Difficult to procure and not readily accessible, acquired in more than 17 minutes or within a few days	2	0	0	0	2
	Easy to procure but not readily available, acquired between 6 to 16 minutes upon request	0	11	4	2	17
	Easy to procure and readily accessible, acquired in less than 5 minutes	0	5	12	30	47

	immediately upon request					
Total		2	16	16	32	66

Table 12 presents the relationship between accessibility of Personal Protective Equipment (PPEs) and the Job satisfaction among respondents in the use of PPEs and in a certain District Hospital in Iloilo Province. As shown in table 12, there was a notable absence of satisfaction, with 2 respondents reported dissatisfaction in the group where accessibility was most challenging, with procurement taking more than 17 minutes or within a few days. Conversely, in the most accessible category, where resources were readily available in less than 5 minutes upon request, there was a striking prevalence of satisfaction; wherein, 30 respondents are extremely satisfied, 12 were very satisfied, 5 were satisfied and none was dissatisfied. Additionally, in situations where PPEs were easy to procure but not readily available, acquired between 6 to 16 minutes upon request, satisfaction level was also high with majority reported satisfied, 4 were very satisfied, 2 were extremely satisfied, and 0 reported dissatisfied.

This suggested a strong correlation between accessibility and job satisfaction, emphasizing the importance of timely and readily available resources in fostering positive workplace experiences. Specifically, employees experiencing the most challenging accessibility conditions, characterized by extended procurement times or delays, exhibited uniformly low levels of satisfaction, showing the negative impact of limited access to resources on workplace well-being. Conversely, the group benefiting from the highest accessibility levels, characterized by immediate and easy procurement,

demonstrated a substantial prevalence of satisfaction, with a notable majority reporting very satisfied or extremely satisfied sentiments. These findings underscored the significance of organizational efforts aimed at optimizing resource accessibility to foster a positive work environment and enhance employee well-being; thereby, contributing to overall organizational effectiveness and success.

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

This descriptive-correlational study was conducted to determine the **Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a District Hospital in Iloilo Province.**

Research Design

This was a Descriptive correlational study. This study described the availability of the PPEs used by the staff nurses during the COVID-19 pandemic. The study also provided a description of PPE accessibility and investigated the relationship between PPE availability, accessibility, and job satisfaction among nurses. This also determined whether there was a relationship between availability and accessibility of PPEs, satisfaction of the nurses in the availability of PPEs, and satisfaction of nurses in the accessibility of PPEs.

This study employed a researcher-developed questionnaire checklist and the McCloskey/Mueller Nurse Job Satisfaction Scale (MMSS) to gather data. Respondents completed the questionnaires in person while adhering to health protocols. In addition, descriptive and inferential statistics were used to characterize the data and investigate correlations among variables.

Specifically, the following determined:

1. The availability of PPEs in a certain District Hospital in Iloilo Province.
2. The accessibility of PPEs in a certain District Hospital in Iloilo Province.
3. The Job satisfaction of respondents in the use of PPEs in terms of the availability and accessibility in a certain District Hospital in Iloilo Province.
4. Determine whether there was a significant relationship between the availability and accessibility of Personal Protective Equipment (PPEs) in a certain District Hospital in Iloilo Province.
5. Determine whether there was a significant relationship between the availability of Personal Protective Equipment (PPEs) and the Job satisfaction among respondents in the use of PPEs in a certain District Hospital in Iloilo Province.
6. Determine whether there was a significant relationship between the accessibility of Personal Protective Equipment (PPEs) and the Job satisfaction among respondents in the use of PPEs and in a certain District Hospital in Iloilo Province.

Data were gathered using a researcher-developed questionnaire checklist from 65 nurses from the different departments in a certain District Hospital in Iloilo Province. The data was evaluated with SPSS. Descriptive statistics (mean, frequency, percentages, standard deviation, and tables) as well as inferential statistics (Spearman's rho) were utilized.

The findings, conclusions, and recommendations are summarized in this chapter.

Summary of Findings

1. In particular, the majority of respondents, 89%, said there was availability of Personal Protective Equipment among 9 out of 10 respondents, indicating always being available within reach and having enough quantity when needed.
2. Specifically, the majority of the respondents on accessibility showed that 9 out of 10 (87%) find Personal Protective Equipment accessible, indicating as accessible.
3. The majority of respondents, 8 out of 10 (83%), expressed high satisfaction with the availability and accessibility of PPE. On the other hand, the job satisfaction regarding PPE availability and accessibility indicating very satisfied.
4. There existed a strong correlation between the availability and accessibility of PPEs, Hence, findings showed that the Spearman's Rank Correlation for the provided data, indicating a strong relationship between the availability and accessibility of Personal Protective Equipment (PPEs) within a certain district hospital in Iloilo Province.
5. There was a substantial strong correlation between the availability and job satisfaction regarding PPEs, which was statistically significant. Utilizing Spearman's Rank Correlation, the calculated coefficient for the given data which provided the relationship between the availability and job satisfaction of Personal Protective Equipment (PPEs) within a certain district hospital in Iloilo Province.

6. There was a strong correlation between the accessibility and job satisfaction associated with PPEs with a value of significance, utilizing the Spearman's Rank Correlation for the given data. Thus, emphasized the relationship between accessibility and job satisfaction concerning Personal Protective Equipment (PPEs) within a certain district hospital in Iloilo Province.

Conclusions

1. Nurses found that Personal Protective Equipment (PPE) was usually available at 89% when they needed it. PPE was typically within reach and there's an ample supply when required.
2. Nurses perceived Personal Protective Equipment (PPE) to be accessible at 87%. PPE was generally easy for them to obtain when needed.
3. Nurses expressed high satisfaction with the availability and accessibility of Personal Protective Equipment (PPE) at 83%. The job satisfaction concerning PPE availability and accessibility was notably high. Nurses were very satisfied with their use of PPE.
4. The availability influenced the accessibility of Personal Protective Equipment (PPE) within a specific district hospital under study. When PPE was readily available, it inherently became accessible to nurses, ensuring they could easily obtain the necessary protective gear to perform their duties safely.
5. The availability of Personal Protective Equipment (PPE) had a bearing on personnel job satisfaction in this specific district hospital under study. The availability of Personal Protective Equipment (PPE) directly influenced the job satisfaction levels of the nurses.

PPE being readily available contributed positively to their overall job satisfaction with their work environment. Conversely, limited access to PPE may lead to dissatisfaction among nurses.

6. The accessibility of Personal Protective Equipment (PPE) had influenced the nurses' job satisfaction in this district hospital of study. This correlation suggested that the accessibility of PPE directly impacts the job satisfaction levels of the nurses. When PPE was readily accessible, nurses were more confident in their workplace environment, which in turn contributed to their overall job satisfaction. Conversely, limited access to PPE may lead to lower levels of job satisfaction among hospital staff.

Recommendations

Based on the findings and conclusions of this study, the following are the recommendations:

1. **Hospital Purchasing Officers and PPE manufacturers.** Maintain the current level of availability and accessibility of Personal Protective Equipment (PPE) within healthcare facilities. This can be achieved by implementing a system for regular inventory checks to ensure that PPE stock levels are consistently monitored and replenished as needed, working closely with suppliers to ensure timely procurement of PPE, establishing clear communication channels between hospital purchasing officers and nurses to promptly address any concerns or issues regarding the availability of PPE, and conducting regular surveys or interviews with nurses to gather feedback on their experiences with obtaining

PPE. Additionally, improve distribution methods and logistics to ensure timely access during emergencies or spikes in demand.

2. **Quality Control Officers.** Maintain and further enhance the high satisfaction levels among nurses regarding the availability and accessibility of Personal Protective Equipment (PPE). This entails conducting regular assessments of PPE availability and accessibility to ensure continued satisfaction among nurses. Implementing feedback mechanisms, such as surveys or focus groups, can help gauge satisfaction levels and identify areas for improvement. Moreover, ensure clear communication channels for nurses to express concerns and suggestions regarding PPE.
3. **Hospital Administration and Nursing Administrators.** Prioritize ensuring consistent and sufficient availability of Personal Protective Equipment (PPE) for nurses. This can be achieved by establishing emergency stockpiles of essential PPE items to be utilized during crises or unexpected spikes in demand; thus, ensuring continuous protection for healthcare workers. Additionally, educating staff on strategies to conserve PPE without compromising safety, such as proper storage, disinfection, and judicious extended use of certain items when appropriate, is essential.
4. **Hospital Purchasing Officers and Quality Control Officers.** Explore alternative methods to ensure consistent and sufficient availability of Personal Protective Equipment (PPE) for all personnel, particularly nurses. This could involve forming partnerships with suppliers for timely deliveries, implementing a just-in-time inventory system to maintain optimal stock levels, investing in advanced PPE storage solutions to maximize space and

organization, and providing ongoing training sessions to staff on the importance of PPE conservation and proper usage.

5. **PPE manufacturers.** Improve the accessibility of Personal Protective Equipment (PPE) for all staff, especially nurses. This can be achieved by implementing measures such as ensuring adequate stock levels of PPE through regular monitoring and restocking, strategically placing PPE stations throughout the hospital for easy access, providing clear communication channels for reporting shortages or issues with PPE accessibility, and conducting regular training sessions to educate staff on the importance of PPE utilization and maintenance.
6. **Future researchers.** Employ a larger sample size, incorporating diverse population groups, and utilizing other types of questionnaire formats are recommended for enhancing comprehension of the phenomenon under investigation. Additionally, conducting a quantitative study that compares the availability, accessibility, and job satisfaction associated with the utilization of Personal Protective Equipment (PPEs) in both private and public hospital settings could yield valuable insights. Moreover, exploring correlations between demographic data and departmental affiliations variables warrants further investigation.

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APPENDICES

INFORMED CONSENT

Research Title: Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province

NAME OF PRINCIPAL INVESTIGATORS: Ortega, TA., Pabiona, JF., Paclibar, W., Padres, DA., Padernal, R., Pagmanoja, JM.

This Informed Consent Form has two parts:

I. Information Sheet

II. Certificate of Consent

I. INFORMATION SHEET

Introduction

The authors of the study will conduct a Descriptive Correlational Study about Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province

Purpose of the Study

This study aims to determine the relationship between the availability, accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province

Specifically, this study aims to determine:

1. The availability of PPEs in a certain District Hospital in Iloilo Province.
2. The accessibility of PPEs in a certain District Hospital in Iloilo Province.
3. The Job satisfaction of respondents in the use of PPEs in terms of the availability and accessibility in a certain District Hospital in Iloilo Province.
4. Determine whether there is a significant relationship between the availability and accessibility of Personal Protective Equipment (PPEs) in a certain District Hospital in Iloilo Province.
5. Determine whether there is a significant relationship between the availability of Personal Protective Equipment (PPEs) and the Job satisfaction among respondents in the use of PPEs in a certain District Hospital in Iloilo Province.
6. Determine whether there is a significant relationship between the accessibility of Personal Protective Equipment (PPEs) and the Job satisfaction among respondents in the use of PPEs and in a certain District Hospital in Iloilo Province.

Type of Research Intervention

This study will also utilize questionnaires to collect data through a researcher-made questionnaire checklist to be accomplished by the respondents face-to-face while observing health protocols.

The Respondents

Data will be collected through hard copy questionnaires which will be accomplished by the respondents face to face while observing health protocols. Prior to the access of the questionnaire, an informed consent will be indicated and the respondents will be asked to sign or attach their signature. The respondents of this study will be gathered without coercion and were informed about their rights to refuse and withdraw from the research study. The responses will be encoded by the researchers after the collection of questionnaires.

Procedure

This study will also utilize questionnaires to collect data through a researcher-made questionnaire checklist to be accomplished by the respondents face-to-face while observing health protocols.

Duration

This study may take an estimated time of 5 to 10 minutes in gathering data from a researcher-made survey.

Risk

This study may ask about the psychosocial aspect of the respondents which may be a sensitive or personal topic for them.

Benefits

This study could possibly benefit the respondents, which are the nurses, so that they can finally be able to raise awareness of how important it is for Personal Protective Equipment to always be Available, Accessible, and have good quality in every hospital.

Reimbursement

The respondents will not be given any amount or token for participating in the study.

Confidentiality

Responses will be shared with respondents, it will be kept strictly confidential and will not be shared with anyone as it will be used for research purposes only. Numbers are used in place of the respondent's name to protect anonymity and data protection. Once the research is completed, the completed survey is safely stored by the researcher. These research materials will be disposed of once the research results have been disseminated by the researchers.

Sharing of Results

The information in this study will be disseminated after analysis, interpretation and revision of the study. Respondent confidentiality and anonymity are preserved by not using the respondent's name when discussing results. Respondents can view the results of surveys conducted at their convenience. All the results of the research you are involved in will be provided. We will also notify you in a timely manner as information becomes available.

Participants' Rights to Refuse and Withdraw

Participation of respondents is completely voluntary and they can withdraw from the study at any time.

Who to contact

The respondents can contact the main researcher, Ms. Thea Alessandra V. Ortega at 09159445901 or through theaalessandra.ortega-20@cpu.edu.ph for any concerns and s regarding the study.

II. CERTIFICATE OF CONSENT

INFORMED CONSENT

I understand that I am being asked to participate in a research study with the title: Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province. If I agree to participate in this study, I will

be able to express my experiences in a researcher-made survey. No identifying information will be included. I understand that I will not be given any amount or token for participating in the study. I realize that the knowledge gained from this study may help either me or the organization that the study pertains to. I realize that my participation is entirely voluntary and I may withdraw from the study anytime I wish. If I decide to discontinue my participation, I will be treated in a casual and customary fashion. I understand that all study data will be kept confidential. However, information may be used in publications or presentations. This study has been explained to me. I have read and understood this consent form, all of my queries has been answered and I agree to participate.

I understand that I will be given a copy of this signed consent form.

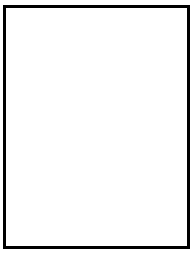
I have read the foregoing information, or it has been read to me. I have had the opportunity to ask s about it and any s I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Print Name of Participant: _____

Signature of Participant: _____

Date: [MM/DD/YYYY]

Thumb print of participant:



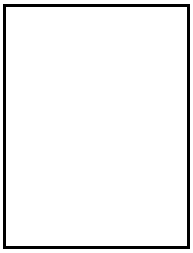
I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask s. I confirm that the individual has given consent freely.

Print Name of witness: _____

Signature of Participant: _____

Date: [MM/DD/YYYY]

Thumb print of participant:



STATEMENT BY THE RESEARCHER OR PERSON TAKING CONSENT

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:

1.
2.
3.

I confirm that the participant was given an opportunity to ask s about the study, and all the s asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this Informed Consent Form has been provided to the participant.

Print Name of Researcher or person taking the consent

_____

Signature of Researcher or person taking the consent

_____

Date: <MM/DD/YYYY>

INTERVIEW SCHEDULE GUIDE

I. Opening

A. (Establish Rapport) Good morning/Good afternoon ma'am/sir. We are the students of Central Philippine University College of Nursing. We would like to conduct a study entitled Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province.

B. (Purpose) We would like to ask you some s about the Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province.. We will provide you survey questionnaires about the said study.

C. (Motivation) I hope to use this information to help determine the availability, accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province. The shared information will be kept confidential.

D. (TimeLine) The questionnaire should take about a maximum of 10 minutes to complete. Are you available to answer anytime?

(Transition: If yes, provide the questionnaire to the respondents)

II. Body

III. Closing

A. (Maintain Rapport) We appreciate the time you took for answering the questionnaire. Is there anything else you want to ask or clarify?

B. (Action to be taken) We have all the information we need. You can contact us anytime if you have any more s. Thank you.

DUMMY TABLE

	f	%
AVAILABILITY OF PPEs		
Always being available		

within reach and having enough quantity when needed		
Sometimes being within reach and having enough quantity when needed		
not always being within reach and not having enough quantity when needed		

ACCESSIBILITY OF PPEs		
Easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request		
Easy to procure but not readily available, acquired between 6 to 16 minutes upon request		
Difficult to procure and not readily accessible, acquired in more than 17 minutes or within a few days		

JOB SATISFACTION WITH PPEs		
I am satisfied with the current availability of PPE in my hospital during the COVID-19		
I am satisfied with the current accessibility of PPE by health professionals in my hospital		
I am satisfied that the		

correct PPE (as recommended by WHO) is always available to me when managing suspected or confirmed COVID-19 patient in my hospital		
I am satisfied that the correct PPE (as recommended by WHO) is always available to me when treating non-COVID-19 patients in my hospital.		

Appendix B

Questionnaire

Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province

(QUESTIONNAIRE)

PART I. Profile of the Respondents

(Instructions)

A. Name:
Optional

B. Age:

C. Sex:
__ **(a)** Male
__ **(b)** Female

D. Civil Status
__ **(a)** Married
__ **(b)** Single

E. Department
__ **(a)** COVID Triage
__ **(b)** DR/OR
__ **(c)** Station 1 (Medical Surgical/Private Rooms)
__ **(d)** Station 2 (OB/Pedia)
__ **(e)** Station 3 (Infectious cases)
__ **(f)** OPD
__ **(g)** ER

PART II. AVAILABILITY OF PPEs

Instructions: Kindly indicate how often the personal protective equipment is available in each department of the hospital.

	Indicate the availability of the following:	3 (Always being available within reach and having enough quantity when needed)	2 (Sometimes being within reach and having enough quantity when needed)	1 (Not always being within reach and not having enough quantity when needed)
1	Protective masks			
2	Gowns			
3	Gloves			
4	Surgical Cap			
5	Face Shields			

PART III. ACCESSIBILITY OF PPEs

Instructions: Kindly indicate how often the personal protective equipment is accessible in each department of the hospital.

	Indicate the accessibility of the following:	3 (Easy to procure and readily accessible, acquired in less than 5 minutes immediately upon request)	2 (Easy to procure but not readily accessible , acquired between 6 to 16 minutes upon request)	1 (Difficult to procure and not readily accessible, acquired in more than 17 minutes or within a few days)
1	Protective masks			
2	Gowns			

3	Gloves			
4	Surgical Cap			
5	Face Shields			

PART IV. JOB SATISFACTION WITH PPEs

Instructions: Kindly indicate the efficacy of the quality of Personal Protective Equipment in each department of the hospital.

	Indicate the Job Satisfaction of the following:	**Extremely Satisfied (5)**	**Very Satisfied (4)**	**Satisfied (3)**	**Dissatisfied (2)**	**Very Dissatisfied (1)**
1	I am satisfied with the current availability of PPE in my hospital during the COVID-19					
2	I am satisfied with the current accessibility of PPE by health professionals in my hospital					
3	I am satisfied that the correct PPE (as recommended by WHO) is always available to me when managing suspected or confirmed COVID-19 patient in my hospital					
4	I am satisfied that the correct PPE (as recommended by WHO) is always available to me when treating non-					

COVID-19 patients in my hospital.					

Thank You

Appendix C

Central Philippine University
College of Nursing
Jaro, Iloilo city

CERTIFICATION OF RESEARCH INSTRUMENT VALIDATION
(QUANTITATIVE RESEARCH)

This is to certify that the study entitled: **Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province**, has undergone instrument validation. Necessary changes have been checked and approved.

This certification is issued upon the request of the authors: **Thea Alessandra Ortega V. Ortega, Joana Fren P. Pabiona, Wylah M. Paclibar, Dannah Alyzza D. Paderes, Regilen B. Padernal, and Jessa Mae S. Pagmanoja.**

As an expert of this subject, I have reviewed the instruments and its contents as to its appropriateness and accuracy based on the problem statement, objectives, conceptual framework, and operational definition of terms.

Issued this 17 day of June, 2023 to the above mentioned student researchers in compliance with their requirements in their research subject.

Respectfully,

Rona L. Idemne

Validator
(Printed Name and Signature)

Central Philippine University
College of Nursing
Jaro, Iloilo city

CERTIFICATION OF RESEARCH INSTRUMENT VALIDATION
(QUANTITATIVE RESEARCH)

This is to certify that the study entitled: **Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province**, has undergone instrument validation. Necessary changes have been checked and approved.

This certification is issued upon the request of the authors: **Thea Alessandra Ortega V. Ortega, Joana Fren P. Pabiona, Wylah M. Paclibar, Dannah Alyzza D. Paderes, Regilen B. Padernal, and Jessa Mae S. Pagmanoja.**

As an expert of this subject, I have reviewed the instruments and its contents as to its appropriateness and accuracy based on the problem statement, objectives, conceptual framework, and operational definition of terms.

Issued this 17 day of June, 2023 to the above mentioned student researchers in compliance with their requirements in their research subject.

Respectfully,

Dr. Raymund H. Partisala
Validator
(Printed Name and Signature)

Central Philippine University
College of Nursing
Jaro, Iloilo city

CERTIFICATION OF RESEARCH INSTRUMENT VALIDATION
(QUANTITATIVE RESEARCH)

This is to certify that the study entitled: **Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province**, has undergone instrument validation. Necessary changes have been checked and approved.

This certification is issued upon the request of the authors: **Thea Alessandra Ortega V. Ortega, Joana Fren P. Pabiona, Wylah M. Paclibar, Dannah Alyzza D. Paderes, Regilen B. Padernal, and Jessa Mae S. Pagmanoja.**

As an expert of this subject, I have reviewed the instruments and its contents as to its appropriateness and accuracy based on the problem statement, objectives, conceptual framework, and operational definition of terms.

Issued this 17 day of June, 2023 to the above mentioned student researchers in compliance with their requirements in their research subject.

Respectfully,

AMIE B. TORRES
Validator
(Printed Name and Signature)

Appendix D

Central Philippine University
Jaro, Iloilo City
College of Nursing
The First Nursing School in the Philippines, 1906
Bachelor of Science in Nursing

ENDORSEMENT SHEET FOR ETHICS REVIEW

(Technical Panel Approval Sheet)

This undergraduate thesis proposal entitled **Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province,** prepared and submitted by **Thea Alessandra Ortega V. Ortega, Joana Fren P. Pabiona, Wylah M. Paclibar, Dannah Alyzza D. Paderes, Regilen B. Padernal, and Jessa Mae S. Pagmanoja,** in partial fulfillment of the requirements for the degree of BACHELOR OF SCIENCE IN NURSING, has been presented in a Proposal Review on **March 24, 2023**.

Further, the suggestions and recommendations of the technical panel have been complied with.

This proposal is now recommended for ethical review.

	Panelist	
	SARLA F. DULLER, PhD, MN, RN, NP	
	Panelist	
	Prof. Orlan Defensor Balano	
	Panelist	
	Dr. Alvin John H. Gustilo, MAN	
	Approved by:	
	Melba C. Sale, MAN, RN	
	Dean, College of Nursing	

Appendix E

REVIEW, CONTINUING EDUCATION and CONSULTANCY CENTER
Central Philippine University
Jaro, Iloilo City
Tel. No. 329-1971 local 1008 email: rceccsec@cpu.edu.ph
Website: rcecc.cpu.edu.ph

March 17, 2023

C E R T I F I C A T I O N

This is to certify that the research proposal entitled **"AVAILABILITY, ACCESSIBILITY, AND QUALITY OF PPES DURING THE COVID-19 PANDEMIC IN A HOSPITAL IN ILOILO CITY"** by **Ortega, Thea Alessandra, Pabiona, Joana Fren, Paclibar, Wylah, Paderes, Dannah, Padernal, Regilen** and **Pagmanoja, Jessa Mae** has undergone Turnitin Similarity Checking with a passing percentage of **20%** and have passed the requirements (Chapter 1-3).

Prepared by:

PINKY E. LUTERO-TONGOL
Staff -in-charged

Approved by:

LENNY ROSE P. MUCHO, EdD.
Director, RCECC

CENTRAL PHILIPPINE UNIVERSITY
REVIEW, CONTINUING EDUCATION and CONSULTANCY CENTER
Jaro, Iloilo City
Tel. No. 329-1971 local 1008 email: rceccsec@cpu.edu.ph
Website: rcecc.cpu.edu.ph

June 14, 2024

CERTIFICATION

This is to certify that the paper entitled **"Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID- 19 Pandemic in a Hospital in Iloilo Province"** by **Thea Alessandra V. Ortega, Joana Fren P. Pabiona, Wylah M. Paclibar, Dannah Alyzza D. Paderes, Regilen B. Padernal, and Jessa Mae S. Pagmanoja** had undergone Turnitin Similarity Checking with a passing percentage of 10% and had passed the requirements (Chapters 1-5).

Prepared by:

PINKY LUTERO-TONGOL
Staff-in-charge

Appendix F

RESEARCH ETHICS REVIEW BOARD
CENTRAL PHILIPPINE UNIVERSITY
Lopez Jaena St., Jaro, Iloilo City, Philippines
329-1971 to 79 local 3336

ETHICAL CLEARANCE

RERB Form No.22-2
Version No.: 04
Date of Effectivity: 17 May 2023

Date of Approval: October 18, 2023

RERB Code: 2023-316-UG-ORTEGA et al.

Protocol Title: *"AVAILABILITY, ACCESSIBILITY, AND JOB SATISFACTION OF NURSES WITH PPES DURING THE COVID-19 PANDEMIC IN A HOSPITAL IN ILOILO PROVINCE"*

Version No. 02

Researcher/s: **ORTEGA, THEA ALESSANDRA**
PABIONA, JOANA FREN
PACLIBAR, WYLAH
PADERES, DANNAH ALYZZA
PADERNAL, REGILEN
PAGMANOJA, JESSA MAE

Upon resubmission of the following documents, Research Proposal *Chapters 1, 2, and 3 with* references and Informed Consent Form, the above protocol is hereby **APPROVED** *by the CPU-*RERB. This ethical clearance is valid from **October 18, 2023** to **October 18, 2024.**

The researcher/s are hereby required to submit the following:

√ Progress Report on or before **November 18, 2023** to researchethics@cpu.edu.ph
√ Final Report Form and one (1) copy of the completed protocol **within one (1) month** after completion of the study.

For any amendment or alteration in the protocol that will change the nature, or the level of risk involved after approval, the Research Ethics Review Board must be notified through writing and accomplishing the following forms as needed: Protocol Deviation Form, Serious Adverse Events, Amendment Form, and/or Early Termination Report.

Very truly yours,

JOY G. RASO, PhD.
Chair, CPU-RERB

Date: 10/18/2023

Appendix G

CENTRAL PHILIPPINE UNIVERSITY
COLLEGE OF NURSING
(The First Nursing School in the Philippines)
5000 Iloilo City, Philippines

January 18, 2024

HON. ARTHUR R. DEFENSOR JR.
Governor
Province of Iloilo

THRU: **PAZ V. CALOPIZ, M.D., M.P.A., FICS**
Provincial Government Department Head
Hospital Management Office

Dear Governor Defensor,

I hope this letter finds you well. We, the researchers namely **THEA ALESSANDRA V. ORTEGA, JOANA FREN P. PABIONA, WYLAH M. PACLIBAR, DANNAH ALYZZA D. PADERES, REGILEN B. PADERNAL,** and **JESSA MAE S. PAGMANOJA**, fourth year nursing students of Central Philippine University, kindly request your permission to conduct a pilot testing for our research study entitled "**AVAILABILITY**, **ACCESSIBILITY, AND JOB SATISFACTION OF NURSES WITH PPES DURING THE COVID-19 PANDEMIC IN A HOSPITAL IN ILOILO PROVINCE**" at the **RAMON D. DUREMDES DISTRICT HOSPITAL**, Dumangas, Iloilo

Our research study aims to determine the relationship between the availability, accessibility, and job satisfaction of nurses with PPEs in a selected district hospital located in Iloilo Province during the COVID 19 pandemic. By gathering data from the nurses at the Ramon D. Duremdes District Hospital, we hope to contribute valuable insights that can enhance job satisfaction and overall well-being of our healthcare professionals.

We assure you that all ethical considerations will be strictly adhered to, and the privacy, confidentiality, and well-being of the respondents will be maintained throughout the study. The research team will utilize a well-structured questionnaire to collect the necessary data.

Looking forward to your favorable action on this request.

Thank you.

Sincerely yours,

THEA ALESSANDRA V. ORTEGA
Research Group Leader

Appendix H

CENTRAL PHILIPPINE UNIVERSITY
COLLEGE OF NURSING
(The First Nursing School in the Philippines)
5000 Iloilo City, Philippines

RECEIVED
OFFICE OF THE GOVERNOR
HON. ARTHUR R. DEFENSOR JR.
Date: MAR 12 2024
Time: 2:45 PM
Received by: REMZ

March 12, 2024

HON. ARTHUR R. DEFENSOR JR.
Governor
Province of Iloilo

THRU: **PAZ V. CALOPIZ, M.D., M.P.A., FICS**
Provincial Government Department Head
Hospital Management Office

Dear Governor Defensor,

I hope this letter finds you well. We, the researchers namely **THEA ALESSANDRA V. ORTEGA, JOANA FREN P. PABIONA, WYLAH M. PACLIBAR, DANNAH ALYZZA D. PADERES, REGILEN B. PADERNAL,** and **JESSA MAE S. PAGMANOJA**, fourth year nursing students of Central Philippine University, kindly request your permission to conduct a survey for our research study entitled **"AVAILABILITY, ACCESSIBILITY, AND JOB SATISFACTION OF NURSES WITH PPES DURING THE COVID-19 PANDEMIC IN A HOSPITAL IN ILOILO PROVINCE"** at the **DON VALERIO PALMARES SR. MEMORIAL DISTRICT HOSPITAL**, Passi City, Iloilo.

Our research study aims to determine the relationship between the availability, accessibility, and job satisfaction of nurses with PPEs in a selected district hospital located in Iloilo Province during the COVID 19 pandemic. By gathering data from the nurses at the Don Valerio Palmares Sr. Memorial District Hospital, we hope to contribute valuable insights that can enhance job satisfaction and overall well-being of our healthcare professionals.

We assure you that all ethical considerations will be strictly adhered to, and the privacy, confidentiality, and well-being of the respondents will be maintained throughout the study. The research team will utilize a well-structured questionnaire to collect the necessary data.

Looking forward to your favorable action on this request.

Thank you.

Sincerely yours,

THEA ALESSANDRA V. ORTEGA
Research Group Leader

Appendix I

Central Philippine University
Jaro, Iloilo City

STATISTICIAN'S CERTIFICATION

This is to certify that this research study entitled, AVAILABILITY, ACCESSIBILITY, AND JOB SATISFACTION OF NURSES WITH PPES DURING THE COVID-19 PANDEMIC IN A HOSPITAL IN ILOILO PROVINCE and submitted by Thea Alessandra V. Ortega, Joana Fren P. Pabiona, Wylah M. Paclibar, Dannah Alyzza D. Paderes, Regilen B. Padernal, and Jessa Mae S. Pagmanoja for the degree of Bachelor of Science in Nursing is certified to have undergone statistical analysis and reviewed by the undersigned.

Issued this 8th day of April 2024, Central Philippine University, Jaro, Iloilo City, Philippines.

MR. JOHN LORD M. AGUSTINO
Statistician

Appendix J

COLLEGE OF ARTS AND SCIENCES
CENTRAL PHILIPPINE UNIVERSITY
Department of Languages, Mass Communication and Humanities

CERTIFICATION

This is to certify that the research study entitled **AVAILABILITY, ACCESSIBILITY, AND JOB SATISFACTION OF NURSES WITH PPEs DURING THE COVID-19 PANDEMIC IN A HOSPITAL IN ILOILO PROVINCE** by *Ortega, T.A., Pabiona, J.F., Paclibar, W., Paderes, D.A., Padernal, R., and Pagmanoja, J.M.* was checked for grammar and other mechanics of writing.

Issued this 7th of June, 2024.

Asst. Prof. Kerwin G. Luntao
Faculty

Appendix K

	CENTRAL PHILIPPINE UNIVERSITY RESEARCH ETHICS REVIEW BOARD Lopez Jaena St., Jaro, Iloilo City, Philippines 329-1971 to 79 local 3336	
PROTOCOL REVIEW OF PROGRESS REPORT		RERB Form No. 09-1 Version No. 01 Date of Effectivity: 17 May 2023

INSTRUCTIONS TO THE RESEARCHER/s:
This form is required thirty (30) days after your Data Collection. Obtain an electronic copy of this form and supply All information required in the space provided. This form shall be signed by the researcher and adviser before submission to researchethics@cpu.edu.ph

GENERAL INFORMATION

Title of Study	Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province		
RERB Code:	2023-316-UG-ORTEGA et al.	Study Site	Don Valerio Palmares Sr. Memorial District Hospital, Passi, Iloilo
Name of Researcher	Ortega, Thea Alessandra V. Pabiona, Joana Fren P. Paclibar, Wylah M. Paderes, Dannah Alyzza D. Padernal, Regilen B. Pagmanoja, Jessa Mae S.		
Contact No.	09159445901	Email Address	theaalessandra.ortega@cpu.edu.ph
Co-researcher (if any)	NONE		
Institution	Central Philippine University		
Address of Institution	Lopez Jaena, St., Jaro, Iloilo City		
Ethical clearance effectivity period:	October 18, 2023 to October 18, 2024		

PROGRESS REPORT

1. Start of study: November 2022
2. Expected end of study: May 2024
3. Number of enrolled participants: 66
4. Number of required participants: 66
5. Number of participants who withdrew: None
6. Deviations from the approved protocol: None

7. New information (literature or in the conduct of the study) that may significantly changethe risk-benefit ratio: None
8. Issues/problems encountered: None

Recommendations (For RERB use only)	
DECISION: (For RERB use only)	[☐] Ask for further information [☐] Noted and Accept report
Comments of Primary Reviewer (For RERB use only)	

RERB Primary Reviewer: *(For RERB use only)*

_____
Signature over Printed Name

Date:

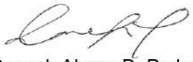
Researcher/s:

Thea Alessandra Ortega
Signature Over Printed Name
Date: June 10, 2024

Joana Fren P. Pabiona
Signature Over Printed Name

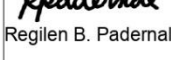
Date: June 10, 2024

Wylah M. Paclibar
Signature Over Printed Name
Date: June 10, 2024



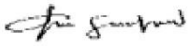
Dannah Alyzza D. Paderes

Signature Over Printed Name
Date: June 10, 2024



Regilen B. Padernal

Signature Over Printed Name
Date: June 10, 2024



Jessa Mae S. Pagmanoja

Signature Over Printed Name
Date: June 10, 2024

Adviser:

Betty T. Polido MAN, MEd, EdD
Signature Over Printed Name

Date: June 10, 2024

Appendix L

RESEARCH ETHICS REVIEW BOARD
CENTRAL PHILIPPINE UNIVERSITY
Lopez Jaena St., Jaro, Iloilo City, Philippines
329-1971 to 79 local 3336

RESUBMISSION FORM	RERB Form No. 08-1
	Version No. 03
	Date of Effectivity: 17 May 2023

INSTRUCTION TO THE RESEARCHER/s: *This form shall be filled-out by the researcher upon receipt of the Decision form. Obtain an electronic copy of this form and provide the information required in the space provided. This form shall be signed by the researcher and adviser before submission to rec-resubmission@cpu.edu.ph*

GENERAL INFORMATION			
Title of the Study	Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province		
Version number/Date	2 / October 12, 2023		
RERB Code	2023-316-UG-ORTEGA et al.	Study Site:	Don Valerio Palmares Sr. Memorial District Hospital, Passi, Iloilo
Name of Researcher	Ortega, Thea Alessandra V.	Contact Information	Tel No. N/A Mobile No. 09159445901 Fax No. N/A Email: theaalessandra.ortega-20@cpu.edu.ph
Co-researcher (if any)	Pabiona, Joana Fren P. Paclibar, Wylah M. Paderes, Dannah Alyzza D. Padernal, Regilen B. Pagmanoja, Jessa Mae S.		
Institution of researcher/s	Central Philippine University		
Address of Institution	Lopez Jaena Street, Jaro Iloilo City		

RERB Recommendations	**Response of Researcher**	**Section and page number of revisions**
1. On your questionnaire Part IV: Job satisfaction McCloskey/Mueller Job Satisfaction Scale (MMSS) if there is modification please ask permission from the authors and submit certificate to the RERB office	➢ No modifications were done to the questionnaire. A certificate asking for permission to the authors would not be necessary. Reference stated accordingly.	
2. Include the duration of the study in the scope and limitation please based this in your GANTT chart	➢ The duration of the study was included in the scope and limitation of the study, based on the updated GANTT chart.	Page 15
3. How do you come up with 66 respondents? What is your sampling design	➢ The process for coming up with the 66 respondents was comprehensively explained with the sampling design included.	Page 15

4. Explicitly state your inclusion and exclusion criteria in the study population section	➢ Explicit inclusion and exclusion criteria in the study population was provided.	Page 24

5. Revise the Ethical consideration section. It should be written after Research Instrument. The following is the content of Ethical Consideration, discuss as a sub-paragraph.		
a) Seeking approval from the RERB office and other related offices/institutions – prior to the conduct of the study	➢ Seeking approval from the RERB office and other related offices/institutions prior to the conduct of the study stated.	Page 27
b) Risk Assessment – identify research-related risk based on the following categories: (negligible, low, minimal, more than minimal, and high risk) and discuss how to mitigate the identified risk	➢ Identified research-related risk and categorized risk as minimal. Ways to mitigate the identified risk were placed.	Page 28
c) Benefits assessment – should be summarized to make it more comprehensive to your respondents	➢ Benefits assessment summarized comprehensively.	Page 29
d) Withdrawal criteria of participants – state withdrawal criteria	➢ Withdrawal criteria provided.	Page 30
e) Anonymity and confidentiality of participants / respondents – discuss how to anonymize & keep the confidentiality of your respondents	➢ Anonymity and Confidentiality of participants / respondents were provided. o Ensured participants were provided with a guarantee of data confidentiality for the research's stated objectives. o Enforced the meticulous removal of personally identifiable information from the gathered data. o Implemented rigorous security protocols to uphold the utmost privacy and prevent any unauthorized access or disclosure.	Page 32
f) Voluntary, non-coercive recruitment of participants/respondents – provide statement on voluntary & non-coercive recruitment	➢ Voluntary, non-coercive recruitment of participants/respondents were provided. o Participation of respondents in the study is entirely voluntary. o Participants have the freedom to refuse participation or withdraw at any stage. o Adherence to ethical research guidelines ensuring non-coercive recruitment.	Page 33
g) Disposal of research materials / data – discuss how to dispose research materials	➢ Disposal of research materials / data provided o Research materials will be disposed of after study results dissemination. o Digital data stored exclusively on a computer accessible to researchers. o Physical copies securely stored in a locked cabinet, accessible only to researchers. o Collected data retained until	Page 33

	research analysis is complete and no longer needed. o Secure deletion of data after researchers no longer require it.	
h) Contribution to local capacity building and benefits to local communities – discuss possible contribution of your study	➢ Contribution to local capacity building and benefits to local communities were provided. o Empowers local healthcare facilities and professionals to make informed decisions regarding PPE procurement and utilization. o Optimized resource allocation ensures safety of medical staff and enhances overall efficiency of healthcare services. o Prompts establishment of consistent and reliable channels for nationwide PPE distribution by policy-making bodies like the Department of Health (DOH). o Research findings act as a foundational understanding for future research initiatives.	Page 33
i) Incentives or compensation for participants – provide statement on giving incentives	➢ Incentives or compensation for participants is not provided as no such rewards are set or offered.	Page 35
j) Disclosure or declaration of potential conflict of interest – provide statement on declaration of potential conflict of interest	➢ Statement on declaration of potential conflict of interest is provided. o Participants will receive the research questionnaires with full and impartial disclosure. o Transparency regarding the data, and any unexpected conflicts will be meticulously examined. o The data collected will be critically and independently explored and systematically analyzed. o The researchers' dedication to impartiality and integrity underscores the study's commitment to producing accurate and unbiased results.	Page 35
6. Will the results of the study be shared to others? Provide section for dissemination plan	➢ A section for the dissemination plan is provided. o Results of this study will be shared following a thorough process involving analysis, interpretation, and revision o All research outcomes will be readily available and accessible to participants whenever they wish to review them, ensuring transparency and openness. o The results are for research purposes with the knowledge that it will be prevented from dissemination outside of the research context or to unauthorized persons. o Transparency and participant welfare underscores the researchers commitment to ethical research practices.	Page 36

6. Provide separate section for Validity of the Questionnaire describe the validity of the questionnaire. The questionnaire should be submitted to a panel of at least three experts for content validation	➢ A separate section for validity of the questionnaire and its description are provided o A panel of three experienced nursing experts will meticulously validate them. o Each validator will receive a standardized validation sheet encompassing all questions and options within the questionnaire. Their evaluation will focus on assessing the questions' clarity and relevance concerning the study's objectives. o Validation process is a crucial step in ensuring the questionnaire's quality before it is administered to the respondents. o Expert assessment, involving detailed conceptualization and careful analysis, enhances the research study's credibility. o The iterative process guarantees that the study's instruments are refined and reliable, reinforcing the effectiveness and integrity of the research endeavor.	Page 36
7. Reliability of the questionnaire – explain where the questionnaire was administered for pilot-testing and discuss how many participants were involved in the pilot-testing to determine its reliability. Discuss and interpret the reliability of the coefficient. Explain why it was considered reliable and cite your reference (Author, year of publication)	➢ Explained further the details of the pilot-testing. o To assess the questionnaire's reliability, a pilot study will be conducted, involving 10% of the total population, which equates to 7 participants at a certain hospital in Iloilo Province. Importantly, these individuals will not be involved in the main study, ensuring that their responses do not influence the final results. o This sample size aligns with the standard recommended by experts like Whitehead, Julious, Cooper, and Campbell (2015), making the use of 7 participants in the pilot study appropriate and statistically valid. o The primary objective of the pilot study is to pinpoint potential issues within the questionnaire's design and structure that might necessitate modifications. By addressing these reliability concerns beforehand, the main research study can proceed more robustly. o In this pilot study, the focus will be on evaluating the consistency of the results. The assessment aims to determine how dependable and accurate the questionnaire is in eliciting the desired data and insights. This rigorous approach ensures the reliability of the instrument, paving the way for a more accurate and meaningful	Page 37

	research outcome.	
8. On your ICF:		
a) #4 how many parts does your questionnaire have and give a brief description	➢ Identified each part of the questionnaire and provided a brief description. o PART I will be the profile of the respondents. This includes the Name, Age, Sex, Civil Status, and the Department assigned. o PART II will be the start of the questionnaire proper where you will be asked on how often the personal protective equipment is available in your department of the hospital. o PART III is the second part of the questionnaire proper where you will be asked how often the personal protective equipment is accessible in your department of the hospital. o PART IV is the last part and the end of the questionnaire where you will be asked on the efficacy of the quality of personal protective equipment in each department.	Page 2
b) #7 give detailed procedure in data gathering	➢ Explained a detailed procedure in data gathering. o The McCloskey/Mueller Nurse Job Satisfaction Scale (MMSS) is a widely used tool designed to measure job satisfaction among nurses. Job satisfaction is an important aspect of the healthcare industry because it has a direct impact on the quality of patient care and the retention of nursing staff. Before implementing the McCloskey/Mueller Nurse Job Satisfaction Scale, obtain the consent of the participant. The researchers will ensure that you will understand the purpose of the survey and voluntarily consent to participate. The researchers will consider your schedules and workloads when deciding when to conduct the survey to avoid high-stress periods. Researchers then will explain the purpose and importance of the McCloskey/Mueller Nurse Job Satisfaction Scale (MMSS). The researchers highlight that your feedback will contribute to improving the study. The researchers will distribute the McCloskey/Mueller Nurse Job Satisfaction Scale (MMSS) to you in a paper format. You will be given time to read the instructions and respond to each item.	Page 4
c) #8 clarify this statement "gathering data from a	➢ Provided a more elaborate and concise statement.	Page 4

	researcher-made survey"	o When you begin the process of responding from the survey provided by the researchers, you can expect to have approximately 5 to 10 minutes allocated for this task. The estimated time frame of 5 to 10 minutes implies that you should aim to efficiently respond to the provided questionnaire within this specified duration. This timeframe has been set as a guideline to ensure that the data collection process remains reasonably brief and does not unduly burden you and fellow participants or disrupt your schedules. The specific duration within the 5 to 10-minute range may vary depending on the complexity of the survey, the number of questions, and the responsiveness of the participants. However, it is essential to manage your time effectively to maximize data collection efficiency while ensuring that you are comfortable and able to provide accurate and thoughtful responses.	
d)	#9 too long be specific as to how will you mitigate the identified risk. You may delete other statements	➢ how the identified risk will be mitigated. o Before participating in the study, each participant will receive detailed information about the research objectives, potential risks, benefits, and their rights as a participant. o Researchers must provide informed consent before any data collection takes place. All data collected will be treated confidentially, and participant identities will be kept anonymous. o Data will be stored securely with access restricted only to authorized researchers. After the data collection is complete, participants will have the opportunity to receive a debriefing that explains the purpose of the study and addresses any questions or concerns they may have. o Participants will have the right to withdraw from the study at any point without consequences. They will be informed of this right during the informed consent process.	Page 5
e)	#10 provide a comprehensive discussion as to who will benefit your study	➢ Comprehensive discussion as to who will benefit from the study provided. o This study offers significant benefits, including improved safety for healthcare workers, better patient care, and informed	Page 5

	decision-making for healthcare organizations and policymakers. This research can lead to better resource allocation, ensuring that nurses have adequate PPE to protect themselves and reduce the risk of infection.	
f) #16 provide a detailed plan as to how & to whom will you share your result	➢ A detailed plan as to how and to whom the results will be shared is provided. o Respondents can view the results of surveys conducted in their emails which will be collected on the day they answer the survey. The researchers will also set up a group chat for all the participants of the study where all research outcomes will be readily available and accessible to the participants. o The research study places a priority on making sure that participants' rights are protected to the maximum extent possible. It will be guaranteed that the results are for research purposes with the knowledge that it will be prevented from dissemination outside of the research context or to unauthorized persons.	Page 6
g) Remove instruction to researcher in the ICF after supplying the needed information	➢ Removed	

Researcher/s:

Thea Alessandra Ortega

Signature over Printed Name

Date: June 10, 2024

Adviser:

Betty T. Polido MAN, MEd, EdD

Signature over Printed Name

Date: June 10, 2024

Appendix M

CENTRAL PHILIPPINE UNIVERSITY
RESEARCH ETHICS REVIEW BOARD
Lopez Jaena St., Jaro, Iloilo City, Philippines
329-1971 to 79 local 3336

FINAL REPORT FORM	RERB Form No. 13-1
	Version No. 01
	Date of Effectivity: 17 May 2023

INSTRUCTIONS TO THE RESEARCHER/s:
This form is required upon completion of the study. Obtain an electronic copy of this form and supply all information required in the space provided. This form shall be signed by the researcher and adviser before submission to researchethics@cpu.edu.ph

GENERAL INFORMATION

RERB Code	2023-316-UG-ORTEGA et al.	Date (DD/MM/YYYY)	14/06/2024
Protocol Title	Availability, Accessibility, and Job Satisfaction of Nurses with PPEs During the COVID-19 Pandemic in a Hospital in Iloilo Province		
Principal Investigator/s	Ortega, Thea Alessandra V. Pabiona, Joana Fren P. Paclibar, Wylah M. Paderes, Dannah Alyzza D. Padernal, Regilen B. Pagmanoja, Jessa Mae S.		
Department/College	College of Nursing		
Contact No.	09159445901	*Email Address	theaalessandra.ortega@cpu.edu.ph
Co-investigator/s (if any)	NONE		
Contact No.		Email Address	
Institution of Researcher/s	Central Philippine University		
Address of Institution	Lopez Jaena, St., Jaro, Iloilo City		
Effective period of Ethical Clearance	From: October 18, 2023 To: October 18, 2024		
*(*for RERB)* Primary Reviewer/s			
Type of Study	☐ Clinical ☐ Epidemiology ☐ Observational study		
	☐ Document Review ☐ Individual based ☐ Genetic		
	☒ Social Survey ☐ Others, specify _____		
Review Status	☐ Full Board ☒ Expedited		

FINAL REPORT

1. Start/end of the Study: November 2022 – May 2024
2. Number of enrolled participants: 66
3. Number of required participants: 66

4. Number of participants who withdraw: None
5. Deviations from the approved protocol: None
6. Issues/problems encountered: None
7. Summary of findings:
    - In particular, the majority of respondents, 89%, said there was availability of Personal Protective Equipment among 9 out of 10 respondents, indicating always being available within reach and having enough quantity when needed.
    - Specifically, the majority of the respondents on accessibility showed that 9 out of 10 (87%) find Personal Protective Equipment accessible, indicating as accessible.
    - The majority of respondents, 8 out of 10 (83%), expressed high satisfaction with the availability and accessibility of PPE. On the other hand, the job satisfaction regarding PPE availability and accessibility indicating very satisfied.
    - There existed a strong correlation between the availability and accessibility of PPEs, Hence, findings showed that the Spearman's Rank Correlation for the provided data, indicating a strong relationship between the availability and accessibility of Personal Protective Equipment (PPEs) within a certain district hospital in Iloilo Province.
    - There was a substantial strong correlation between the availability and job satisfaction regarding PPEs, which was statistically significant. Utilizing Spearman's Rank Correlation, the calculated coefficient for the given data which provided the relationship between the availability and job satisfaction of Personal Protective Equipment (PPEs) within a certain district hospital in Iloilo Province.
    - There was a strong correlation between the accessibility and job satisfaction associated with PPEs with a value of significance, utilizing the Spearman's Rank Correlation for the given data. Thus, emphasized the relationship between accessibility and job satisfaction concerning Personal Protective Equipment (PPEs) within a certain district hospital in Iloilo Province.
8. Conclusions/Recommendations:

- Nurses found that Personal Protective Equipment (PPE) was usually available at 89% when they needed it. PPE was typically within reach and there's an ample supply when required.
- Nurses perceived Personal Protective Equipment (PPE) to be accessible at 87%. PPE was generally easy for them to obtain when needed.
- Nurses expressed high satisfaction with the availability and accessibility of Personal Protective Equipment (PPE) at 83%. The job satisfaction concerning PPE availability and accessibility was notably high. Nurses were very satisfied with their use of PPE.
- The availability influenced the accessibility of Personal Protective Equipment (PPE) within a specific district hospital under study. When PPE was readily available, it inherently became accessible to nurses, ensuring they could easily obtain the necessary protective gear to perform their duties safely.
- The availability of Personal Protective Equipment (PPE) had a bearing on personnel job satisfaction in this specific district hospital under study. The availability of Personal Protective Equipment (PPE) directly influenced the job satisfaction levels of the nurses. PPE being readily available contributed positively to their overall job satisfaction with their work environment. Conversely, limited access to PPE may lead to dissatisfaction among nurses.
- The accessibility of Personal Protective Equipment (PPE) had influenced the nurses' job satisfaction in this district hospital of study. This correlation suggested that the accessibility of PPE directly impacts the job satisfaction levels of the nurses. When PPE was readily accessible, nurses were more confident in their workplace environment, which in turn contributed to their overall job satisfaction. Conversely, limited access to PPE may lead to lower levels of job satisfaction among hospital staff.

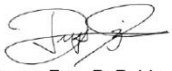
9. Actions for dissemination of study results:

   Access to the results of the study was allowed to respondents at their own choice.

Researcher/s:

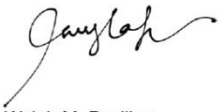
Thea Alesssandra V. Ortega

Signature Over Printed Name



Joana Fren P. Pabiona

Signature Over Printed Name



Wylah M. Paclibar

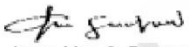
Signature Over Printed Name

Dannah Alyzza D. Paderes

Signature Over Printed Name

Regilen B. Padernal

Signature Over Printed Name



Jessa Mae S. Pagmanoja

Signature Over Printed Name

Date: June 14, 2024

Adviser:

Betty T. Polido MAN, Med, EdD

Signature Over Printed Name

Date: June 14, 2024

Appendix N

Schedule of Activities