Knowledge, Attitude and Practices towards CoronaVirus Disease 2019 among Allied Health Students: A Case Study at International Paramedical Institute-Maya, Wakiso District.

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Abstract

Background:
Coronavirus disease 2019 (Covid-19) is a disease caused by a new strain of coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). SARS-CoV-2 was first detected as a respiratory illness in December 2019 in Wuhan City, China, and in March 2020, the World Health Organization classified covid-19 as an international pandemic. This study was done to find out the Knowledge, Attitude, and Practices toward COVID-19 amongst Allied Health students of International Paramedical Institute- Maya using interviewer-administered questionnaires

Methodology:
The study was cross-sectional and descriptive. The cross-sectional design utilized surveys to generate quantitative data at the time of data collection. It was cross-sectional because data were collected at one point in time without having to follow up with the study participants thus making the method cheap to execute. Qualitative data was collected using closed-ended researcher-administered questionnaires. It was of an advantage to the researcher because it was affordable and suitable for a short time frame. The survey was conducted in January 2022 and it included 384 participants.

Results:
Results of the study revealed that the majority of the allied health students had good knowledge, attitude, and practice toward COVID-19. All the parameters considered to assess knowledge, attitude, and practices had a percentage greater than 50%.

Conclusion:
Allied health students at International Paramedical Institute were found to have good knowledge, an optimistic attitude, and appropriate preventive practices toward COVID-19.

Recommendations:
The researcher recommends further studies on larger numbers, diverse responders, and at a community level which will allow us to know the KAP towards COVID-19 in a broad perspective and can be an important tool to plan preventive measures.

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1 Background of the study

Coronavirus disease 2019 (covid-19) is a disease caused by a new strain of coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Khunti et al., 2021). SARS-CoV-2 was first detected as a respiratory illness in December 2019

in Wuhan City, China, and in March 2020, the World Health Organization classified covid-19 as an international pandemic (Cinar et al., 2020).

On March 11, 2020, COVID-19 had affected >118,000 people globally (WHO, 2020). As of April 1, 2020, the number of confirmed cases increased to 932,605 with 46,809 deaths (WHO, 2020). By October 2021 246 million reported cases and more than 4.9 million deaths as of October 2021 were reported (COVID-19 pandemic update, 2021). As of 2nd December 2021, there are 262,866,050 confirmed cases of COVID-19 and 5,224,519 deaths across the world whereby the USA, India, and Brazil were the most affected countries with over 48 million, 34 million, and 22 million cases respectively (Worldometer, 2021). By 13th February 2022, the number of COVID-19 cases was 410,848,671 and 5,829,566 deaths globally (Worldometer, 2022).

The World Health Organization (WHO) African Region reported more than 3.9 million confirmed cases and 94,217 deaths, as of June 27, 2021 (WHO Regional Office for Africa, 2021). Data obtained by Worldometer, (2022) on 2nd December revealed that Africa had so far recorded over 8 million confirmed cases and 223,980 deaths. South Africa, Morocco, and Tunisia were the most affected countries in Africa (Worldometer, 2021). By 13th February 2022, the number of the confirmed case in Africa was 11,073,237 and 243,883 total deaths (Worldometer, 2022).

In Uganda, the first case of COVID-19 was reported on March 21, 2020 (MoH, 2020). The country had a cumulative total of 127,618 confirmed cases of COVID-19 and 3252 deaths as of 2nd December 2021 (WHO, 2021). As of 13th, February 2022 Uganda had 162,639 confirmed cases and 3,575 deaths from COVID-19 (Worldometer, 2022).

Frequent handwashing with soap or an alcohol-based hand rub; use of face masks; maintaining physical distance; covering the mouth and nose when sneezing or coughing; and avoiding touching the mouth, eyes, and nose with unwashed hands were the recommended and widely adopted individual prevention measures for COVID-19 globally (WHO, 2020).

To reduce the community spread of COVID-19, several countries, including Uganda inclusive, enforced physical distance and instituted countrywide lockdowns that involved closing schools and international airports, restricting the movement of people, and closure workplaces, among other restrictions (MoH, 2020). These restrictions/preventive measures were to be adhered to for the effective prevention of the spread of the novel coronavirus.

Medical students can act as reliable sources of information for the public in such a scenario (Nemat et al., 2021). Covid-19 is an ongoing pandemic for which appropriate infection prevention and control measures need to be adopted.

The adherence of Allied Health students, being among the medical front liners amidst the Covid-19 global challenge, prevention, and control measures are affected by their KAP towards Covid-19. The lack of knowledge among healthcare professionals leads to diagnostic delays, further spread of the disease, and poor infection control practices, health care professionals must be updated with knowledge regarding COVID-19 (Neupane et al., 2020).

2 Methodology

Study area:

The study was carried out at the International Paramedical Institute Maya, which is located along Masaka road. It is a scientific institution, that trains dental professionals, clinical officers, laboratories, and many other health care courses. It also includes a nursing school called the International School of Nursing and Midwifery, which offers certificates in Nursing, and midwifery. International Paramedical Institute was founded by Bunawona Uganda Community Outreach (BUCO), which is determined to help, treat and prevent oral conditions and many other health care problems in Uganda.

Study design;

The study was cross-sectional and descriptive. The cross-sectional design utilized surveys to generate quantitative data at the time of data collection. It was cross-sectional because data were collected at one point in time without having to follow up with the study participants thus making the method cheap to execute. Qualitative data was collected using close-ended researcher-administered questionnaires. It's of an advantage to the researcher because it was affordable and suitable for a short time frame.

Study population

The study population was students pursuing Allied Health courses at certificate, and Diploma levels in the International Paramedical institute -Maya, who was present during the research period or time of data collection in January 2022.

Sampling procedure

Given that International Paramedical Institute Maya offers various courses, the respondents were selected using cluster sampling to ensure that at least some participants are selected from all the courses. Then simple random sampling was used to select the respondents on the day of data collection.

On reaching each class, the researcher first introduced himself to the study participants and educated them about the purpose of the study. The researcher then sought the consent of the eligible students to participate in the study. The researcher then gave papers that participants were equivalent to the number of students who had consented on that particular day. The word "Participate" was written on the papers equivalent to the required number of study participants from a particular class, and the remaining ones were written with the word, "Don't participate". The papers were then put in a container, closed, and shaken thoroughly so that they mixed up. Students who picked the paper with the word participate were enrolled in the study. This was done in all classes until the desired sample size was attained.

Sample Size

Fisher's formula was used to determine the Sample size

Where,

n = Minimum sample size

Z = The table value for standard normal deviation corresponding to 95% significance level (=1.96)

P = Prevalence of characteristic being estimated

d = Margin error, set at 0.05

The sample size of this study was calculated using the estimated prevalence of 50% based on since there was no similar study done in the local context and the value used for P will be 50%.

From above, our sample size was 384 participants

Inclusion /Exclusion Criteria

The study included all students of the International Paramedical Institute –Maya, irrespective of their sex, marital status, or religious affiliation.

The study excluded all non-students within the International Paramedical Institute –Maya, and all who are not above the age of 18 years. The study excluded participants below 18 years and those that were ill at the time of conducting the study.

Data Collection Tools

The data collection tools involved the use of an interviewer questionnaire, and the observation method of data collection through analyzing the expressions of the respondents. The researcher also used oral questions, which he posed to respondents and then obtained the feedback or the answers verbally, guided by a questionnaire and observation as the methods used on their attitudes.

Quality Control

Data collection was done in January 2022. The researcher vividly interviewed the successful respondents and observed them during the data collection time respectively and ensured that all questions were understood and answered correctly.

Data Analysis and presentation

The data collected was categorized and coded after collection. The results were edited for any possible error and then summarized manually in the data master sheet.

The quantitative data were presented in form of tables, pie charts, and bar graphs while the qualitative data was presented in flow charts, narrative text, and matrices.

Cut-off points were set based on percentage knowledge and attitude distributions and median scores obtained. Those with more than fifty percent were considered to be having good knowledge, attitude and practice.

Ethical considerations

The researcher sought permission to carry out research by getting an introductory letter from the research and ethics committee International Paramedical Institute-Maya, which was submitted to the Principal of the Institute, who then endorsed him to carry out data collection.

Confidentiality was one of the ethical principles to be observed in the study. All information collected was kept confidential. In addition to this principle, voluntary participation was ensured allowing each respondent to join freely & choose to pull out of this study at any particular point when one felt uncomfortable.

Limitations and solutions

Limitations to the study

The funds allocated may not be enough to carry out all the research work.

The time may not be enough for the researcher to do all the needed data collection.

There may be some inaccuracy and misinterpretation of the information gathered during data collection.

Remedies to the study limitations

The financial problem was solved by the designed budget.

The problem of the time was secured by the work plan.

Pre-testing of the instrument was done to make questions clear. **Dissemination of results**

The results of the study were presented to Uganda Allied Health Examinations Board, another copy, to the research and ethics committee of the International Paramedical Institute-Maya, and another copy was retained by the researcher for reference in any case of need.

Data analysis and presentation

Socio-demographic characteristics of the respondents.

As indicated in Table 1 above, it was found that the majority 315(82.0%) of the respondents were aged 20-24 years while only 69(18.0%) of the respondents were aged 25-30 years. More than a half of 208(54.2%) of the respondents were females whereas less than a half of 176(45.8%) of the respondents were males. The majority 140(36.5%) of the respondents were Catholics while the least 35(9.1%) of the respondents were Muslims. It was also found that the majority 140(36.5%) of the respondents were pursuing a Diploma in Clinical Medicine while 35(9.1%) of the respondents were pursuing a Certificate in Medical Records. Knowledge towards COVID-19.

According to the results of the study in table 2, all 384(100.0%) of the respondents had heard about COVID-19. From the table, more than a half 210(54.7%) of the respondents had never had any COVID-19 positive or suspected case in their families while less than a half 174(45.3%) of the respondents had never had COVID-19 positive or suspected case in their families. It was found that all 384(100.0%) of the respondents knew at least a sign or symptom of COVID-19. More to that, it was found that all 384(100.0%) of the respondents knew inhalation of contaminated droplets as the mode of transmission of COVID-19 and that asymptomatic patient can spread COVID-19. Similarly, all 384(100.0%) of the respondents knew hygienic sneezing and covering the mouth and nose with a mask as the precaution taken to the prevention of the spread of COVID-19. More to that it was found that knowledge about if asymptomatic patients can spread COVID-19 was universal 384(100%). The majority 279(72.7%) knew all the signs and symptoms whereas 105(27.3%) did not know all the signs and symptoms of COVID-19.

It was found that the majority 210(54.7%) of the respondents knew that the first case of COVID-19 was identified in Wuhan Habei whereas a minority of 35(9.1%) of the respondents knew that the first case of COVID-19 was identified in Beijing.

The majority 210(54.7%) of the respondents knew that COVID-19 commonly affects age <5years and elderly >50 years while a minority 36(9.4%) of the respondents knew that COVID-19 commonly affects age youth age.

It was found that the majority 210(54.7%) of the respondents got the information about COVID-19 from TV whereas only 34(8.9%) of the respondents had heard about it from social media and neighbors or relatives respectively.

2.1 Attitude towards COVID-19

Regarding the attitude of the participant toward COVID-19 as indicated in table 3 below, it was found that the majority 245(63.8%) of the respondents agreed that COVID-19 will be controlled in the world while the minority 139(36.2%) strongly agreed that COVID-19 will be controlled in the world. Similarly, the majority 211(54.9%) of the respondents agreed that COVID-19 will be controlled in Uganda while a minority 173(45.1%) of the respondents strongly agreed that COVID-19 will be controlled in Uganda. Furthermore, more than half of 210(54.7%) of the respondents agreed that lockdown can help to control covid-19 spread while less than a quarter strongly disagreed that lockdown can help to control covid-19 spread. Nearly three-quarters 279(72.7%) of the respondents strongly agreed that Coronavirus can be spread through contact with infected surfaces while more than a quarter 105(27.3%) of the respondents just agreed that Coronavirus can be spread through contact with infected surfaces.

More than a half 246(64.1%) of the respondents agreed that COVIDEX is effective whereas less than a quarter disagreed with COVIDEX being effective.

The majority 140(36.5%) of the respondents disagreed with the COVID-19 vaccine being fake and having severe side effects whereas only 69(18.0%) of the respondents strongly agreed or disagreed with the COVID-19 vaccine being fake and having severe side effects.

It was found that the majority 175(45.6%) of the respondents strongly disagreed that alcohol drink-

Table 1. Socio-demographic characteristics of the respondents

Variable		Frequency (n=384)	Percentage
Age	20-24 years	315	82.0
Total	25-30 years	69	18.0
		384	**100**
Gender	Male	176	45.8
Total	Female	208	54.2
		384	**100**
	Protestant	70	18.2
Religion	Catholic	140	36.5
	Muslim	35	9.1
Total	SDA	36	9.4
	Born again	103	26.8
		384	**100**
	DCM	140	36.5
	CMLT	70	18.2
Academic program	DPH	103	26.8
Total	PHD	36	9.4
	CMR	35	9.1
		384	**100**

Table 2. Knowledge towards COVID-19.

Variable		Frequency	Percentage
Hearing about COVID-19	Yes	384	100.0
Any COVID-19 positive or suspected case in the family	Yes	174	45.3
	No	210	54.7
Knowing signs and symptoms of COVID19	Yes	384	100.0
Those who knew the cause of COVID-19	Virus	384	100.0
Mode of transmission	Inhalation of contaminated droplets	384	100.0
Precautions taken for prevention of its spread	Hygienic sneezing and cover mouth and nose with mask	384	100.0
If asymptomatic patients can spread COVID-19	Yes	384	100.0
Signs and symptoms	Knew all the signs and symptoms	279	72.7
	Knew some signs and symptoms	105	27.3

Table 3. Attitude towards COVID-19.

Variable		Frequency	Percentage
Agreement that COVID-19 will be controlled in world	Strongly agree	139	36.2
	Agree	245	63.8
Agreement that COVID-19 will be controlled in Uganda	Strongly agree	173	45.1
	Agree	211	54.9
Coronavirus can be spread through contact with infected surfaces	Strongly agree	279	72.7
	Agree	105	27.3

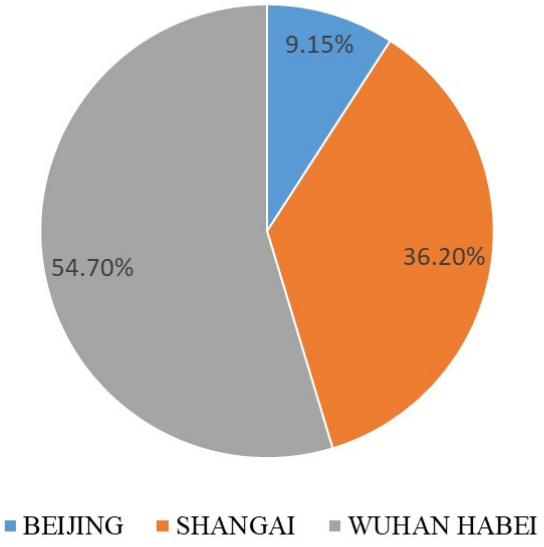

Figure 1. Showsthe percentage of respondents who knew where the first case of COVID-19 wasidentified.

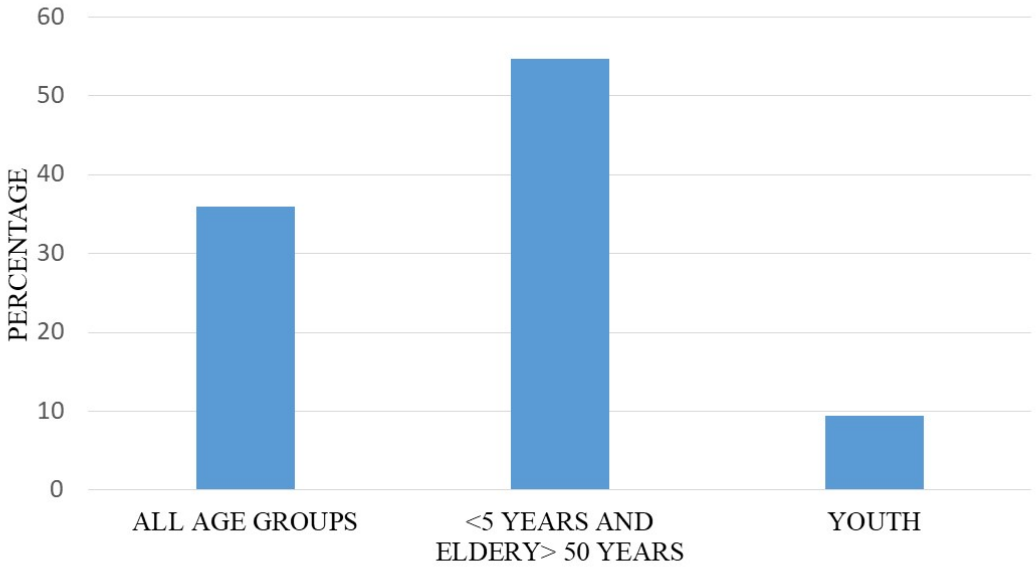

Figure 2. Shows the age group mostly affected by COVID-19.

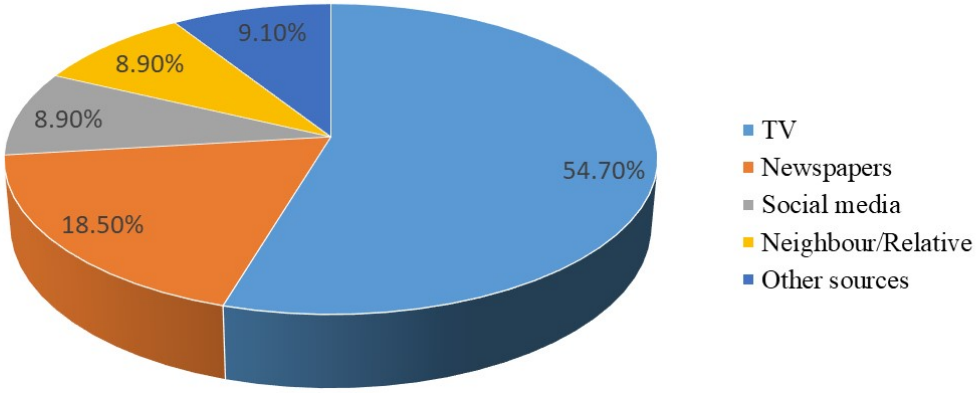

Figure 3. Shows sources of COVID-19 information.

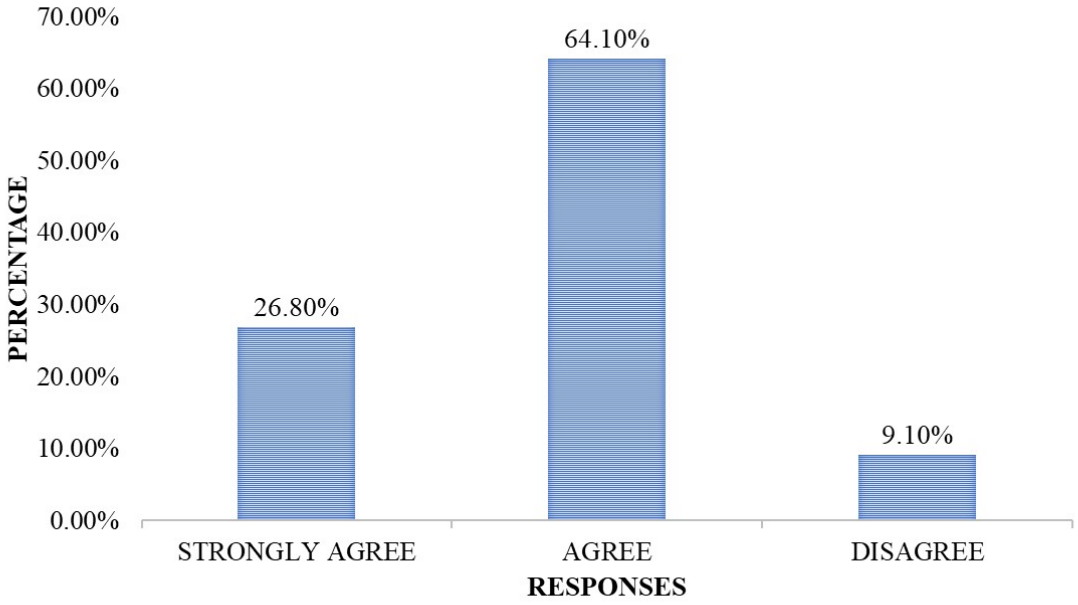

Figure 4. Shows the percentage of respondents who believe Covidex is effective. (n=384)

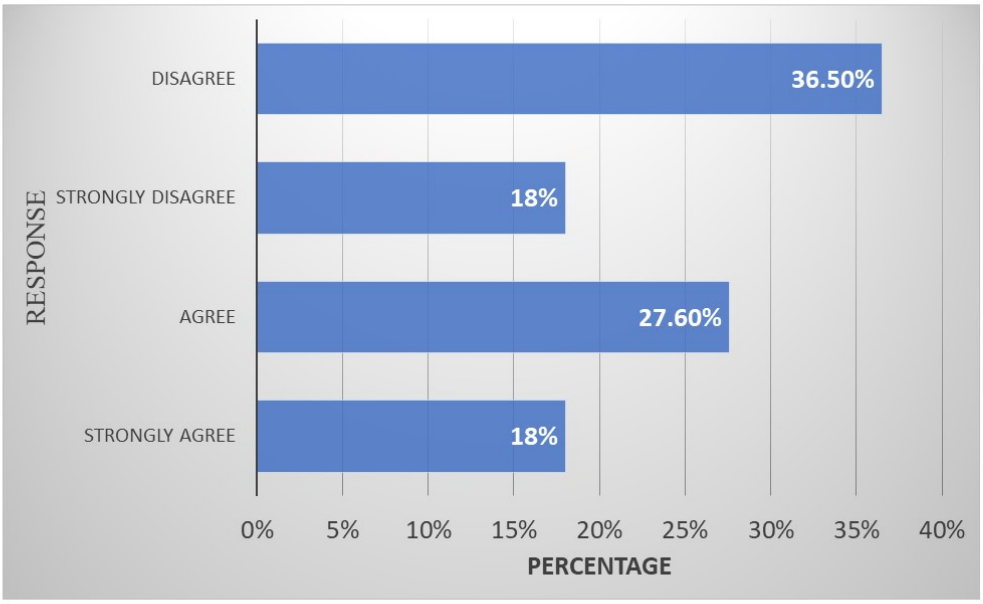

Figure 5. Shows the percentage of respondents who believe COVID-19 Vaccine is fake and has severe side effects. (n=384)

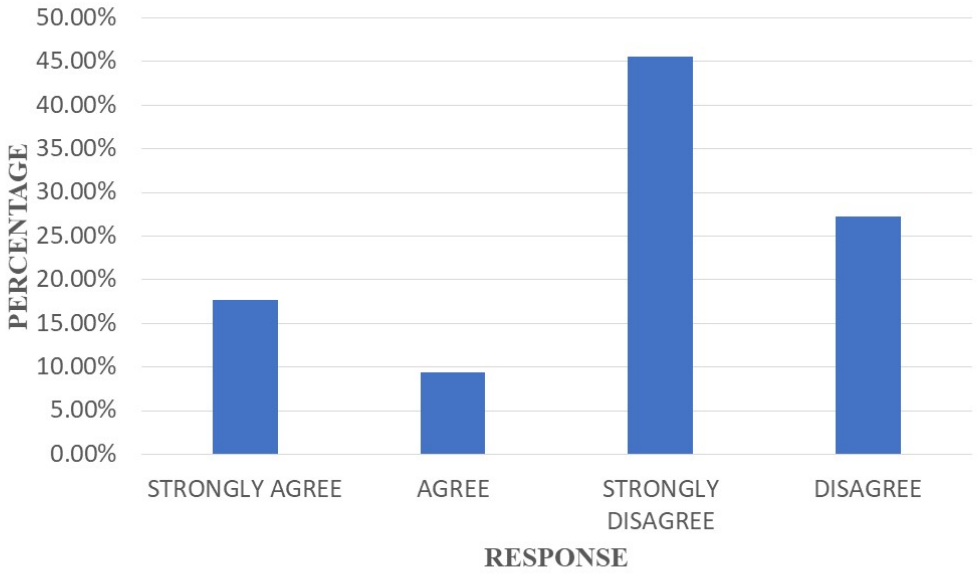

Figure 6. Shows the percentage of respondents who believe drinking alcohol can work as sanitizer and kill the Virus. (n=384)

ing can work as a sanitizer and can kill the virus whereas only 36(9.4%) agreed that alcohol drinking can work as a sanitizer and can kill the virus.

2.2 Practices towards COVID-19

According to the results of the study in table 4, nearly three-quarters 277(72.1%) of the respondents practice social distancing while only 107(27.9%) of the respondents do not practice social distancing. More than three-quarters of 312(81.3%) of the respondents practice recommended washing of hands while only 72(18.7%) of the respondents do not practice recommended hand washing. Similar results 312(81.3%) of the respondents were vaccinated whereas 72(18.7%) of the respondents were not vaccinated. In addition, more than three-quarters of 312(81.3%) of the respondents put on face masks every time they are in public whereas only 72(18.7%) of the respondents do not put on face masks every time they are in public. More to that, more than three-quarters of 312(81.3%) of the respondents practice the use of sanitizer to clean their hands while only 72(18.7%) of the respondents do not practice the use of sanitizer to clean hands.

It was found that majority 185(42.8%) of the respondents recommended vaccination as a preventive practice for COVID-19 while only 40(10.4%) of the respondents online classes.

3 Discussion:

Socio-Demographic data

Out of the total number of respondents who participated in the study, the majority of them were from the age group of 20-24 years (82%) and only a few respondents wherein the age group of 25-30 years (18%). The majority of the respondents were female that is 208(52.4%).

Respondents from the Catholic Religion dominated the study 140(36.5%), while only 35(9.1%) were Moslem. More still, the majority of the respondents offered DCM 140(36.5%) while the minority offered CMR 35(9.1%).

Knowledge of the participants towards COVID-19

This study was done after the outbreak of COVID-19 to examine the KAP towards this pandemic among the Allied health students. In this predominantly well-educated group of participants, the majority were female. We found the overall correct rate of 100.0% on the knowledge questionnaire. This percentage was much more than 79.9% found by Ikhlaq et al., (2020) and it can be attributed to the improved channels of communication among these students including but not limited to media and newspapers in addition to virology attain through lectures.

The majority 21 (54.7%) of the respondents got the information about COVID-19 from TV whereas only 34(8.9%) of the respondents had heard about it from social media and neighbours or relatives respectively. It was found that more than a half of 210(54.7%) of the respondents had never had any COVID-19 positive or suspected case in their families while less than a half of 174(45.3%) of the respondents had ever had COVID-19 positive or suspected case in their families. Furthermore, it was found that all 384(100.0%) of the respondents knew at least a sign or symptom of COVID-19 of which the majority 279(72.7%) knew all the signs and symptoms whereas 105(27.3%) did not know all the signs and symptoms of COVID-19. It was found that knowledge about the causative agent of COVID-19 was universal 384(100.0%). These results were in line with Olum et al., (2020) who found that Ugandan medical students had sufficient knowledge about the signs and symptoms of COVID-19. More to that, it was found that the majority 210(54.7%) of the respondents knew that the first case of COVID-19 was identified in Wuhan Habei whereas a minority of 35(9.1%) of the respondents knew that the first case of COVID-19 was identified in Beijing. Similarly, the majority 210(54.7%) of the respondents knew that COVID-19 commonly affects age <5years and elderly >50 years while the minority 36(9.4%) of the respondents knew that COVID-19 commonly affects age youth age. It was found that all 384(100.0%) of the respondents knew inhalation of contaminated droplets as the mode of transmission of COVID-19 and that asymptomatic patients can spread COVID-19. Similarly, all 384(100.0%) of the respondents knew hygienic sneezing and covering the mouth and nose with a mask as the precaution taken to the prevention of the spread of COVID-19.

The adequate knowledge among allied health students can be attributed to access to the Ministry of Health online portal, Social media, Television, and Telephone awareness seems to affect knowledge improvement even during lock down (Singh et al., 2020).

Table 4. Practices towards COVID-19

Variable		Frequency	Percentage
Social distancing	Yes	277	72.1
	No	107	27.9
Recommended washing of hands	Yes	312	81.3
	No	72	18.7
Use of sanitizer to clean hands	Yes	312	81.3
	No	72	18.7
Putting on face mask every time you are in public	Yes	312	81.3
	No	72	18.7
Vaccination	Yes	312	81.3
	No	72	18.7

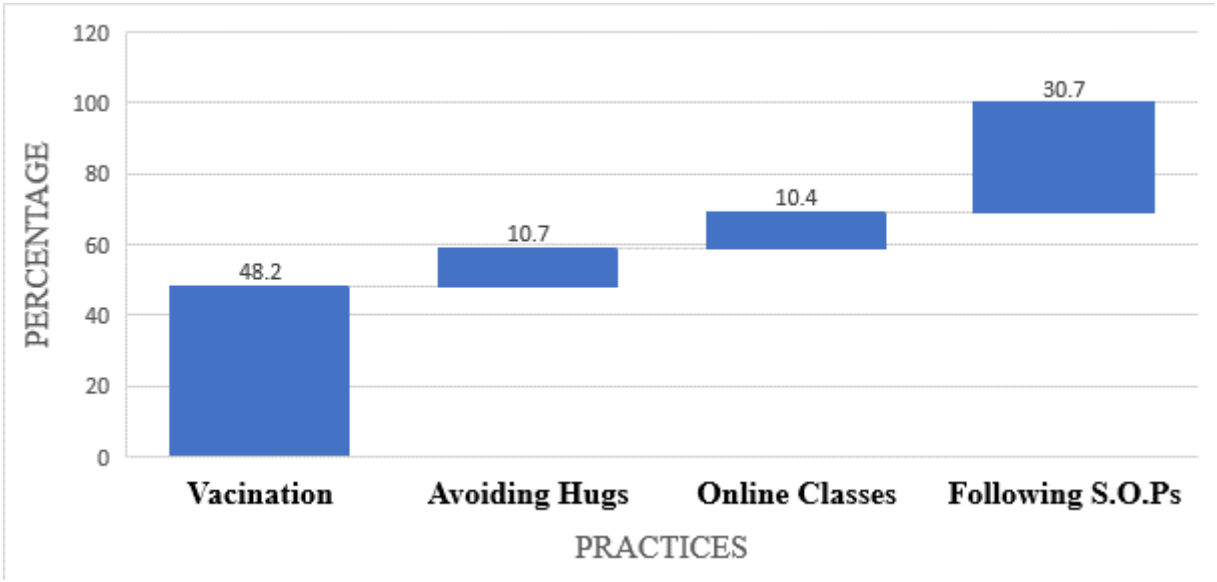

Figure 7. Shows the recommended COVID-19 preventive practices by the respondents. (n=384)

Attitude towards covid-19

Generally, participants had a good attitude towards COVID-19 whereby the majority 245(63.8%) of the respondents agreed that COVID-19 will be controlled in the world while the minority 139(36.2%) strongly agreed that COVID-19 will be controlled in the world. In addition, the majority 211(54.9%) of the respondents agreed that COVID-19 will be controlled in Uganda while a minority 173(45.1%) of the respondents strongly agreed that COVID-19 will be controlled in Uganda. These findings were consistent with research by Solehah et al., (2020) who found in Malaysia, 95.3% of the medical students believed that the situation of COVID-19 would be successfully controlled. Also, the majority 140(36.5%) of the respondents disagreed with the COVID-19 vaccine being fake and having severe side effects whereas only 69(18.0%) of the respondents strongly agreed or disagreed with the COVID-19 vaccine being fake and having severe side effects. Further still, more than half of 210(54.7%) of the respondents agreed that lockdown can help to control covid-19 spread while less than a quarter strongly disagreed that lockdown can help to control covid-19 spread. It was found that the majority 175(45.6%) of the respondents strongly disagreed that alcohol drinking can work as a sanitizer and can kill the virus whereas only 36(9.4%) agreed that alcohol drinking can work as a sanitizer and can kill the virus. More than a half of 246(64.1%) of the respondents agreed that COVIDEX is effective whereas less than a quarter disagreed with COVIDEX being effective. Nearly three-quarters 279(72.7%) of the respondents strongly agreed

that Coronavirus can be spread through contact with infected surfaces while more than a quarter 105(27.3%) of the respondents just agreed that Coronavirus can be spread through contact with infected surfaces.

Practices towards COVID-19

The practices towards COVID-19 prevention among Allied Health Students were generally good. It was found that nearly three-quarters 277(72.1%) of the respondents practice social distancing while only 107(27.9%) of the respondents do not practice social distancing. More than three-quarters of 312(81.3%) of the respondents practice recommended washing of hands while only 72(18.7%) of the respondents do not practice recommended hand washing. Similarly, more than three quarters 312(81.3%) of the respondents practice the use of sanitizer to clean hands while only 72(18.7%) of the respondents do not practice the use of sanitizer to clean hands. Also more than three quarters 312(81.3%) of the respondents put on face masks every time they are in public whereas only 72(18.7%) of the respondents do not put on face masks every time they are in public. Similar results 312(81.3%) of the respondents were vaccinated whereas 72(18.7%) of the respondents were not vaccinated. It was found that the majority 185(42.8%) of the respondents recommended vaccination as a preventive practice for COVID-19 while only 40(10.4%) of the respondent's online classes. The results obtained regarding practices towards COVID-19 were in agreement with Wu et al., (2020) who found that the majority of the medical students keenly followed all the set preventive practices as many scored above 50% which was the baseline for practices to be followed. Similarly, they agreed with Kalliah et al., (2021) who revealed that nearly 99.0% of the medical students had a regular practice of wearing facemasks while going out, and 93.4% of them used alcoholic hand rubs regularly. Moreover, most of them 96.5% had avoided a handshake since the current lockdown had started. However, the results of the study were not in line with Ikhlaq et al., (2020) who found that medical students had inadequate preventive practices related to COVID-19 in terms of respiratory etiquette, hand washing, and physical distancing in Pakistani universities.

Conclusion

This study sought to identify the Knowledge, Attitude, and Practices toward COVID-19 among Allied Health Students, A case study at the International Paramedical institute Maya Wakisos District. Based on the findings of the study, the following conclusions were made:

Allied Health students have adequate knowledge of COVID-19 as the majority of the respondents knew all the signs and symptoms of COVID-19, It was also found that knowledge about the causative agent of COVID-19 was Universal as all respondents answered correctly.

Participants had a good attitude toward COVID-19 whereby the majority of the respondents agreed that COVID-19 will be controlled in the world while the minority strongly agreed that COVID-19 will be controlled in the world

The practices towards COVID-19 prevention among Allied Health Students were generally good as the majority of the respondents practice social distancing, more than three quarters practice recommended hand washing and the same proportion puts on face masks every time they are in public.

In Conclusion majority of the Allied Health students at the International, Paramedical Institute has good knowledge, an optimistic attitude, and appropriate preventive practices towards COVID-19.

Recommendations

The researcher recommends further studies on larger numbers, diverse responders, and at a community level which will allow us to know the KAP towards COVID-19 in a broad perspective and can be an important tool to plan preventive measures.

The ministry of health together with the district health office should put more effort to sensitize the public about the existence and severity of COVID-19 and the importance of early and routine testing on local radios, televisions, and local newspapers.

The government should avail organized COVID-19 related services closer to institutions to reduce the costs incurred on transport for long distances.

The institution administration and the hospital staff especially Nurses, Clinical officers and Doctors should healthily educate the patients as well as students in all departments about testing for COVID-19 to reduce the negative attitude attached to the procedure.

The government of Uganda should integrate COVID-19 screening services with other health services so that students accessing various health ser-

vices can also be able to access up-to-date COVID-19 related information and screening services.

Institution administration and the hospital staff should embark on pre-test and post-test counselling with all patients and similar sessions introduced in Institutions of learning among Allied Health Students who wish to go for COVID-19 screening to reduce the stigma associated with positive results.

Health workers should be trained in communication skills so that they can be courteous when relating to clients and Allied health students seeking COVID-19 screening services.

The Institution administration should avail a Separate room allocated for the procedure of COVID-19 screening to ensure the total privacy of the client being screened.

4 Acknowledgement

Would like to acknowledge the following;

I take this chance to acknowledge my dear supervisors Mr. Kiwu Joseph and Ms.Nantume Patience who have perfectly guided me throughout my research and the course career.

Also appreciate my Father Mr Mawerere Stephen for the financial support throughout the course

May the almighty God reward you accordingly

5 LIST OF ABBREVIATIONS AND ACRONYMS

COVID-19: Corona Virus Disease 2019

HCWs: Health Care Workers

IPI: International Paramedical Institute

KAP: Knowledge, Attitude, and Practice

SARS-CoV-2: Severe Acute Respiratory Syndrome-Corona Virus-2

WHO: World Health Organization

DCM: Diploma in Clinical Medicine and Community Health

CMLT: Certificate in Medical Laboratory Technology

PHD: Public Health Dentistry

CMR: Certificate in Medical Records

DPHA: Diploma in Pharmacy

DEFINITION OF OPERATIONAL TERMS

Epidemic: A process of human transactions with the environment, which gives meaning to one's experience, represents one's image of reality, and influences one's behaviour (Dabies, 2000).

Asymptomatic: Having no symptoms of illness or disease clinical presentations (National Cancer Institute)

Pneumonia: A respiratory disease characterized by inflammation of the lung parenchyma (excluding the bronchi) with congestion caused by viruses, bacteria, or irritants (WHO).

Diagnostic: Is the art or act of identifying a disease from its signs and symptoms (Oxford Dictionary).

Adherence: Is faithfully following a program (Medical Dictionary).

Therapeutic: Tending to cure or restore health. (Medical Dictionary)

Perception: The representation of what is perceived; a basic component in the formation of a concept (Oxford Dictionary).

Transmission: Passing of a pathogen causing communicable disease from an infected host individual or group, regardless of whether the individual was previously infected (WHO)

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