

## **Infectious Diseases Prevention and Control Practices Among Healthcare Personnel**

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### **ABSTRACT**

The errand of infectious diseases prevention and control becomes extensively concerns and issues across the globe. These plays a momentous role in health care industry in providing high standard holistic and passionate patient care. More than a few, world organizations worked together to establish protocols and guidelines. Hence then, several mandates issued for the utmost adherence of healthcare facilities. The study aimed to assess and evaluate the practices of healthcare personnel compliance in infectious diseases prevention and control among selected hospitals in Pangasinan. Furthermore, it has an endeavor to test the hypothesis that there is no significant difference and relationship in the level of practices of healthcare personnel across their demographic profile.

The study utilized descriptive analytical cross-sectional quantitative method which involves three (3) hospitals namely: Manaoag Community Hospital, Mapandan Community Hospital, and Pozorrubio Community Hospital. The primary respondents are Physicians, Nurses, Midwives, Medical Technologist, Radiologic Technologist, Pharmacist, Institutional Workers, and Laundry Workers with N=123. Structured and semi-structured questionnaire as the research instrument was utilized. Frequency, Percentage, Average Weighted Mean, ANOVA, and Coded Pearson Product Correlation Coefficient applied as statistical data, analysis and basis for interpretation.

Findings revealed that the level of infectious diseases prevention and control practices among healthcare personnel depicted average practice with OWM=3.21, “Moderately Practiced.” There was no significant difference across the demographic profile of the respondents. More so, institutional compliance and discrepancies were found in the indicators as orientation on infection prevention and control has 72.36%, and attended training and workshop on infection prevention and control has 67.48%. the problems encountered with its level of seriousness has OWM=2.43, “Slightly Serious.”

Therefore, professionally matured helps policies and guidelines to maintain and uphold practices. Compliance noted with no profound concerns in infection prevention and control practices despite of limited equipment and resources and understaffing. Moreover, healthcare employees were encouraged to continue and kept abreast in education, training and workshops to maintain and enhance their skills and practices in infection prevention and control. A proposed

intervention plan is established to describe and resolve concerns to improve infection prevention and control practices among healthcare personnel.

**Keywords:** *Infection, Diseases, Infectious prevention and control, practices, healthcare personnel*

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## **Introduction**

The errand in infectious diseases prevention and control becomes widely known in the 19th century after discovering the link between microorganisms and infection. In 1970, the Center for Disease Control and Prevention (CDC) created and published guidelines on isolation techniques for hospitals and subsequently updated them in 1975 with the same concept of use. In 1983, guidelines for hospital isolation precaution were established, focusing on the two (2) isolation systems: category-specific and disease-specific. During the epidemic of HIV/ AIDS from 1985 to 1988, the introduction and initiation of universal precautions to contain a section on blood and body fluids precautions and other recommendations on handling needles and other sharps devices causing injuries. This concept followed by the OSHA Rules in occupational exposure to blood-borne pathogens.

Hospital-acquired infection is a global public health concern that causes morbidity and mortality significantly. Expose healthcare personnel to pathogens such as blood and body fluids that potentially caused harm and affect health services and prolonged hospital stay among patients. The in-effectivity of containing infectious diseases from spreading and transmitting is due to a lack of appropriate awareness and compliance to practice and guidelines. The prime worldwide organization, World Health Organization (WHO) and Center for Disease Control and Prevention (CDC) created and established standards in infectious diseases prevention and control in collaboration and adhered to by other national and international organizations like Occupational Safety and Health Administration (OSHA). Environmental agencies subsequently disseminated and implemented through a mandate and compliance.

Likewise, the Department of Health has a strong determination in implementing policies on infectious diseases prevention and control from national down to local government health facilities. The active participation in local organizations like Philippine Hospital Infection Control Society (PHICS) and the Philippine Hospital Infection Control Nurses Association (PHICNA) brings up-to-date information on the proper way of performing and containing the infection. Information dissemination is paramount to provide education and awareness not only for the healthcare worker but also with the patients and relatives and the community. The broader the scope of providing education and awareness, create a positive impact to prevent and control infectious diseases from spreading.

To contain the spread of hospital-acquired infections requires strict adherence to infectious disease prevention and control practices of healthcare personnel. Policies and guidelines were sternly implemented wherein staff audits, and clinical audits are mandated to determine the compliance of the health care personnel since these are mandatory requirements and instructions. Nevertheless, the possibility of acquiring and transmitting hospital-acquired infections is ridiculously evident.

It is in this context of the considerations that the researcher decides to conduct this study to assess and evaluate the healthcare personnel compliance in infectious diseases prevention and control practices due to the noted incidence of cases acquired through cross-infection, and some staff fails to conform and observe pertinent rules and procedures in patient handling and safety. The knowledge of such will serve as an eye-opener not only to the frontline healthcare personnel but also to the hospital administration and management on how to respond, prevent, and control infectious diseases from spreading and invading others.

### **Literature Review**

We can acquire infection in various ways, and it exists elsewhere in the environment, whether it can be air, water, persons, animals, and things. These are microscopic organisms contain disease-causing agents which invades humans in the form of virus, bacteria, fungi, protozoa, and parasites. It further defines as expropriation and multiplication of the microorganism to the human body, causing disease and the toxins they produce. The sequelae of infectious diseases link the representation of one of the factors involved in a process. These links are (1) the causative agent, which must be of sufficient number and degree of virulence to destroy the normal tissue; (2) reservoirs of the organisms which microorganism can thrive and multiply; (3) portal exit of the pathogen the respiratory tract, intestinal tract, urinary system, and skin cuts and lesions; (4) mode of transfer such as hands, vectors, vermin, fomites and other ways and means by which pathogens can move from one place or person to another; (5) entry point of the pathogen that can enter the body of; (6) susceptible host, which immune system is compromised or diminished that microorganism can harbor and grow and increase its virulence to cause diseases (Medical Dictionary for the Health Professionals and Nursing, 2012).

In 2016, World Health Organization established and reiterated that infection prevention and control is design scientifically and practically to inhibit the detrimental effects of infectious diseases on patients and healthcare workers. Substantiated and collaborated with a communicable disease unit, epidemiology, social science, and health system. It is a dominating and sole position on patient safety and quality health coverage; therefore, the relevance to healthcare workers and patients in every interaction.

Recent publication in WHO Bulletin, the continuity of care has the probability of acquiring infections to both patients and healthcare personnel, especially the frontline staffs are extreme. Infections made the patient stay longer for their treatment and one of the leading causes of mortality. Previous studies revealed that the percentage of hospital infection had gained 10%, and the surgical infection reaches the momentum of 50% subsequently. However, the impact of infection prevention and control punch to 30%.

In the book entitled *Fundamentals of Infection Prevention and Control: Theory and Practice*, Weston (2013) highlighted that healthcare infections are not a novel concern. Yet, it is worldwide healthcare and public health issue and concern for decades. Even though that world organizations establish policies and guidelines on eradicating the spread of infections from various sources. Many research enthusiasts published studies in every field or aspect of infection prevention and control. However, the implementation is not at a high peak as expected, especially among developing countries. She further accentuated the essential component of patient care and crucial core area of health care practitioners wherein the firm grasps the principles of infection control, the relationship to clinical practice, and adherence to resolving issues in infection prevention and control is vital.

Center for Disease Control and Prevention (1998) published a guideline on infection control in health care personnel in each category and classification. It adopted and implemented globally to bridge the gap identified. Identifies the adherence to the occupational health services and emphasis on the requirements on (1) communication and collaboration for proper execution in preventing the spread of hospital-acquired infections; (2) leadership and management in identifying and monitoring the established goals and objectives; (3) assessment and reduction risk, which entails the audit processes in accordance to the stipulated guidelines; (4) medical evaluation and subsequently (5) recommendation for training for non-conformity to the protocols.

The identified importance in accordance to the statement of WHO and CDC, the research conducted by Wenzel and Bearman (2014) recognized that health is the utmost priority in the community, in which infectious diseases remain a global issue and concern. The burden beyond the fight of hospital-acquired infections, which significantly caused diseases and death among individuals, is present. In another study conducted by Bedoya (2017) aims to assess the compliance of healthcare workers in a primary healthcare facility in response to the infection prevention and control practices, which composed of 106,464 respondents with a mean compliance interval of 0.318 (95%; Cumulative Interval: 0.315-0.321) in five (5) primary domains namely: hand hygiene, use of protective gloves, injection of blood sampling safety, disinfection of reusable equipment, and waste segregation which depicts the compliance rate of 0.023 in hand hygiene to 0.871 for injection and blood safety.

Standard control measures are evidence-based procedures and practices and are seen as essential in the prevention and control of hospital-acquired infections and observed its efficacy and effectiveness in safeguarding healthcare workers. Nevertheless, universal precautionary

measures are extensively acknowledging internationally, and it has been identified in a systematic review that compliance is suboptimal universally (Gammon et al., 2008).

Bring out the importance of infection prevention and control, the World Health Organization (WHO) posted in the bulletin in 2017 subsequently that the range of infection in the healthcare industry and the community is vast in several categories wherein the creation of disease surveillance and strict monitoring the disease process in compliance with the strategic planning to eradicate such disease-causing morbidity and mortality (Nambias et al., 2017).

Meanwhile, in hospital administration and management, the Department of Health issued Administrative Order No.: 2012-0012 on “Rules and regulations governing the new classification of hospitals and other health facilities in the Philippines” under Section 16 of Republic Act 4226, known as Hospital License Act has noted a broad scope of practice which includes infection prevention and control. Every healthcare institution is obliging to act by the requirements of the health agency locally and internationally. It is one of the criteria of acquiring or applying for a hospital operational permit wherein the policies and practices of infection prevention and control should evidently and readily available.

According to the Code on Sanitation of the Philippines, Presidential Decree 856 (1976) intends to prescribe and discuss the requirements and compliance for food industries, cities, and municipalities. Furthermore, it also includes healthcare industries requirements in terms of Chapter 2 (Water Supply); Chapter 6 (School Sanitation and Health Services); Chapter 16 (Vermin Control); Chapter 17 (Sewage Collection and Disposal, Excreta Disposal and Drainage); Chapter 18 (Refuse Disposal); Chapter 20 (Pollution of the Environmental); and Chapter 21 Disposal of Dead Persons.

Moreover, the Department of Environmental and Natural Resources created a bureau on Environmental Management under Executive Order No. 192, known as DENR Reorganization Act of 1987, which mandated the six major environmental laws of the following: PD 1586 (Environmental Impact Statement System 1978); RA 6969 (Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990); RA 8749 (Clean Air Act of 1999); RA 9003 (Ecological Solid Waste Management Act of 2000); RA 9275 (Clean Water Act of 2004); and RA 9512 (National Environmental Awareness and Education Act of 2008). It is also mandated to provide research and laboratory services to the Pollution Adjudication Board and the National Solid Waste Management Commission.

On the other hand, Michelle Doll of Philippine Integrated Disease Surveillance and Response (PIDS) Report in 2014, and according to the Department Order No.: 1187 “Strengthening of Hospital Infection Control Program (HICCP) under the Administrative Order No. 2016-0002 on National Policy on Infection Prevention and Control in Health Care Facilities. The strict implementation of the policy, a surveillance committee creates to conduct inspection and investigation in the healthcare facility and to track all patients’ health status, including

environmental compliance to the Hospital Policies and Standard Operational Procedure and avoiding diseases from spreading by proper observing and practicing infection prevention and control standard precautions such as hand hygiene, personal protective equipment, waste management, linen management, and aseptic technique. Infection prevention and control practices by healthcare workers are essential in providing and delivering patient care to break the chain of infection and become productive healthcare workers. In line with the PISDR statement, a collaborative workforce from diverse organizations like PHICS developed and created Ten (10) Steps in Outbreak Investigations: 1) Identify investigation team and resources; 2) Establish the existence of an outbreak; 3) Verify the diagnosis; 4) Construct case definition; 5) Find case systematically and develop line listing; 6) Perform descriptive epidemiology and develop hypothesis; 7) Evaluate hypothesis and perform additional studies as necessary; 8) Implement control measures; 9) Communicate findings; and 10) Maintain surveillance.

National Epidemiology Center Institute conducted an evidence-based surveillance focusing on transmissible disease occurrences. In 2016, rotavirus confirmed 1,076 cases nationwide, and Region 1 gained 24.81%, which depicts the leading region of acquiring the virus. Moreover, on the following year, acute meningitis encephalitis syndrome reported 778 suspected cases in the country, and only 471 (68%) tested, 38 (8.1%) were confirmed Japanese Encephalitis cases, and Pangasinan rank no. 2 and Pampanga as the leading province of high incidence rate composed of 20 confirmed cases. Likewise, in 2018, the incidence rate of hand, foot, and mouth disease have 78, which is lower than the previous year of 460 cases; nonetheless, there was no reported death. Subsequently, neonatal tetanus has four confirmed cases; factors of acquiring neonatal tetanus as identified in the surveillance are delivery attendant (Midwife 50%, Hilots 50%), Cord cutting equipment (Scissor 75%, Bamboo 25%), and Stump Treatment provided (Alcohol 75%, other 25%).

The studies conducted by Garcia E. et al. (2015), covering the year 2011-2014 at Philippine General Hospital among admitted pediatric patients, show a percentage value of 13.6% and a depreciating prevalence rate each year with the proper execution and carrying out infection prevention and control guidelines. According to Altre's studies conducted in the same year on practices of healthcare personnel in the operating room of the two leading hospitals in Pangasinan revealed the overall weighted mean of 3.82 and transmuted equivalent as practiced.

In another work, Orte (2017) studied and assessed infection prevention and control practices among healthcare practitioners among selected hospitals in Pampanga. Moreover, the compliance and execution to the guidelines were properly accorded from hand hygiene to waste management and disinfection. The protocol stipulated is followed by WHO whereas, it is significantly applied both in the private and public health sectors.

The writings of Altre (2018) found that operating room personnel is predominantly belonging to the age group of 26-30 (48%), and most of them were males, with 27 (54%) out of 50 respondents. Related training and seminars with ten or more gained the highest momentum of



compliance with 32%. In clarifying the role of infection prevention and control practices among operating room healthcare personnel depicts essential compliance with a weighted mean of 3.97, wearing room attire; 4.00, standard precautions; 3.77, room traffic; 3.85, prevention of surgical site infection; 3.54, waste disposal; and 3.76, environmental cleaning and decontamination, with an overall computed weighted mean of 3.82, equivalent to “Practiced.”

In the scope of hand washing or hand hygiene, Naderi (2012) and Bukhari (2011), the optimal intervention in preventing and controlling cross-infection, nonetheless, the degree of compliance of the healthcare practitioners have been noted poor. This practice protects health practitioners and the patient from spreading and acquiring infections. Guidelines and steps are identified by the CDC and shadowed by Fuller (2011) to demonstrate hand hygiene effectively and efficiently. Washing hands is hygienically acknowledging, and this conventional way is effective in controlling and containing infections and germs from spreading. The established two types of handwashing: medical handwashing and surgical handwashing preparations.

CDC guidelines recommended for proper handwashing: 1) remove the jewelry and keep nails short; 2) wet hands thoroughly under warm running water; 3) apply 5ml of soap or antiseptic soap to cupped hands by pressing the dispenser with the heel of hand; 4) rub palm to palm five times; 5) rub right palm over the back of the left hand up to the wrist level five times. Do the same with the other hand; 6) with the right hand over the back of the left hand, rub fingers five times. Do the same with the other hand; 7) rub palm to palm and with the interlace of fingers; 8) wash the thumb of each hand separately using a rotating movement; 9) rub the tips of the fingers against the opposite palm using a circular motion. Also, ensure to wash nail beds; 10) rinse hand thoroughly under running water to remove all traces of soap; 11) turn off taps using elbows; 12) dry hands thoroughly using a disposable paper towel; 13) discard paper towel in a wash bin. Open bin using a foot pedal only to avoid contaminating hands.

The importance of hand hygiene was noted and commented; Stewardson (2014) stated that “hand hygiene is a cornerstone of infection prevention and control,” where appropriateness is considered as the leading measure to minimize infection transmission in health care facilities. The impact on infectious diseases and resistant organisms through cross-infection is high risk in hospitals, schools, and other establishments. The inappropriate practice of hand hygiene has identified as a significant contributor causing outbreaks.

For their part, Archana Lakshmi (2018) and Hersi (2015) emphasize the personal protective equipment practices as the predominant barrier in protecting health workers from getting an infection while working in a contaminated environment. It requires awareness before commencing and wearing protective shields to maintain its effectiveness and efficiency. Includes gear suits or aprons, face masks, goggles, face shields, and gloves to be considered protected while executing work dealing with blood, body fluids, and other biological contamination. The possibility of acquiring a risk of infection is extremely high. Guidelines is considered in order to prevent hospital-acquired infection, and to assure proper application of personal protective equipment. The

correct way of using PPE is the fundamental and easiest way to prevent from contacting secretions, excretions, and other pathogens.

Conferring to the study conducted by Kuhar in 2019 and CDC (2016) it shows an analogy on identifying the principles and guidelines of personal protective equipment to ensure and perform effectively and assures that no infectious agents can get in the unprotected body parts while rendering patient care. Steps on putting-on PPE: 1) select the appropriate type and size of gown; 2) gown should fully cover torso from neck to knees, arms to the end of the wrist, and wrap around the back; 3) fasten in back of neck and waist; 4) secure mask and tie or elastic bands at the middle of head and neck; 5) fit flexible bands to nose bridge; 6) fit snug to face and below the chin; 7) check mask accordingly; 8) place goggles or face shield over face and eyes and adjust to fit; 9) put on gloves and extend to cover wrist of isolation gown. CDC shows the steps in removing PPE: 1) removed gloves using a gloved hand, grasp the palm area of the other gloved hand, and peel off the first glove; 2) slide fingers of ungloved hand under remaining glove at wrist and peel off the second glove over the first glove; 3) remove goggles or face shield from the back by lifting headband or earpieces; 4) unfasten gown ties, taking care that sleeves don't contact your body when reaching for ties; 5) pull gown away from neck and shoulders, touching inside of gown only; 6) turn gown inside out; 7) grasp bottom ties or elastic bands of the mask or respirator, then the ones at the top, and remove without touching the front; 8) wash hands or use an alcohol-based hand sanitizer immediately after removing all personal protective equipment.

In the area of waste management practices, Health Care Without Harm (2018), an organization joined by various Southeast Asian countries, commented that hospital waste had been left behind for decades until its detrimental effects on the environment and health become dominant. This waste generated by the hospitals contributes to the community's defiance in terms of environmental guidelines through improper waste segregation and disposal. The highest contributory factors are the health worker who is not mindful of the results of waste products to the environment and its inhabitants.

In line with the laws governing environmental sanitation, the practices of healthcare practitioners play a crucial responsibility in the proper handling of medical waste. Hospitals are obliged to conform to the rules and regulations stipulated and adapted by the Department of Health, like the creation of the Pollution Control Committee wherein it encompasses the instructions of DENR-EMB in which the processes of waste disposal, from hazardous to general waste, should be identified, segregated, stored, collected, and disposed of in accordance to the guidelines.

Identified hospital policies and guidelines about environmental sanitation, pollution control, and infection prevention and control followed according to the instructions and protocols of DENR-EMB. General waste generated by the hospitals was collected by the municipal waste disposal team and disposed to a sanitary landfill provided in compliance with the municipal ordinance on environmental sanitation.



The initiation of committees to assure the conformance of the healthcare facility and a focal person in leading the audits and evaluation, and reports were submitted directly to Continuous Improvement Committee under Human Resources Development and Management. Furthermore, reported non-compliance on environmental and pollution would then be re-evaluated by the DENR-EMB staff before the hospital license renewal as a prerequisite to renew the operational permit.

Nonetheless, the possibility of acquiring infections caused by inappropriate practice has directly affected the people's health in the community. These are related and greatest contributory to air pollution, water pollution, and the high risk of food contamination through the presence of vermin and insects (HCWH, 2019). For example, the re-emerging of a polio outbreak in the country in the year 2019 catch the attention of not only local health agencies but also international health organizations. Series of conducted investigations to point out the possible source of infection. Health and environmental expert perceptions, the re-occurrence of poliovirus is the involvement of improper hospital waste disposal wherein the guidelines of latrine disposal for toxic wastes compliance is poor. Attenuated microorganisms from the vaccines sip-in into the water surface, causing infection to some areas in the Philippines. Samples were collected and tested last December 2019 revealed a result of vaccine-derived poliovirus type 1 (VDPV1) and immunodeficiency vaccine-derived poliovirus type 2 (IVDPV2) environmental cause has four positive cases while circulating vaccine-derived poliovirus type 2 (cVDPV2) has two positive results. On the other hand, the vaccine-derived poliovirus type 1 (VDPV1) represents zero cases, and circulating vaccine-derived poliovirus type 2 (cVDPV2) has one positive result (UNICEF-WHO, 2019).

The context of linen management practices has the sincerity of confidence in hospital environmental management to construct the ambiance of clean, orderly, and best service rendered to maintain patient safety. Linen management, according to Aucump (2016), has vitality in controlling the transmission of microorganisms harboring in the textile that can cause harm. These reflect a dual purpose that is keeping and maintaining linen clean and prevent linen from cross-infection and contamination to health workers and patients.

Every hospital facility is provided with laundry services where cleaning linen is at the guidelines stipulated by the organization, following the policies of the Department of Health to maintain the quality linen service. The standard practice is identified in linen management control and minimizes the risk of infection from spreading. Following guidelines of the healthcare practitioners are identified as follows: 1) The appropriate handling of clean linen and free from contamination even in transportation; 2) Store linen in a clean, dry designated area and above the floor; 3) Linen must be monitored the state of textile quality; 4) Used linen must be placed in a basket underneath with yellow plastic cover; 5) All foul or soiled linen, irrespective of condition should be treated as contaminated linen and segregate appropriately; 6) Does not place linen elsewhere even on the floors; 7) Soiled or infected linen must store in a secure external area for

laundry collection; 8) Decontaminate linen with aerosol spray before transporting to laundry area; 9) Soiled or infected linen should be soaked in a hypochlorite solution for decontamination; and 10) Wash linen accordingly and disinfect using UV radiation or autoclave.

The conception of the aseptic technique is a process of continuing and sustaining the environment micro-organisms free to prevent and decrease pathogenic organisms from infecting a vulnerable body and devices used for patient care. The objectives of the aseptic technique are to keep and protect the patient from acquiring pathogenic infections during patient treatment and procedures. Some hospitals utilize single-use equipment like thermometers; however, hospitals not practicing such disposable use of equipment may assure and maintain its decontamination processes (Walker 2020).

The risk of acquiring infections is high if the equipment is not cleaned and sterilized. The reported acquired infections from contaminated instruments like HIV/ AIDS and Hepatitis B, and Hepatitis C, patients may have lost his life. The creation of guidelines and practice of aseptic technique is essential to promote a sterile and clean patient care environment, where pathogenic micro-organism has no way of multiply and infecting vulnerable individuals (Hunt, 2018, p.8-14). The succeeding guidelines were stipulated and consigned to be able to comply by the healthcare personnel: 1) Sterile work areas; 2) Sterile handling techniques; 3) Personal protective equipment and good hygiene; 4) Clean and decontaminated patient care equipment; 5) Proper waste segregation and disposal, and 6) Proper decontamination of hospital linens and gowns.

## Methodology

The study will utilize the descriptive-analytical cross-sectional quantitative method research design. The method is considered the most appropriate and will intend to determine the implementation of infectious diseases prevention and control practices of healthcare personnel in selected community hospitals in Pangasinan namely: Manaoag Community Hospital, Mapandan Community Hospital, and Pozorrubio Community Hospital. It is further identifying and use to determine scientific findings with adequate interpretation, recording, and analysis of the practices presented. The cross-sectional design is a perfect and appropriate description and its relation to other variables. An interview guide helps in the process of understanding and interpreting the causes of the problem of the healthcare personnel perceptions to strengthen the study outcome.

The primary respondents are Physician, Nurses, Midwives, Medical Technologist, Radiologic Technologist, Pharmacist, Institutional Workers, and Laundry Workers with N-123. A structured and semi-structured questionnaire will be applying to determine the personnel compliance in executing performance with regards to infectious diseases prevention and control practices and the problems encountered. The researcher adopted a questionnaire from credible authorities like the Department of Health and Human Services, Center for Diseases Control and

Prevention Version 2.3, September 2016, and Community Hospital IPC Compliance Checklist to assess and determine practices level as the basis of data collection. Some of the questionnaires are from the thesis of Altre (2018). Altre has also validated his questionnaire.

The answer to the specific problems of the study, the researcher utilizes statistical tool. To determine the profile of the respondent healthcare personnel, namely: age, sex, civil status, highest educational attainment, monthly salary income, position, area of assignment, shifting schedule, years in service, and the number of training attended with the use of frequency counts and percentages. In determining the Infectious Diseases Prevention and Control Practices among healthcare personnel, the researcher utilized a weighted average mean. The responses categorized into a five-point scale with corresponding numerical categories. The choices are classified as “Highly Practiced,” “Practiced,” “Moderately Practiced,” “Slightly Practiced,” and “Not Practiced.” Literal values A, B, C, D, and E, will be assigned, respectively. To answer the specific problem number 3, determining the differences between Infectious Diseases Prevention and Control Practices among healthcare personnel across their profile variables, utilized analysis of variance (ANOVA). To answer the specific problem number 4, determining the relationship between Infectious Diseases Prevention and Control Practices among healthcare personnel and their profile variables, used the Coded Pearson Product correlation coefficient. To execute the answer on problem number 5, the institutional compliance on infection prevention and control policies among selected community hospitals, used frequency counts and the percentage. To determine by the researcher with the problems encountered the level of seriousness by the healthcare personnel respondents, used weighted average mean. The responses are categorized into a five-point scale with corresponding numerical categories and classified as “Very Serious,” “Serious,” “Moderately Serious,” “Slightly Serious,” and “Not Serious.” Descriptive values 5, 4, 3, 2, 1 are assigned, respectively.

## **Results and Discussion**

Findings showed that the demographic profile of respondents dominated by females at the age of 31-40, married, and completed bachelor’s degree, with salary income ranging from 15,000 to 19,999. Most of the respondents are professional’s nurses and subsequently assigned at Emergency Room. With the across the board health care service has rendered 1-5 years. However, most of them has limited attended trainings in Infection Prevention and Control. The level of infectious diseases prevention and control practices among healthcare personnel depicted and average practice in hand hygiene with OWM=3.39, personal protective equipment with OWM= 3.03, waste management has OWM= 3.29, and linen management has OWM= 3.13, with overall computed weighted mean of 3.21, equivalent to Moderately Practiced. Furthermore, the overall findings on the level of infectious prevention and control practices among healthcare personnel across their demographic profile disclosed no significant differences. According to Salaripour M.

et al. (2013) with their study entitled “The effectiveness and the retention level of the competency-based training for infection and control practices,” found out the outbreaks of infectious diseases in healthcare facilities emphasizing the requirement to adhere to standard infection prevention and control procedures. However, the overall presentation with regards to their relationship with the level of infectious diseases prevention and control practices among healthcare personnel has significantly showed relationship in terms of age, sex, civil status, highest educational attainment, monthly salary income, and area of assignment. The research work by Silva O. et.al (2019) entitled “Knowledge, attitudes, and practices on infection control measures in stomatology students in Lima, Peru.” Determine the level of knowledge, attitudes, and practices about contamination measures in undergrad stomatology understudies isn’t known. That is why these factors assessed in the understudies of the Universidad Privada San Juan Bautista in September and November 2017. Techniques. The completed cross-sectional examination with 347 understudies from the Ica, Lima Norte, and Chorrillos. Institutional compliance plays a pivotal role in the implementation of infectious diseases prevention and control to maintain the practice among healthcare personnel has revealed concern in the indication “Have you attended orientation on IPC Policy” with 72.39%, and “Do you attend trainings and workshop on IPC” has revealed 67.48%. the inability to follow legitimate disease counteraction puts human services laborers, patients, and networks in danger, supported by the study of Sahiledengle, B. et al. (2018) that despite the increments of exceptionally infectious diseases, contamination anticipation rehearses among medicinal services laborers is obscure in many creating nations. The problems encountered level of seriousness by the respondents in the indicator revealed and OWM = 2.43 and has a Transmuted rating of Slightly Serious. However, among of the indicators; lack of equipment and resources, and understaffing and patient needs taking priority needs to address to assure completeness of personnel compliance. It affirms with Sreeramoju, P. (2019), claimed that lessening human services-related contaminations requires the utilization of specialized and versatile techniques.

## Conclusion

1. Most healthcare personnel are in their early adulthood and female is dominated than male counterparts, and most are married. Furthermore, personnel are qualified, experienced, well-trained, and educationally competent to assume their duties and responsibilities despite the position, salary income, area of assignments, and shifting schedule.
2. Health personnel is abreast with the procedures, protocols, and guidelines in infection prevention and control to maintain and uphold practices.
3. There are no dissimilarities and deviations in infectious diseases prevention and control practices concerning age, sex, civil status, highest educational attainment, monthly salary income, position, area of assignment, shifting schedule, years in services, and number of trainings attended.

4. The identified healthcare personnel profiles by age, sex, civil statuses, monthly salary income, and area of assignment in infectious diseases prevention and control practices but with limited implications.
5. The compliance of hospitals is in high regard. However, identified concerns that the healthcare team needs to focus on and address to assure its effectiveness and compliance.
6. Healthcare personnel has no profound concerns in infectious diseases prevention and control practices which reflect slightly serious among indicators despite some noted moderately serious problems it signifies that it does not affect the entire degree of seriousness.
7. A well develop proposed intervention plan is the paramount, crucial, and best way to maintain compliance with infectious diseases prevention and control practices among health care personnel.

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