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RESEARCH ARTICLE

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**Impact of Communicable Diseases on the Nursing Student's Performance During Clinical Training**

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ABSTRACT

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**Introduction:** The medical and health science educational sectors have done their best to prevent students from contracting illnesses while training in clinical areas. The universities' protocol, in partnership with the hospitals, **Objective:** aims to keep nursing students safe while doing tasks in a precise and safe manner. The research aimed to identify and evaluate the impact of communicable diseases on bachelor student nurses' performance during clinical training. **Methodology:** This research study was descriptive using a cross-sectional, quantitative method, the sample was 198 nursing students going to the clinical for training. The data collection instruments consisted of, first, participants' information, and second, a questionnaire about performance in the clinical area. **Result:** The result of the study showed that most of the students were aged between 21 to 25, 4th year of study, females, training in the medical departments and, living with parents, with no health condition risks, and not isolated. The major findings showed that students' performance was average (70.2%). **Conclusion:** In conclusion, nursing students' performance was average and needed a tutoring strategy to prepare students performance in catastrophic leadership.

**Keywords:** *communicable diseases, student nurses, students' performance, hospital clinical training,*

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**Introduction:**

Health and well-being are the most vital aspects of life; without them, people are unable to perform or carry out their everyday activities. So, what are health and wellness? According to the World Health Organization (WHO), health is a condition in which a person's physical, physiological, mental, and social well-being is incomplete rather than simply the absence of disease or weaknesses. As a result, the medical and health science educational sectors have done their best to prevent

students from contracting illnesses while training in clinical areas. The universities' protocol, in partnership with the hospitals, aims to keep nursing students safe while doing tasks in a precise and safe manner. Many patients with chronic or infectious diseases were present at the hospital, and the students were responsible for caring for them and ensuring that they received safe and appropriate care. The majority of diseases encountered in hospitals today include

communicable diseases, tuberculosis, Methicillin-resistant *Staphylococcus aureus* (MRSA), human immunodeficiency virus (HIV), Hepatitis B and C viruses, and a variety of others that students may encounter while training in hospitals. As defined by the World Health Organization (WHO), the communicable disease is spread by direct or indirect contact with an infected person or bodily discharges or fluids such as droplets, blood, or serous fluid, or by touching contaminated surfaces or objects such as food or water. It can also be spread by transmitters such as anopheles, leapers, or rats (Merriam-Webster.com, 2020). This can have an impact on nursing students' performance when they go to clinical for training, as well as putting patients and students in danger.

The healthcare providers had a broader basis of information and abilities on how to deal with these individuals by taking measures and using personal protective equipment. Nursing students, on the other hand, who went to hospitals to learn about and practice specific diseases lacked the basic knowledge and abilities to protect themselves from being contaminated or affected. When they go to the clinical for training to provide care to sick patients, they are apprehensive and afraid to perform skills and practices. This study aims and assesses how communicable infectious diseases affect nursing student performance throughout clinical training.

**Aim/ objectives:**

- 1- To assess the impact of communicable diseases on the nursing student's performance of nursing students while clinical training.
- 2- To identify the association between communicable diseases on the nursing student's performance during clinical training with selected demographic variables.

**Background:**

Health is the most vital component of a person's existence because it allows him to go about his everyday activities. Health is defined as a condition of the whole physical, mental, and social well-being, not the absence of disease or disability. (World Health Organization, 2022). Individuals and countries must coordinate, communicate, and cooperate to achieve peace and security. (World Health Organization, 2022). Controlling the transmission of infectious diseases is an important part of patient care that can help reduce morbidity and mortality. Isolation is a technique for preventing the transmission of

contagious infectious diseases that can be conveyed through the air, droplets, or contact with people (Mardanian and, Khosrow,2011). Health promotion and disease prevention are a high priority for medical and health science because educational sectors, including universities, can have an impact on the health and well-being of the greatest section of the population, especially students. (Cohen, Hoyt, and Dullb, 2020). Nursing students are the future providers of health care. The student's understanding of the concepts, their view of point, and performance during training in the hospital will be influenced by the quality of their training and teaching. (Joshi, Madhura, & Jamadar, 2020). Student nurses' health and practice might be harmed by the problems they confront during clinical training, especially when there are communicable disease patients in the hospital. As a result, when attending clinical training, universities must prevent, monitor, and control their health and well-being. (Ching, Lai & Tsay, 2020).

Because of direct touch with patients during care, student nurses and nurses are more likely to contract the disease and become infected. (Ching, Lai & Tsay, 2020). COVID-19, tuberculosis, Methicillin-resistant *Staphylococcus aureus* (MRSA), human immunodeficiency virus (HIV), Hepatitis B and C viruses, and many more infectious diseases have been encountered in hospitals recently, all of which can affect students' performance during clinical training. COVID-19 is the illness pandemic that students are currently dealing with the most during their care performance. The three domains of health education and learning are health care, disease prevention, and health promotion. (Wang et al., 2018) Health education can considerably increase understanding of illness prevention and control, particularly for nursing students who deal with this issue during patient care in the hospital. Improving students' understanding is vital to avoid contact with infectious illness patients or to take precautions during patient care. This can direct students toward safe and harmless patient care during clinical training in the hospital (Wang et al., 2018).

Nowadays, most UAE universities that enroll nursing students send only senior students to clinical areas for training because their solid knowledge background from previous years, as well as extensive simulation scenarios training at the university, have prepared them to be familiar

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with hospital settings, patient status, and the care required in the hospital during training.

There were some studies conducted in different universities related to students' clinical training and the effect of communicable diseases on their performance during clinical training, but mostly talking about the COVID-19 pandemic that is the 21-century infectious disease faced all over the world.

Khasawneh, et al.,(2020) conducted a cross-sectional descriptive study in Jordan to analyze students' knowledge, attitude, views, and preventative measures regarding the COVID-19 pandemic. The online questionnaires were used for students who enrolled in six medical universities in Jordan, with four primary sections: sociodemographic, information sources, knowledge attitudes, and pandemic illness preventative actions. As a result, the majority of students believe that handshaking (93.7%), contact with pollutant places (97.4%), and pore breaths (91.0%) are the predominant modes of transferal. The elderly with chronic conditions are also the most vulnerable to coronavirus infection, according to participants (95% ). For the social isolation method, more than 80% were used participants, washing hands regularly, and the first line of defense against the pandemic is by improving personal hygiene measures. Finally, the demonstration of appropriate preventive measures from the students revealed the level of understanding of the knowledge delivered that prevents illness and getting infected with the disease. (Khasawneh, et al, 2020).

Another research study by Mardanian and Khosrow (2011) conducted a qualitative phenomenological study on the experiences of nursing students in caring for patients in source isolation. The sample participants were first to fourth-year nursing students and midwifery students at the Isfahan School of Nursing and Midwifery. During the clinical internship, students were responsible for patient care. The sampling was carried out until the data saturation of 10 interviews was achieved. The researcher employed the depth interview method to gather data. The Colaizzi method was used to analyze the data in seven stages. The following are six main concepts (themes) from the experiences of the

participants in this study: first, caring stressors, second, stress responses, third, care requirements, fourth, care provider performance, fifth, care consequences, and sixth, improper caring. The findings of this study revealed that providing educational programs for isolated patients can reduce anxiety in pupils, leading to better control and prevention of infectious illness spread. Furthermore, researching patients' demands can help improve clinical treatment and practical actions. So, this research is to identify and evaluate the communicable diseases impacts on student nurses about their clinical performance.

### Hypothesis:

- 1- The impact of communicable disease was positively high on the nursing student's performance during clinical training.
- 2- The students facing patients with communicable diseases can't perform patient care effectively.

### Methodology:

A quantitative, descriptive, cross-sectional study was done at RAK Medical and Health Science University (RAKMHSU), United Arab Emirates (UAE). After the regional Ethical Committee approval, the duration for data collection was 2 weeks. The study population was all BSN students who are currently studying at the RAKMHSU and are attending clinical training in the hospitals. The total number of students is 230 students. The inclusion criteria were all BSN students who were going to the hospital for clinical training. ( all participants who met the inclusion criteria and gave consent to participate will be included) and the exclusion criteria were BSN students who were not going or attending the hospital for training. The sample was consecutive samples. The sample size was calculated by using Raosoft online sample size calculation by a confidence level is 95%, a margin of error 5%, a population proportion of 50%, and a population size of 230, so the Sample size was estimated 145. In the research study that was done the sample that participated in the study was 198 students.

### Data Collection Tools (materials & procedure):

The data collection tool was adopted from other research studies that have been validated by

agreements of five professionals in the same field with a pilot study and reliable by using Cronbach alpha was estimated as 0.81. (Rasheed et al., 2021) divided into two sections. Section I is a constructed questionnaire that contains eight questions about the participants' personal information, including their age, gender, study year, performance in the hospital, staying at the house with whom and health problems they or their family members, and if they are being isolated due to any communicable disease contact. Section II consists of a questionnaire on the performance towards communicable diseases during hospital training while patient care for pupils, this section the questionnaire borrowed from the research study influence of the coronavirus pandemic on students during hospital work of the Northern Emirates done by Rasheed et al. (2021) after her agreement to use this tool for my study. The questionnaire consists of 11 questions using the Likert scale that is from 5 to 1 (which is ranging from strongly agreeing to strongly disagree) about the coronavirus pandemic and pupils' practice for patient care in the hospitals that was graded as a grading practice tool :

- 1- 27 less than 49% poor performance
- 2- 28 – 41 49 % - 76% average performance
- 3- 42 – 55 more than 76 % good performance

The data was collected from RAKMHSU by using Google's online platform that is sent to all students by email and can be filled by students, the students must sign and agree on the consent form before starting the questionnaire.

#### **Ethical consideration:**

A consent form will be sent to the students who have signed and accepted to participate in this study, as well as ethical approval from the university research and ethical committee.

#### **Analyses:**

The analyses of this research study data used the software program Statistical Package for Social Science (SPSS) version 22, which statistically explains empirically the standard deviation, the mean, frequency, and percentage. Inferential statistics, such as the tests of ANOVA, factor analyses, linear regression, and Chi-square, are also used to analyze the influence of communicable diseases on nursing student performance during clinical training.

#### **Samples:**

The samples contributors were pupils from the science of nursing of n=198 the table 1 showed the statistical analyses that explained the majority of pupils were 21 to 25 years of age ( $21.47 \pm 5.227$ )( 58.3%), girls ( $1.07 \pm 0.248$ )(93.4%), 4th year ( $2.96 \pm 0.947$ ) (35.4%), training in the medical department (25.8%) and with their parents (75.8%)( $1.66 \pm 2.476$ ). furthermore, the variables do have a risk condition was  $1.18 \pm 2.132$  with mean and standard deviation. Also, around 74.9 percent of the pupils were free from health problems nevertheless, their families suffered hypertension ( $1.64 \pm 3.144$ )(40.2%), and were not isolated ( $1.58 \pm 0.505$ ) (58.6%).

**Table 1:***Analysis of the participants' demographic details of nursing pupils n=(198)*

Demographic details	Mean $\pm$ Std Deviation	NO	%
<b>Age</b>			
lost information		7	3.5%
18 – 20 years old	21.47 $\pm$ 5.227	60	30.2%
21 – 25 years old		115	58.3%
26 – 30 years old		11	5.5%
31 – 40 years old		5	2.5%
<b>Gender</b>			
Female	1.07 $\pm$ 0.248	185	93.4%
Male		13	6.6%
<b>The study year in nursing</b>			
1 <sup>st</sup>		15	7.6%
2 <sup>nd</sup>	2.96 $\pm$ 0.947	47	23.7%
3 <sup>rd</sup>		66	33.3%
4 <sup>th</sup>		70	35.4%
<b>Area of training</b>			
Lost information		2	1%
Causality department	4.21 $\pm$ 1.892	16	8.1%
Intensive Care Unit /Cardiology Care Unit		9	4.5%
Medical Ward		51	25.8%
Surgical Ward		37	18.7%
Community Health Centers		45	22.7%
Psychiatric Ward		4	2%
Paediatric Ward		22	11.1%
Obstetrics/Gynaecology Wards		12	6.1%
<b>Staying at home</b>			
partner			
father & mother	1.66 $\pm$ 2.476		
grandparents		32	16.2%
kids		150	75.8%
siblings		9	4.5%
flatmate		32	16.2%
lonely		78	39.4%
another		10	5.1%
suffering health problems		4	2%

No risk condition		13	6.6%
Diabetes			
Obesity	1.18 ± 2.132		
High blood pressure		149	74.9%
Cardiac problem		12	6%
Breathing problem		8	4%
cigarette smoke		6	3%
Auto-immune problems		1	0.5%
others		16	8%
Does any of your family members have any health risk conditions,		3	1.5%
No risk condition		3	1.5%
Diabetes		10	5%
Obesity			
Hypertension	1.64 ± 3.144	50	25.1%
Chronic heart disease		75	37.7%
Respiratory disease		23	11.6%
Smoking		80	40.2%
Autoimmune diseases		35	17.6%
Other		30	15.1%
		12	6%
		4	2%
		18	9%
Have you been isolated because of being in contact with communicable disease patients?			
	1.58 ± 0.505	1	0.5%
Missing data		81	40.9%
Yes			
No		116	58.6%

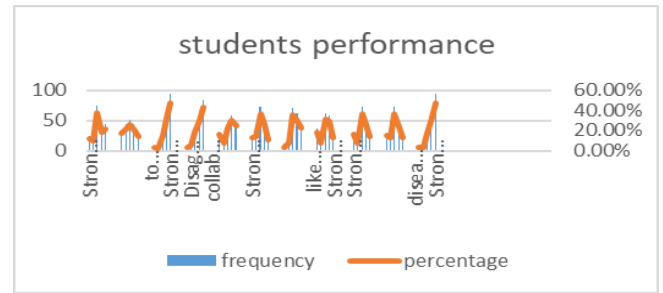
*Note.*  $n = 198$  Table 1 discusses the participant's demographic details of the nursing students containing the age, the gender, the learning years, training areas, living at home with whom, if they or their family have risk conditions, and if being isolated because of communicable disease.

**The statistical analyses of nursing students' performance toward patient care with communicable diseases:**

In figure (2) explores the statistical investigation of the students' performance toward patient care with communicable diseases (N = 198); the variables that were answered as neutral were the clinical practice being affected and the can't communicate face to face with the colleagues (37.9%), they implement the procedure with the patient quickly, as they frightened from contamination was 25.8%. furthermore, social spacing does not temper with performing of the skills (36.9%), accepting suitable direction from the preceptors assists me to carry out my training planning (35.9%), and having chances to practice training planning like vital signs, dressing, medicines giving (31.3%). Also, these variables answered neutrally that they were to accomplish varieties of disaster leadership skills like paying appropriate attention to the cases and identifying the emergency cases (31.3%), and the communicable diseases had a higher effect on their skills practicing (36.9%). The students answered strongly agree and agree on the following questions that were they perform hand washing infrequent bases to eradicate the disease spread (47.5%), and they were practicing on personal protective tools before entering any patient rooms (42.4%). Furthermore, they collaborated and socialize in good manner even with face mask is their (29.8%). The last variable as they were guided in performing procedures with communicable disease patients by hospital and university protocol (47.5%).

The final performance score of pupils during clinical training that affects patient care is shown in table 2 that were average performance (70.2%).

**Figure 2:**  
*The statistical analyses of nursing students' performance toward patient care with communicable diseases*



Note (n=198) figure 2 discussed the variable of nursing students' performance during communicable disease while providing care to the patients categorizing them as follows: strongly agree, agree, neutral, disagree, and strongly disagree.

**Table 2:**

*Analyses of total performance category score (n=198)*

Students practice	Parameter	Frequency	Percent %
Total performance category	Poor	7	3.5%
	Average	139	70.2%
	Good	52	26.3%

Note: table 2 showed the total performance category score that is ranged from poor performance to good performance and it is showing most of the students is having average performance during clinical training.

**The measurements of research instruments:**

The research tool been measured by using factor analyses that is technique helping in understanding if the tool is represent what supposed to represent, and extraction of the maximum common variance and to identify the variables to put them in score. (Statistics Solutions, n.d.) In the table 3 showed the scores of each questions the total the extraction and the total variance of each research questions that showed in the extraction column that all the variables were < 1 that is indicated that research questions were presented the research study. And the variance

that was also explained in the table 3 showed the variance percentage were 25.836 this indicated that the small amount of the questions needed to be more variables to be added.

**Table 3:**

Total extraction and total variance explained of each questions:

Question number	extraction	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		Extraction Sums of Squared Loadings
			% of Variance	Cumulative %	Total	% of Variance	
Q1	.279	2.325	25.836	25.836	2.325	25.836	25.836
Q2	.143	1.668	18.532	44.368			
Q3	.019	1.270	14.112	58.480			
Q4	.022	.998	11.088	69.568			
Q5	.549	.816	9.066	78.634			
Q6	.370	.608	6.755	85.389			
Q7	.013	.551	6.121	91.510			
Q8	.352	.431	4.790	96.300			
Q9	.578	.333	3.700	100.000			

Note: this table showed the factor analyses and the total variance that has been explained in the analyses in detail.

### Linear Regression analyses:

The regression analyses of this research study showed in tables 4, 5, and 6 about the model summary, ANOVA, and coefficient. The result showed the constant-coefficient was significant that  $(R^2) p = 0.011$  that less than  $< 0.005$ , on the other hand, in the ANOVA test the significant level was in coefficient table 0.000 which is significant. That the relationship between the independent variable communicable diseases and dependent variable clinical performance during clinical training in the hospitals was highly significant.

**Table 4:**

Model summary:

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.107 <sup>a</sup>	.011	.006	.503

**Table 5:**

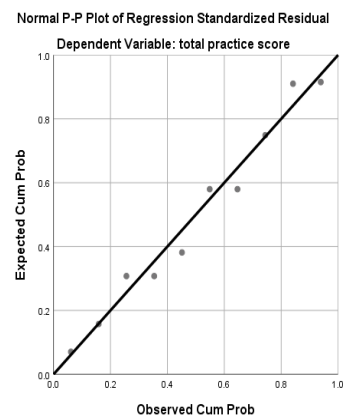
ANOVA TEST result of research study:

Model	Sum of Squares	df	Mean Square	F	Sig.
1					
Regression	.571	1	.571	2.261	.134 <sup>b</sup>
Residual	49.297	195	.253		
Total	49.868	196			

**Table 6:**

Coefficients of research study:

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1							
(Constant)	1.209	.252		4.798	.000	.712	1.706
total performance score	.010	.007	.107	1.504	.134	-.003	.023



### Association between communicable diseases on the nursing student's performance during clinical training with selected demographic variables

The association between communicable disease students' performance with the selected demographic is explained in table 3. The variables include study year, clinical placements, living with whom, if any of them or family members have risk conditions, and if they are isolated because of communicable diseases. The statistical results showed that was no significant association between the performance and selected demographic variables except for living at home with a spouse ( $\chi^2=5.388, p= 0.054$ ) and roommate ( $\chi^2=5.715, p= 0.063$ ), the health problem was diabetes ( $\chi^2=3.880, p= 0.071$ ), the problem in health diseases that the family members were suffering were hypertension ( $\chi^2=8.631, p= 0.013$ ),



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Also, not having health problems ( $\chi^2=15.045$ ,  $p=0.000$ ). Finally, being isolated because of communicable diseases ( $\chi^2=12.893$ ,  $p=0.009$ )

**Table 7:**

*Association between communicable diseases on the nursing student's performance during clinical training with chosen personal variables:*

Personal variables	Value( $\chi^2$ )of performance	P (at 0.05 level)
Year of the study	5.802	0.412
Clinical placement	0.523	0.470
Living with whom at home		
My spouse	5.388	0.054
My parents	0.817	0.712
My grandparents	1.084	0.585
My children	1.843	0.357
My siblings	2.332	0.291
My roommate	5.715	0.063
I live alone	1.580	0.626
Other	2.569	0.269
The health risk condition that suffering from		
Diabetes	3.880	0.071
Obesity	1.919	0.216
Hypertension	1.414	0.346
Chronic heart disease	2.594	0.276
Respiratory disease	0.118	0.768
Smoking	1.965	0.561
Autoimmune diseases	1.965	0.561
Other	0.775	0.462
Not having health problems	2.768	0.222
The health risk condition the family members suffering from		
Diabetes	4.333	0.108
Obesity	2.772	0.287
Hypertension	8.631	0.013
Chronic heart disease	1.580	0.626

Respiratory disease	2.383	0.224
Smoking	2.147	0.306
Autoimmune diseases	0.731	1.000
Other	0.135	1.000
Not having any risk condition	15.045	0.000
if you have been isolated because of communicable diseases	12.893	0.009

P < 0.05

*Note.*  $n = 198$  tables 3 explains the association between students' performance with communicable disease patients in the clinical areas with selected demographic variables that were as follows: studying years, training areas, living with whom in the home, if they or any family parts suffering from health problems, and being isolated because of communicable disease.

### Hypothesis testing statistical analyses:

The research study mentioned 2 hypotheses were:

- 1- The impact of communicable disease was positively high on the nursing student's performance during clinical training.
  - 2- The students facing patients with communicable diseases can't perform patient care effectively.
- The statistical analyses were done to identify the null hypotheses and identify the correlation between the dependent variable and independent variable shown in table 8 mentioned in tests for heteroskedasticity the null hypothesis is that the variance of the errors does not depend on the values of the independent variables. But according to the data explained that the hypothesis of the impact of communicable disease was positively high on the nursing student's performance during clinical training is accepted and the students hesitate and facing problem when dealing with communicable diseases patient.

**Table 8:****Tests for Heteroskedasticity****Modified Breusch-Pagan Test for Heteroskedasticity<sup>a,b,c</sup>**

Chi-Square	df	Sig.
.034	1	.853

a. Dependent variable: total practice score

b. Tests the null hypothesis that the variance of the errors does not depend on the values of the independent variables.

c. Predicted values from design: Intercept + Isolated COVID

**Table 9:****Tests of Between-Subjects Effects**

Dependent Variable: total performance score

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	84.100 <sup>a</sup>	1	84.100	2.362	.163	.228
Intercept	15920.100	1	15920.100	447.194	.000	.982
Isolated COVID	84.100	1	84.100	2.362	.163	.228
Error	284.800	8	35.600			
Total	16289.000	10				
Corrected Total	368.900	9				

a. R Squared = .228 (Adjusted R Squared = .131)

**Table 10:****Parameter Estimates**

Dependent Variable: total performance score

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial
					Lower Bound	Upper Bound	
Intercept	37.000	2.668	13.866	.000	30.847	43.153	
[Isolated COVID=1]	5.800	3.774	1.537	.163	-2.902	14.502	.960
[Isolated COVID=2]	0 <sup>a</sup>	.	.	.	.	.	.228

## Discussion

A communicable disease is a disease that can be transmitted from person to person causing the human being to be ill and even cause death. This disease affects negatively the human life and causes him to be afraid and stressed. The most susceptible people that can be affected by the disease were first-line defense people, these people are facing danger every day causing them to be vulnerable to getting the disease very easily and this causes them to be sick and even die. So, the educational sectors, especially medical and health science specialties that go to the hospital for training are more susceptible to getting an infection. In this case, the universities try to provide safety education and practice to their students by changing the curriculum, observation instructions from instructors, and guidance from preceptors in the hospital. This research study assesses and evaluates the impact of

communicable diseases on nursing student's performance while patient care during going to the hospital for training.

As the statistical analyses showed that most of the pupils' aged groups ranged from 21 to 25 years, ladies, 4th year, training in a medical department, with father and mothers, not having any health problems with their families having hypertension, and not isolated. This came to the research study that explained the effect of the family members with any health risk condition, which can affect the performance as the researcher found that the students' having stress and anxiety about their family parts being contaminated can interfere with their performance to provide care to communicable disease patients. Just, they also trusted that the precautions getting hold of while giving attention to the patients would eradicate the illness from becoming out of control (Baniyas et al., 2021).

The questionnaire instruments used to assess the impact of communicable diseases on the performance of nursing students during clinical training toward patient care showed average performance. Moreover, the association between the impact of the communicable disease and the performance of nursing students with selected demographic variables had been identified and some variables were highly significant as been showed in regression  $p=0.000$ . The hypothesis of the impact of communicable disease was positively high on the performance of students while providing care to the patient during hospital training is accepted and the students facing difficulties when performing patient's care who suffer from communicable diseases showed accepted, respectfully. That some research studies were supporting these hypotheses and contributed that Eweida et al. (2020) supported the results when outlined that the seniority of students in the nursing field attempted to decline their exposure to communicable disease sufferers. They put on the shield on their queries about the transmission of the disease and getting the infection. According to the hypotheses identified that their performance has been affected which supports the author's idea. This effect can cause many psychological problems mostly anxiety and stress. (Aslan & Pekince, 2020)

**Impact of communicable diseases on the nursing student's performance during clinical training:**

## Impact of Communicable Diseases on the Nursing Student's Performance

According to the performance of the nursing students in the hospital during clinical training the statistical analyses showed the majority of answers were neutral and this indicated that the communicable disease transmission impacted their performance in the communicating one to one and discussing the plan and the patient conditions with the class team, implement the procedure with the patient quickly, social spacing does not temper with performing of the skills. Besides, the appropriate guidance from the preceptors and the instructors can positively influence their training, this can help them to fulfill clinical objectives and achieve their goals toward patient care without causing harm to the patient or themselves. As been reported in a research performed by Flumer (2020), the highly notable statistical analysis discovered was the ability of the students to attain their training demands illustrates the training with the help of the nursing preceptors and guidance of the instructors from the university provides attention about the importance of the preceptors and instructors role toward supporting the student's education and learning, to have the capability to innovate a healthier learning environment surrounding and being a good example in creating the good and perfect ways and environment for learning (Flumer,2020). On the other hand, Choi et al., (2020) explained about the misunderstanding in preceptors' or instructors' guidance, affected negatively on the students' performance and cause them to be frightened to perform care to the sick person. Also, added that attempts in educational effectiveness and performance are a crucial part to prevent interruption of training, this can elaborate badly with the pupils in the future performance when starting a professional career (Choi et al., 2020). Also, the variables that have been explained in statistical analyses about distracted opportunities to perform clinical procedures, and difficulty in performing different crisis management skills highly affected the training and performance of the care for the patient with communicable diseases.

In comparison, the students were stressfully tried to build on and adjust their performance during the training in the hospital when answered agreed and strongly agreed about frequently performing hand hygiene to prevent the infection to be spread, practicing on personal protective tools before entering any patient rooms, effectively

communicating with the patients when masking on and assure following hospital and university protocol when providing care to the communicable disease sufferers. The prevention of infection to be spread is the concern of most of the students, But the students trying to commit to putting personal protective equipment as the hospital protocol for the prevention of the disease, Also the guidance from the preceptors and the instructors toward putting personal protective equipment when dealing with the patient. Furthermore, the university made courses for infection control so that the students understand the importance of personal protective equipment and how properly worn and used in the hospital. There were some research studies that contradicted this research study that was explored by Swift et al. (2020), which announced the statistical analyses of the research showed that the students positively perform the care of the patient with a communicable disease, although the queries of transferring the illness from person to person which this study is explained that students having hesitancy to perform some procedures during patient care. The same results showed by Peng et al. (2020) agreed with Swift et al. (2020), that statistically report also positive performance toward patient care with a communicable disease. In the result of this study, Khasawaneh et al. (2020) added to his cross-sectional descriptive study; explained about the expected and solid level of knowledge can positively affect the performance of the students when dealing with communicable diseases patients and the implementation of an appropriate protocol to eradicate their expand causes the pupils to be empowered and encouraged to give care for sick people. Despite showing average performance when dealing with a patient with communicable diseases, the students tried to improve their performance by the following hospital and university guidelines and the university tried to improve the students' knowledge of the prevention of communicable diseases through theoretical and course knowledge. Nevertheless, social media plays important role in encouraging students, because of the COVID-19 pandemic the country supports the front liners especially nurses who deal directly with the patients, causing the nursing students to understand the need and the importance of their role in the country to improve the health status of the patients.

For the association between students' performance and selected demographic variables, there were no significant associations except staying with a husband and housemate, a student complaining of high blood sugar, a family member complaining from high blood pressure, and lastly, segregation because of communicable diseases. These variables were highly significant and effect on the student's performance. A study done supporting the significant result of the concern of health problems for the pupils or family parts was demonstrated by Angelo, Alemayehu, & Dacho (2021) tackling comprehension, point of view, and performance toward Communicable diseases and connected components among university pupils the statistical analyses manifested that accommodation highly interferes with the performance that circulates information about communicable diseases that cause the students to be afraid from infection and anxious to affect their family who lives with them, that will not conduct the destruction in the application of precautionary standards (Angelo, Alemayehu & Dacho, 2020). Supporting Angelo, Alemayehu & Dacho, (2020) ideas the study with the same finding was done by Baniyas et al., (2021) the finding most queries about health problems that family members complain of, the pupils and the family members who household that can be contaminated by the sickness.

This research was done in the United Arab Emirates about the learning, viewpoint, and performance of medical and health sciences students, the interpretation of the student's worries about their family members getting infected with any of the communicable diseases especially the COVID-19 pandemic, this controversy their performance in the hospital while taking care for the patient with a communicable disease. The finding of the research study done by Baniyas et al., (2021) empowers this research study and put in hand the effect of the communicable disease on the students when having training in the hospital, this can cause the university, teachers, instructors, and preceptors to collaborate together to find a solution to this problem that faced by students. By, changing the curriculum of the university, providing intensive training in the simulation lab before going to the hospital for training, organizing workshops and courses that guide the students toward safe and effective practice, and using appropriate guidelines to provide safe performance during hospital training. Therefore, good and perfect construction of students through

a full plan of strategic actions on crisis management was advocated as a criterion to get rid of students' distress about the disease transference (Peiró et al., 2020), (Althobaity & Alsammeri, 2020).

#### **Limitations:**

The study limitation was that because the sample is small in size study cant be generality and the findings can identify the significant relationships. Also, utilizing a self-perceived survey tool causes the analytical results to be instructive.

#### **Recommendation:**

The recommendation is to do further study on students' comprehension, and viewpoints, during training performance with long-term observation that can notify and observe the students' performance during clinical training.

#### **Conclusions:**

In conclusion, the study significantly statistically shows the students were having average performance toward patient care with a communicable disease, which invents an idea about building up new strategies in the learning developments for advanced practice and comprehension and obligate the pupils studying nursing specialty to re-organize the curriculum learning developmental plans to allow the pupils to fulfill needs of the pupils and studiers that will affect on their future performance when working in the hospital as employees. The university must be well equipped and build on a new pathway to deal with the anxiety and stress that contributed to communicable diseases. Empirical comprehension is important for pupils' understanding and cannot be put back by any other comprehension understanding strategic plans, especially for the health science specialty nursing field. Communicable diseases affect the pupil's performance and training encounters and performance; right away, the curriculum should encounter the university's demands. Thus, the explored analyses appearances on pupils' proactive performance and enterprise should be fostered by proper crisis preparedness, improving their management habits, and get ready the capable preceptors As a result, they can be regarded as a motivator for pupils studying nursing specialty to realize their worth and have their names are written in history, which demonstrates the beneficial influence of communicable illnesses on the nursing image.

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