

# Knowledge, Attitude and Practices of Nursing Students on COVID–19 In North Cotabato

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## ABSTRACT

COVID – 19 infection is still widespread. State colleges and universities were gradually opened. This study was designed to assess nursing student’s knowledge, attitudes, and practices about COVID-19.

A correlational research design was used in this study. From July 1 to August 31, 2021, a snowball sample of 76 student nurses in North Cotabato were surveyed using an online survey tool with a Cronbach’s alpha results: 0.772 for knowledge, 0.774 for attitude, and 0.898 for practices.

Results revealed that majority of the respondents were second year female nursing students ages 21 – 23 who reside in rural areas of north Cotabato with a monthly family income of Php 15,000 and below. Primary source of information was through social media followed by school lectures, Internet/website, and television. They have excellent knowledge and very high attitude and practices on COVID-19. In addition, there was a significant relationship between the respondent’s attitude and practices ( $p$ -value= .000) but has no significant relationship between knowledge and practices ( $p$ -value= .543). Moreover, there was no significant correlation between the respondent’s socio-demographic profile and practices.

It was concluded that regardless of the respondent’s demographics, respondents could still have good knowledge. Good attitude and practices on the other hand were prominent to female second year nursing students with the aid of social media, school lectures and internet/website as source of information. The findings established a baseline for the current state of nursing students’ knowledge, attitudes, and practices in North Cotabato. Furthermore, with the assistance of health agencies, areas on sources of information must be considered to ensure the reliability and validity of the information being acquired by everyone. This could help in structuring policies and procedures of each institution that enables the safe application of face-to-face system.

**Keywords:** COVID-19, Knowledge-Attitude-Practices, Nursing Students, Descriptive-Correlational, North Cotabato

## INTRODUCTION

Coronaviruses are a viral family that infects animals. Seven, including the new virus, have mutated to induce cold-like symptoms in people (Newey & Gulland, 2020). Coronavirus disease 19 (COVID 19) is a newly found virus that is an infectious disease that originated in Wuhan, China (World Health Organization, 2020a). This sickness is closely connected to SARS, which swept the world in 2002-2003. Because most of those affected were already sick, the virus was quickly contained (Newey & Gulland, 2020). COVID-19 is a new infectious disease caused by SARS Coronavirus 2. (SARS-CoV-2). It is transferred by inhaling the virus from a sick person or touching a contaminated surface, then contacting the eyes, nose, or mouth (Pandey et. Al, 2021).

SARS-CoV-2, the virus that causes COVID-19, evolves. Modifying the virus' characteristics is rarely necessary. Avoiding invasions into animal populations and minimizing transmission are important parts of the global plan to decrease mutations that harm public health (World Health Organization, 2021).

In the Philippines, roughly 1.86 million persons had been verified to be afflicted with COVID-19 virus as of August 23, 2021. Only 1.7 million had recovered, and approximately 32 thousand had died (Statista Research Department, 2021).

To date, vaccines were formulated for COVID – 19 and could cover at least even up to its other variants. Schools/universities have already started to apply for a limited face-to-face delivery of learning modalities. Hence, this study was formulated to assist in the eradication of the infection, and one of the possible ways to address the situation is through determining the nursing student's knowledge, attitude and practices on COVID-19.

### Statement of the Problem

This study aimed to determine the knowledge, attitude and practices of nursing students on covid – 19 in North Cotabato, Philippines.

Specifically, this study sought to (1) determine the respondents' socio-demographic profile in terms of age, sex, year level, type of community, family's monthly income, and source of information; (2) determine the respondent's level of knowledge, attitude, and practices on COVID – 19; (3) determine if there is a significant relationship between the respondents' level of knowledge and attitude to their practices; and (4) determine if there is a significant association between the respondent's selected socio-demographic profile and practices.

### Hypothesis

The study was guided by the following hypotheses tested at 0.05 level of significance:

**Ho<sub>1</sub>:** There is no significant relationship between the respondents' level of knowledge and attitude to practices.

**Ho<sub>2</sub>:** There is no significant relationship between the respondent's socio-demographic profile and practices.

## METHODOLOGY

### Research Design

This study utilized a descriptive – correlation research design to describe the socio-demographic profile of the respondents, their knowledge, attitudes and practices on COVID – 19 diseases, transmission, and prevention and control, to determine the relationship between the respondents’ knowledge and attitudes, and practices on COVID – 19, and to determine the association between the respondents’ socio-demographic profile and knowledge, attitudes, and practices on COVID – 19.

### Setting

The study was conducted in North Cotabato using a google form as a tool for data gathering.

### Respondents of the Study

Using the priori power analysis (power:95, effect size: 0.40, and sig. level: 5%), a minimum sample size of 63 was generated. However, a total of 76 Nursing students answered the survey who resides in North Cotabato using a snowball sampling technique. Inclusion criteria includes those 18 years old and above, currently enrolled in the BSN program of their respective schools regardless of gender, tribe and race, and are willing to be part of the respondents of the study. Those aged below 18 years old, who were not currently enrolled in their degree at the time of the conduct of the research and are not willing to take part in the study will be excluded in this research endeavor.

### Measures

A researcher – made questionnaire was utilized in this study. The questionnaire underwent content validation and reliability testing by the panel of experts. The questionnaire had four (4) parts.

Part 1 reflected the socio – demographic profile of the respondents in terms of age, gender, year level, and type of community, family’s monthly income and sources of information on COVID – 19. Part 2 reflected the seventeen (17) questions to measure the knowledge of the respondents towards COVID – 19 which included the background of the disease, transmission, and prevention and control measures. The questions were answerable by True or False. A one (1) point will be given to every correct answer and a zero (0) point will be given to every wrong answer.

As for the overall score, the following scales were utilized:

Raw Score	Description	Interpretation
15 – 17	Excellent Knowledge	This indicates that the respondents have high knowledge on COVID – 19 disease, transmission, and prevention and control measures.
12 – 14	Very Satisfactory Knowledge	This indicates that the respondents have adequate knowledge on COVID – 19 disease, transmission, and prevention and control measures.
9 – 11	Satisfactory Knowledge	This indicates that the respondents have basic knowledge on COVID – 19 disease, transmission, and prevention and control measures.

5 – 8	Good Knowledge	This indicates that the respondents have minimal knowledge on COVID – 19 disease, transmission, and prevention and control measures.
1 – 4	Poor Knowledge	This indicates that the respondents have poor on COVID – 19 disease, transmission, and prevention and control measures.

Meanwhile, Part 3 of the questionnaire reflected the twenty (20) statements pertaining to attitudes of the respondents towards COVID – 19. This part of the questionnaire utilized the following five – point likert scaling:

Rating	Verbal Description	Interpretation
5	Strongly Agree (SA)	This indicates that the respondent strongly affirmed and has extensive positive feelings or thoughts to the statements regarding COVID – 19.
4	Agree (A)	This indicates that the respondent affirmed and has positive feelings or thoughts to the statements regarding COVID – 19.
3	Neutral (N)	This indicates that the respondent is undecided and has neutral feelings or thoughts to the statements regarding COVID – 19.
2	Disagree (D)	This indicates that the respondent refuted and has negative feelings or thoughts to the statements regarding COVID – 19.
1	Strongly Disagree (SD)	This indicates that the respondent strongly refuted and has extensive negative feelings or thoughts to the statements regarding COVID – 19.

As for the overall mean, the following scales were utilized:

Mean Range	Verbal Description	Interpretation
4.21 – 5.00	Very High	This indicates that the respondent strongly affirmed and has extensive positive feelings or thoughts to the statements regarding COVID – 19.
3.41 – 4.20	High	This indicates that the respondent affirmed and has positive feelings or thoughts to the statements regarding COVID – 19.
2.61 – 3.40	Average	This indicates that the respondent is undecided and has neutral feelings or thoughts to the statements regarding COVID – 19.
1.81 – 2.60	Low	This indicates that the respondent refuted and has negative feelings or thoughts to the statements regarding COVID – 19.
1.00 – 1.80	Very Low	This indicates that the respondent strongly refuted and has extensive negative feelings or thoughts to the statements regarding COVID – 19.

Moreover, Part 4 of the questionnaire reflected the fifteen (15) statements pertaining to the practices of the respondents regarding COVID – 19 prevention and control measures. This part of the questionnaire utilized the following five – point likert scaling:

Rating	Verbal Description	Parameters
5	Always (A)	This means that the respondent practiced the mentioned statement at all times.
4	Often (O)	This means that the respondent practiced the mentioned statement most of the time.

3	Sometimes (S)	This means that the respondent practiced the mentioned statement at times.
2	Rarely (R)	This means that the respondent practiced the mentioned statement at every other times.
1	Never (N)	This means that the respondent did not practice the mentioned statement at all.

As for the overall mean, the following scales were utilized:

MEAN RANGE	VERBAL DESCRIPTION
4.21 – 5.00	Always
3.41 – 4.20	Often
2.61 – 3.40	Sometimes
1.81 – 2.60	Rarely
1.00 – 1.80	Never

After the content validation, a pre-test was done as part of the reliability testing of the research instrument. The data were processed to determine the Cronbach alpha. The results were as follows: Knowledge – 0.772, Attitude – 0.774, and Practices – 0.898.

### Ethical Considerations

Ethical considerations were ensured and followed by the researchers securing consent from the participants.

Participation in the study was voluntary and it was based on the respondents' ability to give informed consent. Before giving the informed consent, the researcher explained the purpose of the study and it was mentioned expressly to the respondents that their responses will be treated confidentially and anonymously. Moreover, the respondents were informed that they have the right to withdraw at any time as they wish to.

After which, all data and information gathered were kept strictly confidential and cannot be accessed by any other party without prior permission from the respondents.

### Statistical Tools

The researcher employed the following statistical tools in order to analyse the data:

**Frequency and Percentage.** These were used to describe the respondent's age, gender, civil status, year level, type of community, family's monthly income, and source of information on COVID – 19. This was also used to describe the knowledge of the respondents.

**Mean.** This was used to describe the level attitude and practices of the respondents on COVID – 19.

**Kolmogorov-Smirnov Test.** This was used to test the normal distribution of the study's data.

**Pearson chi-square.** This was used to determine the association between the respondent's socio-demographic profile and KAP.

**Pearson r.** This was used to determine the relationship between the respondent's knowledge and Attitude, and practices.

## Scope and Delimitations of the Study

The study aimed to determine the knowledge, attitude and practices of nursing students on COVID – 19 in North Cotabato. The study utilized a descriptive – correlational research design, with a researcher – made questionnaire being used in order to gather the primary data. A snowball sampling method was employed in selecting the respondents who were nursing students aged 18 years old and above, currently enrolled in the BSN program of their respective schools regardless of gender, tribe and race, and are willing to be part of the respondents of the study. The study was conducted in North Cotabato from July to August 2021.

The following has been excluded from this study: those aged below 18 years old, who were not currently enrolled in their degree at the time of the conduct of the research and are not willing to take part in the study will be excluded in this research endeavor

The study started last June 2021 up to September 2021.

## RESULTS

**Table 1: Respondent’s Demographic Profile**

Variables	Frequency	Percentages
Age		
18 – 20 years’ old	23	30.26
21 – 23 years’ old	39	51.32
24 – 26 years’ old	8	10.53
27 years old and above	6	7.89
Sex		
Male	9	11.8
Female	67	88.2
Year Level		
Level 1	14	18.4
Level 2	30	39.5
Level 3	22	28.9
Level 4	10	13.2

Type of Community (where they live)		
Rural	37	48.7
Urban	12	15.8
Sub-Urban	27	35.5
Family's Monthly Income		
Php 15,000 and below	50	65.8
Php 15,001 to 25,000	14	18.4
Php 25,001 to 35,000	3	3.9
Php 35,001 to 45,000	3	3.9
Php 45,001 to 55,000	2	2.6
Php 55,001 and above	4	5.3
Source of Information on COVID – 19		
School Lectures	64	84.21
Family Members	51	67.11
News Paper	20	26.32
Friends	48	63.16
Social Media	69	90.79
Radio	37	48.68
Internet / Website	64	84.21
Television	64	84.21
Training / Seminar	38	50.00
Neighbor/Chismis	2	2.63

Table 1 presented the Respondent's demographic profile. Majority (67 or 88.2%) of the respondents were females, and 9 out of 76 (11.8%) were male. There were 51.32% (39/ 76) from age bracket- 21-23 years old, while 30.26% (23/ 76) were 18-20 years old; 10.53% (8/ 76) from 24-26 years old; 7.89% (6/ 76) were 27 years old and above.

Most (30 or 39.5%) of the respondents were second year nursing student, while the rest were from Level 1, 3, and 4. In terms of the community where the students currently living, most (37 or 48.7%) of them were from the rural area, 35.5% (27/ 76) were from sub-urban; while 15.8% (12/ 76) were from the urban area.



In terms of family’s monthly income, majority (50 or 65.8%) of the respondents have a monthly income of Php 15,000 and below while 18.4% (14/ 76) have an income of Php 15,001 to 25,000 and the rest had a family monthly income range from Php 25,001 and above.

In terms of the source of information about the COVID-19, the social media (90.79%) were determined as the top source of information, followed by School lectures, Internet/ website and television with 84.21%, family members as a source of information had a 67.11%, from friends with 63.16%, Training/ Seminar with 50%, radio source with 48.68%, Newspaper source with 26.32%, and Neighbor/ Chismis with 2.63% respectively.

**Table 2.1 Respondent’s Level of Knowledge**

Statements	TRUE		FALSE	
	Frequency	Percentage	Frequency	Percentage
	N = 76	%	N = 76	%
Statement No. 1	<b>69</b>	<b>90.79</b>	7	9.21
Statement No. 2	17	22.37	<b>59</b>	<b>77.63</b>
Statement No. 3	12	15.79	<b>64</b>	<b>84.21</b>
Statement No. 4	<b>66</b>	<b>86.84</b>	10	13.16
Statement No. 5	<b>66</b>	<b>86.84</b>	10	13.16
Statement No. 6	<b>76</b>	<b>100.00</b>	0	0.00
Statement No. 7	<b>76</b>	<b>100.00</b>	0	0.00
Statement No. 8	<b>76</b>	<b>100.00</b>	0	0.00
Statement No. 9	<b>76</b>	<b>100.00</b>	0	0.00
Statement No. 10	<b>76</b>	<b>100.00</b>	0	0.00
Statement No. 11	5	6.58	<b>71</b>	<b>93.42</b>
Statement No. 12	<b>75</b>	<b>98.68</b>	1	1.32
Statement No. 13	<b>76</b>	<b>100.00</b>	0	0.00
Statement No. 14	14	18.42	<b>62</b>	<b>81.58</b>
Statement No. 15	<b>76</b>	<b>100.00</b>	0	0.00
Statement No. 16	<b>76</b>	<b>100.00</b>	0	0.00
Statement No. 17	<b>76</b>	<b>100.00</b>	0	0.00

**\*Bolted results are the correct answer for every question.**

**Table 2.2 Summary of the Respondent’s Level of Knowledge**

Variable	Raw Score Range	Frequency N = 76	Percentage %	Description	Interpretation
Respondent’s Knowledge on COVID-19	15 – 17	65	85.5	Excellent Knowledge	This indicates that the respondents have high knowledge on COVID – 19 disease, transmission, and prevention and control measures.



	12 – 14	11	14.5	Very Satisfactory Knowledge	This indicates that the respondents have adequate knowledge on COVID – 19 disease, transmission, and prevention and control measures.
<b>Over-all Mean Score</b>	<b>16</b>	–	–	<b>Excellent Knowledge</b>	This indicates that the respondents have high knowledge on COVID – 19 disease, transmission, and prevention and control measures.

Table 2.1 showed the respondent’s knowledge on COVID-19 and was assessed by True or False; Respondents have a perfect score for questions number 6, 7, 8, 9, 10, 13, 15, 16, and 17. Each question-and-answer option was described with raw scores range in Table 2.2. Respondent’s knowledge on COVID-19 is excellent at 85.5% (65 out of 76) with the Raw Score Range of 15-17, which indicated that majority of the respondents have high knowledge on COVID-19 disease, transmission, and prevention and control measures. In comparison, 14.5% (11 out of 76) have a very satisfactory knowledge, which indicated that the respondents had adequate knowledge on COVID-19 disease, transmission, and prevention and control measures.

**Table 3. Respondent’s Attitude on COVID – 19**

Statements	Mean	Description
Statement No. 1	4.87	Very High
Statement No. 2	4.83	Very High
Statement No. 3	4.75	Very High
Statement No. 4	4.46	Very High
Statement No. 5	4.67	Very High
Statement No. 6	4.79	Very High
Statement No. 7	4.83	Very High
Statement No. 8	4.78	Very High
Statement No. 9	4.82	Very High
Statement No. 10	4.72	Very High
Statement No. 11	3.37	High
Statement No. 12	4.58	Very High
Statement No. 13	4.71	Very High
Statement No. 14	4.76	Very High
Statement No. 15	4.70	Very High
Statement No. 16	4.41	Very High
Statement No. 17	4.39	Very High
Statement No. 18	4.68	Very High
Statement No. 19	4.37	Very High
Statement No. 20	4.74	Very High
<b>OVER ALL MEAN</b>	<b>4.61</b>	<b>Very High</b>

Table 3 showed the respondents' attitude towards COVID-19. Majority of the respondents had very high attitude towards COVID-19 which involved social distancing application, hand hygiene practices, staying at home, following the national standards in battling COVID-19, wearing face shields and face masks and its proper disposal. This implied that the respondents were strongly affirmed and had extensive positive feelings or thoughts to the statements regarding COVID – 19. Furthermore, respondents' response to statement 11 indicated an affirmation and positive feelings or thoughts that getting information about COVID-19 through social networking was enough.

**Table 4. Respondent's Level of Practice on COVID – 19.**

Statements	Mean	Description
Statement No. 1	4.66	Very High
Statement No. 2	4.78	Very High
Statement No. 3	4.76	Very High
Statement No. 4	4.71	Very High
Statement No. 5	4.71	Very High
Statement No. 6	4.78	Very High
Statement No. 7	4.95	Very High
Statement No. 8	4.71	Very High
Statement No. 9	4.86	Very High
Statement No. 10	4.38	Very High
Statement No. 11	4.72	Very High
Statement No. 12	4.61	Very High
Statement No. 13	4.78	Very High
Statement No. 14	4.59	Very High
Statement No. 15	4.64	Very High
<b>OVER ALL MEAN</b>	<b>4.71</b>	Very High

Table 4 showed the respondents' practices towards COVID – 19 prevention and control. With a mean of 4.71, it implied that the respondents practice the COVID – 19 prevention and control activities at all times. These include frequent hand washing with soap and water several times a day, using alcohol or alcogel before and after touching any objects in the absence of water, soap and sink for hand washing, avoiding social gathering and isolated places, practicing social distancing, proper wearing of face mask and face shield and its proper disposal, and proper reporting of any person who have possible signs and symptoms to the proper authority.

**Table 5. Correlation Between the Respondent's Knowledge and Attitude, and Practices**

Correlations			Decision	Remarks
		Practice		
Knowledge	Correlation Coefficient	.071	Accept $H_{01}$	Not Significant
	Sig. (2-tailed)	.543		
	N	76		
Attitude	Correlation Coefficient	.455 <sup>**</sup>	Do Accept $H_{01}$	Significant
	Sig. (2-tailed)	.000		
	N	76		

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 5 showed the correlation between the respondents’ level of Knowledge and Attitude, and Practices on COVID-19.

There was a significant relationship between the respondents’ attitude and practices ( $p - value = 0.000$ ). On the other hand, there was no significant relationship between the respondents’ knowledge and practices (0.543).

**Table 6: Association between the Respondent’s Socio-demographic profile and Knowledge, Attitude and Practices**

Demographic Profile	Pearson Chi-Square (p-value)	Decision	Remarks
	Practices		
Age	.584	Accept $H_{o2}$	Not Significant
Sex	.068	Accept $H_{o2}$	Not Significant
Year Level	.762	Accept $H_{o2}$	Not Significant
Type of Community	.529	Accept $H_{o2}$	Not Significant
Family’s Monthly Income	.129	Accept $H_{o2}$	Not Significant

As shown in Table 6, there was no significant association between the Respondent’s Socio – demographic Profile and Practices. Hence, the null hypothesis was accepted.

## DISCUSSION

Although vaccines were already available and health protocols were crafted still, the COVID-19 virus continues to spread and causes damages to the country which included the economy, health sector and education as a whole. All information is essential to every Filipino citizen, above all, for Nursing Students, so in this research, we can see that the learners have high knowledge of COVID-19 disease, transmission, and prevention and control measures. Hence this study was formulated.

Socio-demographic profile (Table 1) showed that majority of the respondents were female within the age bracket of 21-23 years old in their second-year level and were currently living in the rural area. The result of the study was somehow similar to the results conducted by Pandit and Pandit (2021) showed that, majority of their respondents were in the age group of 20 – 25 years and majority were females. In terms of family’s monthly income, majority of the respondents have a monthly income of Php 15,000. Social media were determined as the top source of information, followed by school lectures, Internet/ website and television respectively. Similarly, in the study of Pandit and Pandit (2021) revealed that most of their respondents gained information from social media, family and friends. A study conducted by Albaqawi et. al. (2020) further revealed that sources of information on COVID-19 primarily from social media, relatives working in the medical field, television, university, newspaper and friends respectively. Particularly in the Philippines where Filipinos were recognized according to Statista (2021) to spent over four hours utilizing social media platforms, which held the highest athwart the Asia Pacific region.

Respondents reported to have excellent knowledge (Table 2.1 & 2.2) on COVID-19. Result of this study

was somehow similar in the study of Peng et. al. (2020), which revealed that their respondents got high knowledge especially those undergraduates in medical field from public universities. Furthermore, nursing students in particular had excellent level of knowledge in terms of COVID-19 than those in other fields (Pandit & Pandit, 2021). In addition, the study of Quisao et. al. (2021), revealed that a higher level (level 3) was noted to have high knowledge than the other level and those who were in the public universities.

Female participants scored higher than male participants (Albaqawi et. al., 2020). In addition, female first year nursing students showed good knowledge than the other respondents (Provenzano et. al., 2020). According to Peng. et. al. (2020), attitude scores significantly varied according to gender.

Respondents of the study also had very high attitude and very good practices (Table 3 & 4) towards COVID-19 infection, prevention and control. During this period, nursing students' positivity empowered themselves to cope because compliance with hygiene practices and other detailed above are already included in their curriculum. It also proffers a sign of their citizenship, united in the heart and future nursing services. One of our government's accomplishments in advocating correct information to the people brings extensive positive feelings and compliance with minimum health standards. Similar results revealed in the study of Pundit and Pundit (2021) wherein their respondents showed positive attitude and good practices towards COVID-19 which would be a large reservoir for health care response when the need arises. According to Peng. et. al. (2020), attitude and practices scored significantly varied by gender. Quisao et. al. (2021) further revealed that in terms of attitude, females from public universities had higher attitudes than of those students from private universities. Females showed significantly high positive attitudes than male respondents and positive practice as well. Attitude was significantly influenced by family economic conditions and whether a family member had been vaccinated (Jiang et. al., 2021).

There was a significant relationship between the respondent's attitude and practices ( $p - value = 0.000$ ). On the other hand, there was no significant relationship between the respondent's knowledge and practices (0.543). Similar study (Peng et. al, 2020), revealed a positive correlation between attitude and practice. Furthermore, a study conducted by Albaqawi et. al. (2020) revealed a weak positive correlation between preventive behavior scores and perceived knowledge of COVID-19 among their respondents.

Meanwhile (Table 6), results of the study revealed that there was no significant relationship between the respondent's socio-demographic profile and practices. Hence, the null hypothesis is accepted. The results of this study were different from the previous studies being conducted. According to Peng. et. al. (2020), practices scores significantly varied by gender. In terms of practice, significant difference was reported in the study of Quisao et. al. (2021) in terms of year level wherein level 3 nursing students had the highest mean score compared to other year levels. According to Albaqawi et. al. (2020), significant differences were noted among students when grouped according to university and year of study. Female students had better preventive behavior than male students. Weak positive correlations existed between preventive behavior scores and age. In addition, gender had a significant impact on practice scores while no demographic variable was found to have a significant relation with attitude score (Maheshwari, 2021).

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Summary of Findings

The following are the salient findings of the study:

1. Majority (67 or 88.2%) of the respondents were female within the age bracket (51.32% or 39) of 21-23 years old in their (30 or 39.5%) second year level who were currently living (37 or 48.7%) in the rural areas. In terms of family's monthly income, majority (50 or 65.8%) of the respondents had a

monthly income of Php 15,000. Social media (90.79%) were seen as the top source of information, followed by school lectures, Internet/ website and television (84.21%) respectively.

1. Respondents had excellent knowledge, very high attitude and practices of COVID-19 infection, prevention and control.
2. There was a significant relationship between the respondent's attitude and practices ( $p - value = 0.000$ ) but no significant relationship between the respondent's knowledge and practices (0.543).
3. There was no significant association between the respondent's socio-demographic profile and practices.

## Conclusions

Based on the findings of the study, it was concluded that female nursing students aged 21-23 years old who were in their higher-level thought to have higher level of knowledge, good attitude and practices on COVID-19 preventive measures and control, and adhered more to the proper public health measures to prevent acquiring the spread of COVID-19. Social Networks was seen to be their sources of information regarding COVID-19 information. In addition, a significant relationship was noted between the respondent's level of attitude and practices but no significant relationship between knowledge and practices. Furthermore, there was no significant correlation between the respondent's socio - demographic profile and practices. Hence, the higher the respondents' attitude, the good their practices will be.

## Recommendations

The following recommendations were created based on the results of the study.

1. The academic institutions should further strengthen the information cascade regarding COVID-19 through legitimate sources and platforms.
2. Continuous information dissemination and updates of the institutions pertaining to the health protocols created by the authorized health organization through different platforms.
3. The use of social media platform by the institution should be strengthen especially on the health.
4. Further studies should be conducted on a specific academic institution with greater number of participants to determine the extent of awareness on COVID-19 and readiness of the implementation of limited-face-to-face among them despite the present state.

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