

0.0%

Date: 2021-01-19 11:38 PST

* All sources 100 | Internet sources 49 | Publisher sources 2 | Own documents 7 | Organization archive 6 |

Plagiarism Prevention Pool 36 |

- [0] "JOMELL M. SANTIAGO.docx" dated 2020-06-26
0.0% 138 matches

- [1] "JOMELL M. SANTIAGO.docx" dated 2020-07-21
0.0% 137 matches

- [2] www.researchgate.net/publication/344347419_Knowledge_about_COVID-19_among_university_students_before_the_implementation_of_the_enha
0.0% 106 matches

- [3] www.researchgate.net/profile/Jomell_Santiago/publication/344347419_Knowledge_about_COVID-19_among_university_students_before_the_impl
0.0% 102 matches

- [4] "THESIS WRITING.docx" dated 2020-07-29
0.0% 29 matches

- [5] "module in Thesis Writing - New - book.docx" dated 2020-05-17
0.0% 29 matches

- [6] journals.plos.org/plosone/article?id=10.1371/journal.pone.0102028
0.0% 25 matches

- [7] journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0102028&type=manuscript
0.0% 24 matches

- [8] www.researchgate.net/publication/341303513_Knowledge_attitude_and_practice_towards_coronavirus_disease_2019_COVID-19_among_medical_s
0.0% 17 matches

- [9] ijphs.iaescore.com/index.php/IJPHS/article/view/20545
0.0% 15 matches

- [10] "20639-38897-1-RV.docx" dated 2020-10-02
0.0% 13 matches

- [11] en.wikipedia.org/wiki/2020_Luzon_enhanced_community_quarantine
0.0% 8 matches

- [12] www.researchgate.net/publication/340413844_Knowledge_and_attitude_toward_COVID-19_among_healthcare_workers_at_District_2_Hospital_Hc
0.0% 14 matches

- [13] www.researchgate.net/publication/340413844_Knowledge_and_attitude_toward_COVID-19_among_healthcare_workers_at_District_2_Hospital_Hc
0.0% 13 matches

- [14] Level of Awareness of Dengue Disease among School Children in Gampaha District, Sri Lanka, and Effect of School-Based Health Education Prog
0.0% 11 matches

- [15] www.cureus.com/articles/32747-neurological-and-psychological-effects-of-coronavirus-covid-19-an-overview-of-the-current-era-pandemic
0.0% 10 matches

- [16] "20716-39108-1-RV.docx" dated 2020-12-20
0.0% 10 matches

- [17] europepmc.org/article/MED/25007284
0.0% 6 matches

- [18] bmcpubhealth.biomedcentral.com/articles/10.1186/s12889-020-09644-y
0.0% 11 matches




























- [19] from a PlagScan document dated 2019-07-09 08:41
0.0% 8 matches




























- [20] www.jconseph.com/download/assessing-knowledge-attitude-and-practice-towards-covid-19-among-sub-assistant-agriculture-officers-9364.pdf
0.0% 8 matches


- [21] www.sciforschenonline.org/journals/epidemiology-public-health/article-data/JEPHR198/JEPHR198.pdf
0.0% 10 matches
 1 documents with identical matches


- [23] from a PlagScan document dated 2018-11-07 08:18
0.0% 9 matches


- [24] "final copy.docx" dated 2018-04-25
0.0% 9 matches


-
- [25]  www.researchgate.net/publication/292141218_Awareness_Attitudes_and_Practices_Related_to_Coronavirus_Pandemic_Among_Public_in_Saudi_A
 7 matches
-
- [26]  en.wikipedia.org/wiki/2020_coronavirus_pandemic_in_the_Philippines
 5 matches
-
- [27]  europepmc.org/articles/PMC4090170
 3 matches
-
- [28]  www.researchgate.net/publication/344162938_SARS-CoV-2_COVID-19_Pandemic_in_Nigeria_Multi-institutional_Survey_of_Knowledge_Practice
 8 matches
-
- [29]  en.wikipedia.org/wiki/Full_lockdown
 5 matches
-
- [30]  www.dovepress.com/knowledge-attitude-and-practice-towards-covid-19-among-chronic-disease-peer-reviewed-fulltext-article-IDR
 7 matches
-
- [31]  www.statista.com/statistics/1106978/philippines-employment-impact-novel-coronavirus-covid19/
 3 matches
-
- [32]  from a PlagScan document dated 2018-08-14 12:23
 7 matches
-
- [33]  en.wikipedia.org/wiki/Timeline_of_the_2020_coronavirus_pandemic_in_the_Philippines
 7 matches
-
- [34]  from a PlagScan document dated 2020-04-21 13:22
 6 matches
-
- [35]  journals.plos.org/plosone/article?id=10.1371/journal.pone.0236918
 8 matches
-
- [36]  "Geographic Information System of Dengue Fever A Case Study in the Philippines-IJGIS.docx" dated 2020-10-02
 7 matches
-
- [37]  from a PlagScan document dated 2018-11-07 05:35
 5 matches
-
- [38]  from a PlagScan document dated 2017-05-04 08:58
 5 matches
-
- [39]  from a PlagScan document dated 2018-09-30 13:04
 5 matches
-
- [40]  from a PlagScan document dated 2018-07-05 10:51
 4 matches
-
- [41]  from a PlagScan document dated 2017-07-09 10:04
 5 matches
-
- [42]  "LEMONEE.docx" dated 2020-07-06
 3 matches
-
- [43]  "CAMPUS JOURNALISM MODULE.docx" dated 2020-08-10
 4 matches
-
- [44]  from a PlagScan document dated 2020-04-08 03:02
 5 matches
-
- [45]  from a PlagScan document dated 2019-08-01 03:34
 5 matches
-
- [46]  from a PlagScan document dated 2018-06-29 07:19
 5 matches
-
- [47]  from a PlagScan document dated 2019-12-29 00:15
 4 matches
-
- [48]  from a PlagScan document dated 2019-08-21 08:28
 4 matches
-
- [49]  www.researchgate.net/publication/340694053_Knowledge_perception_and_attitudes_in_Regard_to_COVID-19_Pandemic_in_Peruvian_Population
 4 matches
-
- [50]  www.researchgate.net/publication/292384518_Tips_for_developing_and_testing_questionnairesinstruments
 4 matches
-
- [51]  www.aalep.eu/cod-vid-19-vocabulary
 1 matches
-


- [52]  "Worksheet #2 Process Sheet.docx" dated 2020-09-21
 3 matches
-
- [53]  "Tandingan_Gervin_Biocomposites_-_Datu,_et.al..docx" dated 2019-05-24
 3 matches
 1 documents with identical matches
-
- [55]  from a PlagScan document dated 2018-06-10 00:17
 5 matches
-
- [56]  www.nbcnews.com/health/health-news/cdc-report-covid-19-cleaning-practices-finds-some-gargling-bleach-n1225826
 3 matches
-
- [57]  from a PlagScan document dated 2020-12-18 15:58
 3 matches
-
- [58]  readnews.us/us-news/cdc-report-on-covid-19-cleaning-practices-finds-some-gargling-with-bleach
 3 matches
-
- [59]  en.wikipedia.org/wiki/Coronavirus_disease_2019
 4 matches
-
- [60]  "20690-39067-1-RV.doc" dated 2020-12-09
 3 matches
-
- [61]  from a PlagScan document dated 2018-08-08 06:35
 2 matches
-
- [62]  www.ncbi.nlm.nih.gov/pmc/articles/PMC7247775/
 3 matches
-
- [63]  en.wikipedia.org/wiki/IATF-EID
 4 matches
-
- [64]  www.indianjpsychiatry.org/article.asp?issn=0019-5545;year=2020;volume=62;issue=3;page=266;epage=272;aulast=Chakraborty
 4 matches
-
- [65]  from a PlagScan document dated 2019-01-29 17:50
 3 matches
-
- [66]  from a PlagScan document dated 2017-11-23 12:16
 3 matches
-
- [67]  journals.sagepub.com/doi/full/10.1177/2048872620974605
 3 matches
-
- [68]  from a PlagScan document dated 2020-07-02 22:24
 3 matches
-
- [69]  from a PlagScan document dated 2018-09-19 10:29
 4 matches
-
- [70]  www.researchgate.net/publication/341048433_High_School_Student's_Knowledge_Attitude_and_Participation_in_Sexual_Health_Education_in_Ru
 3 matches
-
- [71]  www.researchgate.net/publication/319011347_Knowledge_and_awareness_of_disposal_of_unused_and_expired_medications_among_medical_under
 2 matches
-
- [72]  www.researchgate.net/publication/332322867_An_Experimental_Research_with_3D_Objects_for_the_Internet_of_Things
 2 matches
-
- [73]  from a PlagScan document dated 2020-09-03 06:54
 3 matches
-
- [74]  from a PlagScan document dated 2018-08-30 04:58
 3 matches
-
- [75]  link.springer.com/article/10.1007/s10900-020-00827-7
 4 matches
-
- [76]  www.coursehero.com/tutors-problems/Management/25624748-Give-me-a-RRL-of-effects-of-covid-to-employess-in-the-Philippines/
 1 matches
-
- [77]  link.springer.com/article/10.1186/1471-2393-13-197
 3 matches
-
- [78]  from a PlagScan document dated 2019-09-11 12:49
 2 matches
-
- [79]  from a PlagScan document dated 2019-07-07 07:18
 3 matches


- [80]  from a PlagScan document dated 2019-11-08 06:37
0.0% 2 matches
1 1 documents with identical matches


- [82]  from a PlagScan document dated 2018-08-06 23:00
0.0% 2 matches


- [83]  pubmed.ncbi.nlm.nih.gov/32726340/
0.0% 3 matches


- [84]  from a PlagScan document dated 2018-07-04 07:32
0.0% 3 matches


- [85]  www.researchgate.net/publication/326902401_How_to_Design_and_Validate_A_Questionnaire_A_Guide
0.0% 2 matches


- [86]  from a PlagScan document dated 2020-05-19 20:57
0.0% 3 matches


- [87]  from a PlagScan document dated 2019-09-26 10:24
0.0% 2 matches


- [88]  www.researchgate.net/publication/339405751_Predictors_of_patients'_knowledge_attitudes_and_practices_KAP_regarding_uncomplicated_malaria
0.0% 3 matches


- [89]  www.mdpi.com/2414-6366/6/1/6/htm
0.0% 3 matches


- [90]  from a PlagScan document dated 2020-11-12 11:59
0.0% 1 matches


- [91]  from a PlagScan document dated 2020-05-29 03:35
0.0% 2 matches


- [92]  Knowledge, Attitudes, and Informational Behaviors of College Students in Regard to the Human Papillomavirus
0.0% 2 matches


- [93]  www.researchgate.net/publication/261138299_Healthcare_information_on_YouTube_A_systematic_review
0.0% 2 matches


- [94]  www.semanticscholar.org/paper/Knowledge,-Attitude-and-Practice-Towards-COVID-19-Akalu-Ayelnig/ce02ea10cacc7a945e36aa437cf9b8c671ddd
0.0% 2 matches


- [95]  from a PlagScan document dated 2019-04-05 00:55
0.0% 2 matches


- [96]  ritm.gov.ph/tag/covid-19-results-accuracy/
0.0% 2 matches


- [97]  www.mdpi.com/2673-3986/2/1/1/htm
0.0% 2 matches

- [98]  from a PlagScan document dated 2020-06-01 20:41
0.0% 1 matches

- [99]  from a PlagScan document dated 2018-11-14 10:04
0.0% 2 matches

- [100]  www.researchgate.net/publication/333123099_Energy_contribution_of_NOVA_food_groups_and_socio-demographic_determinants_of_ultra-proces
0.0% 1 matches

- [101]  www.pna.gov.ph/articles/1126492
0.0% 2 matches

- [102]  from a PlagScan document dated 2020-11-24 03:38
0.0% 1 matches

8 pages, 6762 words

PlagLevel: 0.0% selected / 42.3% overall

224 matches from 103 sources, of which 50 are online sources.

Settings

Data policy: *Compare with web sources, Check against my documents, Check against my documents in the organization repository, Check against*

organization repository, Check against the Plagiarism Prevention Pool

Sensitivity: *Medium*

Bibliography: *Consider text*

Citation detection: *Reduce PlagLevel*

Whitelist: --

Knowledge, attitudes and practices of the University students during the Luzon lockdown in the Philippines

Jomell M. Santiago¹ and Angelo R. Santos²

¹College of Education, Nueva Ecija University of Science and Technology San Isidro Campus

²College of Management and Business Technology, Nueva Ecija University of Science and Technology San Isidro Campus

Article Info

Article history:

^[1] Received
Revised
Accepted

Keywords:

^[0] Knowledge
Attitude
Practices
COVID-19
Lockdown

ABSTRACT

The purpose of this study was to determine the knowledge, attitude and practices of the university students about the Coronavirus Disease - 2019 during the Luzon lockdown in the Philippines. A descriptive research design and purposive sampling were used. A questionnaire was utilized to collect data which was composed of the profile, questions regarding their knowledge, attitude and practice towards COVID-19 and their source of knowledge. Permission to conduct and informed consent was obtained. Data were analyzed using various statistical tools. The majority of the respondents had good to very good knowledge of COVID-19 and their source of knowledge was mainly from television and the internet. They also had a very positive attitude and they practice the different ways to prevent COVID-19 such as practicing social distancing, staying at home and wearing a mask when going outside. The difference between their sex and family income to their knowledge about COVID-19 was significant while the difference between their profile to their attitude and practices was insignificant. Therefore, an intensified campaign against this contagion should be done to reach those individuals who have limited access to television and the internet and help them to have a positive attitude and right practices towards COVID-19.

This is an open access article under the [CC BY-SA](#) license.



Corresponding Author:

^[0] Jomell M. Santiago
College of Education
Nueva Ecija University of Science and Technology San Isidro Campus
3106 Poblacion, San Isidro, Nueva Ecija, Philippines
Email: jomellsantiago8854@gmail.com

^[4 9] 1. INTRODUCTION

In December 2019, an outbreak of severe acute respiratory syndrome coronavirus 2 previously known as 2019-nCoV occurred in Wuhan, Hubei Province, China, and spread across China and beyond [1]. [2] stated that COVID-19 did not belong to the group of the previous coronaviruses associated with humans such as SARS and MERS through genomic sequencing and evolutionary differentiation analysis. This novel strain of coronavirus or SARS-CoV-2 believed that it was possibly originated in bats before being passed to humans, potentially through another animal, such as a pangolin (scaly anteater). In the so-called “wet market” where several wild animal species are close to each other for selling purposes was believed where people most likely came into contact [3].

To further prevent and fight this pandemic, countries have taken very strict restrictions such as working from home, quarantine for regions with a high number of cases, and most importantly, lockdown. Lockdowns can limit movements or activities in a community while allowing most organizations to function normally, or limit movements or activities such that only organizations supplying basic needs and services can function normally [4]. By early April 2020, 3.9 billion people worldwide were under some form of lockdown—more than half the world's population [5 and 6]. In the Philippines on March 16, 2020, President Rodrigo Duterte imposed an enhanced community quarantine (ECQ) in Luzon, which is effectively a total lockdown, restricting the movement of the population except for necessity, work, and health circumstances, in response to the growing pandemic of coronavirus disease 2019 (COVID-19) in the country [7]. The ECQ was originally set to last until April 12, but President Duterte accepted the recommendation of the Inter-Agency Task Force on Emerging Infectious Diseases (IATF-EID) to extend it until April 30 [8].

During the period of lockdown, a massive information dissemination campaign was carried out by the Department of Health about COVID-19 on different platforms such as in television, radio, newspaper, social media, etc. Its main objective is to educate and inform all individuals about COVID-19. Health education can improve an individual's knowledge of infectious disease like COVID-19 and promote the development of appropriate behaviors toward infectious disease prevention and control. It effectively slows the spread of infectious diseases like COVID-19 [9]. This research can help in knowing the knowledge of infectious diseases like COVID-19 in university students [10]. It is, therefore, crucial to gain an understanding of current knowledge, attitude and practices regarding the nature, transmission and prevention of COVID-19 in the communities. This study aimed to evaluate student's knowledge, attitude and practice towards COVID-19.

2. RESEARCH METHOD

Study Design and Sample Size. A descriptive research design was used to assess the knowledge, attitude and practice of the students of Nueva Ecija University of Science and Technology, San Isidro Campus during the Luzon lockdown regarding the COVID-19 pandemic. It was initiated on March simultaneous with the implementation of the Enhanced Community Quarantine in the entire Luzon and completed on June 2020 after the Philippine government eases the restriction or put the country under the General Community Quarantine. Purposive sampling was used to choose the respondents. The target population was all the students who have an active Messenger account and internet access. Only 179 participate and gave consent to take part in the study.

Instrumentation and Data Collection. The questionnaire made by [10] and [11] was adopted for the study. The questionnaire was modified for content, wording and cultural appropriateness following an extensive review of the literature published in English and expert opinions. The questionnaire was made up of five major parts: the first part comprised questions regarding socio-demographic status (sex, occupation of parents and monthly income; the second part which is about their knowledge about COVID-19 which was comprised of the general knowledge, transmission, sign and symptoms, prevention and the protocol and policy implemented in response to COVID-19; the third part was about the source of knowledge where the respondents obtained their information about COVID-19; the fourth part comprised statements regarding their attitude towards COVID-19; and the last part comprised statements about their practices done against COVID-19. Before its use in the main study, the questionnaire was pre-tested among the students of the said campus which were not included in the final analysis. Cronbach's Alpha [12] was used to assess the reliability coefficient which is a measure of the internal consistency of the questionnaire. The result showed that Cronbach's Alpha coefficients were 0.80. A minimum of 0.7 is considered to reflect acceptable reliability [13 and 14]. Due to the lockdown in entire the Luzon Island which resulted in the suspension of classes in all levels, the gathering of data was done online using Google form as the questionnaire.

Ethical Consideration. Permission was sought from the Director of the Campus. Informed consent was given first before the respondent answer the questionnaire. Sufficient time was given to ask questions, the anonymity of the subjects and confidentiality of information was maintained.

Data and Statistical Analysis. All completed questionnaires were double-checked and verified for completeness and consistency. The data from the Google form was then entered in Microsoft Excel and Statistical Packages for Social Sciences (SPSS). All data files were checked and cleaned by the author before analysis. The responses to the knowledge questions were coded with one (1) for correct answers and zero (0) for incorrect and "do not know" answers, with a maximum of 10 points for each category and 50 overall. The response was defined as correct if it was valid. "Do not know (DNN)" responses is equivalent to wrong answers which is a conventional practice as "DNN" responses either come from the least knowledgeable respondents or the vast majority of those saying "DNN" really do not know [15]. Treating "DNN" as a wrong answer appears reasonable and justifiable in the study although it is a conservative strategy [16]. In contrast, dropping "DNN" responses from the data set reduces sample size, may introduce the sample selection bias and result in a serious loss of information [16]. Hence, it was not excluded "DNN" in the analyses. Further, knowledge for each category and the overall knowledge of students was calculated as a percentage, and knowledge level was classified as Very Poor (20%), Poor (21–40%), Average (41–60%), Good (61–80%), and Very Good (81–100%) based on 20% cut-off point. For example, with a total of 50 questions for overall knowledge, a respondent securing scores between 50 and 41 was categorized as having very good knowledge, scores between 40 and 31 have good knowledge, scores between 30 and 21 have average knowledge, scores between 20 and 11 have poor knowledge and scores between 10 and 0 have very poor knowledge. For the 10 questions for each category, a respondent securing scores between 10 and 9 was categorized as having very good knowledge, scores between 8 and 7 have good knowledge, scores between 6 and 5 have average knowledge, scores between 4 and 3 have poor knowledge and scores between 2 and 0 have very poor knowledge. Attitudes towards COVID-19 were measured by 4 questions about the agreement on the importance of taking care and their confidence in fighting the virus. The assessment of respondents' practices was composed of 5 behaviors which include the different ways of preventing COVID-19. For the socio-demographic profile, frequency and percentage were computed, while One-way Analysis of Variance (ANOVA) was used to determine whether significant differences existed in their profile concerning their knowledge, attitude and practices towards COVID-19.

Title of manuscript is short and clear, implies research results (First Author)

3. RESULTS AND DISCUSSIONS

3.1 Socio-demographic profile of the respondents

In the present study, a total of 179 respondents were selected to participate in the study consisting of 109 (60.90%) females and 70 (39.10%) males. Many of the occupations of their father or 73 (40.80%) were professional and most of their mother or 80 (44.70%) were skilled workers. The majority of them or 93 (52.00%) had family monthly income between P19,928 – P38,597 [Table 1]. It can be noted that the number of unemployed (73 or 40.80%) was due to the implementation of the enhanced community quarantine implemented in the Luzon since March 17. Because of the lockdown, closures in retail trade, malls, airports, canceled flights, and closures of non-food and non-health-related manufacturing services within the island were estimated to result in a maximum of one million people losing their jobs [17].

Table 1. Socio-Demographic Profile of the Respondents

Socio-Demographic Profile		Frequency (f)	Percentage (%)
Sex	Male	70	39.10
	Female	109	60.90
Occupation of Father	Professional	39	21.80
	Skilled	22	12.30
	Unskilled	45	25.10
	Unemployed	73	40.80
	Housewife	23	12.80
Occupation of Mother	Professional	32	17.90
	Skilled	80	44.70
	Unskilled	44	24.60
	Housewife	23	12.80
Monthly Gross Family Income	P19,928 and below	64	35.80
	P19,928 – P38,597	93	52.00
	P38,597 and above	22	12.20

3.2 Knowledge of the respondents regarding COVID-19

The finding of the study shows that among the respondents, good knowledge was found in 109 (60.89%) respondents, very good in 53 (29.61%), average in 15 (8.38%), and only 1 (0.56%) respondent had poor and very poor knowledge regarding the COVID-19 [Table 2]. The majority of the respondents have very good and good knowledge of COVID-19. According to [18] they respond socially to the pandemic as it develops which leads them to become more aware and knowledgeable about the said disease. Also, the study of [19] states that the respondents were not only aware, they are also staying up to date about the latest news regarding COVID-19. The result of the study was supported by the study of [11] wherein their respondents already have an average to good knowledge about COVID-19 before the entire Luzon was put in lockdown or Enhanced Community Quarantine. It only means that their knowledge about COVID-19 was enhanced in the time of lockdown since a huge amount of information was disseminated.

Table 2. Knowledge Scores of the Respondents regarding COVID – 19

Level of Knowledge	Criteria	Frequency (f)	Percentage (%)
Very Good	41 – 50	53	29.61
Good	31 – 40	109	60.89
Average	21 – 30	15	8.38
Poor	11 – 20	1	0.56
Very Poor	0 – 10	1	0.56

In terms of their general knowledge about COVID-19, the result revealed that very good knowledge was found in 117 (65.36%) respondents, good in 50 (27.93%), average in 8 (4.47%) and 2 (1.12%) have poor and very poor knowledge. In terms of their knowledge about the transmission of COVID-19, data showed that good knowledge was found in 104 (58.10%) respondents, average in 35 (19.55%), very good in 29 (16.20%), poor in 9 (5.03%) and 2 (1.12%) had very poor knowledge. In terms of their knowledge about the sign and symptoms of COVID-19, findings showed that average knowledge was found in 64 (35.75%) respondents, good in 45 (25.14%), very good knowledge in 32 (25.14%), poor in 31 (17.32%) and 7 (3.91%) had very poor knowledge. In terms of their knowledge about the prevention of COVID-19, the result showed that average knowledge was found in 70 (39.11%) respondents, good in 69 (38.55%), very good in 31 (17.32%), poor in 7 (3.91%) and 2 (1.12%) had very poor knowledge. Last, in terms of their knowledge about the protocol implemented during the lockdown, the result of the study showed that many of them or 115 (64.25%) have very good knowledge, good in 48 (26.82%), average in 9 (5.03%), poor in 4 (2.23%) and 3 (1.68%) have very poor knowledge [Table 3].

In terms of the mean score of the respondents regarding their general knowledge about COVID-19, the result revealed that the majority of them got the correct answer on all items except on item statement number 7 “Antibiotics is effective in treating COVID-19”. The reason could be that patients often do not have accurate knowledge of antibiotics and they considered “antibiotics” to be any prescription medication [20]. Also, [21] found those persons of lower socioeconomic status, lower educational status, males, those in younger age groups, and the elderly had both higher levels of misconceptions and lower levels of knowledge about the potential adverse impact of antibiotics [Table 4].

Title of manuscript is short and clear, implies research results (First Author)

Table 3. Knowledge Scores of the Respondents regarding COVID – 19 in different category

Level of Knowledge	Criteria	General Knowledge		Transmission		Sign and Symptoms		Prevention		Protocol	
		F	%	f	%	F	%	F	%	f	%
Very Good	10 – 9	117	65.36	29	16.20	32	17.88	31	17.32	115	64.25
Good	8 – 7	50	27.93	104	58.10	45	25.14	69	38.55	48	26.82
Average	6 – 5	8	4.47	35	19.55	64	35.75	70	39.11	9	5.03
Poor	4 – 3	2	1.12	9	5.03	31	17.32	7	3.91	4	2.23
Very Poor	2 – 0	2	1.12	2	1.12	7	3.91	2	1.12	3	1.68

Table 4. Mean Scores of the Respondents regarding their General Knowledge about COVID – 19

Item Statements	Mean Score/ S.D.	Correct answer		Wrong answer	
		F	%	F	%
1. Covid-19 is a new coronavirus that has spread throughout the world.	0.97±0.17	174	97.21	5	2.79
2. There are indications that COVID-19 curve is flattening in the Philippines.	0.84±0.36	151	84.36	28	15.64
3. If you have been diagnosed with COVID-19 or have been in any close contact with a person diagnosed with COVID-19, you need to isolate for 14 days	0.95±0.22	170	94.97	9	5.03
4. The clinical recovery for mild cases is approximately 2 -6 weeks.	0.83±0.37	149	83.24	30	16.76
5. Covid-19 is considered as pandemic.	0.96±0.19	172	96.09	7	3.91
6. All travelers or OFW that are heading home needed to be quarantined first before they go to their town	0.97±0.18	173	96.65	6	3.35
7. Antibiotics are effective against COVID-19.	0.35±0.48	63	35.20	116	64.80
8. Everyone is at risk of getting COVID-19.	0.93±0.26	166	92.73	13	7.26
9. Enhance Community Quarantine are implemented to stop COVID-19.	0.96±0.21	171	95.53	8	4.47
10. As of now USA has the most number of positive cases of COVID-19.	0.78±0.42	139	77.65	40	22.34

In terms of the mean score of the respondents regarding their knowledge about the transmission of COVID-19, the result showed that the majority of the respondents got the correct answer on all items. Only item statement number 7 “COVID- 19 can’t be transmitted in areas hot and humid climates” got the least of the correct answer. The reason for these could be the studies that show the germicidal ultraviolet radiation in hospitals and laboratories (ultraviolet C (UV-C) wavelengths) kills the virus have been misconstrued as evidence that sunlight (a mix of UV-A and UV-B) would effectively neutralize the virus in outdoor public spaces [22]. The respondents’ knowledge about the effects of temperature on the virus leads them to mistakenly perceive that the COVID-19 virus cannot be transmitted in hot and humid places [Table 5].

Table 5. Mean Scores of the Respondents regarding their Knowledge about the Transmission of COVID – 19

Item Statements	Mean Score/ S.D.	Correct answer		Wrong answer	
		F	%	F	%
1. Close contact with infected people can transmit the virus.	0.93±0.26	166	92.74	13	7.26
2. Close contact with infected people through droplets of their coughs or sneezes.	0.93±0.26	166	92.74	13	7.26
3. Touching objects or surfaces contaminated by COVID-19 positive patient.	0.88±0.33	157	87.71	22	12.29
4. The more space between you and others, the harder it is for the virus to spread.	0.91±0.29	163	91.06	16	8.94
5. Travelers who have been recently overseas are more at risk of getting infected.	0.87±0.34	155	86.59	24	13.41
6. Close contact like hugging or shaking hands can’t transmit the virus.	0.34±0.48	118	65.92	61	34.08
7. COVID- 19 can't be transmitted in areas with hot and humid climates.	0.60±0.49	108	60.34	71	39.66
8. Touching contaminated objects and surfaces and then touching your face can transmit the virus.	0.91±0.29	163	91.06	16	8.94
9. Taking a hot bath can prevent the transmission of corona virus	0.16±0.36	151	84.36	28	15.64
10. There's an evidences that pets have been infected or have spread COVID-19.	0.64±0.48	114	63.69	65	36.31

In terms of the mean score of the respondents regarding their knowledge about the sign and symptoms of COVID-19, the result showed that the majority of them got the correct answer on all items except on item statement number 3 “Fatigue is not a symptom of COVID-19” and item statement number 7 “Bluish lips or face is a sign of COVID-19” [Table 6]. Good knowledge of the signs and symptoms of an infectious disease like COVID-19 is crucial to recognizing the disease and seeking appropriate healthcare [23].

In terms of the mean score of the respondents regarding their knowledge about the prevention of COVID-19, the result showed that the majority of them got the correct answer on all items except on item statement number 6 “You can protect yourself against the virus by simply gargling bleach” and item statement number 9 “Inhaling steam from warm water can eliminate the virus from your system”. [24] say that awareness about the disease especially in preventing it is one of the main factors that determine the success of a control program in an infectious disease like COVID-19 [Table 7]. According to the report by [25], people are engaging in extremely dangerous behaviors — including gargling with bleach — to prevent COVID-19. Another practice found by [26] said that steam inhalation cab used to treat and prevent COVID-19. Both of these practices do nothing to treat and prevent COVID-19 [25 and 26). The reason for this misconception is the fact that bleach does kill viruses like COVID-19 but only for disinfection [27]. In steam inhalation, they theorized that the effects of both heat and humidity of warm, moist air can kill virus since it is already used as a traditional home remedy and treatment for respiratory conditions like common colds, flu, etc [28 and 29].

In terms of the mean score of the respondents regarding their knowledge about the protocol implemented in response to COVID-19, the result showed that the majority of them got the correct answer on all items. Only item statement number 8 “All laboratories in the Philippines can conduct a confirmatory test about COVID-19” got the least of the correct answer [Table 8]. According to [30], some steps need to be accomplished before the said laboratory becomes operational which means that not all laboratories in the Philippines can conduct a confirmatory test for COVID-19.

Table 6. Mean Scores of the Respondents regarding their Knowledge about the Sign and Symptoms of COVID-19

Item Statements	Mean Score/ S.D.	Correct answer		Wrong answer	
		F	%	F	%
1. Fever is a sign of COVID-19.	0.93±0.25	167	93.30	12	6.70
2. Cough is not a symptom of COVID-19.	0.62±0.49	111	62.01	68	37.99
3. Fatigue is not a symptom of COVID-19.	0.40±0.49	71	39.66	108	60.34
4. Lack of Appetite is one of the symptoms of COVID-19.	0.58±0.49	104	58.10	75	41.90
5. Shortness of breath is not a symptom of COVID-19.	0.60±0.49	107	59.78	72	40.22
6. Chills is one of the symptom of COVID-19.	0.56±0.50	100	55.87	79	44.13
7. Bluish lips or face is a symptoms of COVID-19	0.40±0.49	71	39.66	108	60.34
8. Constant pain or pressure in your chest is a sign of COVID-19.	0.79±0.41	142	79.33	37	20.67
9. Pneumonia like symptoms can also be a COVID-19.	0.83±0.37	149	83.24	30	16.76
10. Sore throat is not a symptom of COVID-19.	0.57±0.50	102	56.98	77	43.02

Table 7. Mean Scores of the Respondents regarding their Knowledge about the Prevention of COVID – 19

Item Statements	Mean Score/ S.D.	Correct answer		Wrong answer	
		F	%	f	%
1. Avoiding touching your face can minimize the chance of catching the virus.	0.98±0.15	175	97.77	4	2.23
2. Always wash your hands with soap thoroughly.	0.97±0.17	174	97.21	5	2.79
3. Wearing face masks can reduce the chance of spreading the virus.	0.96±0.19	172	96.09	7	3.91
4. Antibiotic are effective preventing COVID-19.	0.23±0.42	138	77.09	41	22.91
5. Prevent attending gatherings to protect yourself against the virus.	0.91±0.29	163	91.06	16	8.94
6. You can protect yourself against the virus by simply gargling bleach.	0.42±0.49	75	41.90	104	58.10
7. Drinking alcohol reduces the risk of being infected by the virus.	0.60±0.49	107	59.78	72	40.22
8. Use 50% ethyl alcohol to eliminate the virus immediately.	0.48±0.50	86	48.04	93	51.96
9. Inhaling steam from warm water can eliminate the virus from your system.	0.28±0.45	51	28.49	128	71.51
10. To avoid the virus, keep a safe distance for at least 1 meter from other people	0.92±0.27	165	92.18	14	7.82

Table 8. Mean Scores of the Respondents regarding their Knowledge about the Protocol Implemented in Response to the COVID – 19.

Item Statements	Mean Score/ S.D.	Correct answer		Wrong answer	
		F	%	f	%
1. Confirmed positive individual should be known by public.	0.84±0.37	150	73.70	29	23.50
2. Government mandate young, senior & high health risk individuals to stay home.	0.94±0.24	168	73.70	11	26.30
3. Government imposes liquor ban to certain areas during the fight against COVID.	0.91±0.29	162	80.20	17	19.80
4. Public transportation systems are suspended amid COVID-19.	0.95±0.22	170	77.30	9	22.70
5. Hospitals must cremate COVID-19 victims in 12 hours.	0.82±0.39	146	74.00	33	26.00
6. Suspected patients and frontliners are prioritized in testing for COVID-19.	0.88±0.32	158	33.50	21	66.50
7. All returning OFWs mandated to undergo 14-day facility quarantine.	0.96±0.21	171	33.70	8	66.30
8. All laboratories in the Philippines can conduct confirmatory test for COVID-19.	0.68±0.47	122	27.70	57	72.30
9. Inhaling steam from warm water can eliminate the virus from your system.	0.77±0.42	157	29.00	42	71.00
10. All mass gatherings are prohibited amid COVID-19 pandemic.	0.88±0.33	157	44.90	22	55.10

3.3 Source of information of the respondents to their knowledge about COVID-19.

Table 9 shows the source of knowledge of the respondents. Based on the result, their main source of information is from the news they watch on television. The result was supported by the study of [19] wherein their respondents responded that their information about the COVID-19 pandemic was obtained through traditional media like television. It is followed by the articles they read on different social media platforms like Facebook. The same result was obtained by [31] that the internet and TV were the main sources of information of their participants about COVID-19. Also, during the 2009 H1N1 (an infectious disease just like COVID-19) outbreak, the internet was cited as the most frequently used source of information [32]. In addition, the majority of the available information available was in the English language making it more comprehensible for the respondents [33]. However, [34] stated that information from the internet through different social media platforms was limited because not all people do not own a device that can access social media and they only had limited internet connectivity.

Table 9. Source of Knowledge of the Respondents about COVID – 19

Source of Knowledge	Mean	Rank	Source of Knowledge	Mean	Rank
1. media coverage	6.46	3 rd	6. from television	7.24	1 st
2. from radio	5.79	9 th	7. from magazine and newspaper	5.99	8 th
3. campaign from public health authorities	6.22	6 th	8. seminar awareness from your school	6.23	5 th
4. from your friends	5.37	10 th	9. from social media	6.79	2 nd
5. from your relatives	6.16	7 th	10. awareness campaign of your community	6.39	4 th

3.4 Attitudes and Practices of the Respondents towards COVID-19

Table 10 shows the attitude of the respondents towards COVID-19. All statements obtained a weighted mean higher than 4.30 with a verbal interpretation “Strongly agree”. It denotes that most of them had a positive attitude towards COVID-19. The result was supported by the study of [35], wherein their participants showed a positive and optimistic attitude toward COVID-19. According to their participants, the virus can be successfully controlled and their government will control the pandemic. However, the study conducted by [36] about the attitude of the secondary school children of Nigeria towards the Ebola virus infection which is also an infectious disease was negative. Table 11 shows the practices of the respondents towards COVID-19. Almost all of them responded “Yes” on all the statements which refer to some ways to prevent COVID-19. One of the statements they have mostly done is wearing of mask whenever they go outside since using masks can prevent an infectious disease like COVID-19 [37].

Table 10. Attitude of the Respondents towards COVID – 19

Item Statements	Weighted Mean	Verbal Interpretation
1. We can fight and defeat COVID-19	4.60	Strongly Agree
2. I will do everything I can to protect myself and my family.	4.35	Strongly Agree
3. Following the directions of your local health authority can protect us from COVID-19	4.32	Strongly Agree
4. It is important that people take more care of each other now during the pandemic.	4.35	Strongly Agree

Table 11. Practices of the Respondents towards COVID – 19

Item Statements	Yes (%)	No (%)
1. I am practicing social distancing.	170 (94.97)	9 (5.03)
2. I stay at home to avoid catching the virus.	173 (96.65)	6 (3.35)
3. I wear masks whenever I go outside my home.	175 (97.77)	4 (2.23)
4. I take vitamins to boost my immune system.	173 (96.65)	6 (3.35)
5. I sanitize my hands using alcohol.	175 (97.77)	4 (2.23)

3.5 Difference between their profile and their knowledge, attitude and practices about COVID-19

Table 12 shows the difference between the profile of the respondents and their knowledge scores, attitude and practices regarding COVID – 19. In terms of the difference between their profile and their knowledge about COVID-19, only sex and family income have a significant difference. The result was supported by the studies of [38] and [39]. Both of them found that female has higher health awareness and more knowledgeable in infectious disease than male. One of the reasons for these is that women gain more information and public relations and curiosity and may spend more time watching TV programs [40]. In addition, [41 and 42] state that men were significantly less likely to take preventive and protective measures than women. Also, [43] noted that men often are unwilling and lack the motivation to engage with health-related information both in times of stressful life events and in everyday life. Since the mean score of the respondent who belongs above the poverty level was lower compare to those who are below the poverty level contradicts the result of [44]. According to them, those who are living below the poverty level have limited ability to prevent an infection like COVID-19 which may be due to feeling less able to change one's social circumstance or lack of public health communications. Last, the difference between their profile and their attitude and practices is insignificant.

Table 12. Difference between the profile of the respondents and their knowledge scores, attitude and practices regarding COVID - 19

Variables		Knowledge scores Mean ± S.D.	p-value	Attitude Mean ± S.D.	p-value	Practice Mean ± S.D.	p-value
Sex	Male	35.86 ± 6.97	0.0069*	4.41 ± 0.58	0.9612	1.05 ± 0.16	0.1975
	Female	38.28 ± 4.91		4.42 ± 0.61		1.02 ± 0.08	
Occupation of Father	Professional	37.54 ± 5.83	0.9552	4.38 ± 0.61	1.00 ± 0.00	1.04 ± 0.10	0.3126
	Skilled	36.77 ± 5.13		4.41 ± 0.49			
	Unskilled	37.18 ± 3.38		4.38 ± 0.68			
	Unemployed	37.49 ± 6.55		4.46 ± 0.57			
Occupation of Mother	Professional	36.59 ± 5.67	0.7316	4.51 ± 0.64	0.4494	1.03 ± 0.09	0.5969
	Skilled	37.21 ± 6.13		4.33 ± 0.62			
	Unskilled	38.11 ± 6.23		4.47 ± 0.50			
	Housewife	37.30 ± 4.93		4.46 ± 0.63			
Monthly Gross Family Income	P19,928 and below	37.00 ± 5.16	0.0439*	4.45 ± 0.56	0.4714	1.03 ± 0.14	0.9640
	P19,928 – P38,597	38.17 ± 5.96		4.42 ± 0.60			
	P38,597 and above	34.77 ± 7.08		4.27 ± 0.68			

Legend: *significant at p_ 0.05

4. CONCLUSION

It was concluded that the majority of the respondents had good to very good knowledge of COVID-19 and their source of knowledge was mainly from television and the internet. They also had a very positive attitude towards COVID-19 and they practice the following: practicing social distancing, staying at home, wear a mask when going outside their home, sanitize their hands and take vitamins to boost their immune system. There is a

Title of manuscript is short and clear, implies research results (First Author)

significant difference between the respondents' sex and family income to their knowledge about COVID-19. The pandemic brought by COVID-19 was far from over since all the candidate vaccines are still in their clinical trials. Because of this, the only way to control the onslaught of the disease is to prevent and control it. With this, one must ensure that he/she has enough knowledge, a positive attitude and doing the right practices against COVID-19 is very important. To ensure this, it is suggested that an intensified campaign against this deadly and contagious virus should be done to reach those individuals who have limited access to television and the internet and help them to have a positive attitude and practice all the routine that can help to prevent and stop COVID-19.

ACKNOWLEDGEMENTS

The researchers want to thank the administration of the University for their supports and to those students who participate in the completion of this study. Above all, the author would like to lift and return the recognition to the Almighty God, without Him, this success would not be possible. To God be the glory.



REFERENCES

- [1] Zu, Z. Y., Jiang, M. D., Xu, P. P., Chen, W., Ni, Q. Q., Lu, G. M., & Zhang, L. J. Coronavirus disease 2019 (COVID-19): a perspective from China. *Radiology*, 200490. February 21, 2020
- [2] Wang, D., Hu, B., Hu, C., Zhu, F., Liu, X., Zhang, J. & Peng, Z. Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus-infected pneumonia in Wuhan, China. *Jama*, 323(11), 1061-1069. February 7, 2020
- [3] O'Kane, C. Pangolins are possible coronavirus hosts, Chinese scientists say. CBS News - Breaking news, 24/7 live streaming news & top stories. <https://www.cbsnews.com/news/pangolin-coronavirus-scale-anteater-possible-host-of-virus-chinese-scientists-say/>. February 7, 2020
- [4] Dineros, Kevin; Dipasupil, Jan Paolo. COVID-19 Crisis Management and Prevention Plan". COVID-19. Crisis Management and Prevention Plan. March 15, 2020
- [5] WHO, 2020a. Rolling Updates on Coronavirus Disease (COVID-19). URL <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>. July 31, 2020
- [6] Lee, Jaimy. Market Watch, 2020. COVID-19 case tally: 124,578 cases, 4,584 deaths. <https://www.marketwatch.com/story/covid-19-case-tally-120944-cases-4365-deaths-2020-03-11>. March 11, 2020
- [7] Merez, Ariane. Luzon under enhanced community quarantine as COVID-19 cases rise". ABS-CBN News. <https://news.abs-cbn.com/news/03/16/20/duterte-places-luzon-under-enhanced-community-quarantine-to-fight-covid-19>. March 16, 2020
- [8] Calonzo, Andreo (April 6, 2020). Duterte likely to extend Philippines coronavirus lockdown". The Jakarta Post. <https://www.thejakartapost.com/seasia/2020/04/06/duterte-likely-to-extend-philippines-coronavirus-lockdown-1586192040.html>. April 7, 2020
- [9] Jedrzejewska, B., Kalinowski, P., & Stachowicz, A. Knowledge of healthy behaviours among teenagers attending selected schools of the Lublin region. In *Annales Academiae Medicae Stetinensis* (Vol. 51, pp. 65-69). 2005
- [10] Saher, Tayyaba and Qadir, Muhammad Imran. Sagacity about SARS among University Students. *Open Access Journal of Oncology and Medicine*. DOI: 10.32474/OAJOM.2019.02.000145. ISSN: 2638-5945. January 18, 2019
- [11] Santiago, J. M., & Cajucom, R. L. Knowledge about COVID-19 among university students before the implementation of the enhanced community quarantine in Philippines. *International Journal of Public Health*, 9(4), 321-328. Dec 2020
- [12] Cronbach LJ. Coefficient alpha and the internal structure of tests. *Psychometrika* 16: 297-334.1951
- [13] Radhakrishna RB. Tips for developing and testing questionnaires/instruments. *J Extens* 45: 1-4. 2007
- [14] Iacobucci D, Duhachek A. Advancing alpha: Measuring reliability with confidence. *J Cons Psychol* 13: 478 - 487. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4090170/>. 2003
- [15] Luskin RC, Bullock JG (2011) 'Don't Know' means 'Don't Know': DK responses and the public's level of political knowledge. *J Politics* 73: 547-557. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4090170/>
- [16] Wang H (1997) Treatment of "don't-know" responses in contingent valuation surveys: a random valuation model. *J Environ Econ Managem* 32: 219-232. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4090170/>
- [17] Sanchez, Martha Jean. Philippines: Coronavirus COVID-19 employment impact 2020. Statista. <https://www.statista.com/statistics/1106978/philippines-employment-impact-novel-coronavirus-covid19/>. Nov 17, 2020
- [18] Panter-Brick, C., & Fuentes, A. (Eds.). Health, risk, and adversity (Vol. 2). Berghahn Books. 2010
- [19] Lau, L. L., Hung, N., Go, D. J., Ferma, J., Choi, M., Dodd, W., & Wei, X. Knowledge, attitudes and practices of COVID-19 among income-poor households in the Philippines: a cross-sectional study. *Journal of global health*, 10(1). 2020
- [20] Hong JS, Philbrick JT, Schorling JB. Treatment of upper respiratory infections: do patients really want antibiotics? *Am J Med*;107:511-5. 1999
- [21] Eng, J. V., Marcus, R., Hadler, J. L., Imhoff, B., Vugia, D. J., Cieslak, P. R., ... & Hawkins, M. A. Consumer attitudes and use of antibiotics. *Emerging infectious diseases*, 9(9), 1128. 2003
- [22] Seyer, A. & Sanlidag, T. Solar ultraviolet radiation sensitivity of SARS-CoV-2. *Lancet Microbe* 1, e8-e9. 2020
- [23] Khun, S and Manderson, L., Community and school-based health education for dengue control in rural cambodia: a process evaluation. *PLoS Neglected Tropical Diseases*, vol. 1, no.3, p. e143, 2007.
- [24] Wijerathna, T., Gunathilaka, N., Gunawardana, K. & W. Rodrigo, Potential challenges of controlling leishmaniasis in Sri Lanka at a disease outbreak. *BioMed Research International*, vol. 2017, Article ID 6931497, 9 pages, 2017.
- [25] Edwards, Erika. CDC report on COVID-19 cleaning practices finds some gargling with bleach. That's very dangerous. NBC News. <https://www.nbcnews.com/health/health-news/cdc-report-covid-19-cleaning-practices-finds-some-gargling-bleach-n1225826>. June 5, 2020

Title of manuscript is short and clear, implies research results (First Author)

- [26] Uy, T. M. Z., Miranda, M. C. B., Aro, S. J. V., & Uy, M. E. V.^[49] Should steam inhalation be used in the treatment and prevention of COVID-19? July 11, 2020
- [27] U.S.^[0] Centers for Disease Control and Prevention.^[2] Coronavirus disease 2019 (COVID-19): Cleaning and disinfection for households. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html>. Oct. 16, 2020.
- [28] Vathanophas V, Pattamakajonpong P, Assanasen P, Suwanwech T. The effect of steam inhalation on nasal obstruction in patients with allergic rhinitis. *Asian Pac J Allergy Immunol*. doi: 10.12932/AP-090818-0393.^[62] Epub ahead of print. PMID: 31175716. June 4, 2019
- [29] Fokkens WJ, Lund VJ, Hopkins C, et al. European Position Paper on Rhinosinusitis and Nasal Polyps 2020. *Rhinology*.58(Suppl S29):1-464. doi: 10.4193/Rhin20.600. PMID: 32077450. February 20, 2020
- [30] Research Institute for Tropical Medicine.^[11] Assessment of testing labs crucial for COVID-19 results accuracy. <https://ritm.gov.ph/assessment-of-testing-labs-crucial-for-covid-19-results-accuracy/>. April 1, 2020
- [31] Elnadi, H., Odetokun, I. A., Bolarinwa, O., Ahmed, Z., Okechukwu, O., & Al-Mustapha, A. I.^[38] Knowledge, attitude, and perceptions towards the 2019 Coronavirus Pandemic: A bi-national survey in Africa. medRxiv. January 2020
- [32] Jones J, Salathe M. Early assessment of anxiety and behavioural response to novel swine-origin influenza A (H1N1). *PLoS ONE* 4: e8032. December 3, 2009
- [33] Santiago, Jomell M.^[1] and David, Eden S.,^[41] The Use of Two Media of Instruction in Biology: A Quasi-Experimental Study,^[5] *International Journal of Advanced Engineering, Management and Science*, vol. 5, no. 2, pp. 111-115, 2019
- [34] Pastor, C. K. L.^[52] Sentiment Analysis on Synchronous Online Delivery of Instruction due to Extreme Community Quarantine in the Philippines caused by Covid-19 Pandemic.^[52] *Asian Journal of Multidisciplinary Studies*, 3(1), 1-6. 2020
- [35] Mohammed, K., Khadijah, A., Noor, A., Ameerah, M. N., Hoda, Z. H., Yasmin, A. & Omar, A.^[18] Knowledge, Attitude and Practice Toward COVID-19 Among the Public in the Kingdom of Saudi Arabia: A Cross-Sectional Study. *Frontiers in public health*, 8, 217. May 27, 2020
- [36] Ilesanmi, O., & Alele, F. O. Knowledge, attitude and perception of Ebola virus disease among secondary school students in Ondo State, Nigeria, October, 2014. *PLoS currents*, 8. March 4, 2016
- [37] Nishiura H, Kuratsuji T, Quy T, Phi NC, Van Ban V, et al.^[75] Rapid awareness and transmission of severe acute respiratory syndrome in Hanoi French Hospital, Vietnam. *The American Journal of Tropical Medicine & Hygiene* 73(1): 17-25. 2005
- [38] Taylor, M.^[0] Gender differences in health literacy about tuberculosis (TB) amongst South African high school students.^[0] In *American Journal of Tropical Medicine and Hygiene* (Vol. 83, No. 5, pp. 201-201). 8000 WESTPARK DR, STE 130, MCLEAN, VA 22101 USA: AMER SOC TROP MED & HYGIENE. November 2020
- [39] Guo, B., Cheng, H. Z., Xie, X. et al.,^[49] Investigation on the status of health knowledge level of medical students in a medical university,^[10] *Medicine and Society*, vol. 25, no. 7, pp. 10–12, 2012.
- [40] Ebrahimi, M. M., Topchiyan, A., Farsad, N. E., & Noor, M. M.^[10] Knowledge and attitude about women's heart disease risk factorsobesity, CVD and its relationship Obesity index & biochemical factors. *University of Medical Sciences magazine of Tabriz*, 33(2), 7-12. 2011
- [41] Madani, T. A. Preventive strategies to keep Saudi Arabia SARS-free. *American journal of infection control*, 32(2), 120. April 2004
- [42] Moran, K. R., & Del Valle, S. Y. A meta-analysis of the association between gender and protective behaviors in response to respiratory epidemics and pandemics. *PloS one*, 11(10), e0164541. October 21, 2016
- [43] Wellstead, P.^[0] Information behaviour of Australian men experiencing stressful life events: the role of social networks and confidants. *Information research*, 16(2), 16-2. June 2, 2011
- [44] Wolf, M. S., Serper, M., Opsasnick, L., O'Connor, R. M., Curtis, L. M., Benavente, J. Y. & Bailey, S. C.^[30] Awareness, attitudes, and actions related to COVID-19 among adults with chronic conditions at the onset of the US outbreak: a cross-sectional survey. *Annals of internal medicine*. July 21, 2020

BIOGRAPHY OF AUTHOR

	<p>Jomell Miranda Santiago graduated Bachelor's Degree in Secondary Education major in General Science at Nueva Ecija University of Science and Technology San Isidro Campus and finished a Master's Degree in Biology Education at Central Luzon State University.^[0] He worked in General de Jesus College as a substitute teacher for one (1) year.^[0] He is currently connected with NEUST as Instructor for two (3) years and has been active in the field of research in recent years.</p>
	<p>Angelo R.^[10] Santos graduated Bachelor's Degree in Business Administration major in Marketing Management at Wesleyan University, Philippines.^[32] He finished a Master's Degree in Business Administration at the same school, currently pushing his Doctor of Philosophy in Business Administration at NEUST.^[0] He is presently affiliated with NEUST for two (3) years as Instructor and Head of the University ISO Unit and has been involved in the field of research in recent years.</p>