## Perspective on Covid-19 Pandemic Among Medical Imaging Students in Ghana

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Abstract:- INTRODUCTION: As of December 2020, many countries across the globe are still grappling with the management and treatment of COVID-19. The first case of COVID-19 in Ghana was confirmed on the 12<sup>th</sup> March 2020 with laboratory results of the confirmed cases received from the Noguchi Memorial Institute for Medical Research of the University of Ghana. The aim of this research is to assess the level of knowledge of COVID-19 pandemic, its effect and panacea for students' challenges among medical imaging students in Ghana.

METHOD: A purposive cross-sectional survey was conducted among medical imaging students in Ghana. The study sampled students from six (6) educational institutions undertaking medical imaging as a course of study. A total of 476 study participants were involved in the study. Microsoft Excel 2016 version was used to analyze the data.

RESULTS: Of the respondents, 335 (74.6%) were observing all World Health Organization (WHO) and Ministry of He\alth (MOH) protocols. Upon the closure of universities, most (n=407, 85.5%) of the respondents confirmed that it has really affected their studies. Most participants (n=236, 49.6%) "Strongly agree" that imaging modalities should be part of COVID-19 diagnosing tool.

CONCLUSION: Medical imaging students in Ghana confirm and aware of how COVID-19 is transmitted and the closure of schools have really affected students' education.

**Keywords:-** COVID-19, Students, Medical, Imaging, Perspective.

#### I. INTRODUCTION

In March, the coronavirus became a pandemic with 27,737,453 globally confirmed cases and 937,391 deaths as of 17<sup>th</sup> September 2020 (WHO, 2020). Dr Tedros Adhanom Ghebreyesus (WHO, General Director) stressed that the best way for countries to end restrictions and ease their economic effects was to attack the virus with an aggressive and comprehensive package of measures (Fahmi, 2020). As of March, 79 968 patients in China and 7169 outside of China had tested positive for COVID-19(Baud et al., 2020). Asymptomatic and pre-symptomatic individuals, by definition, do not cough or sneeze to any appreciable extent (Asadi et al., 2020). At present, the main measures taken abroad are to maintain hand hygiene, an appropriate social distance and wearing WHO approved masks (Chen et al., 2020).

The first case of COVID-19 to be reported in Ghana was confirmed on 12th March 2020 and the laboratory results of the confirmed cases were received from the Noguchi Memorial Institute for Medical Research. The first two cases were imported and both patients returned to Ghana from Norway and Turkey. As at November, they were 52,198 confirmed cases with 325 deaths in Ghana (GHS, 2020). To respond to the pandemic, the Government of Ghana in collaboration with the Ghana Education Service (GES) imposed bans all on public and social gatherings. This restriction thus affected University education for which all universities were closed on 16th March, 2020 (Emmanuel, 2020; Francis, 2020). Due to this closure, various university authorities issued a specific date for students to leave campus and return home. Consequently, lectures, group studies and other academic activities in the educational calendar were stalled. The aim of this research is to assess students' knowledge on COVID-19, its effect and remedy for students' challenges amidst COVID-19 pandemic among medical imaging students in Ghana.

#### II. METHODS

#### A. Design and Distribution

A purposive cross-sectional survey was conducted among medical imaging students in Ghana using their respective school WhatsApp platforms which includes five (5) public universities and one private institution. The platforms were purposively selected to include all imaging students' platforms.

#### B. Study tool

The questions required for the survey were developed by the research team using facts on COVID-19 as presented by the WHO ((WHO), 2020). Additionally, other questions were self-developed in order to unravel the real situation students were encountering. The various developed sections of the questionnaire included: 1) socio-demographic characteristics of respondent, 2) knowledge on infection and transmission of COVID-19, 3) effect of COVID-19 on academic work, 4) measures taken by school authorities, Government of Ghana and the Ghana Education Service, 5) students' knowledge on imaging in the COVID-19 era and 6) suggestion from students.

Before the distribution, the research team read through by discussing the questionnaire to rule out any bias by using simple and short questions, making use of interval questions and precise language. The link to the online questionnaire was distributed on many active students' social media platforms to maximize the response rate. Furthermore, representatives of the these six (6) institutions also helped to promote the survey. The questionnaire (Appendix 1) was developed and distributed online using Google form. The response time frame for the survey was seven weeks (9<sup>th</sup> May to 1<sup>st</sup> July, 2020). Microsoft Excel 2016 version was used to analyze the data for statistical interpretation and the openended questions were coded in a simple table form. The overall findings are presented in the forms of pie charts, tables and bar graphs.

#### C. Ethical consideration

Ethical approval was obtained from the Ghana Society of Radiographers Ethics Review Committee (Ref. No. GSR/PSL-RE/05/2020). Electronic informed consent was obtained from all respondents. Respondents who were willing to participate in the study were to indicate so by ticking a box on the form, which subsequently activated the next steps on the Google Form. Confidentiality of the data was ensured by not collecting information that will lead to identification of the respondent. Access to the data on the server was restricted by a two-way pass code.

#### III. RESULT

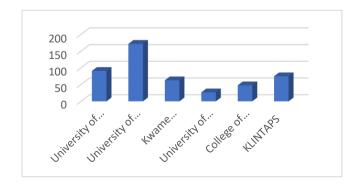
A total of 476 medical imaging students out of the target population of approximately 929 students in all level (1<sup>st</sup> year to 4<sup>th</sup> year) participated in the survey, given a response rate of 51.2%. The majority (n=269, 56.5%) of students were in the 21-25 age group. The male respondents formed the majority (n=318, 66.8%). The responses from marital status came out with single being the majority (n=433, 91.0%), (Table 1).

Table III. Socio-demographics Characteristic of the Study Population and Knowledge on Infection and Transmission of COVID-

Variables	Frequency	Percentage (%)
	Age	
16-20	122	25.6
21-25	269	56.5
Above 26	72	15.1
Prefer not say	13	2.8
Gender		
Male	318	66.8
Female	158	33.2
Marital Status		
Single	433	91.0
Married	38	7.9
Co-habitation	5	1.1

(Source: Field data, 2020)

The respondents from the institutions offerings medical imaging programs are six(6) institutions (Fig. 1) per the time survey was conducted, however most (n=172, 36.16%) coming out from the University of Cape Coast and with the least responses from University of Health and Allied Science (n=27, 5.7%). Diagnostic Radiography has greater response rate of n=241 (50.6%) with a few (n=4, 0.8%) Radiotherapy. Half of the respondents read Diagnostic Radiography (Fig. 2).



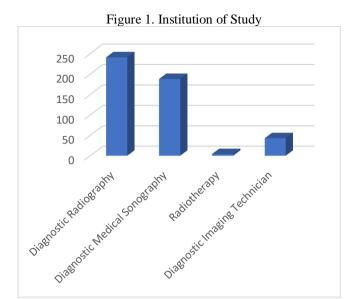


Figure 2. Programme of Study

Fig. 3 presents the level of study and the response. The level that responded most is level 200 (n=146, 30.7%) with the least (n=94, 19.7%) from the level 400 students. Routes of transmission (Fig. 4) has a greater response (n=319, 67.0%) of participants choosing eye, nose, mouth and skin contacts as means of transmission with few (n=15, 3.0%) choosing only mouth.

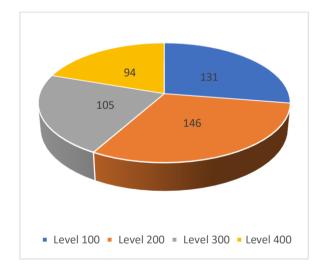


Figure 3. Level of Study (level of study refers to year of study. E.g.: level 100 refers to 1<sup>st</sup> year, level 200 refer to 2<sup>nd</sup> year, etc.)

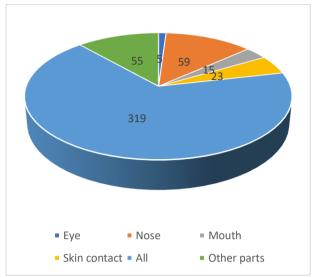


Figure 4. Routes of Transmission

Table 2 presents understanding of how COVID-19 is transmitted and most (n=238, 50.0%) "Strongly agree" that they are knowledgeable about COVID-19 transmission. With respect to the infection and prevention of COVID-19, most (n=221, 46.1%) "agree" that they are aware of the infection and prevention of COVID-19. In table 2, respondents "strongly agree" that they know how to wash their hand properly (n=344, 72.2%) and also "strongly agree" pointed out that their personal hygiene has tremendously change after the outbreak of the COVID-19 pandemic (n=277, 58.2%). Table 2 shows that majority (n=399, 83.82%) of the respondents have the opportunity to educate their household about the COVID-19 outbreak. Table 2 also presents measure taken by these respondents on how to prevent themselves from contracting the COVID-19. Of the respondents (n=355, 74.6%) were observing all World Health Organization (WHO) and Ministry of Health (MOH) protocols.

Table 2. Knowledge on Infection and Transmission of COVID-19, Measures of Prevention and Knowledge on Infection and Transmission of COVID-19

	nission of COVID-19	Democrate as (0/)
Variables Understanding of	Frequency how COVID 10 is transmitted	Percentage (%)
	how COVID-19 is transmitted 238	50.0
Strong agree Agree	205	43.1
Neutral	29	6.1
Disagree	2	0.4
Strongly Disagree	2	0.4
	fection and Prevention of COVI	
Strongly Agree	73	15.3
Agree	221	46.4
Neutral	72	15.1
Disagree	26	5.5
Strongly Disagree	84	17.6
Enough knowledge about hand	hygiene and how to wash my har	nds properly
Strongly Agree	344	72.2
Agree	121	25.4
Neutral	5	1.1
Disagree	2	0.4
Strongly Disagree	4	0.8
Personally, hygiene attitude	e has changed after COVID-19 o	utbreak
Strongly Agree	277	58.2
Agree	163	34.2
Neutral	25	5.25
Disagree	9	1.9
Strongly Disagree	2	0.4
Opportunity to educate your	household about the COVID-19	outbreak
Yes	399	83.82
No	77	16.2
Measures taken to prevent cont	raction of COVID-19 (open-end	ed question)
Social Distancing	15	3.2
Wearing nose mask	17	3.6
Stay home	14	2.9
Avoiding handshake	1	0.2
Personal hygiene	5	1.1
Handwash/Use of sanitizer	27	5.7
No touching of face	2	0.4
Public education	2	0.4
Regular Exercise & Healthy Eating	8	1.7
Observing all WHO/MOH protocols	355	74.6

(Source: Field data, 2020)

Table 3. Effect of COVID-19 on Academic Activity, Measures taken by School Authorities & Issues preventing continuous studies at home

Variables	Frequency	Percentage (%)
Closure of universities, has it affected academic studies/curriculum		
Yes	407	85.5
No	21	4.4
Maybe	48	10.1
If yes, how has it affected studies/schoolwork (open-ended question)		
No clinical work	38	9.3

Reading online is difficult	50	12.3
Home study is not effective	52	12.8
Delayed final year research work	52	12.8
Limited support from coursemates/school mates	64	15.7
Couldn't finish course work	151	37.1
Finding it difficult to study at home		
Yes	391	82.1
No	70	14.7
Don't know yet	15	3.2
Department is making/has made provision for	r us to continue our studies	at home
Yes	346	72.7
No	61	12.8
Uncertain	69	14.5
University modalities adopted to ensure continuou	s studies at home (open-en	ded question)
Google class	59	12.4
Home assignment	153	32.1
Myclass app	9	1.9
Webinar class	6	1.3
WhatsApp	120	25.2
University virtual class/ E-learning platform	17	3.6
Problem Based Learning (PBL)	2	0.42
Zoom meetings	6	1.3
Moodle app	3	0.6
Sakai Learning	2	0.4
E-learning platform		
None	44	9.2
Issues preventing continuous studies at	home (open-ended questio	n)
Poor internet	173	36.3
Courses do not have permanent lecturers	44	9.2
Clinical nature of final year courses	86	18.1
Lack of student availability	93	19.5
No proper learning platform	15	3.2
Lack of finance	40	8.4
Lack of communication from University/Department	25	5.3

(Source: Field data, 2020)

Effect of COVID-19 on academic activity is shown in Table 3. Upon the closure of universities, most (n=407, 85.5%) of the respondents confirmed that it has really affected their studies or curriculum. With the 407 respondents who confirmed, (n=151, 37.1%) of them says that they could not finish their course work. Majority of the respondents (n=391, 82.1%) are finding it difficult to study at home. Table 3 shows that most (n=346, 72.7%) of the department in various institutions were able to make provision for continuous studies at home since schools were closed and in view of that some of the universities adopted home assignment for continuous studies at home according to the respondents (n=153, 32.1%). Issues on things preventing continuous studies at home are shown in table 3. Response rate (n=173, 36.3%) of that respondents confirmed there is always poor internets availability in their homes. Most participants "disagree" (n=195, 41.0%) on the fact the virtual/online learning (Table. 4) has helped as compared to face to face studies with students and lecturers. Challenges respondents faced studying at home (Table 4) pointed to the fact that most (n=121, 25.4%) respondents were distracted with home activities. Table 4 presents suggestions from respondents in improving studies at home. Respondents (n=127, 26.7%) suggested that universities or departments should provide them with study materials consistently to facilitate good studies at home.

Table 4. Challenges faced studying at home & Improving study at home

Variables	Frequency	Percentage (%)
Compared to face to face studies, has virtual/online learning helped		
Strongly agree	16	3.4
Agree	56	11.8
Neutral	87	18.3

Disagree	195	41.0
Strongly Disagree	122	25.6
Challenges faced studying	at home (open-ended question	)
Distraction from home activities	121	25.4
Lack of focus/concentration	114	23.9
Lack of funds to purchase internet data	103	21.6
Unstable electricity supply	3	0.6
Internet connectivity issues	102	21.4
Laziness	3	0.6
Lack of ability to ask questions	3	0.6
Lack of motivation to study	18	3.8
Environment not conducive for studies	3	0.6
Lack of understanding	3	0.6
No practical sessions	3	0.6
Suggestions in improving studies at h	nome or remedies (open-ende	d question)
Non-stop availability of study materials	127	26.7
Cancel online classes	13	2.7
Development of proper timetable	12	2.5
Preparation of lecture videos	84	17.6
Final students should be allowed to return campus	13	2.7
Distribution of internet data	99	20.8
Regularization of online examination	39	8.2
Ensure effective online meeting	25	5.3
Avenue for students to ask lecturers questions (Eg. WhatsApp groups)	64	13.4

(Source: Field data, 2020)

The general idea about if imaging modalities should be part of the frontline diagnostic tools for COVID-19 are presented in Table 5. Briefly, most participants (n=236, 49.6%) "Strongly agree" that imaging modalities should be part of COVID-19 diagnosing tool. Table 5 shows modalities mostly appropriate for diagnosing COVID-19. Half (n=239, 50.2%) of the respondents chose CT as most appropriate. Reason for selecting a particular radiological examination is shown in table 5. From respondents, majority (n=142, 29.8%) says their choice produce accurate results.

Table 5. Radiological Examination & Frontline diagnosis for COVID-19

Variables	Frequency	Percentage (%)
Imaging modalities should be part of	the frontline diagnosis for COVID	-19
Strongly agree	236	49.6
Agree	147	30.8
Neutral	69	14.5
Disagree	18	3.8
Strongly disagree	6	1.3
Radiological Examinations most appropriate for	or COVID-19 diagnosis (open-end	ed question)
Computed Tomography	239	50.2
Conventional X-ray	176	37.0
Ultrasound	56	11.8
Magnetic Resonance Imaging (MRI)	2	0.4

Chest Tomosynthesis	7	1.5
Fluoroscopy	2	0.4
All examinations	2	0.4
None	7	1.5
Reason for selecting particular radiological examination (open-ended question)		
From reviewed literature	31	6.5
Availability of examination	42	8.8
Indicates excess air and fluid around chest region	10	2.1
Provides detailed information on body	119	25
Provides accurate results	142	29.8
Detects changes in respiratory tract	83	17.4
Economic factors	19	4.0
Reduced exposure	9	1.9
No known reason	21	4.4

(Source: Field data, 2020)

#### IV. DISCUSSION

The study provides the assessment of knowledge and the effect of COVID-19 pandemic among medical imaging students in Ghana. When COVID-19 got to the shores of Ghana on 12th March, 2020 (GHS, 2020), the government of Ghana called the closure of all schools and public gathering (Emmanuel, 2020; Francis, 2020) and lockdown in some most crowded (Kaur et al., 2020) part of the country, it has been suggested that schools may be hubs of virus transmission (Beam et al., 2020). This compelled all students to leave their campuses. COVID-19 is a global pandemic, spreading and affecting human life (Bherwani, 2020), so the knowledge and awareness was gradually increasing. The President of Ghana, H.E Nana Akufo Addo and his governing team have a preliminary strategy for updating the citizenry about measures taken against the pandemic (Antwi-boasiako et al., 2020) and in addition to that there were a lot of constant updates on various websites, television stations, radio stations, social media, etc. Half of the respondents (n=238, 50.0%) were able to strongly agree that they understand how this pandemic is transmitted because they are constantly bombarded with information via the digital technologies around them. There was a below average response rate (n=221, 46.1%) on the prevention of the COVID-19 pandemic since the preventive measures were being updated by the World Health Organization (WHO) at the time the survey was distributed ((Yang et al., 2015); (Wathore et al., 2020); (Cai et al., 2020)).

1) The study also provides or demonstrates the knowledge of route of transmission of COVID-19 among the respondents with the majority (n=319, 67%) choosing all the options (mouth, nose, eyes, others parts) provided with the least response rate (n=15, 3%) on only mouth. This is in line with the recent studies by (WHO, 2020) saying COVID-19 virus can be transmitted through droplets of different sizes when a person is in in close contact (within 1 m) with someone who has respiratory symptoms (e.g., coughing or sneezing) and is therefore at risk of having his/her mucosae (mouth and nose) or conjunctiva (eyes) exposed to potentially infective respiratory droplets. Other studies also confirm that the main factor affecting transmission was not using protecting equipment when

working at a close distance and having intimate contact with infected persons (Jin et al., 2020). In dental setting, the virus can be transmitted through inhalation of airborne microorganisms, direct contact with an infected individual and propelled a short distance by coughing and talking without a mask and indirect contact with contaminated instruments and/or environmental surfaces (Peng et al., 2020). However the decline in response rate on option "mouth" is in line with a study saying the outline of transmission routes of COVID-19 has not yet been drawn and more efforts must be made to get full picture of the transmission routes (Han et al., 2020) as at the time of the survey.

WHO had issued global guidelines recommendations for hand hygiene in healthcare long before the start of the COVID-19 pandemic. They identified five moments when to wash or sanitize hands in clinical routines which include (1) before touching a patient, (2) after touching a patient, (3) before aseptic procedures, (4) after touching patient surroundings, and (5) after body fluid exposure risk (WHO Patient Safety Alliance, 2009; (Derksen et al., 2020)). During the survey, it was very interesting that (n=344, 72.2%) confirmed that they can and properly know how to wash their hands. This finding is in line with other studies that promoting proper hand hygiene practices is a well-known preventive measure to control COVID-19 since effective treatment drugs and vaccines for COVID-19 are not currently available ( (Thi et al., 2020); (Chen et al., 2020); (Access et al., 2020); (Mahdi et al., 2020)). Due to that there was a great response (n=277, 58.2%) from the respondents that their hand hygiene has improved (Sadeq et al., 2017).

There was opportunity for students to leave campuses to their home and with that respondent (n=399, 83.82%) took that opportunity to educate their family and friend at home and their environment. In view of that about (n=355, 74.6%) were able to observe the WHO protocols WHO (2020) on COVID-19 and the directive of the Ministry of health in Ghana concerning COVID-19 safety and preventive measures (Antwi-boasiako et al., 2020).

According a study in Canada, school closure will mitigate disease transmission during the COVID-19 pandemic when combined by other social distancing measures, it may have markedly lower effectiveness in reducing attack rates and hospitalization (Moghadas, 2020). According to Pradeep Sahu, university closure has also caused a tremendous level of stress among the university fraternity, inclusive of students and this stress may lead to unfavorable effects on the learning and psychological health of students (Sahu, 2020). These findings are in line with our survey where respondents (n=407, 85.5%) pointed out that closure of school has tremendously affected their studies and curriculum to the extent that respondents (n=391, 82.1%) find it difficult to study at home. The majority of the respondents (n=151, 37.1%) in opened-ended question wrote that "Couldn't finish course work". This is because some schools did not have good online platforms (Sahu, 2020), some students were not knowledgeable about online lectures (Ravi, 2020), and substantially reduced physical activity levels (López-bueno et al., 2020), these probably led to incomplete academic curriculum amidst the pandemic.

The study reviewed that since the closure of schools, their department or faculty made provision for them to continue their education, however majority of the platforms or means some of the schools were using are home assignment (n=153, 32.1%) followed by whatsapp messenger group chat. This is challenging because applying online assessment and academic activities is a very difficult task for some of the students(Sahu, 2020).

As students were of different backgrounds and

locations, a large number of respondents (n=173, 36.3%)

commented on having "poor internet" in their location to facilitate smooth online classes. In addition, students who do not have an Internet facility will suffer a clear disadvantage while participating in the evaluation process, which would adversely affect their grade point averages (GPAs) (Sahu, 2020). On account of challenges student face at home, respondents (n=195, 41.0%) disagree that online learning or virtual education has helped them with majority comementing that "Distraction in learning by home activities", and "Lack of focus/concentration". This is because some activities at home are given to wards once they are away from school. Furthermore, great proportion of the respondents (n=236, 49.6%) suggested medical imaging modalities should be used greatly in diagnosing COVID-19. The finding is in line with a recent article; It is imperative that the role of imaging is agreed for diagnosing COVID-19 (Radiology, 2020). Interestingly, half of the respondents (n=239, 50.2%) chose computed Tomography (CT) as the first diagnostic tool within the medical imaging modalities. Moreover, majority commented that "it provide accurate results(n=142, 29.8%), then also detail information about the body, availability and from literatures read". This findings have been proven in recent articles by (Nasir et al., 2020) and (Radiology, 2020) based on a prospective analysis of patients, the sensitivity of CT is estimated to be 97% in detecting COVID-19 infection relatives to positive RT-PCR. Furthermore, the respondents (n=127, 26.7%) suggested the universities or their department should provide them with non-stop availability of materials to enhance their studies at home.

#### V. CONCLUSION

The results of this study indicated that the level of knowledge about how COVID-19 is transmitted is well known among medical imaging students. The closure of schools has really affected students and there is great awareness of the imaging modalities to be used as a first diagnostic tool that is CT as compared to RT-PCR test. Home assignment and online studies were approaching the six (6) institutions used to enhanced continuous studies amidst the pandemic.

## RECOMMENDATION GOVERNMENT OF GHANA/UNIVERSITY ESTABLISHMENT

Based on these findings it is recommend that universities should consistently interact with the imaging students and provide them with needed materials to facilitate effective studies at home. The universities should restructure their curriculums in various levels of education to suit the academic activities the pandemic era and probably add COVID-19 pandemic as a liberal course of study.

#### GHANA HEALTH SERVICE (GHS)

GHS should update the country with statistical update of the COVID-19 pandemic weekly or daily and continue to education the citizens on the preventive measures.

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#### Conflict of interest statement

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#### APPENDIX 1

Do you consent to participate in this study?

I consent to participate in this study

Next page

#### **Demographic Data**

1) In which Institution do you study?
University of Ghana, Legon
University of Cape Coast, Cape Coast
Kwame Nkrumah University of Science & Technology,
Kumasi
University of Health & Allied Science, Ho
College of Health, Kintampo
KLINTAPS

- 2) What is your programme of study? Diagnostic Radiography Diagnostic Medical Sonography Radiotherapy Diagnostic Imaging Technician
- 3) What is your level?100200300400
- 4) What is your gender?FemaleMalePrefer not to say
- 5) What is your age range? 16 – 20 years old 21 – 25 years old 26 years and above Prefer not to say
- 6) Marital status of respondent Single Married Divorced Cohabitation

## KNOWLEDGE ON INFFECTION TRANSMISSION AND PREVENTION ON COVID-19

7) I have a great understanding of how the COVID-19 is transmitted?

Strong agree Agree Neutral Disagree

Strongly disagree

8) My understanding of the principle of infection prevention and control (IPC) as a medical imaging student is adequate to deal with the COVID-19 at home?

Strong agree

Agree	Assignment
Neutral	Myclass app
Disagree	Webinar class
Strongly disagree	WhatsApp messenger
	Other
9) What is/are the route of transmission into the body?	19) If NO, what are some of the current issues preventing its
	_
Eye	start?
Nose	
Mouth	
Skin contact	20) I think studying at home is helpful and I am also getting
	the adequate knowledge as compare to being in the
10) I have knowledge about hand hygiene and how to wash	lecture room?
my hands properly?	Strong agree
Strong agree	Agree
Agree	Neutral
Neutral	Disagree
Disagree	Strongly disagree
Strongly disagree	
	21) What are some of the challenges you face studying at
11) My personal hand hygiene has improved after COVID-	home?
	nome:
19 outbreak?	
Strong agree	
Agree	STUDENTS' KNOWLEDGE ON IMAGING IN THE
Neutral	COVID-19 ERA
Disagree	22) Do you agree that imaging modalities should be part of
Strongly disagree	the frontline diagnosis tool for COVID-19?
Strongry disagree	
10) 77	Strong agree
12) Have you had the opportunity to educate your household	Agree
about the COVID-19 outbreak as Allied Health student/	Neutral
Yes	Disagree
No	Strongly disagree
13) What are some of the measures you have taken to	23) State your reason for the answer selected in Q22 above?
preventing the contracting the COVID-19?	
EFFECT OF COVID-19 ON STUDIES	24) Which of the radiological examination in your view
14) Since schools are closed due to the COVID-19 outbreak,	would be most appropriate to use in our country for
is it affecting your programme curriculum?	COVID-19?
Yes	Computed Tomography scan of the Chest
No	Conventional chest x-ray
	Ultrasound of the chest
Maybe	
	Magnetic Resonance Imaging of the Chest
15) State how it has affected your studies	Other
	25) Any reason to your above choice?
16) Do you find it difficult to study at home?	
Yes	
No	
	CLIC CECTION/DEMEDY EDOM CTUDENTS
Don't know yet	SUGGESTION/REMEDY FROM STUDENTS
	26) What will be your suggestion to your institution which
MEASURES TAKEN BY AUTHORIES (universities	can help you to effectively study at home?
heads, education system and government of Ghana)	
17) My department is making /have made provision for us to	
continue our studies	
Yes	
No	
Not certain	

18) If Yes, what modality have they adopted to ensure continuous studies while at home?

Google class