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Nursing Student Affiliates' Level of Compliance with the Key Components of Standard Precautions for Infection Prevention and Control in a Selected Hospital: Basis for Proposed Guidelines for Curriculum Enrichment

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Abstract: ***The study focused on the level of compliance with the key components of standard precaution for infection prevention and control among nursing student affiliates in a selected Department of Health (DOH) hospital that serve patients with infectious and communicable diseases. The respondents of the study were 252 Nursing student affiliates of which 186 (73.81%) were female, 163 (64.68%) were third year while only 89 (35.32%) were fourth year students. Their age ranged from 16 to 20 years old. They came from 20 nursing schools located within and outside Metro Manila. The other group of respondents were the respective clinical instructors who supervised the students in the clinical areas in the selected hospital. The study utilized the descriptive comparative and correlational methods of research. Purposive sampling was used to select the respondents. A researcher-made questionnaire was utilized which was validated by experts and tested for reliability. The study revealed that in dealing with the level of compliance of nursing students with the key components of standard precautions for infection prevention and control as assessed by themselves the compliance in using "Safe Injection Practices/Preventing Needle Stick Injury" got the highest weighted mean of 3.77 (Always), followed by Using Masks with 3.74 (Always), Using Gloves with 3.73 (Always), Proper Hand Hygiene with 3.63 (Always), Using Caps and Boots/Shoe Covers with 3.43 (Always), and Using Gowns and Plastic Aprons with 3.37 (Always). In terms of other transmission-based precautions, the self-assessment among nursing students in their compliance to infection prevention and control in terms of other transmission-based precautions had a weighted mean of 3.63 or "Always." In particular, the following were the weighted mean: contact precaution had 3.6 (Always), droplet precaution had 3.6 (Always), and airborne precaution had 3.69 (Always). However, as assessed by their Clinical Instructors, the level of compliance of nursing students in selected hospitals with the key components of standard precautions for infection prevention and control in terms of standard precaution revealed that the compliance in using "Safe Injection Practices/Preventing Needle Stick Injury" got the highest weighted mean of 3.48 (Always), Hand Hygiene with 3.45 (Always), Using Masks with 3.39 (Always), Using Caps and Boots/Shoe Covers with 3.32 (Always), Using Gowns and Plastic Aprons with 3.16 (Often), and Using Gloves with 3.12 (Often). Overall, the Clinical Instructors' assessment in each of the compliance in Standard Precaution was "Always." Moreover, in terms of other transmission-based precautions, the assessment of the Clinical Instructors among their nursing students in the compliance to infection prevention and control in terms of other transmission-based precautions had a weighted mean of 3.32 or "Always." In particular, the weighted mean for each was airborne precaution, 3.50 (Always), contact precaution 3.41 (Always), and droplet precaution 3.30 (Always). The relationship between the profile of the nursing students affiliates and their level of compliance with the key components of standard precautions for infection prevention and control showed that there was significant relationship between age and use of caps, boots/shoe cover; year level & droplet precaution; school & caps, boots/shoe cover, safe injection practices; and sex and use of gloves. The study also revealed that when the student respondent affiliates were grouped according to profile, their assessment on their level of compliance differed, with the key components of standard precaution for infection prevention and control. In terms of using gloves, and using masks; droplet precautions, and airborne precautions. However, there was a significant difference in their assessment on the compliance with hand hygiene, use of gowns/aprons, and use of caps, boots /shoe cover, safe injection practices and contact precaution.***

Keywords: Nursing Student Affiliates, Relate Learning Experience, Standard Precautions for Infection Prevention and Control, Hand washing and antiseptic hand Hygiene, Use of Personal Protective Equipment, Safe injection practices, Other Transmission-based Precaution, Contact Precaution, Droplet Precaution, Airborne Precaution .

1. Introduction

In order to live a healthy life, one must prevent getting infected. Thus, humans are taught that prevention is better than cure. Healthy lifestyle and disease prevention started from home to school. Children who belong to the vulnerable groups are taught basic hand washing for disease prevention and health promotion as an approach to maintain a healthy clientele which comprises the individual, the family and the community. Infection prevention and control is important because infection is a health threat not only locally but also globally. The Department of Health Center for Health and Development, identified the following infectious diseases in 2017: (1) Acute Respiratory Infection; (2) Influenza A (H1N1); (3) Bird Flu (Avian Influenza); (4) Chickenpox;(5) Cholera; (6) Dengue; (7) Diarrhea; (8) Diphtheria; (9) Ebola; (10) Hand, Foot, and Mouth Disease; (11)Hepatitis A; (12) Hepatitis B; (13) Hepatitis C; (14) HIV/AIDS; (15)

Influenza; (16) Leprosy; (17) Malaria; (18) Measles; (19) Meningococcemia; (20) Pertussis; (21) Poliomyelitis; (22) Rabies; (23) Severe Acute Respiratory Syndrome (SARS); (24) Sore Eyes; (25) Tuberculosis; (26) Typhoid Fever. (Department of Health Center for Health Development, 2018)

Standard precautions for infection prevention and control is necessarily complied with by every member of the health team. Standard precaution comprises Universal Precaution and Body Substance Isolation. These guidelines were set due to the emergence of Human Immunodeficiency Virus (HIV) Auto Immune Disorders AIDS, late 1985, and other blood borne infection such as hepatitis B virus (HBV), and hepatitis C virus (HCV).(Center for Disease Control [cdc], 2015). In 1996, these and other infection control guidelines were superseded by a uniform guideline for all patients and health care workers, known as "standard precautions". A Guidelines for Isolation Precautions in Hospitals. Hospital Infection Control Practices Advisory Committee (HICPAC) was Published January 1, 1996 (Center for Disease Control, Infection Control Guidelines 2016).

The revised guideline contains two tiers of precautions. In the first, and most important tier are those precautions designed for the care of all patients in hospitals regardless of their diagnosis or presumed infection status. Implementation of these "Standard Precautions" is the primary strategy for successful nosocomial infection control. In the second tier are precautions designed only for the care of specified patients. These additional "Transmission Based Precautions" are used for patients known or suspected to be infected or colonized with epidemiologically important pathogens that can be transmitted by airborne or droplet transmission or by contact with dry skin or contaminated surfaces. They may be combined for diseases that have multiple routes of transmission. When used either singularly or in combination, they are to be used in addition to Standard Precautions. (cdc, 2016)

Nurses are the front liners in the healthcare team, they are present from admission up to discharge of the patient, and they cater to the entire community and its environment as scope of their clientele. They are present in all facets of health care. Therefore, nurses are expected to have appropriate knowledge and skills and proper attitude in the implementation of standard precautions for health promotion and disease prevention.

Nursing students are considered as one big component of the aforementioned front liners among the health care team. Thus, their level of compliance in the application of the key component of standard precautions may contribute to the impact of standard precaution for infection prevention and control in the health care settings. Hence, this study will aid in enhancing the nursing curriculum both in theory and in the actual application of the standards most specifically in the practice of rendering bed side care in the related learning experiences.

These groups of student nurses are affiliated in the selected tertiary hospital, which is known as tertiary DOH hospital for infectious and communicable diseases. Aside from providing health services to its client, the selected hospital also has a training program for students in the allied health courses such as Nursing, Medicine, Physical Therapy, Pharmacy, Psychology, and the likes.

The nursing student affiliates come from different colleges of nursing within and outside Metro Manila. The students undergo clinical experiences, called Related Learning Experiences (RLE), in order to apply the theoretical knowledge skills, and attitudes gained inside the classroom. These nursing student affiliates are supervised by their respective clinical instructors for further acquisition of the necessary knowledge, skills, and attitudes in the holistic care of patients with infectious disease.

This study is focused on the nursing student affiliates' compliance with the key components of standard precaution for infection prevention and control in the selected hospital because, they directly participate in patient care which is enforced by the hospital. They have to protect other persons and themselves from being infected by the disease to which they are exposed. Through their clinical experiences in the hospital, they can reinforce their knowledge, skills, and attitudes in the holistic care of patients with infectious diseases.

2. Statement of the Problem

This study determined the level of compliance with the key components of standard precautions for infection prevention and control among nursing student affiliates in the selected hospital. The students' level of compliance was assessed by the students themselves and their respective clinical instructors.

Specifically, this sought to answer the following:

1) What is the profile of the nursing student affiliates in the selected hospital in terms of:
   1.1 Age;
   1.2 Sex;
   1.3 Year Level; and
   1.4 School?
2) What is the level of compliance of nursing students affiliates in the selected hospital with the key components of standard precautions for infection prevention and control as assessed by themselves in terms of:
   2.1 Standard Precautions:
   2.1.1. Hand hygiene;
   2.1.2 Use of Personal Protective Equipment; and
   2.1.3. Safe injection practices/preventing needle stick injury?
   2.2 Other transmission-based precautions:
   2.2.1 Contact;
   2.2.2. Droplet; and
   2.2.3 Airborne?
3) What is the level of compliance of nursing student affiliates in the selected hospital with the key components of standard precautions for infection prevention and control as assessed by their clinical

instructor in terms of:
3.1 Standard Precautions:
3.1.1 Hand hygiene;
3.1.2 Use of Personal Protective Equipment; and
3.1.3 Safe injection practices/ preventing needle stick injury?
3.2 Other transmission-based precautions:
3.2.1 Contact;
3.2.2 Droplet; and
3.2.3 Airborne?

4) Is there a significant relationship between the profile of the nursing student affiliates and their level of compliance with the key components of standard precautions for infection prevention and control in the selected hospital?
5) Is there a significant difference in the nursing student affiliates' level of compliance with the key components of standard precautions for infection prevention and control in the selected hospital when grouped according to profile?
6) Is there a significant difference in the level of compliance of nursing student affiliates in the selected hospital with the key components of standard precautions for infection prevention and control in the selected hospital as assessed by themselves and as assessed by their respective Clinical Instructors?
7) What guidelines for infection prevention and control may be developed as inputs to curriculum enrichment?

3. Theoretical Framework

This study was anchored on the following theories

Theory of Planned Behavior

The Theory of Planned Behavior (TPB) according to Icek Ajzen in 1985 is a theory in the field of psychology that links beliefs and behavior to improve on the predictive power of the theory of reasoned action by including perceived behavioral control. It is a theory explaining human behavior. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields such as advertising, public relations, advertising campaigns and healthcare.

Health Promotion Model

The Health Promotion Model was designed by Nola J. Pender in 1996 to be a complementary counterpart to models of health protection. It defines health as a positive dynamic state rather than simply the absence of disease. Health promotion is directed at increasing a patient's level of well-being. The health promotion model describes the multidimensional nature of persons as they interact within their environment to pursue health.

Health Belief Model

The Health Belief Model (HBM) is one of the first theories of health behavior. It was developed in the 1950s by a group of U.S. Public Health Service social psychologists' namely: Hochbaum, Rosenstock and Kegels who wanted to explain why so few people were participating in programs to prevent and detect disease. HBM is a good model for addressing problem behaviors that evoke health concerns such as high-risk sexual behavior and the possibility of contracting HIV (Croyle, 2005).

Paradigm of the Study

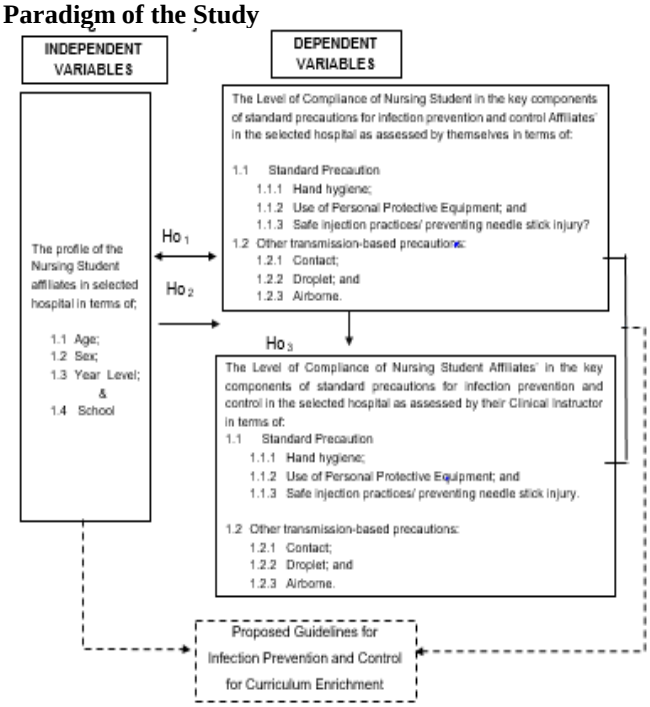

Figure 1: Nursing Student Affiliates' Level of Compliance with the Key Components of Standard Precautions for Infection Prevention and Control in a Selected Hospital: Basis for Proposed Guidelines for Curriculum Enrichment

4. Methodology

This chapter discusses the research design chosen for the purpose of the study. This also provides information about the respondents as described in the criteria for inclusion in the study, The research instrument for data collection and the procedures that were followed to carry out this study are also included.

Research Design

The study utilized the descriptive method to determine the level of compliance with the key components of standard precautions for infection prevention and control among nursing student affiliates in selected hospital as assessed by themselves and by their respective clinical instructors.

The descriptive study is designed to gain more information about characteristics within a particular field of study. Its purpose is to provide a picture of a situation as it naturally happens. A descriptive design may be used to develop theories, identify problems with current practice, justify current practice, make judgments, or determine what other nurses in similar situations are doing. No manipulation of variables is involved in a descriptive design (Burns & Groves, 2013).

According to Polit and Beck (2015), descriptive research studies have their main objective as the accurate portrayal of the characteristics of persons, situations, and/or groups. The

purpose of descriptive studies is to observe, describe, and document aspects of a situation as it naturally occurs and sometimes to serve as a starting point for hypothesis generation or theory development.

Moreover, the study used of descriptive correlational and descriptive comparative. Burns and Groves (2016) defined the purpose of a descriptive correlational research describes variables and examines relationships among these variables. Using this design facilitates the identification of many interrelationships in a situation. The study may examine variables in a situation that has already occurred or is currently occurring. Researchers make no attempt to control or manipulate the situation. This design aided the researcher in establishing if there was any significant relationship between the demographic profile of the nursing students and their level of compliance with the key component of standard precautions for infection prevention and control.

Comparative descriptive design is used to describe variables and to examine differences in variables in two or more groups that occur naturally in a setting. A comparative descriptive design compares descriptive data obtained from each group and compares it in quantitative and outcomes studies. The result obtained from these analyses is frequently not generalized to a population. The comparative descriptive research design helped the researcher to establish the significant difference among the variables considered in the study.

Research Locale

The study was conducted in a selected special tertiary DOH hospital for infectious disease with five hundred (500) bed capacity. It is involved in health care delivery service, especially for the poor suffering from infectious and communicable diseases.

The selected hospital serves as the training ground for different allied health programs both for private and government Higher Education Institutions (HEIs) in the aspect of infectious and communicable diseases. Nursing students may have their clinical exposure based on the request of their respective Colleges or HEIs, parallel with the CHED Memorandum Order (CMO) No. 15 Series of 2017, curriculum guidelines mandated by the Commission on Higher Education (CHED). Thus the latter can have their clinical exposures in the following areas: Emergency Room, TB Pavilion, Pavilions 4 & 8 Pediatric ward, and pavilions 2, 3, and 6 with occurrence of cases such as Dengue, Leptospirosis, pneumonia, gastroenteritis and other infectious and other communicable diseases.

Moreover, nursing students' exposure to special areas such as Rabies Ward, Infectious Disease Critical Care Unit (IDCCU) Medical, (OR-DR) Operating Room-Delivery Room for Infectious Diseases related to Surgical and Obstetrical Cases and other special areas which requires strict isolation precautions and sterility, will be feasible when the clinical instructor met the requirements set by the selected hospital and undergone training in those special areas.

The researcher gained interest in conducting the study in this locale because it is a referral facility for infectious/ communicable diseases and one of the retained special tertiary hospitals of the Department of Health (DOH) which is subsidized by the national government. The selected hospital serves as the training ground for nursing programs both for private and government Higher Education Institutions (HEIs) in the aspect of infectious and communicable diseases. The feasibility of the level of compliance with the key components of standard precaution for infection prevention and control among greater number of respondent nursing students can be attainable, and thus will identify the possible gap which may serve as basis for proposed guidelines for curriculum enrichment.

The Population and Sampling Procedure

The respondents of the study comprised two hundred fifty-two (252) BSN nursing student affiliates, both level III and Level IV and their fourteen (14) respective clinical and built-in clinical instructors. The nursing student affiliate comprised of twenty-eight groups based on their Related Learning Experience (RLE) groupings. The ratio of RLE groupings ranged from one clinical instructor per four students (1:4) up to one clinical instructor per thirteen students(1:13). They come from twenty (20) universities and colleges of nursing. They are currently on their clinical exposure in the selected hospital for their Related Learning Experience during the Second Semester of Academic Year 2017-2018.

The group of nursing student affiliates together with the clinical instructors is rotated to different clinical areas as designated by the training office. Each clinical instructor handles a group of students who are assigned in the specific areas in successive batches.

The researcher used the purposive non-probability, sampling technique. Purposive sampling, also known as judgmental, selective or subjective sampling, is a type of non-probability sampling technique which focuses on sampling techniques where the units that are investigated are based on the judgment of the researcher. The respondents of the study comprised of level III and Level IV nursing students and their respective clinical instructors who are affiliated in the selected hospital during the following affiliation dates: November 20-31; 2017; December 4-15, 2017; and January 8- 19, 2018 during the 2nd Semester of Academic Year 2017-2018.

Data Gathering Instrument and Procedure

A self-administered researcher-made questionnaire was utilized. It was formulated by the researcher based on the review of related literature and based on "My Five Moments for Hand Hygiene", WHO Guidelines on Hand Hygiene In Health Care (2018) , the Center for Disease Control and Prevention Guidelines concerning Isolation Precautions in Preventing Transmission of Infectious Agents in Healthcare Settings (2007) and Practical Guidelines for Infection Control in Health Care Facilities WHO for Western Pacific and South-East Asia (2004).

The questionnaire focused on the compliance of the nursing

student affiliates with the selected key components of standard precautions for infection prevention and control applicable to nursing students' in the clinical area.

The questionnaire was validated by an Infection Control Committee Nurse, Hospital Infection Control Unit Head, and Infection Control Nurse, and was subjected for a pilot study for validity and reliability.

Two sets of questionnaire were utilized. One was for the nursing student affiliates who assessed themselves in their compliance with the key components of standard precautions for infection prevention and control The other set of questionnaire was for the clinical instructor who assessed their nursing students' level of compliance with the key component of standard precautions for infection prevention and control.

A cover letter was included in the questionnaire which served as an invitation to participate. It ensured provision of appropriate and comprehensive information regarding the study. The questionnaire had two (2) Parts, which comprised of Part One (1) for the profile of the Nursing Students in terms of: age; sex; year level; and school. The questionnaire for the faculty dids not contain their profile.

Part Two (2) of the questionnaire determined the Level of Compliance of nursing students with the key component of standard precautions for infection prevention and control in terms of standard precaution in the aspect hand hygiene had five (5) items; Use of Personal Protective Equipment had eighteen (18) items; and Safe injection practices/ preventing needle stick injury had seven (7) items. And other transmission-based precautions: such as Contact precaution had eight (8) items; Droplet precaution had five (5) items; and Airborne precaution which had six (6) items.

The questionnaire employed a 4-point rating scale. In the scale, the degree of acceptance or the extent of doing certain tasks were described as follows:

4 A Always (performed it at all times)
3 O Often (performed it 5-9times out of 10 occasions)
2 So Sometimes(performed it 1-4 times out of 10 occasions)
1 N Never (did not perform it at all)

A letter to conduct a pilot study was addressed to the Medical Director Chief II, thru the Chief Nurse, Nursing office, and thru the Head, Nursing Affiliation Training Office of the selected hospital, and was formulated by the researcher. This was recommended by the adviser and was recommended for approval by the Dean of the School of Graduate Studies of Manila Central University.

The pilot study comprised of twelve (12) nursing students and one (1) clinical instructor whose responses were not included in the actual study. The data were subjected to a reliability test using Cronbach's Alpha. The pilot study result was α 0.87 which indicated good internal consistency.

For the conduct of the actual study, a letter was addressed to the Medical Director Chief II, thru the Chief Nurse, Nursing Office, and thru the head. The nursing Affiliation Training Office of the selected hospital was formulated by the researcher, this was noted by the Adviser and was recommended for approval by the Dean, School of Graduate Studies, Manila Central University.

After approval by the Medical Director, the researcher coordinated with the Research Ethics Review Unit of the selected hospital, and the Nursing Training Office for the schedule of the administration of the questionnaire.

An informed consent form for participation of the study was secured from the students and their respective clinical instructors. After which, the researcher distributed the questionnaire to the respondents after explaining to them the purpose of the study, the ethical requisites such as the privacy of the respondents, the confidentiality and anonymity of their responses, volunteerism in participation, that they can withdraw from the study anytime, that there is no remuneration, and that they can seek clarification for items in the questionnaire.

The questionnaires were distributed during the orientation day of the nursing students' exposure, which was held during Mondays. The orientation for three (3) batches was held on November 20, 2017, December 4, 2017, and January 8, 2018.

However, during the orientation which was held last December 4, 2017, a clinical instructor refused participation in the study. Another clinical instructor refused when she was asked to join for the second time.

The clinical instructors requested 1 to 2 days ample time to complete the questionnaire to fully observe the students during their RLE exposure. The requested ample time was allotted to complete the questionnaire and with proper coordination with the clinical and built-in clinical instructors, together with the Nursing Affiliation Office Head and personnel. The researcher was able to collect the questionnaires and the data were tabulated and were subjected to interpretation and analysis.

Statistical Treatment of Data

Percentage Distribution

Provides quantitative summaries and analysis of the profile of the Nursing Students in terms of; Age; Sex; Year Level; and School,

$$\textbf{Formula: } \% = \frac{F \, x \, 100}{N}$$

Where:
% = Percentage
F = Frequency
N = Total number of Respondents

Weighted Mean

Determined the overall average response of the respondents.

$$\textbf{Formula: } \bar{x} = \frac{\sum wx}{\sum w}$$

Where:
x= is the repeating value

w = is the number of occurrences of x (weight)
$\bar{x}$ = is the weighted mean

Four-Point rating scale. Interprets the level of compliance of nursing students with the key component of standard precautions for infection prevention and control. The scales had the following range of acceptance:

A	Always	4	=	(3.26 - 4.00)
O	Often	3	=	(2.51- 3.25)
So	Sometimes	2	=	(1.76 - 2.5)
N	Never	1	=	(1.00 -1.75)

Chi-Square
Determined the significant relationship between the profile of the nursing students and their level of compliance with the key component of standard precautions for infection prevention and control.

$$\textbf{Formula: } \chi^2 = \sum \frac{(O-E)^2}{E}$$

Where:
O = observed data
E = expected data
∑ = summation

t-test
Utilized to determine any significant difference between the Level of Compliance of Nursing Students with the key component of standard precautions for infection prevention and control as assessed by themselves and by their clinical instructors.

$$\textbf{Formula: } t = \frac{m_1 - m_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}}$$

Where:
m_1 = mean assessment of the first (second) group
s_1^2 = variance of the first (second) group
n = number of respondents

ANOVA
Determined the significant difference between the students' level of compliance with the key component of standard precautions for infection prevention and control when grouped according to profile.

$$\textbf{Formula: } TSS = \sum x^2 - \frac{(\sum x)^2}{N}$$

Where:
TSS = total sum of squares
x = individual values in each column
N = total sample size

$$SSB = \frac{(\sum x_c)^2}{n} - \frac{(\sum |x|)^2}{N}$$

Where:
SSB = sum of squares between columns
$\sum x_c$ = sum of the individual values per column
n = size of the sample per column
N = total sample size

A Summary Table of the Analysis of Variance for the One-Way Classification is presented in the following form:

The ANOVA Table

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	Computed F-value
Between Column	SSB	$k-1$	$MSB = \frac{SSB}{k-1}$	$F = \frac{MSB}{MSW}$
Within Column	SSW	$k(n-1)$	$MSW = \frac{SSW}{k(n-1)}$	
Total	SST	$N-1$		

Where:
SSB = sum of squares between columns
SSW = sum of squares within columns and
SSW = *TSS* – *SSB*
SST = total of sum of squares and *SST* = *SSB* + *SSW*
k = number of columns (categories)
n = size of the sample per column
N = total sample size
MSB = mean square for between columns
MSW = mean square for within columns
$k - 1$ and $k(n - 1)$ represent the degrees of freedom
F = test value

Sheffé Test.
Determine which pairs of the groups significantly differed in their assessment if the result of the F-test in the ANOVA was significant. The formula of the test is:

$$F_S = \frac{(\bar{X}_i - \bar{X}_j)^2}{S_w^2\left(\frac{1}{n_i} + \frac{1}{n_j}\right)}$$

Where:
F_S = Sheffé test value
$\bar{X}_i$ = weighted mean of the i[th] (j[th]) group
S_w = variance of whole group (combining the all the means of the i[th] and j[th] groups)
n_i = number of the subjects in each i[th] group

5. Results

Table 1.1: Percentage and Frequency Distribution of the Nursing Student Affiliates' Profile According to Age

Age	Frequency	Percentage	Rank
16-20 years old	187	74.21	1
21-25 years old	47	18.65	2
26-30 years old	14	5.56	3
31 years old and above	4	1.58	4
Total	252	100.00	

Table 1.1 shows the distribution of the nursing student respondents according to age. It reveals that 187 out of 252 respondents or 74.21 percent were from 16 to 20 years old, 18.65 percent (or 47) were 21-25 years old, 5.56 percent (or 14) were between 26-30 years, and the remaining 1.58 percent (or 4) are 31 years old and above. Therefore, majority of the respondents were in 16-20 years old bracket. The distribution of age is understandably true representing that most of the student respondents are in the 16-20 years of age. In the Philippines, it is commonly expected that students in the college level are aged 16-20 years old. At the level of the study, the college students are not yet affected by the K-12 curriculum.

Table 1.2: Percentage & Frequency Distribution of the Nursing Student Affiliates' Profile According to Sex

Sex	Frequency	Percentage	Rank
Male	66	26.19	2
Female	186	73.81	1
Total	252	100	

Table 1.2 shows that 186 (or 73.81%) of the nursing student respondents are female and 66 (or 26.19%) are male. Thus, the majority of the nursing students are female

Table 1.3: Percentage and Frequency Distribution of the Nursing Student Affiliates' Profile According to Year Level

Year Level	Frequency	Percentage	Rank
Third Year	163	64.68	1
Fourth Year	89	35.32	2
Total	252	100	

Table 1.3 gives the summary of year level distribution of the respondents. It shows that 163 nursing student respondents (or 64.68%) were in their third year level, while the 89 nursing student respondents (or 35.32%) were in the fourth year level. Therefore, the respondents were dominated by third year nursing students.

Table 1.4: Percentage and Frequency Distribution of the Nursing Student Affiliates' Profile According to School

School Affiliation	Frequency	Percentage	Rank
A	9	3.55	14
B	14	5.56	6
C	9	3.57	14
D	23	9.13	2.5
E	23	9.13	2.5
F	7	2.78	175
G	30	11.9	1
H	7	2.78	17.5
I	6	2.38	19
J	15	5.95	5
K	20	7.94	4
L	11	4.37	10
M	13	5.16	7
N	11	4.37	10
O	9	3.57	14
P	12	4.76	8
Q	10	3.97	12
R	8	3.17	16
S	11	4.37	10
T	4	1.59	20
Total	252	100	

Table 1.4 shows the nursing student affiliates' profile according to school. The study was conducted among 20 colleges of nursing. Based on the findings, School G had a total of 30 respondents or 11.90 percent of the total respondents. Next in rank are School D & E with 23 respondents each or 9.13 percent. School K is next in rank with 20 respondents (or 9.13%) and School J with 15 respondents (or 5.95%), respectively. On the other hand, the participating schools with the least number of respondents are School F (7), School H (7), Shool I (6) and the school T which got the lowest number of respondents which is four (4). Each school had the prerogative in scheduling the number of students to be affiliating in the selected hospital.

Compliance as to Standard Precaution

Table 2.1.1: Nursing Student Affiliates' Assessment of their Compliance to Infection Prevention and Control in Terms of Standard Precautions as to Hand Hygiene

Hand Hygiene I perform hand hygiene using plain soap and water and/or using antimicrobial agent, such as an alcohol hand rub or waterless antiseptic agent when available during the following clinical situations	Numerical Interpretation	Verbal Interpretation	Rank
Before touching a patient when approaching him/her. To protect the patient against harmful germs carried on your hand	3.53	Always	5
Immediately before performing a clean/ aseptic procedure. To protect the patient against harmful germs including the patient's own, from entering is/her body	3.63	Always	3
Immediately after an exposure risk to body fluids and after glove removal. To protect yourself and the health- care environment from harmful patient germs	3.77	Always	1
After touching a patient and his/her immediate surroundings, when leaving the patient's side. To protect yourself and the health-care environment from harmful patient germs	3.67	Always	2
After touching any object or furniture in the patient's immediate surroundings when leaving-even if the patient has not been touched, to protect yourself and the health care environment from harmful patient germs	3.57	Always	4
Average	3.63	Always	
Always 3.26-4.00; Often 2.51-3.25; Sometimes .76-2.50; Never 1.00-1.75			

Table 2.1.1 present the level of compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control as assessed by themselves in terms of hand hygiene. From the highest level of compliance, the respondents always do proper hand hygiene (a) immediately after an exposure risk to body fluids and after glove removal. This is to protect themselves and the health-care environment from harmful patient germs with a weighted mean (WM) of 3.77. Likewise, they always do proper hand hygiene (b) after touching a patient and his/her immediate surroundings, when leaving the patient's side, to protect themselves and the health-care environment from harmful patient germs (WM = 3.67); (c) immediately before performing a clean/aseptic procedure, to protect the patient against harmful germs, including the patient's own, from entering their body (WM =

3.63); (d) After touching any object or furniture in the patient's immediate surroundings when leaving – even if the patient has not been touched, to protect themselves and the health-care environment from harmful patient germs (WM = 3.57); and (e) before touching a patient when approaching to them, to protect the patient against harmful germs carried on their hands (WM = 3.53).

In general, the level of compliance among nursing students in the selected hospital with the key components of standard precautions for infection prevention and control as assessed by them in terms hand hygiene has a general weighted mean of 3.63 or verbally interpreted as "Always".

Table 2.1.2: Nursing Student Affiliates' Assessment of their Compliance to Infection Prevention and Control in terms of Standard Precautions such as Gloves

Use of Personal Protective Equipment (PPE) such as Gloves. I observe the following principle and guidelines in the following PPE;	Numerical Interpretation	Verbal Interpretation	Rank
Wear clean, non-Sterne gloves when touching blood, body fluids, secretions, excretions or mucous membranes	3.77	Always	3
Change gloves between contacts with different patients	3.6	Always	6
Change gloves between tasks/procedures on the same patient to prevent corss-contamination between different body sites	3.67	Always	5
Remove gloves immediately after use and before attending to another patient	3.77	Always	3
Wash hands immediately after removing gloves or use plain soap, antimicrobial agent or waterless antiseptic agent	3.77	Always	3
Dispose gloves according to the health care facility protocol	3.8	Always	1
Average	3.73	Always	
Always 3.26-4.00; Often 2.51-3.25; Sometimes .76-2.50; Never 1.00-1.75			

Table 2.1.2 describes the level of compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control as in terms of standard precautions as to use of personal protective equipment such as gloves. It shows that among the principles and guidelines (a) Dispose gloves according to the health care facility protocol (WM = 3.80) got the highest mean. This was followed by (b) Remove gloves immediately after use and before attending to another patient (WM = 3.77); (c) Wash hands immediately after removing gloves or use plain soap, antimicrobial agent or waterless antiseptic agent (WM = 3.77); (d) Wear clean, non-sterile gloves when touching blood, body fluids, secretions, excretions or mucous membranes (WM = 3.77); (e) Change gloves between tasks/ procedures on the same patient to prevent cross-contamination between different body sites (WM = 3.67); and (f) Change gloves between contacts with different patients (WM = 3.60).

Overall, the level of compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of personal protective equipment such as gloves had a weighted mean of 3.73 or "Always."

Table 2.1.3: Nursing Student Affiliates' Assessment of their Compliance to Infection Prevention and Control in terms of Standard Precautions as to Use of Personal Protective Equipment such as Masks

Use of Personal Protective Equipment (PPE) such as Gloves. I observe the following principle and guidelines in the following PPE;	Numerical Interpretation	Verbal Interpretation	Rank
Wear a mask to protect mucous membranes of the mouth and nose when understanding procedures that are likely to generate splashes of blood, body fluids, secretions or excretions	3.8	Always	1
Wear surgical masks rather than cotton material or gauze masks because surgical masks have been designed to resist fluids to varying degrees depending on the design of the material in the mask	3.67	Always	3
Do not reuse disposable masks. They should be disposed of according to the health care facility protocol	3.73	Always	2
Average	3.74	Always	
Always 3.26-4.00; Often 2.51-3.25; Sometimes .76-2.50; Never 1.00-1.75			

Table 2.1.3 summarizes the compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of personal protective equipment such as masks. It was observed that they (a) wear a mask to protect mucous membranes of the mouth and nose when undertaking procedures that are likely to generate splashes of blood, body fluids, secretions or excretions, got a weighted mean of 3.80 "Always"; (b) do not reuse disposable masks and should be disposed of according to the health care facility protocol, with a weighted mean of 3.73 "Always"; and (c) wear surgical masks rather than cotton material or gauze masks because surgical masks have been designed to resist fluids to varying degrees depending on the design of the material in the mask, with a weighted mean of 3.67 "Always."

In general, the level compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of personal protective

equipment in terms of using wamasks is "Always" with an overall mean of 3.74.

Table 2.1.4: Nursing Student Affiliates' Assessment of their Compliance to Infection Prevention and Control in terms of Standard Precautions as to Use of Personal Protective Equipment such as Gowns and Plastic Aprons

Use of Personal Protective Equipment (PPE) such as Gowns and plastic Aprons. I observe the following principle and guidelines in the following PPE;	Numerical Interpretation	Verbal Interpretation	Rank
Wear a gown (clean, non-sense) to protect the skin and prevent soiling of clothes during procedures that are likely to generate splashes of blood, body fluids, secretions or excretions	3.5	Always	1.5
Remove a soiled or wet gown as soon as possible	3.5	Always	1.5
A plastic apron may be worn on top of the gown to protect exposure to blood fluids, secretions and excretions	3.13	Always	5
Launder gowns and aprons appropriately if they are reusable, according to the hospital guidelines	3.27	Always	4
Do not reuse disposable gowns and aprons. They should be disposed of according to the health care facility protocol	3.43	Always	3
Average	3.37	Always	
Always 3.26-4.00; Often 2.51-3.25; Sometimes .76-2.50; Never 1.00-1.75			

Table 2.1.4 describes the compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of personal protective equipment in terms of gowns and plastic aprons. It shows that (a) wearing a gown (clean, non-sterile) to protect the skin and prevent soiling of clothing during procedures that are likely to generate splashes of blood, body fluids secretions or excretions, got a weighted mean of 3.50 "Always"; (b) removing soiled or wet gown as soon as possible WM = 3.50, "Always"; (c) not reusing disposable gowns and aprons. They should be disposed of according to the health care facility protocol (WM = 3.43, "Always"; (d) laundering gowns and aprons appropriately if they are reusable, according to the hospital guidelines (WM = 3.27, "Always"; and (e) a plastic apron may be worn on top of the gown to protect exposure to blood, body fluids, secretions and excretions (WM = 3.13, "Often."

In general, the level compliance of nursing students in selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of personal protective equipment in terms of using gowns and plastic aprons is "Always" with an overall mean of 3.37.

Table 2.1.5: Nursing Student Affiliates' Assessment of their Compliance to Infection Prevention and Control in terms of Standard Precautions as to Use of Personal Protective Equipment such as Caps and Boots/Shoe Covers

Use of Personal Protective Equipment (PPE) such as Caps and Boots/ Shoe cover. I observe the following principle and guidelines in the following PPE;	Numerical Interpretation	Verbal Interpretation	Rank
Wear Caps and Boots/ Shoe cover where there is likelihood the patient's blood, body fluids, secretions or excretions may splash, spill or leak onto the hair or shoes	3.43	Always	2
Launder Caps and Boots/ Shoe cover appropriately if they are reusable, according to the hospiital guidelines	3.4	Always	3.5
Do not reuse disposable Caps and Boots/ Shoe cover. They should be discarded according to the health care facility protocol	3.4	Always	3.5
Clean and disinfect reusable boots	3.5	Always	1
Average	3.43	Always	
Always 3.26-4.00; Often 2.51-3.25; Sometimes .76-2.50; Never 1.00-1.75			

Table 2.1.5 shows the compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of personal protective equipment in terms of caps and boots and or shoe covers. The result revealed that (a) Clean and disinfect reusable boots, got a weighted mean of 3.50 "Always"; (b) Wear caps and boots/shoe covers where there is a likelihood the patient's blood, body fluids, secretions or excretions may splash, spill or leak onto the hair or shoes (WM = 3.43, "Always"; (c) Launder caps and shoe covers appropriately if they are reusable, according to the hospital guidelines (WM = 3.40, "Always"; and (d) Do not reuse disposable caps/shoe covers. They should be discarded according to the health care facility protocol (WM = 3.40, "Always."

In summary, the level compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of personal protective equipment in terms of using caps and boots and or shoe covers was "Always" with an overall mean of 3.37.

Table 2.1.6: Nursing Student Affiliates' Assessment to their Compliance to Infection Prevention and Control in terms of Standard Precaution as to Safe Injection Practices

Standard Precautions in terms of Safe Injection Practices	Numerical Interpretation	Verbal Interpretation	Rank
1. Perform proper hand hygiene before handling medications	3.77	Always	4.5
2. Use aseptic technique to avoid contamination of sterile injection equipment.	3.80	Always	1.5
3. Use a new sterile syringe and sterile needle to draw up medications	3.73	Always	7
4. Disinfect rubber septum of vials using alcohol swab before withdrawing medication from it.	3.80	Always	1.5
5. Never recap or bend needles.	3.77	Always	4.5
6. Properly dispose syringes and needles, scalpel blades and other sharp items in a puncture-resistant container with a lid that closes and is located close to the area in which the item is used.	3.77	Always	4.5
7. Keep fingers away from tip of device when disposing, and avoid placing hands close to the opening of the punctured-resistant container.	3.77	Always	4.5
Average	3.77	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 2.1.6 shows the compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control as assessed by themselves in terms of transmission-based precautions as to safe Injection practices. As observed, the following precautions got the highest level of compliance with a weighted mean of 3.80 (Always) such as (a) Use aseptic technique to avoid contamination of sterile injection equipment; and (b) Disinfect rubber septum of vials using alcohol swab before withdrawing medication from it. Likewise, the following precautions got the same level of compliance (Always) which are (c) Perform proper hand hygiene before handling medications (WM = 3.77); (d) Never recap or bend needles (WM = 3.77); (e) Properly dispose syringes and needles, scalpel blades and other sharp items in a puncture-resistant container with a lid that closes and is located close to the area in which the item is used (WM = 3.77); (f) Keep fingers away from tip of device when disposing, and avoid placing hands close to the opening of the punctured-resistant container (WM = 3.77). Lastly, a practice with lowest weighted mean but interpreted with Always is (g) Use a new sterile syringe and sterile needle to draw up medications (WM = 3.73).

In general, the level of compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control as assessed by themsleves in terms of standard precaution in exercising other transmission-based precautions such as to safe injection practices in particular had a weighted mean of 3.77 or verbally interpreted as “Always.”

Table 2.1.7: Summary of the Level of Compliance of Nursing Student Affiliates’ with the Key Components of Standard Precautions for Infection Prevention and Control in terms of Standard Precautions

Standard Precaution	Numerical Interpretation	Verbal Interpretation	Rank
1. Hand Hygiene	3.63	Always	4
2. Gloves (Use of PPE)	3.73	Always	3
3. Masks (Use of PPE)	3.74	Always	2
4. Gowns and Plastic Aprons (Use of PPE)	3.37	Always	6
5. Caps and Boots/Shoe Covers (Use of PPE)	3.43	Always	5
6. Safe Injection Practices/Preventing Needle Stick Injury	3.77	Always	1
Average	3.61	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 2.1.7 gives the overall summary of the compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions using personal protective equipment. The compliance in using (a) Safe Injection Practices/Preventing Needle Stick Injury got the highest weighted mean of 3.77 (Always) and followed by (b) Masks (WM = 3.74, Always); (c) Gloves (WM = 3.73, Always); (d) Hand Hygiene (WM = 3.63, Always); (e) Caps and Boots/Shoe Covers (WM = 3.43, Always); and (f) Gowns and Plastic Aprons (WM = 3.37, Always). Nonetheless, the overall level of compliance of nursing students with the key components of standard precautions for infection prevention and control using personal protective equipment was “Always.”

2.2. Other Transmission-Based Precautions

Table 2.2.1: Nursing Student Affiliates’ Assessment to their Compliance to Infection Prevention and Control in terms of Other Transmission-Based Precautions as to Contact Precautions

Other Transmission-Based Precautions in terms of Contact Precautions	Numerical Interpretation	Verbal Interpretation	Rank
1. Don gloves upon entry into the room or cubicle.	3.67	Always	3.5
2. Wear gloves whenever touching the patient’s intact skin or surfaces and articles in close proximity to the patient (e.g., medical equipment, bed rails).	3.67	Always	3.5
3. Remove gloves promptly after use and discard before touching non-contaminated items or environmental surfaces	3.77	Always	1.5
4. Don gown upon entry into the room or cubicle.	3.47	Always	7.5
5. Wear a gown whenever anticipating that clothing will have direct contact with the patient or potentially contaminated environmental surfaces or equipment in close proximity to the patient.	3.50	Always	6
6. Remove gown and observe hand hygiene before leaving the patient-care environment.	3.47	Always	7.5
7. After removing the gown, ensure that clothing and skin do not contact potentially contaminated environmental surfaces that could result in possible transfer of microorganism to other patients or environmental surfaces.	3.53	Always	5
8. Change protective attire and perform hand hygiene between contact with other patients	3.77	Always	1.5
Average	3.60	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 2.2.1 shows the level of compliance of nursing students in the selected hospital with the key components of

standard precautions for infection prevention and control in terms of standard precautions in terms of contact precautions. Among the practices, (a) Remove gloves promptly after use and discard before touching non-contaminated items or environmental surfaces; and (b) Change protective attire and perform hand hygiene between contact with other patients, got the highest weighted mean of 3.77 or verbally interpreted as "Always."

These are followed by (c) Don gloves upon entry into the room or cubicle (WM = 3.67, Always); (d) Wear gloves whenever touching the patient's intact skin or surfaces and articles in close proximity to the patient (WM = 3.67, Always); (e) After removing the gown, ensure that clothing and skin do not contact potentially contaminated environmental surfaces that could result in possible transfer of microorganism to other patients or environmental surfaces (WM = 3.53, Always); (f) Wear a gown whenever anticipating that clothing will have direct contact with the patient or potentially contaminated environmental surfaces or equipment in close proximity to the patient (WM = 3.50, Always); (g) Don gown upon entry into the room or cubicle (WM = 3.47, Always); and (h) Remove gown and observe hand hygiene before leaving the patient-care environment (WM = 3.47, Always).

Overall, the level of compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control as assessed by them in terms of standard precaution in exercising other transmission-based precautions as to contact precautions has a weighted mean of 3.60 or verbally interpreted as "Always."

Table 2.2.2: Nursing Student Affiliates' Assessment to their Compliance to Infection Prevention and in terms of Other Transmission-Based Precautions as to Droplet Precautions

Other Transmission-Based Precautions in terms of Droplet Precautions	Numerical Interpretation	Verbal Interpretation	Rank
1. Don a mask upon entry into the patient room or cubicle.	3.80	Always	1
2. Wear a surgical mask when working within 1-2 meters of the patient.	3.60	Always	3
3. Educate patient and significant others on respiratory hygiene and cough etiquette by covering their mouths when coughing and covering noses when sneezing, and the proper use and disposal of tissues, and to perform hand hygiene after hands have been in contact with respiratory secretions.	3.57	Always	4
4. Place a surgical mask on the patient if transport is necessary.	3.40	Always	5
5. Change protective attire and perform hand hygiene between contact with other patients	3.63	Always	2
Average	**3.60**	**Always**	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 2.2.2, presents the level of compliance of nursing students in selected the hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions in terms of droplet precautions. The following practices are enumerated according to their numerical interpretation from highest to lowest with (a) Don a mask upon entry into the patient room or cubicle (WM = 3.80, Always); (b) Change protective attire and perform hand hygiene between contact with other patients (WM = 3.63, Always); (c) Wear a surgical mask when working within 1-2 meters of the patient (WM = 3.60., Always); (d) Educate patient and significant others on respiratory hygiene and cough etiquette by covering their mouths when coughing and covering noses when sneezing, and the proper use and disposal of tissues, and to perform hand hygiene after hands have been in contact with respiratory secretions (WM = 3.57, Always); and (e) Place a surgical mask on the patient if transport is necessary (WM = 3.40, Always).

Generally, the level of compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions in terms of droplet precautions had a weighted mean of 3.60 with verbal interpretation of "Always."

Table 2.2.3: Nursing Student Affiliates' Assessment to their Compliance to Infection Prevention and Control in terms of Other Transmission-Based Precautions as to Airborne Precautions

Other Transmission-Based Precautions in terms of Airborne Precautions	Numerical Interpretation	Verbal Interpretation	Rank
1. Wear surgical mask or sized and fitted N95 mask upon entering the room or cubicle	3.63	Always	6
2. Personnel restrictions. Restrict susceptible healthcare provide from entering the rooms of patients known or suspected to have measles (rubeola), varicella (chickenpox)	3.73	Always	1
3. Keep doors closed at all times	3.70	Always	3
4. Instruct patients to wear a surgical mask, if possible.	3.70	Always	3
5. Educate patient and significant others on respiratory hygiene and cough etiquette by covering their mouths when coughing and covering noses when sneezing, and the proper use and disposal of tissues, and to perform hand hygiene after hands have been in contact with respiratory secretions.	3.70	Always	3
6. Change protective attire and perform hand hygiene between contact with other patients	3.67	Always	5
Average	**3.69**	**Always**	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 2.2.3 shows the level of compliance of nursing students in the selected hospital with the key components of standard precautions for infection prevention and control in terms of standard precautions in terms of airborne precautions. It shows that (a) Personnel restrictions. Restrict susceptible healthcare provide from entering the rooms of patients known or suspected to have measles (rubeola), varicella (chickenpox) got the highest self-assessment with a weighted mean of 3.73 "Always." Moreover, other practices got the same verbal interpretation of "Always" as follows: (b) Keep doors closed at all times (WM = 3.70); (c) Instruct patients to wear a surgical mask, if possible (WM = 3.70); (d) Educate patient and significant others on respiratory hygiene and cough etiquette by covering their mouths when coughing and covering noses when sneezing, and the proper use and disposal of tissues, and to perform hand hygiene

after hands have been in contact with respiratory secretions WM = 3.70, "Always"; (e) Change protective attire and perform hand hygiene between contact with other patients WM = 3.67, "Always"; and (f) Wear surgical mask or sized and fitted N95 mask upon entering the room or cubicle (WM = 3.63, "Always."

Table 2.2.4: Summary of Nursing Student Affiliates' Assessment to their Compliance to Infection Prevention and Control in terms of Other Transmission-Based Precautions

Other Transmission-Based Precautions	Numerical Interpretation	Verbal Interpretation	Rank
1. Contact Precautions	3.60	Always	2.5
2. Droplet Precautions	3.60	Always	2.5
3. Airborne Precautions	3.69	Always	1
Average	3.63	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 2.2.4 summarizes the self-assessment among nursing students in their compliance to infection prevention and control in terms of other transmission-based precautions. It was shown that based on their assessment, the nursing students always complied to other transmission-based precautions such as (a) airborne precautions (3.69, Always); (b) contact precautions 3.60, "Always"; and lastly (c) droplet precautions (3.60, Always). Generally, the self-assessment among nursing students in their compliance to infection prevention and control in terms of other transmission-based precautions had a weighted mean of 3.63 or "Always."

3.1. Compliance as to Standard Precaution

Table 3.1.1: Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance to Infection Prevention and Control in terms of Hand Hygiene

Hand Hygiene My students perform hand hygiene using plain soap and water and/or using antimicrobial agent, such as an alcohol hand rub or waterless antiseptic agent when available during the following clinical situations:	Numerical Interpretation	Verbal Interpretation	Rank
1. Before touching a patient when approaching him/her. To protect the patient against harmful germs carried on the student's hand.	2.73	Often	5
2. Immediately before performing a clean/aseptic procedure. To protect the patient against harmful germs, including the patient's own, from entering his/her body.	2.77	Often	4
3. Immediately after an exposure risk to body fluids and after glove removal. To protect the student and the health-care environment from harmful patient germs.	4.00	Always	1.5
4. After touching a patient and his/her immediate surroundings, when leaving the patient's side. To protect the student and the health-care environment from harmful patient germs	3.73	Always	3
5. After touching any object or furniture in the patient's immediate surroundings when leaving – even if the patient has not been touched, to protect the student and the health-care environment from harmful patient germs.	4.00	Always	1.5
Average	3.45	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.1.1 shows the compliance of nursing students in the selected hospitals with the key components of standard precautions for infection prevention and control in terms of standard precautions as to hand hygiene as assessed by their clinical instructors. It reveals that their students always performed hand hygiene using plain soap and water and/or using antimicrobial agent, such as an alcohol hand rub or waterless antiseptic agent - immediately after an exposure risk to body fluids and after glove removal (4.00, Always); and after touching any object or furniture in the patient's immediate surroundings when leaving – even if the patient had not been touched (4.00; Always).

Table 3.1.1 shows that clinical instructors believed that their nursing students oftentimes complied with the key components of standard precautions for infection prevention and control in terms of standard precautions as to hand hygiene – immediately before performing a clean/aseptic procedure (2.77, Often); and before touching a patient when approaching him/her (2.73, Often).

Table 3.1.2: Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance to Infection Prevention and Control in terms of Using Gloves

Use of Personal Protective Equipment (PPE) such as Gloves My student observe the following principles and guidelines in the use the following PPE;	Numerical Interpretation	Verbal Interpretation	Rank
1. Wear clean, non-sterile gloves when touching blood, body fluids, secretions, excretions or mucous membranes.	2.53	Often	6
2. Change gloves between contacts with different patients	3.01	Often	5
3. Change gloves between tasks/ procedures on the same patient to prevent cross-contamination between different body sites	3.45	Always	1
4. Remove gloves immediately after use and before attending to another patient	3.23	Often	4
5. Wash hands immediately after removing gloves or use plain soap, antimicrobial agent or waterless antiseptic agent	3.24	Often	3
6. Dispose gloves according to the health care facility protocol	3.26	Always	2
Average	3.12	Often	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.1.2 reveals the compliance of nursing students in the selected hospitals with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of gloves as assessed by their clinical instructors. It reveals that their students always observed the following principles and guidelines as to – change gloves between tasks/ procedures on the same patient to prevent cross-contamination between different body sites (3.45, Always); and dispose gloves according to the health care facility protocol (3.26, Always).

Moreover, clinical instructors believed that their nursing students oftentimes complied with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of gloves' principles and guidelines – wash hands immediately after removing gloves or use plain soap, antimicrobial agent or waterless antiseptic agent (3.24, Often); remove gloves immediately

after use and before attending to another patient (3.23, Often); change gloves between contacts with different patients (3.01, Often); and Wear clean, non-sterile gloves when touching blood, body fluids, secretions, excretions or mucous membranes (2.53, Often).

Table 3.1.3. Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance Infection Prevention and Control in terms of Using Masks

Use of Personal Protective Equipment (PPE) such as Masks They observe the following principles and guidelines in the use the following PPE;	Numerical Interpretation	Verbal Interpretation	Rank
1. Wear a mask to protect mucous membranes of the mouth and nose when undertaking procedures that are likely to generate splashes of blood, body fluids, secretions or excretions	3.43	Always	2
2. Wear surgical masks rather than cotton material or gauze masks because surgical masks have been designed to resist fluids to varying degrees depending on the design of the material in the mask	3.21	Often	3
3. Do not reuse disposable masks. They should be disposed of according to the health care facility protocol	3.54	Always	1
Average	**3.39**	**Always**	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.1.3 summarizes the compliance of nursing students in the selected hospitals with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of masks as assessed by their clinical instructors. It shows that their students always observed the following principles and guidelines in – not reusing disposable mask where it should be disposed of according to the health care facility protocol (3.54, Always); and wearing a mask to protect mucous membranes of the mouth and nose when undertaking procedures that are likely to generate splashes of blood, body fluids, secretions or excretions (3.43, Always). Clinical instructors observed that their nursing students oftentimes complied with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of mask's principles and guidelines in wearing surgical masks rather than cotton material or gauze masks because surgical masks have been designed to resist fluids to varying degrees depending on the design of the material in the mask (3.21, Often).

Table 3.1.4: Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance to Infection Prevention and Control in terms of Using Gowns and Plastic Aprons

Use of Personal Protective Equipment (PPE) such as Gowns and Plastic Aprons They observe the following principles and guidelines in the use the following PPE;	Numerical Interpretation	Verbal Interpretation	Rank
1. Wear a gown (clean, non-sterile) to protect the skin and prevent soiling of clothing during procedures that are likely to generate splashes of blood, body fluids secretions or excretions.	3.21	Often	3
2. Remove a soiled or wet gown as soon as possible.	3.24	Often	2
3. A plastic apron may be worn on top of the gown to protect exposure to blood, body fluids, secretions and excretions.	2.89	Often	5
4. Launder gowns and aprons appropriately if they are reusable, according to the hospital guidelines.	3.13	Often	4
5. Do not reuse disposable gowns and aprons. They should be disposed of according to the health care facility protocol.	3.33	Always	1
Average	**3.16**	**Often**	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.1.4 reveals the level of compliance of nursing students in selected hospitals with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of gowns and plastic aprons as assessed by their clinical instructors. It shows that their students always observed the following principles and guidelines in not reusing disposable gowns and aprons, which should be disposed of according to the health care facility protocol was 3.33, "Always."

Table 3.1.4, shows that the clinical instructors observed that their nursing students oftentimes complied with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of gowns and plastic aprons' principles and guidelines in – removing a soiled or wet gown as soon as possible was 3.24, "Often"; wearing a gown (clean, non-sterile) to protect the skin and prevent soiling of clothing during procedures that are likely to generate splashes of blood, body fluids secretions or excretions 3.21, "Often"; laundering gowns and aprons appropriately if they are reusable, according to the hospital guidelines, 3.13, "Often"; and wearing of plastic apron on top of the gown to protect exposure to blood, body fluids, secretions and excretions 2.89, "Often".

Table 3.1.5: Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance to Infection Prevention and Control in terms of Using Caps and Boots/Shoe Covers

Use of Personal Protective Equipment (PPE) such as Caps and Boots/Shoe Covers They observe the following principles and guidelines in the use the following PPE:	Numerical Interpretation	Verbal Interpretation	Rank
1. Wear caps and boots/shoe covers where there is a likelihood the patient's blood, body fluids, secretions or excretions may splash, spill or leak onto the hair or shoes.	3.26	Always	3
2. Launder caps and shoe covers appropriately if they are reusable, according to the hospital guidelines.	3.32	Always	2
3. Do not reuse disposable caps/shoe covers. They should be discarded according to the health care facility protocol.	3.25	Often	4
4. Clean and disinfect reusable boots	3.45	Always	1
Average	3.32	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.1.5 presents the level of compliance of nursing students in the selected hospitals with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of caps and boots or shoe covers as assessed by their clinical instructors. It shows that their students always observed the following principles and guidelines in – cleaning and disinfecting reusable boots 3.45, "Always"; laundering caps and shoe covers appropriately if they are reusable, according to the hospital guidelines 3.32, "Always"; and wearing caps and boots/shoe covers where there is a likelihood the patient's blood, body fluids, secretions or excretions may splash, spill or leak onto the hair or shoes 3.26, "Always".

On the other hand, the clinical instructors perceived that their nursing students oftentimes complied with the key components of standard precautions for infection prevention and control in terms of standard precautions as to use of caps and boots or shoe covers' principles and guidelines in not reusing disposable cap or shoe cover, where it should be discarded according to the health care facility protocol (3.25, Often).

Table 3.1.6: Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance to Infection Prevention and Control in terms of Standard Precaution as to Safe Injection Practices

Standard Precautions in terms of Safe Injection Practices	Numerical Interpretation	Verbal Interpretation	Rank
1. Perform proper hand hygiene before handling medications	3.26	Always	7
2. Use aseptic technique to avoid contamination of sterile injection equipment.	3.43	Always	5
3. Use a new sterile syringe and sterile needle to draw up medications	3.45	Always	3
4. Disinfect rubber septum of vials using alcohol swab before withdrawing medication from it.	3.75	Always	1
5. Never recap or bend needles.	3.43	Always	5
6. Properly dispose syringes and needles, scalpel blades and other sharp items in a puncture-resistant container with a lid that closes and is located close to the area in which the item is used.	3.62	Always	2
7. Keep fingers away from tip of device when disposing, and avoid placing hands close to the opening of the punctured-resistant container.	3.43	Always	5
Average	3.48	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.1.6 shows the level of compliance of nursing students in selected hospitals with the key components of standard precautions for infection prevention and control in terms of standard precautions as in terms of transmission based precautions as to safe injection practices as assessed by their clinical instructors. It shows that their students always practice – disinfecting the rubber septum of vials using alcohol swab before withdrawing medication from it (3.75, Always); properly disposing syringes and needles, scalpel blades and other sharp items in a puncture-resistant container with a lid that closes and is located close to the area in which the item is used (3.62, Always); using a new sterile syringe and sterile needle to draw up medications (3.45, Always); using aseptic technique to avoid contamination of sterile injection equipment (3.43, Always); keeping fingers away from tip of device when disposing, and avoid placing hands close to the opening of the punctured-resistant container (3.43, Always); never doing recap or bend needles (3.43, Always); and performing proper hand hygiene before handling medications (3.26, Always).

Table 3.1.7: Summary of Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance to Infection Prevention and Control

Use of Personal Protective Equipment (PPE)	Numerical Interpretation	Verbal Interpretation	Rank
1. Hand Hygiene	3.45	Always	2
2. Gloves	3.12	Often	6
3. Masks	3.39	Always	3
4. Gowns and Plastic Aprons	3.16	Often	5
5. Caps and Boots/Shoe Covers	3.32	Always	4
6. Safe Injection Practices/ preventing needle stick injury	3.48	Always	1
Average	3.32	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.1.7 shows the summary of the clinical instructors' perceive compliance of their nursing students in standard precautions for infection prevention and control in terms of standard precautions as to use of personal protective equipment. It was concluded that the observance of the principles and guidelines were done always in safe injection practices/ preventing needle stick injury had 3.48, "Always"; following proper hand hygiene got 3.45, "Always"; using masks, 3.39, "Always:; and using caps and boots or shoe cover, 3.32, "Always".

Nonetheless, it was witnessed by the clinical instructors that their nursing students often times comply with standard precautions for infection prevention and control in terms of standard precautions as to use of gloves 3.12, "Often" and wearing of gowns and plastic gowns 3.16, "Often.

Table 3.2.1: Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance to Infection Prevention and Control in terms of Contact Precautions

Other Transmission-Based Precautions in terms of Contact Precautions	Numerical Interpretation	Verbal Interpretation	Rank
1. Don gloves upon entry into the room or cubicle.	3.34	Always	6
2. Wear gloves whenever touching the patient's intact skin or surfaces and articles in close proximity to the patient (e.g., medical equipment, bed rails).	3.54	Always	1
3. Remove gloves promptly after use and discard before touching non-contaminated items or environmental surfaces	3.46	Always	4
4. Don gown upon entry into the room or cubicle.	3.53	Always	2
5. Wear a gown whenever anticipating that clothing will have direct contact with the patient or potentially contaminated environmental surfaces or equipment in close proximity to the patient.	3.35	Always	5
6. Remove gown and observe hand hygiene before leaving the patient-care environment.	3.25	Often	8
7. After removing the gown, ensure that clothing and skin do not contact potentially contaminated environmental surfaces that could result in possible transfer of microorganism to other patients or environmental surfaces.	3.47	Always	3
8. Change protective attire and perform hand hygiene between contact with other patients	3.31	Always	7
Average	**3.41**	**Always**	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.2.1 show the level of compliance of nursing students in the selected hospitals with the key components of standard precautions for infection prevention and control in terms of standard precautions as in terms of transmission based precautions as to contact precautions as assessed by their clinical instructors. It shows that their students always wearing gloves whenever touching the patient's intact skin or surfaces and articles in close proximity to the patient got 3.54, "Always"; Don gown upon entry into the room or cubicle, 3.53, "Always:; after removing the gown, ensuring that clothing and skin do not contact potentially contaminated environmental surfaces that could result in possible transfer of microorganism to other patients or environmental surfaces, 3.47, "Always"; removing gloves promptly after use and discard before touching non-contaminated items or environmental surfaces, 3.46, "Always"; wearing a gown whenever anticipating that clothing will have direct contact with the patient or potentially contaminated environmental "surfaces or equipment in close proximity to the patient, 3.35, "Always"; don gloves upon entry into the room or cubicle 3.34, "Always"; and changing protective attire and perform hand hygiene between contact with other patients 3.34, "Always."

Table 3.2.1 revealed that the clinical instructors observed that their nursing students remove gown and observe hand hygiene oftentimes before leaving the patient-care environment, 3.25, "Often."

Table 3.2.2: Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance to Infection Prevention and Control in terms of Droplet Precautions

Other Transmission-Based Precautions in terms of Droplet Precautions	Numerical Interpretation	Verbal Interpretation	Rank
1. Don a mask upon entry into the patient room or cubicle.	3.64	Always	1
2. Wear a surgical mask when working within 1-2 meters of the patient.	3.58	Always	2
3. Educate patient and significant others on respiratory hygiene and cough etiquette by covering their mouths when coughing and covering noses when sneezing, and the proper use and disposal of tissues, and to perform hand hygiene after hands have been in contact with respiratory secretions.	2.67	Often	5
4. Place a surgical mask on the patient if transport is necessary.	3.22	Often	4
5. Change protective attire and perform hand hygiene between contact with other patients	3.38	Always	3
Average	**3.30**	**Always**	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.2.2 shows the level of compliance of nursing students in selected hospitals with the key components of standard precautions for infection prevention and control in terms of standard precautions in terms of transmission based precautions as to droplet precautions as assessed by their clinical instructors. It shows that their students always – don a mask upon entry into the patient room or cubicle got 3.64, "Always": wear a surgical mask when working within 1-2 meters of the patient had 3.58, "Always"; and change protective attire and perform hand hygiene between contacts with other patients got 3.38, "Always."

On the other hand, clinical instructors observed that their nursing students oftentimes place a surgical mask on the patient if transport is necessary, 3.22, "Often"; and educate patient and significant others on respiratory hygiene and cough etiquette by covering their mouths when coughing and covering noses when sneezing, and the proper use and disposal of tissues, and to perform hand hygiene after hands have been in contact with respiratory secretions got2.67, "Often."

Table 3.2.3: Clinical Instructors' Assessment to the Nursing Student Affiliates' f Compliance Infection Prevention and Control in terms of Airborne Precautions

Other Transmission-Based Precautions in terms of Airborne Precautions	Numerical Interpretation	Verbal Interpretation	Rank
1. Wear surgical mask or sized and fitted N95 mask upon entering the room or cubicle	3.56	Always	4
2. Personnel restrictions. Restrict susceptible healthcare provide from entering the rooms of patients known or suspected to have measles (rubeola), varicella (chickenpox)	3.64	Always	3
3. Keep doors closed at all times	3.66	Always	1.5
4. Instruct patients to wear a surgical mask, if possible.	3.66	Always	1.5
5. Educate patient and significant others on respiratory hygiene and cough etiquette by covering their mouths when coughing and covering noses when sneezing, and the proper use and disposal of tissues, and to perform hand hygiene after hands have been in contact with respiratory secretions.	3.22	Often	6
6. Change protective attire and perform hand hygiene between contact with other patients	3.24	Often	5
Average	3.50	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.2.3 shows the compliance level of nursing students in the selected hospitals with the key components of standard precautions for infection prevention and control in terms of transmission based precautions as to airborne precautions as assessed by their clinical instructors. It shows that their students always – keep doors closed at all times (3.66, Always); instruct patients to wear a surgical mask, if possible (3.66, Always); restrict susceptible healthcare provide from entering the rooms of patients known or suspected to have measles or chickenpox got 3.64, "Always;" and wear surgical mask or sized and fitted N95 mask upon entering the room or cubicle got 3.56, "Always."

Nonetheless, clinical instructors observed that their nursing students oftentimes – change protective attire and perform hand hygiene between contact with other patients (3.24, Often); and educate patient and significant others on respiratory hygiene and cough etiquette by covering their mouths when coughing and covering noses when sneezing, and the proper use and disposal of tissues, and to perform hand hygiene after hands have been in contact with respiratory secretions got 3.22, "Often."

Table 3.2.4: Summary of Clinical Instructors' Assessment to the Nursing Student Affiliates' Compliance to Infection Prevention and Control in terms of other Transmission-Based Precautions

Other Transmission-Based Precautions	Numerical Interpretation	Verbal Interpretation	Rank
1. Contact Precautions	3.41	Always	2
2. Droplet Precautions	3.30	Always	3
3. Airborne Precautions	3.50	Always	1
Average	3.42	Always	

*Always 3.26-4.00; Often 2.51-3.25; Sometimes 1.76-2.50; Never 1.00-1.75

Table 3.2.4 summarizes the clinical instructors' assessment to the nursing students' compliance to infection prevention and control in terms of other transmission-based precautions. Based on the assessment of their respective clinical instructors, the nursing students always complied to other transmission-based precautions such as (a) airborne precautions got 3.50, "Always"; (b) contact precautions had 3.41, "Always"; and lastly (c) droplet precautions got 3.30, "Always."

Table 4.1: Relationship between the Profile of the Nursing Student Affiliates and their Self-Assessment on the Level of Compliance in Following Standard Precautions for Infection Prevention and Control in terms of Age

Standard Precautions for Infection Prevention and Control	χ^2 Value	p-value	Decision	Interpretation
1. Hand Hygiene	7.595	0.055	Accept	Not Significant
2. Using Gloves	1.281	0.734	Accept	Not Significant
3. Using Masks	5.950	0.114	Accept	Not Significant
4. Using Gowns and Plastic Aprons	3.150	0.369	Accept	Not Significant
5. Using Caps and Boots/Shoe Covers	8.683	0.034	Rejected	Significant
6. Safe Injection Practices	5.617	0.132	Accept	Not Significant
7. Contact Precautions	6.537	0.088	Accept	Not Significant
8. Droplet Precautions	5.416	0.144	Accept	Not Significant
9. Airborne Precautions	2.973	0.396	Accept	Not Significant

Degree of Freedom = 3; Level of Significance = 0.05; Statistical Tool = Chi-Square Test

Table 4.1 shows the relationship between the profile of the nursing students and o their self-assessment on the level of compliance in following standard precautions for infection prevention and control in terms of age. The table shows that the computed Chi-Square value under hand hygiene is 7.595 with a corresponding p-value of 0.055 higher than 0.05 level of significance. Therefore, there is no significant relationship between the age and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of hand hygiene. Likewise, the p-value using gloves ($p = 0.734$), using masks ($p = 0.114$), using gowns and plastic aprons ($p = 0.369$), safe injection practices ($p = 0.132$), contact precautions ($p = 0.088$), droplet precautions ($p = 0.144$), and airborne precautions ($p = 0.396$) were higher than 0.05 level of significance. Hence, there is no significant relationship between their age and self-assessment in compliance of using gloves, using masks, using gowns and plastic aprons, safe injection practices, contact precautions, droplet precautions and airborne precautions. Thus, age does not have anything to do when nursing students assessed their compliance on the aforementioned standard precautions.

On the other hand, the computed Chi-Square value under "Using Caps and Boots/Shoe Covers" was 8.683 with corresponding p-value of 0.034 lower than 0.05 level of significance. This led to the rejection of the null hypothesis. Therefore, there is significant relationship between age and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of using caps and boots/shoe covers. the table further reveals that the older the nursing student is the higher his/her self-assessment in the compliance using caps and boots/shoe covers. Hence, the self-assessment of the nursing students in the level of

compliance in using caps and boots/shoe covers could be associated with age.

Table 4.2: Relationship between the Profile of the Nursing Student Affiliates and their Self-Assessment on the Level of Compliance in Following Standard Precautions for Infection Prevention and Control in terms of Sex

Standard Precautions for Infection Prevention and Control	χ^2 Value	p-value	Decision	Interpretation
1. Hand Hygiene	0.017	0.875	Accept	Not Significant
2. Using Gloves	7.347	0.007	Rejected	Significant
3. Using Masks	0.771	0.438	Accept	Not Significant
4. Using Gowns and Plastic Aprons	0.312	0.626	Accept	Not Significant
5. Using Caps and Boots/Shoe Covers	0.725	0.461	Accept	Not Significant
6. Safe Injection Practices	0.078	0.725	Accept	Not Significant
7. Contact Precautions	0.240	0.698	Accept	Not Significant
8. Droplet Precautions	0.587	0.524	Accept	Not Significant
9. Airborne Precautions	0.421	0.548	Accept	Not Significant

Degree of Freedom = 1; Level of Significance = 0.05; Statistical Tool = Chi-Square Test

Table 4.2 shows the relationship between the profile of the nursing students and their self-assessment on the level of compliance in following standard precautions for infection prevention and control in terms of sex. The Chi-Square value in hand hygiene is 0.017 which is very small that led to a p-value of 0.875 higher than 0.05 level of significance. This completes the decision of accepting the null hypothesis. Therefore, there is no significant association between age and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of hand hygiene. Similarly, the p-values of using masks (p = 0.438), using gowns and plastic aprons (p = 0.626), using caps and boots/shoe covers (p = 0.461), safe injection practices (p = 0.725), contact precautions (p = 0.698), droplet precautions (p = 0.524), and airborne precautions (p = 0.548) are higher than 0.05 level of significance. Hence, there is no significant relationship between their sex and self-assessment in compliance of using gowns and plastic aprons, using caps and boots/shoe covers, safe injection practices, contact precautions, droplet precautions and airborne precautions. Thus, sex is not be associated with the nursing students' assessment on their compliance on the aforementioned standard precautions. The computed Chi-Square value under "Using Masks" is 7.347 with a corresponding p-value of 0.007 lower than 0.05 level of significance. This indicates that there is enough evidence to reject the null hypothesis. Therefore, there is a significant relationship between the age and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of using masks. It can be verified from the data that female nursing students gave higher assessment on the level of compliance in terms of using masks than male nursing students. Hence, the self-assessment of the nursing students on the level of compliance in using masks could be associated with sex.

Table 4.3: Relationship between the Profile of the Nursing Student Affiliates and their Self-Assessment on the Level of Compliance in Following Standard Precautions for Infection Prevention and Control in terms of Year Level

Standard Precautions for Infection Prevention and Control	χ^2 Value	p-value	Decision	Interpretation
1. Hand Hygiene	0.099	0.772	Accept	Not Significant
2. Using Gloves	0.001	0.974	Accept	Not Significant
3. Using Masks	0.729	0.722	Accept	Not Significant
4. Using Gowns and Plastic Aprons	0.009	1.000	Accept	Not Significant
5. Using Caps and Boots/Shoe Covers	0.880	0.415	Accept	Not Significant
6. Safe Injection Practices	2.922	0.104	Accept	Not Significant
7. Contact Precautions	0.279	0.722	Accept	Not Significant
8. Droplet Precautions	5.598	0.019	Rejected	Significant
9. Airborne Precautions	0.522	0.584	Accept	Not Significant

Degree of Freedom = 1; Level of Significance = 0.05; Statistical Tool = Chi-Square Test

Table 4.3 shows that the computed Chi-Square value under hand hygiene is 0.099 with a corresponding p-value of 0.772 higher than 0.05 level of significance. The null hypothesis was accepted. Therefore, there is no significant relationship between year level and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of hand hygiene. Also, it also shows that each p-value of the following such as: using gloves (p = 0.974), using masks (p = 0. 722), using gowns and plastic aprons (p = 1.000), using caps and boots/shoes covers (p = 0. 415) safe injection practices (p = 0. 104), contact precautions (p = 0. 722), and airborne precautions (p = 0. 584) is higher than 0.05 level of significance. Hence, there is no significant connection between their year level and their self-assessment in compliance of using gloves, using masks, using gowns and plastic aprons, using caps and boots/shoes covers, safe injection practices, contact precautions, and airborne precautions at 0.05 level of significance. Thus, there is no significant connection between the year level when nursing students assessed their compliance on the aforementioned standard precautions.

Conversely, the computed Chi-Square value under "Droplet Precautions" is 5.598 with a p-value of 0. 019 lower than 0.05 level of significance. This leads to the rejection of the null hypothesis. Therefore, there is significant relationship between the year level and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of following droplet precautions. The higher year level the nursing student is the higher his/her self-assessment in the compliance for droplet precautions. Hence, the self-assessment of the nursing students in the level of compliance for droplet precautions is associated with their year level.

Table 4.4: Relationship between the Profile of the Nursing Student Affiliates and their Self-Assessment on the Level of Compliance in Following Standard Precautions for Infection Prevention and Control in terms of School Affiliation

Standard Precautions for Infection Prevention and Control	χ^2 Value	p-value	Decision	Interpretation
1. Hand Hygiene	28.175	0.080	Accept	Not Significant
2. Using Gloves	22.527	0.259	Accept	Not Significant
3. Using Masks	24.753	0.169	Accept	Not Significant
4. Using Gowns and Plastic Aprons	26.382	0.109	Accept	Not Significant
5. Using Caps and Boots/Shoe Covers	39.206	0.004	Rejected	Significant
6. Safe Injection Practices	32.260	0.029	Rejected	Significant
7. Contact Precautions	21.473	0.311	Accept	Not Significant
8. Droplet Precautions	27.676	0.090	Accept	Not Significant
9. Airborne Precautions	14.810	0.735	Accept	Not Significant

Degree of Freedom = 19; Level of Significance = 0.05; Statistical Tool = Chi-Square Test

Table 4.4 shows that the computed Chi-Square value under "Using Caps and Boots/Shoe Cover" and "Safe Injection Practices" of 39.206 and 32.260 respectively have corresponding p-value of 0.004, and 0.029 which are much lower than 0.05 level of significance. This indicates that there is enough evidence to reject the null hypothesis under these practices and precautions. Therefore, there is a significant relationship between school affiliation and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of using caps and boots/shoe cover, and also with safe injection practices. Hence, the self-assessment of the nursing students in the level of compliance in using caps and boots/shoe cover and safe injection practices are associated with school affiliation.

Table 5.1: Difference in the Level of Compliance of the Nursing Student Affiliates on Standard Precautions for Infection Prevention and Control when Grouped According to Age

Standard Precautions for Infection Prevention and Control	F-Value	p-value	Decision	Interpretation	Post Hoc Analysis
1. Hand Hygiene	3.491	0.016	Rejected	Significant	21-25 years old & 26-30 years old
2. Using Gloves	0.237	0.871	Accept	Not Significant	-
3. Using Masks	2.323	0.076	Accept	Not Significant	-
4. Using Gowns and Plastic Aprons	0.975	0.405	Accept	Not Significant	-
5. Using Caps and Boots/Shoe Covers	4.311	0.006	Rejected	Significant	16-20 years old & 31 years old & above
6. Safe Injection Practices	2.518	0.059	Accept	Not Significant	-
7. Contact Precautions	1.071	0.362	Accept	Not Significant	-
8. Droplet Precautions	1.680	0.172	Accept	Not Significant	-
9. Airborne Precautions	2.973	0.396	Accept	Not Significant	-

Degree of Freedom = 3/248; Level of Significance = 0.05;
Statistical Tool = F-Test (One Way ANOVA); Post Hoc=Scheffe Test

Table 5.1 presents the difference between the self-assessments of the nursing students in their level of compliance in following standard precautions for infection prevention and control when they are grouped according to their age. The table shows that the computed F-test value using One-Way Analysis of Variance under "using gloves" is 0.0.237 with a p-value of 0.871 higher than 0.05 level of significance. The null hypothesis was accepted. Therefore, there is no significant difference between the self-assessment of the nursing students in their level of compliance in following the standard precautions for infection prevention and control in terms of using gloves when they are grouped according to their age. The p-value of using masks (p = 0. 076), using gowns and plastic aprons (p = 0.405), safe injection practices (p = 0. 059), contact precautions (p = 0. 362), droplet precautions (p = 0.172), and airborne precautions (p = 0. 396) were higher than 0.05 level of significance. Hence, there is no significant difference in their self-assessment when they are grouped according to their age in their level of compliance using masks, using gowns and plastic aprons, safe injection practices, contact precautions, droplet precautions, and airborne precautions.

Table 5.2: Difference in the Level of Compliance of the Nursing Student Affiliates on the Application of Standard Precautions for Infection Prevention and Control when Grouped According to Sex

Standard Precautions for Infection Prevention and Control	t-value	p-value	Decision	Interpretation
1. Hand Hygiene	0.524	0.601	Accept	Not Significant
2. Using Gloves	3.646	0.000	Rejected	Significant
3. Using Masks	2.163	0.032	Rejected	Significant
4. Using Gowns and Plastic Aprons	0.674	0.501	Accept	Not Significant
5. Using Caps and Boots/Shoe Covers	1.278	0.202	Accept	Not Significant
6. Safe Injection Practices	0.107	0.915	Accept	Not Significant
7. Contact Precautions	0.132	0.895	Accept	Not Significant
8. Droplet Precautions	0.853	0.394	Accept	Not Significant
9. Airborne Precautions	0.764	0.446	Accept	Not Significant

Degree of Freedom = 250; Level of Significance = 0.05; Statistical Tool = Independent t-test

Table 5.2 shows the difference between the self-assessments of the nursing students in their level of compliance in following standard precautions for infection prevention and control when they are grouped according to their sex. The computed t-value under "hand hygiene" is 0.524 with a corresponding p-value of 0. 601 higher than 0.05 level of significance. Therefore, there is no significant difference between the self-assessment of the nursing students in the level of compliance in following standard precautions for infection prevention and control in terms of hand hygiene when they are grouped according to sex. Also the p-values using gowns and plastic aprons (p = 0. 501), using caps and boots/shoe covers (p = 0.202), safe injection practices (p = 0. 915), contact precautions (p = 0. 895), droplet precautions (p = 0. 394), and airborne precautions (p = 0. 446) were higher than 0.05 level of significance. Hence, there is no significant difference in their self-assessment when they are grouped according to sex.

The t-value under "Using Gloves" is 3.646 and "Using Masks" is 2.163, with a p-value of 0.000 (almost zero) and 0.032 respectively. This leads to the rejection of the null

hypothesis. Therefore, there is significant difference in the self-assessment among nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of using gloves and using masks when they are grouped according to sex. Female nursing students have higher self-assessment than those male nursing students in compliance with using gloves and with using masks.

Table 5.3: Difference in the Level of Compliance of the Nursing Student Affiliates in the application of Standard Precautions for Infection Prevention and Control when Grouped According to Year Level

Standard Precautions for Infection Prevention and Control	t-value	p-value	Decision	Interpretation
1. Hand Hygiene	0.221	0.825	Accept	Not Significant
2. Using Gloves	0.682	0.496	Accept	Not Significant
3. Using Masks	0.391	0.696	Accept	Not Significant
4. Using Gowns and Plastic Aprons	0.972	0.332	Accept	Not Significant
5. Using Caps and Boots/Shoe Covers	0.845	0.399	Accept	Not Significant
6. Safe Injection Practices	2.660	0.008	Rejected	Significant
7. Contact Precautions	0.213	0.831	Accept	Not Significant
8. Droplet Precautions	2.879	0.004	Rejected	Significant
9. Airborne Precautions	0.956	0.340	Accept	Not Significant

Degree of Freedom = 250; Level of Significance = 0.05; Statistical Tool = Independent t-test

The p-values of using gloves (p = 0.496), using masks (p = 0.696), using gowns and plastic aprons (p = 0. 332), using caps and boots/shoe covers (p = 0.399), contact precautions (p = 0. 831), and airborne precautions (p = 0. 340) were higher than 0.05 level of significance. Hence, there is no significant difference in their self-assessment when they are grouped according to their year level when it comes to using gloves, using masks, using gowns and plastic aprons, using caps and boots/shoe covers, contact precautions, and airborne precautions.

The t-value under "Safe Injection Practices" is 2.660 and "Droplet Precautions" is 2.879, with a p-value of 0.008 and 0.004, respectively. This hints to the rejection of the null hypothesis. Therefore, there is a significant difference in the self-assessment among nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of safe injection practices and droplet precautions when they are grouped according to year level. Third year nursing students have higher self-assessment than the fourth year nursing students in compliance with safe injection practices and droplet precautions.

Table 5.4: Difference in the Level of Compliance of the Nursing Student Affiliates on Standard Precautions for Infection Prevention and Control when Grouped According to School

Standard Precautions for Infection Prevention and Control	F-Value	p-value	Decision	Interpretation	Post Hoc Analysis
1. Hand Hygiene	1.642	0.048	Rejected	Significant	At least 5 schools
2. Using Gloves	2.441	0.001	Rejected	Significant	At least 12 schools
3. Using Masks	1.470	0.097	Accept	Not Significant	-
4. Using Gowns and Plastic Aprons	1.673	0.042	Rejected	Significant	At least 8 schools
5. Using Caps and Boots/ Shoe Covers	2.482	0.001	Rejected	Significant	At least 6 schools
6. Safe Injection Practices	1.370	0.143	Accept	Not Significant	-
7. Contact Precautions	2.071	0.007	Rejected	Significant	At least 4 schools
8. Droplet Precautions	2.218	0.003	Rejected	Significant	At least 5 schools
9. Airborne Precautions	1.564	0.066	Accept	Not Significant	-

Degree of Freedom = 19/232; Level of Significance = 0.05;
Statistical Tool = F-Test (One Way ANOVA); Post Hoc = Sheffe Test

Table 5.4 shows the difference between the self-assessment of the nursing students in their level of compliance in following standard precautions for infection prevention and control when they are grouped according to their school. It shows that the computed F-test value using One-Way Analysis of Variance under "using masks" is 1.470 with a p-value of 0.097 higher than 0.05 level of significance. This concludes there is no significant difference between the self-assessment of the nursing students in their level of compliance in following the standard precautions for infection prevention and control in terms of using gloves when they are grouped according to their school. The p-values of the safe injection practices (p = 0.143) and airborne precautions (p = 0.066) were higher than 0.05 level of significance. Hence there is no significant difference between the self-assessment of the nursing students in safe injection practices and airborne precautions when they are grouped according to their school.

The computed F-test value under hand hygiene (p = 0.048), using gloves (p = 0.001), using gowns and plastic aprons (p = 0.042), using caps and boots/shoe covers (p = 0.001), contact precautions (p = 0.007) and droplet precautions (p = 0.003) are lower than 0.05 level of significance. At least four (4) schools each of the aforementioned practices and precautions have different self-assessment in level of compliance. The data revealed that different schools have different level of practices and precautions in terms of compliance due to different hospitals' practices and standards, views of the nursing students, availability of the equipment, and different patients admitted in the hospitals. Nonetheless, precautions and principles in the compliance on precautions for infection prevention and control shared the same views and practices.

Table 6: Difference in the Assessment of Nursing Student Affiliates and their Respective Clinical Instructors on the Level of Compliance of the Nursing Students on Standard Precautions for Infection Prevention and Control

Standard Precautions for Infection Prevention and Control	t-value	p-value	Decision	Interpretation
1. Hand Hygiene	3.318	0.001	Rejected	Significant
2. Using Gloves	1.898	0.059	Accept	Not Significant
3. Using Masks	0.919	0.359	Accept	Not Significant
4. Using Gowns and Plastic Aprons	6.288	0.000	Rejected	Significant
5. Using Caps and Boots/Shoe Covers	5.984	0.000	Rejected	Significant
6. Safe Injection Practices	3.747	0.000	Rejected	Significant
7. Contact Precautions	4.608	0.000	Rejected	Significant
8. Droplet Precautions	0.884	0.378	Accept	Not Significant
9. Airborne Precautions	1.717	0.087	Accept	Not Significant

Degree of Freedom = 251; Level of Significance = 0.05; Statistical Tool = Paired t-test

Table 6 shows the difference on the assessment of the two groups of respondents – the nursing students and their respective clinical instructors on the compliance of the former on the standard precautions for infection prevention and control in terms of practices, precautions and usage in hand hygiene, using gloves, using masks, using gowns and plastic aprons, using caps and boots/shoe covers, safe injection practices, contact precautions, droplet precautions, and airborne precautions. The data revealed that the two groups were not significantly different on the assessments on the following variables – using globes, using masks, droplet precautions, and airborne precautions.

On the other hand, the study showed that the two groups differed on their assessment on following variables - hand hygiene, using gowns and plastic aprons, using caps and boots/shoe covers, safe injection practices, and contact precautions. The nursing student's self-assessment was significantly different the way the clinical instructors assessed their students at 0.05 level of significance. Furthermore, the nursing students have higher assessment (self-assessment) than the assessment of their clinical instructors to them in all aforementioned variables.

6. Discussion

1. In terms of age, 74.21 percent of the respondents were from 16 to 20 years old, 18.65 percent were to 21-25 years old, 5.56 percent were between 26-30 years old, and the remaining 1.58 percent were 31 years old and above.

As to Sex, 73.81 percent of the nursing student respondents were female and 26.19 percent were male. With regard to year level, 64.68 percent were in their third year level, while the 35.32 percent were in the fourth year level. As to school, the study was conducted in selected 20 colleges with BS Nursing program. School G shared 11.90 percent of the total respondents, School D & E with 9.13 percent each, School K had 7.94 percent, School J with 5.95 percent. On the other hand, the participating schools with the least number of respondents were school F, school H, School I and the School T with 2.78 percent to 1.59 percent of the total number of nursing student-respondents.

2. In terms of standard precaution, the study revealed that the compliance in using "safe injection practices/preventing needle stick injury" got the highest weighted mean of 3.77, followed by using masks with 3.74, using gloves with 3.73, proper hand hygiene with 3.63, using caps and boots/shoe covers with 3.43, and using gowns and plastic aprons with 3.37. Overall, the self-assessment in each of the compliance in standard precaution was "Always."

The highest compliance for standard precautions were the following: Hand Hygiene, immediately after an exposure risk to body fluids and after glove removal. This is to protect themselves and the health-care environment from harmful patient germs; Use of Gloves, dispose gloves according to the health care facility protocol; Use of Masks, wear a mask to protect mucous membranes of the mouth and nose when undertaking procedures that are likely to generate splashes of blood, body fluids, secretions or excretions; Use of Gowns and Plastic Aprons, wearing a gown (clean, non-sterile) to protect the skin and prevent soiling of clothing during procedures that are likely to generate splashes of blood, body fluids secretions or excretions; and Use of Caps and Boots/Shoe Covers, Clean and disinfect reusable boots.

For Other Transmission-Based Precautions, the study showed that the self-assessment among nursing students in their compliance to infection prevention and control in terms of other transmission-based precautions had a weighted mean of 3.63 or "Always."

The following got the highest weighted mean in each of the precautions: Contact Precautions, remove gloves promptly after use and discard before touching non-contaminated items or environmental surfaces; and change protective attire and perform hand hygiene between contact with other patients; Droplet Precautions, don a mask upon entry into the patient room or cubicle; and Airborne Precautions. Personnel restrictions. Restrict susceptible healthcare provider from entering the rooms of patients known or suspected to have measles (rubeola), varicella (chickenpox).

3. Standard precaution showed that that the compliance in using "Safe Injection Practices/Preventing Needle Stick Injury" got the highest weighted mean of 3.48, then Hand Hygiene with 3.45, Using Masks with 3.39, Using Caps and Boots/Shoe Covers with 3.32, Using Gowns and Plastic Aprons with 3.16, and Using Gloves with 3.12. Overall, the clinical instructors' assessment in each of the compliance in standard precaution was "Always."

The standard precaution with the highest compliance were as follows: For Hand Hygiene, Immediately after an exposure risk to body fluids and after glove removal; and after touching any object or furniture in the patient's immediate surroundings when leaving – even if the patient has not been touched; as to Use of Gloves. Change gloves between tasks/ procedures on the same patient to prevent cross-contamination between different body sites; for Use of Masks, do not reuse disposable masks. They should be disposed of according to the health care facility protocol; as to Use of Gowns and Plastic Aprons, do not reuse disposable gowns and aprons. They should be disposed of according to the health care facility protocol; moreover, for the Use of

Caps and Boots/Shoe Covers, clean and disinfect reusable boots; and lastly, for Safe Injection Practices/Preventing Needle Stick Injury, disinfect rubber septum of vials using alcohol swab before withdrawing medication from it.

Other Transmission-Based Precautions revealed that the assessment of the clinical instructors of their nursing students in the compliance to infection prevention and control in terms of other transmission-based precautions had a weighted mean of 3.32 or "Always". The following got the highest weighted mean in each of the precautions: Contact Precautions, Wear gloves whenever touching the patient's intact skin or surfaces and articles in close proximity to the patient (e.g., medical equipment, bed rails); Droplet Precautions, don a mask upon entry into the patient room or cubicle; Airborne Precautions, Keep doors closed at all times, and Instruct patients to wear a surgical mask, if possible.

4. The study revealed that there was a significant relationship between the age and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of using caps and boots/shoe covers.

There was significant relationship between sex and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of using gloves.

There was significant relationship between the year level and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms droplet precautions.
There was a significant relationship between the school and self-assessment of the nursing students on the level of their compliance in following the standard precautions for infection prevention and control in terms of using caps and boots/shoe covers, and safe injection practices.

5. There is a significant difference on the respondents' self-assessment on the level of their compliance in following the standard precautions for infection prevention and control in terms of hand hygiene, and using caps and boots/shoe covers when they were grouped according to their age. There was a significant difference on the respondents' self-assessment on the level of their compliance in following the standard precautions for infection prevention and control in terms of using gloves, and using masks when they were grouped according to their sex.

There was a significant difference on the respondents' self-assessment on the level of their compliance in following the standard precautions for infection prevention and control in terms of safe injection practices, and droplet precautions when they were grouped according to their year level. There was no significant difference on the respondents' self-assessment on the level of their compliance in following the standard precautions for infection prevention and control in terms of using masks, safe injection practices, and airborne precautions when they were grouped according to their school affiliation.

6. There was no significant difference between the assessment of the nursing students and their clinical instructors on the level of their compliance in following the standard precautions for infection prevention and control in terms of using gloves, and using masks. There was no significant difference between the assessment of the nursing students and their clinical instructors on the level of their compliance in following the standard precautions for infection prevention and control in terms of droplet precautions, and airborne precautions.

7. There is a need for a more detailed curriculum guide for Infection Prevention and Control which will help the nursing student students during their Related Learning Experience on the selected hospital to be able to render care for patients with infectious/communicable diseases:

7. Recommendations

Formative assessment is a bridge between learning and teaching. It allows instructors to gather real data about students as they work, then adjust their instruction to better serve students at their current learning level. In nursing education, formative assessment has been proven to be highly effective not only for student also for faculty teaching and, as a result, increases the overall quality of learning. Research has concluded that nursing instructors regard students more as partners in the learning process when formative assessment is practiced. Both parties agree that feedback is an integral part of the learning cycle. But the benefits of formative assessment go far beyond the classroom. In fact, research shows that because nursing students are rarely directly observed, assessed and given feedback during their clinical placements, there has been an increased interest in recent years in formative assessment methods that require observation and feedback.

Although the overall assessment is "always" on the compliance with Standard precautions for infection prevention and control by the nursing student affiliates as assessed by themselves and their clinical instructors in the selected hospital, there were some measures that needs consideration and enhancement, thus the following recommendations are presented based on the results of the study:

1. For the enhancement of compliance with standard precautions for infection prevention and control in terms of hand hygiene particularly on the specific measures "Before touching a patient when approaching him/her. To protect the patient against harmful germs carried on your hand".
The Clinical Instructors should closely: reinforce students' learning of principles & theoretical content underlying the practices of Standard Precautions; Supervise as they carry out all the steps in hand washing; Coordinate with the hospital training office & hospital staff nurses regarding essential materials that may be provided for students' use.

The Nurses in the Hospital should: Serve as the role model in all measures of hand hygiene this is a way by which students' learning in the clinical area is reinforced; Serve as change agent to all patients and in collaboration with various health care worker in compliance with the key components of the standard precautions as part of infection prevention and control.

The Hospital Administrators may provide signage, pamphlets and other visual aid materials that may remind the students, in performing proper hand hygiene, which may also serve as guide to the entire health care team, patient and significant other of the proper techniques of the 5 moments of hand hygiene as implemented by the DOH/WHO: Provide decontamination area which should be near to the student's to facilitate the performance of Hand washing; Provide accessible alcohol dispenser that will aid in hand sterilization in the absence of water and soap.

2. For the enhancement of compliance with standard in terms of proper use of Personal Protective Equipment's on the specific measures namely: "Change gloves between contacts with different patients" The Clinical Instructors should closely: Reinforce students' learning of principles & theoretical content by explaining the importance of changing gloves between contact with patients and see to it that this is followed.

The Hospital Administrators may: Provide appropriate signage on proper donning, removal, and disposal of Personal Protective Equipment based on DOH/WHO protocols; Provide clean or non-sterile gloves in the event that the student affiliates fails to have sufficient number of gloves.

For the measures on "A plastic apron may be worn on top of the gown to protect exposure to blood, body fluids, secretions and excretions" The Clinical Instructors should make sure that each student has a provision for this protective equipment so that the student will be prepared to protect herself/himself.

For the measures on "Launder caps and shoe covers appropriately if they are reusable, according to the hospital guidelines" and "Do not reuse disposable caps/shoe covers. They should be discarded according to the health care facility protocol; The Clinical Instructors should: In the event that the students are assigned in the pertinent clinical areas where the above mentioned measures are required, the Clinical Instructors should guide the students accordingly. Included in the reminder for the students is for them to discard the used personal protective equipment according to health care facility protocols.

3. For the enhancement of compliance with standard precautions for infection prevention and control in terms of safe injection practices on the specific measures "Perform proper hand hygiene before handling medications". The Clinical Instructors should closely monitor students as they prepare the patient's medications. The Hospital Administrators may provide decontamination area near the medication area so that hand washing may be performed by the students prior to handling medications.

4. For the enhancement on compliance with standard precautions for infection prevention and control as to other transmission-based precaution in terms of: Contact precaution on specific measure as to: "Don gown upon entry into the room or cubicle" and "Remove gown and observe hand hygiene before leaving the patient-care environment."

The Clinical Instructors should enforce on all students the compliance of this precaution wherein the students should wear gown upon entry into the patient's room and to immediately take off personally provided gown upon leaving the patient's area. The hospital administrator should provide a gown which will be utilized by the student affiliates or any health care personnel to facilitate provision of PPE for patients with contact precautions. And the staff nurses may see to it that gown is available at the door of clients on contact precaution.

For droplet precautions on the specific measure "Place a surgical mask on the patient if transport is necessary and as to airborne precaution", The student should conduct health teaching to explain to the patient the importance of airborne precaution so that the patient may also adhere to the policies and guidelines on airborne precautions. And the staff nurses may see to it that surgical mask is available at the bedside of the clients on contact precaution and that it is used by the patient during hospitalization and specifically during transport of the patient.

5. For the enhancement of the previously mentioned components of standard precaution for infection prevention and control may be supported by the following stake holders. The Deans of Nursing Schools or Colleges must enhance the new nursing outcomes-based curriculum towards a comprehensive theoretical/didactic teaching-learning process to cater nursing students from millennial era, following the CMO 15, series of 2017 which will serve as basis towards compliance of the Nursing Academic institution in the field of Standard Precaution parallel to the national and global infection control program. To produce future Nurses with enhanced cognitive, affective, and psychomotor domain with full understanding of Standard Precautions and its significance and perform with competency, the practice of Standard Precaution for Infection Prevention and Control in all health care settings at all time. And to come up with a skills laboratory with complete and up to date equipment which will aid as instrument for a good learning environment to be utilized and equipped by the students to demonstrate and competently performed all the skills in relation to Standard Precaution for Infection prevention and control prior to exposure to the clinical settings.

The faculty must stimulate students mastery base on theories, To empower the millennial student nurses in their search for knowledge as a form of their self-directed learning with proper guidance and appropriate approach base on the individual/group characteristics in the aspects of Standard Precautions as to: Produce a pamphlets on how to perform hand Hygiene in accordance to the DOH WHO policies and

guidelines on (5) Five Moments Of Hand Hygiene as part of Standard Precaution infection prevention and control; Produce flip chart / matrix on proper donning, removal, and disposal Proper Protective Equipment (PPE) in accordance to the DOH/CDC/WHO policies and guidelines on wear of PPE as part of Standard Precaution for infection prevention and control as follows: Gloves; Masks; Gowns/plastic apron; and Caps and boots/ shoe covers; produce Videos on performing injection administration in accordance to the DOH/CDC/WHO policies and guidelines on Safe injection practices/preventing needle stick injury as part of Standard Precaution infection for prevention and control; and to produce educational catalogues on the application of other transmission based precaution in accordance to the DOH/CDC/ WHO policies and guidelines other transmission- based precaution as part of Standard Precaution infection for prevention and control in terms of: Contact precaution; Droplet precaution; and Airborne precaution.

The students should understand the need to adhere at all times to the policies and guidelines universally implemented by the DOH, WHO, & CDC's Standard Precaution for infection prevention and control for the benefit of the patient and the entire health care workers; Hand Hygiene must be performed at all times based on the 5 moments of Hand hygiene by the DOH to prevent spread of infection thus will reduce morbidity and mortality; Safe injection practices must be observed prior, during, and after administration of medications thru injections. Thus will reduce occurrence of transmission of infectious/ communicable disease from needle prick injury; Report right away to the Clinical Instructor once safe injection practices was violated in any means; Follow the institutional policies in regards to safe injection practices when needle prick injury occurs. And other transmission-based precautions must be holistically observe and rendered to all patients at all times most specifically to patients who are in any form of isolation.

6. For the Nursing Training Officer to include and reiterate the significance of standard precaution during the phases of orientation , clinical learning and post conference with the students and their respective Clinical Instructors, the need to adhere to the Standard Precaution for infection prevention & control, towards safe, holistic and quality patient care where students' learning was maximized or achieved

7. For the Infection Control Committee to be aware of factual information based on the results and recommendation of this findings , that serves as guidelines for enhancement or thorough monitoring of the policies and guidelines of the infection control and prevention of the institution, and supportive of the needs of the affiliating school of Nursing.

8. For Future Researchers to consider the result of this undertaking as useful reference in conducting research and relative problems to continuously evaluate other significant factors and elicit noteworthy information which will monitor the level of compliance of the nursing students affiliates and attempt to focus on the nursing students affiliates needs which was recommended by the researcher.

9. For the patient to be mindful in the observance and application of the measures of Standard Precautions from Infection Prevention and control thus will promote their health, alleviate their sufferings and prolong their life , their family, and the entire institution for the welfare of the community

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