AWARENESS OF COVID-19 PREVENTION PROTOCOLS AND GUIDELINES AMONG SENIOR SECONDARY SCHOOL STUDENTS IN AWGU EDUCATION ZONE, ENUGU STATE

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Abstract: *This study examined the awareness of covid-19 prevention protocols and guidelines among senior secondary school students in Awgu Education Zone, Enugu State. It was guided by three specific objectives with three corresponding research questions and hypotheses. The objectives sought to: determine students' level of awareness on COVID-19 prevention protocols and guidelines; the extent to which they adhere to those protocols and guidelines; and identify the factors inhibiting students' adherence to those protocols and guidelines in senior secondary schools in the study area. Survey research design was adopted for the study. A structured questionnaire was used for data collection. Mean rating was used for analysing the responses to the research questions and t-test statistical tool was used for testing the hypotheses. It was revealed, among others, that senior secondary school students are largely aware of the most COVID-19 prevention protocols and guidelines; that students adhere to some of the protocols and guidelines and disregard others. Finally, it was revealed that lack of consciousness among students about the severity of COVID-19; poor COVID-19 enforcement system within school environment; poor adherence precedent set by teachers and other staff in school environment; high student population, among other factors impede students' adherence to the COVID-19 prevention protocols and guidelines in the study area. The study recommended, among others, that in school environment, staff (teaching and non-teaching) should religiously adhere to the protocols and guidelines, as this will encourage students to adhere to them as well.*

INTRODUCTION

The outbreak of the novel Corona Virus Disease 2019 (COVID-19) in Wuhan, China and its subsequent spread across the world in 2020, brought with it a global pandemic the likes of which has never been experienced almost a century ago. Confirmed cases of the novel corona virus, were first reported in December 2019 in the Chinese province of Hubei (in the city of Wuhan precisely) and declared a pandemic by the World Health Organization in March 2020 (Paschal, 2021). In Nigeria, however, the virus was first reported on February 27, 2020, when an Italian citizen that visited Nigeria tested positive for the virus, and a second case was reported at Ewekoro, Ogun State, a Nigerian citizen who had contact with the Italian index case (Oyewale, Adebayo and Kehinde, 2021). The World Health Organisation (2022) reported that the pandemic has resulted in over 6 million death globally, while the Nigeria Centre for Disease Control (2021) reported that it has resulted in over 3,000 deaths with over 250,000 cases of infection in Nigeria.

Meanwhile, Corona Virus Disease 19 (COVID-19) is a highly transmittable and pathogenic viral infection caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2). It is characterized with symptoms such as fever/chills, cough, difficulty in breathing, fatigue, muscles or body aches, headache, loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhoea (Suliman, Abeer, Nadia and Rabeea (2020). Development of these symptoms may appear 2-14 days after exposure to the virus. Human-to-human transmission routes include droplet inhalation, coughing and sneezing, contact transmission modes include feco-oral, nasal and eye mucous membrane contacts (Yuan, Elena, Eugenia, Qi, Nick & Huaping, 2022). Most people infected with the virus will experience mild to moderate respiratory illness and recover without requiring special treatment. However, some will become seriously ill and require medical attention. Older people and those with underlying medical conditions like diabetes, cancer among others are more likely to develop serious illness (WHO, 2021).

Practicing preventive measures such as hand washing with soap and water, wearing of face mask, social distancing, covering of mouth and nose when coughing and avoiding touching of the face can prevent transmission of COVID-19 infection. According to the World Health Organisation, the best way to prevent and slow down transmission is to be well informed about the disease and how the virus spreads.

Since the first case of COVID-19 was confirmed in Lagos, Nigeria, the Federal Government through the Ministry of Health, has been strengthening measures to ensure that the outbreak in Nigeria is controlled and contained. The multi-sectoral corona virus preparedness group led by the Nigeria Cenre for Disease Control (NCDC) came up with key strategies such as testing, contact tracing, quarantine and treatment. Included in the measures was public enlightenment through the various media, in the 3 major ethnic languages and English

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language. Some measure of lockdown was also implemented in most parts of the country. Schools and businesses had to shutdown for sometime.

With the gradual decline in the incidence of COVID-19 in Nigeria, the government implemented a phased reopening of the economy and schools. In fact, the Federal Ministry of Education (FME) released a 52-page document concerning the guideline for safe reopening of schools after the peak of the COVID-19 pandemic (Ezeonu, 2021). In August 2020, students in transitional grades (primary 6, Junior Secondary School 3 and Senior Secondary School 3) resumed classes to complete their specific grades and transitional examinations. On September 3, the government announced its approval of a phased reopening of schools for all grades. The government put in place guidelines and protocols for schools reopening, they included social/physical distance policy masking, hygiene policy and mandatory temperature checks. Not much was done for testing of students for the virus. To know the level of infection among children of school age. Studies have shown that children of school age (0-19) contract the infection with little or no symptoms and they recover quickly (WHO, 2022).

It is imperative for the government, nongovernmental agencies, the schools and all related authority to effectively sensitize students and teachers to continue with the COVID-19 preventive protocols and guidelines to help minimize infections among school-aged children and subsequent transmission of infections acquired in schools into the wider community.

Statement of the Problem

As COVID-19 and its variants have come to stay with us as well as other pandemic and epidemics such as Ebola and Lassa fever, it is imperative that we adhere to preventive health protocols, as many scientists believe the COVID-19 would become endemic, but less dangerous with time (Omar, Jiang, Kun, Zhichen & Zulfiqar, 2021). School children should be taught to adhere to these life saving protocols and guidelines which include, hand washing, social distancing, use of facemask, practicing respiratory etiquette. Children of school age (0-19) contract the COVID-19 virus but rarely get critically ill. Many of them are asymptomatic or mildly asymptomatic carriers. These children incidentally can transmit SARS-COV-2 in both educational and community settings, go home to unknowingly infect their aged parents and grandparents with fatal consequences. The response to the COVID-19 vaccinations in Nigeria has not been impressive, so until we are able to maintain herd immunity, the only way to prevent the virus from spreading is to adhere to the COVID-19 prevention protocols and guidelines.

However, to a common onlooker, it appears that there is no consistency in the adherence to these protocols and guidelines amongst secondary school students in Awgu Education Zone, as handshaking, overcrowding and activities that are against the social distancing and other COVID-19 safety rules still prevails amongst these students. This leaves one to wonder if these students are even aware of these COVID-19 protocols and guidelines in the

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first place; or could it be that they are aware but unconscious to its relevance or they are just utterly indifferent? Whatever the case, also one wonders what could inform these positions? Therefore the thrust of this study is to empirically determine the level of awareness among secondary school students and the extent to which they adhere to COVID-19 prevention protocols and guidelines as well as to identify the factors influencing their awareness/adherence level to these protocols.

Purpose of the Study

The purpose of the study was to examine the awareness of covid-19 prevention protocol among senior secondary school students in Awgu Education Zone, Enugu State.

The specific objectives are to:

1. determine the level of awareness among senior secondary school students on COVID-19 prevention protocol and guidelines in Awgu Education Zone;
2. determine the extent to which students adhere to the COVID-19 prevention protocol and guidelines in Awgu Education Zone;
3. identify factors inhibiting students adherence to COVID-19 prevention protocol and guideline in senior secondary schools in Awgu Education Zone.

Research Questions

The following questions guided the study:

1. What is the level of awareness among students on COVID-19 prevention protocol and guidelines in Awgu Education Zone?

2. To what extent do senior secondary students adhere to the COVID-19 prevention protocol and guidelines in Awgu Education Zone?
3. What are the factors inhibiting students adherence to COVID-19 prevention protocol and guideline in senior secondary schools in Awgu Education Zone?

Hypotheses

Ho_1: There is no significant mean difference on the responses of teachers and students on the level of awareness among students on COVID-19 prevention protocol and guidelines in Awgu Education Zone

Ho_2: There is no significant mean difference between the responses of teachers and students on the extent students adhere to the COVID-19 prevention protocol and guidelines in Awgu Education Zone

Ho_3: There is no significant mean difference between the responses of teachers and students on the factors inhibiting students adherence to COVID-19 prevention protocol and guideline in senior secondary schools in Awgu Education Zone.

METHODOLOGY

This study adopted descriptive survey research design. According to Jalil (2013) survey research design refers to the logical structure of an inquiry. Furthermore, Yin (2009) asserts that survey research design thus deals with a logical problem. This lends some credence to the application of the survey. It is to provide the

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opinion of the respondents on the awareness of COVID-19 prevention protocol among senior secondary school students in Awgu Educational Zone, Enugu State.

The population of the study comprised teachers and students in all 31 government senior secondary schools in Awgu Education Zone, numbering 2200. For effective sampling, the researcher used 2 secondary schools (St. Vincent Secondary School, Agbogugu & Girls' Secondary School Mgbowo). One hundred (100) students and twenty (20) teachers were randomly sampled. Therefore, the sample size for this study is 120. A structured questionnaire titled "Awareness of COVID-19 Prevention Protocol among Students (ACPPS)" was used for data collection. Mean rating and t-test statistical tool were used for answering the research questions and test of hypotheses respectively.

Decision Rule:
For research questions: item with mean score of 2.50 and above was accepted while item with mean score below 2.50 was rejected.

For test of hypotheses: Accept null hypotheses with probability value greater than 0.05 and reject those with probability value equal or less than 0.05.

RESULTS

Researcher Questions 1
What is the level of awareness among students on COVID-19 prevention protocol and guidelines in Awgu Education Zone?

Table 1: **Mean Rating and Standard Deviation of responses on the level of awareness among students on COVID-19 prevention protocol ad guidelines**

S/N	Questionnaire items	Students N = 100			Teachers N = 20		
		$\overline{X}$	SD	Decision	$\overline{X}$	SD	Decision
1	Abstaining from hand shaking and hugging	2.74	0.95	Great Extent	2.81	0.90	Great Extent
2	Social distancing (keeping six feet distance among themselves)	3.02	0.88	Great Extent	2.97	0.76	Great Extent
3	Avoid overcrowding	3.00	0.76	Great Extent	2.76	0.76	Great Extent
4	Staying home when feeling unwell or actually sick	2.01	0.62	Little Extent	2.43	0.33	Little Extent
5	Regular hand washing and use of santizers	2.96	0.60	Great Extent	3.01	0.65	Great Extent
6	Covering of mouth and nose when coughing or sneezing	3.22	0.82	Great Extent	2.96	0.75	Great Extent
7	Wearing of facemask when in public	3.01	0.99	Great Extent	2.99	0.82	Great Extent
	Grand Mean	**2.85**	**0.80**	**Great Extent**	**2.80**	**0.77**	**Great Extent**

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Table 1 showed that for the respondents who are students, all items except 4, had mean scores above 2.5, which means that, to a great extent, they were aware of these items. Similar result was gotten for respondents who are teachers. This implies that these items were known to students, i.e., students are aware of these COVID-19 prevention protocols.

Researcher Question 2
To what extent do senior secondary students adhere to the COVID-19 prevention protocol and guidelines in Awgu Education Zone?

Table 2: Mean and Standard Deviation ratings of responses on the extent students adhere to the COVID-19 prevention protocols in Awgu Education Zone.

S/N	Questionnaire items	Students N = 100			Teachers N = 20		
	Respondents adhere to these protocols:	$\overline{X}$	SD	Decision	$\overline{X}$	SD	Decision
1	Abstaining from hand shaking and hugging	2.99	0.97	Great Extent	2.81	0.90	Great Extent
2	Social distancing (keeping six feet distance among themselves)	2.34	0.67	Little Extent	2.44	0.61	Little Extent
3	Avoid overcrowding	2.89	0.92	Great Extent	2.76	0.76	Great Extent
4	Staying home when feeling unwell or actually sick	3.22	0.99	Great Extent	2.91	0.77	Great Extent
5	Regular hand washing and use of santizers	2.21	0.61	Little Extent	2.32	0.64	Little Extent
6	Covering of mouth and nose when coughing or sneezing	2.45	0.82	Little Extent	2.33	0.77	Little Extent
7	Wearing of facemask when in public	2.23	0.85	Little Extent	2.34	0.81	Little Extent
	Grand Mean	**2.62**	**0.83**	**Great Extent**	**2.56**	**0.75**	**Great Extent**

Table 2 showed that items 1, 3 and 4 had mean scores above the mean cut off point of 2.5 for both students and teachers. This means that, to a great extent, these items are adhered to. In other words, students adhere to these protocols and guidelines. Meanwhile, items 2, 5, 6 & 7 had mean scores below 2.5 for both students and teachers, which imply that students adhere to these COVID-19 protection protocols/guidelines only to a little extent.

Research Question 3
What are the factors inhibiting students adherence to COVID-19 prevention protocol and guideline in senior secondary schools in Awgu Education Zone?

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Table 3: Mean and Standard Deviation Rating of responses to factors inhibiting students adherence to COVID-19 prevention protocol and guidelines

S/N	Questionnaire Items	Students N = 100			Teachers N = 20		
		$\overline{X}$	SD	Decision	$\overline{X}$	SD	Decision
1.	Lack of consciousness among students about the severity of COVID-19	2.96	0.82	Agree	2.76	0.90	Agree
2.	Poor COVID-19 enforcement system within school environment	3.22	0.85	Agree	2.81	0.76	Agree
3.	Lack of or inadequate protection equipments/facilities such as masks, sanitizers, soap/water for handing.	2.74	0.60	Agree	2.97	0.76	Agree
4.	Poor adherence precedent set by teachers and other staff in school environment	3.02	0.89	Agree	3.44	0.33	Agree
5.	Utter unbelief in the existence of COVID-19	1.91	0.63	Disagree	3.01	0.91	Disagree
6.	Lack of incentives (palliatives) to encourage adherence	3.01	0.98	Agree	2.89	1.01	Agree
7.	High student population in the schools	2.74	0.88	Agree	2.96	0.75	Agree
	Grand Total	2.80	0.81	**Agree**	**2.98**	**0.77**	**Agree**

Table 3 showed that all the items, except 5, had mean scores above the cut off point for both students and teachers. This implies that they are all factors impeding students' adherence to COVID-19 protection protocols and guidelines in senior secondary schools in the study area.

Test of Hypotheses
Ho₁:
There is no significant mean difference on the responses of teachers and students on the level of awareness among students on COVID-19 prevention protocol and guidelines in Awgu Education Zone.

Table 4: t-test result for hypothesis I

Group	N	$\overline{X}$	SD	df	t-cal	p-value	Decision
Students	100	2.85	.80	118	0.2567	.798	Not Significant
Teachers	20	2.80	.77				

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The analysis in Table 4 shows that the probability associated with the calculated value of t-cal (0.2567) is .798. Since the probability value of .798 is greater than the 0.05 level of significance, the null hypothesis is accepted meaning that there is no significant mean difference on the responses of teachers and students on the level of awareness among students on COVID-19 prevention protocol and guidelines in Awgu Education Zone.

Ho$_2$:
There is no significant mean difference between the responses of teachers and students on the extent students adhere to the COVID-19 prevention protocol and guidelines in Awgu Education Zone

Table 5: t-test results for hypothesis III

Group	N	$\overline{X}$	SD	Df	t-cal	p-value	Decision
Students	100	2.62	.83	118	.2996	.765	Not Significant
Teachers	20	2.56	.75				

The analysis in Table 5 shows that the probability associated with the calculated value of t-cal (.2996) is .765. Since the probability value of 0.765 is greater than the 0.05 level of significance, the null hypothesis is accepted meaning that there is no significant mean difference between the responses of teachers and students on the extent students adhere to the COVID-19 prevention protocol and guidelines in Awgu Education Zone.

Ho$_3$:
There is no significant mean difference between the responses of teachers and students on the factors inhibiting students adherence to COVID-19 prevention protocol and guideline in senior secondary schools in Awgu Education Zone.

Table 6: t-test results for hypothesis III

Group	N	$\overline{X}$	SD	Df	t-cal	p-value	Decision
Students	100	2.80	.81	118	0.9821	.225	Not Significant
Teachers	20	2.98	.77				

The analysis in Table 6 shows that the probability associated with the calculated value of t-cal (.982) is .225. Since the probability value is greater than the 0.05 level of significance, the null hypothesis is accepted meaning that there is no significant mean difference between the responses of teachers and students on the factors inhibiting students adherence to COVID-19 prevention protocol and

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guideline in senior secondary schools in Awgu Education Zone.

Figure 1: Graphical Representation of students adherence to the major COVID-19 prevention protocols and guidelines in the study area
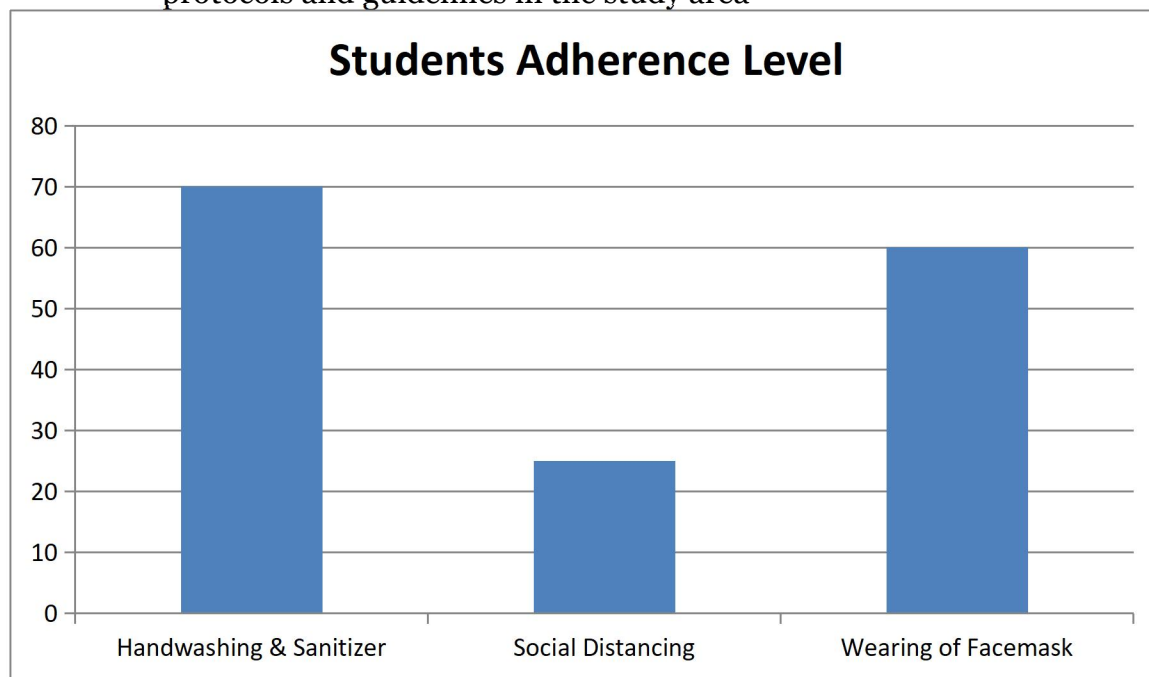
Source: Field Survey, 2022

From the above graph, it is obvious that the students adhere more to handwashing and wearing of facemask. They appear to disregard social distancing. This practice might be related to their awareness level or the degree of enforcement in their schools.

Results

The first research question inquired into the extent to which students are aware of COVID-19 prevention protocols and guidelines in senior secondary schools in Awgu Education Zone. Findings revealed that senior secondary school students in the study area are aware of the following prevention protocols and guidelines: abstaining from hand shaking and hugging; social distancing (keeping six feet distance among them); avoid overcrowding; regular hand washing and use of sanitizers; covering of mouth and nose when coughing or sneezing; and wearing of facemask when in public. However, they are not too aware of staying home when feeling unwell or actually sick as one of the preventive measures. These findings were augmented by the result from test

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of hypothesis I which indicated that there is no significant mean difference between the responses of teachers and students on the level of awareness among students on the COVID-19 prevention protocol and guidelines in Awgu Education Zone. The implication of these findings is that senior secondary school students are largely aware of COVID-19 prevention protocols and guidelines. Which is in line with the submissions of Owhonda, Omosivie, Nwadiuto, Tobin-West, Azi, Ojimah, Alasia, Olofinuka, Agala, Nwolim, Nria, Okafor, Ndekwu, Opara & Newsom (2021) who, in a similar study on "awareness, perception and practice of COVID-19 prevention among residents of a state in the South-South Region of Nigeria: implications for public health control efforts" found that almost all the respondents (98.2%) had heard about COVID-19. In the same token, Aronu, Chinawa, Ossai, Onukwuli, & Chinawa (2021) found that majority of the respondents (who are college adolescents) in their study on "COVID-19: Knowledge of Mode of Spread and Preventive Practices among College Adolescents in Nigeria", were aware of COVID-19. They further found out that 52.0% of these college adolescents were aware COVID-19 could be transmitted through contact with infected persons, only a minor proportion of them, 42.4% had a good knowledge of the mode of spread of COVID-19. The second research question inquired the extent to which senior secondary school students adhere to the COVID-19 prevention protocols and guidelines in the study area. It

was revealed that they only observe abstinence from hand shaking and hugging; avoid overcrowding; staying home when feeling unwell or actually sick, and disregard social distancing, regular hand washing and use of sanitizers, covering of mouth and nose when coughing or sneezing and even wearing of facemask when in public. This finding was affirmed by the result from test of hypothesis II that showed no significant mean difference on the extent students adhere to the COVID-19 prevention protocol and guidelines in Awgu Education Zone. This is in line with the findings of Aronu *et al.* (2021) who found out that a high proportion of the respondents (69.2% precisely) practiced good preventive measures against COVID-19. Wankasi, Amakoromo & Aluye-Benibo (2021) found that although preventive measures (categorised into: awareness and knowledge creation, effective information and management system, availability of drugs and other amenities, monitoring and evaluation) are known to staff and pupils/students of Elementary and Secondary Schools, there is little or no practice of these measures. This poor adherence level among students caused by several factors as highlighted in the finding from research question 3.

The third research question sought the factors inhibiting students' adherence to COVID-19 prevention protocol and guideline in senior secondary schools in Awgu Education Zone. It was found out they include, among others: lack of consciousness among students about the severity of COVID-19; poor COVID-19 enforcement system within school environment;

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lack of or inadequate protection equipments/facilities such as masks, sanitizers, soap/water for hand washing; poor adherence precedent set by teachers and other staff in school environment; lack of incentives (palliatives) to encourage adherence; and high student population in the schools. Similarly, Feyisa (2021) found out that youths in Finfinnee, Ethiopia were less likely to practice COVID-19 preventive measures because of: their belief in the body's immunity to resist the disease, lack of paying attention to the disease, ignorance of evidence to the disease, ease of restriction of movements, lack of sensitization to actions in the community, and substance use. But Oduyoye, Chinenye-Julius, Oresegun & Adejumo (2021) concluded that significant predictors of adherence to COVID-19 preventive measures is knowledge regarding the reality of COVID-19 and as such recommended that the government beef up cogent measures to ensure that the general population comply with the COVID-19 preventive measures and increase their knowledge regarding the reality of disease and its prevention guidelines.

CONCLUSION

Given the above analyses and findings, the following conclusion were reached:

1. Senior secondary school students in Awgu education zone are largely aware of the most COVID-19 prevention protocols and guidelines.
2. Of the COVID-19 prevention protocols and guidelines, students only adhere to abstinence from hand shaking and

hugging; avoid overcrowding; and staying home when feeling unwell or actually sick. However, they disregard social distancing, regular hand washing and use of sanitizers, covering of mouth and nose when coughing or sneezing and even wearing of facemask when in public.

3. Lack of consciousness among students about the severity of COVID-19; poor COVID-19 enforcement system within school environment; poor adherence precedent set by teachers and other staff in school environment; high student population, among other factors impede students' adherence to the COVID-19 prevention protocols and guidelines in the study area.

RECOMMENDATIONS

It is recommended thus:

1. Health education programs, geared towards improving knowledge/practice of COVID-19 and other disease prevention and management, are essential for encouraging positive attitude and maintaining higher levels of compliance. At the secondary school level, this could be integrated into existing health education subjects or a new subject could be created for this purpose
2. School management should do well to enforce these prevention protocols and guidelines within the school premises. Exemplary leadership, wherein staff themselves religiously adheres to the protocols and guidelines, will go a long

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way in encouraging students to adhere to them as well.

3. Facilities needed for practicing some of these prevention guidelines should be made readily available in school environments. Hand washing tools, cheap (even free) facemasks, spatial sitting and standing arrangements in class and assemblies, among others should be put in place.

REFERENCES

Adediran I.A. (2022). Awareness, Attitude And Practices Of Covid-19 Preventive Measures Among Secondary School Teachers In Oyo State, Nigeria. *African Journal for the Psychological Study of Social Issues*. 25(1), 54-62.

Aronu A.E., Chinawa A.T., Ossai E.N., Onukwuli V.O., & Chinawa J.M. (2021). COVID-19: Knowledge of Mode of Spread and Preventive Practices among College Adolescents in Nigeria. *Journal of Tropical Pediatrics.* 01(03), 1–11

Centre for Disease Control and Prevention (2022). US Department of Health and Human Services. https://www.cdc.gov>prevention

Ezeonu C.T., Uneke C.J., & Ezeonu P.O. (2021). Rapid Review of the reopening of School in this COVID-19 pandemic? How ready are we in Nigeria? *J. Med.* 30, 8-16.

Feyisa Z.T. (2021). Factors limiting youths' practice of preventive measures toward the outbreak of COVID-19 in Oromia specialzone surrounding Finfinnee, Ethiopia. *PLoS ONE* 16(3): e0248495

Jalil, E. R. (2013). Realism in research. *Educational Researcher*, 20, 2–9.

Oduyoye, O. O., Chinenye-Julius A. E., Oresegun, A. A. & Adejumo, O. J. (2021). Factors Associated with Adherence to Covid-19 Preventive Measures among Residents of Ojodu Local Council Development Area, Lagos State, Nigeria. *International Journal of Research and Innovation in Social Science*. 5(11). 252-258.

Owhonda G., Omosivie M., Nwadiuto I., Tobin-West C., Azi E., Ojimah C., Alasia D., Olofinuka A.M., Agala V., Nwolim J.P., Nria D., Okafor C., Ndekwu I., Opara C. & Newsom C. (2021). Awareness, Perception and Practice of Covid 19 Prevention among Residents of a State in the South-South Region of Nigeria: Implications for Public Health Control Efforts. *International Health*. 0, 1–10

Oyewale A., Adebayo O. and Kehinde O. (2020). *Estimating the Impact of COVID-19 on Small and Medium Scale Enterprise: Evidence from Nigeria*. Available at: https://hdl.handle.net/10568/111225

Paschal A. A., Isaac. B. K. L., Ramatu A., Wolhas R., Schmitz M., Bigot A. L. (2021).

Dr. Nnenna Grace Ezechi And Nkacha Nne Idika-Mba

Practice of COVID-19 among Students in Ghana. *America Society of Tropical Medicine and Hygiene Journal.* 10(2), 526-531

Suliman C.C, Abeer T.P, Nadia W.C., and Rabeea H.J. (2020). Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and corona virus disease-2019 (COVID19): the epidemic and the challenges. *Int J Antimicrob Agents*;105924.

Wankasi H. I., Amakoromo T. & Aluye-Benibo D. (2021). COVID-19 Prevention in Elementary and Secondary Schools in Bayelsa State, Nigeria. *International Journal of Public Health and Pharmacology.* 1(2), 15-34

WHO 2020. WHO Coronavirus Disease (COVID-19) Dashboard. Available online at: https://covid19.who.int/

World Health Organization, (2020). *Organization WH. Laboratory testing for coronavirus disease 2019 (COVID-19) in suspected human cases: interim guidance*, 2 March 2020. Available online at: https://apps.who.int/iris/handle/10665/331501

Yaun P. Elena A., Eugenia G., Yi T., Qi L., Nick O., Sarah C., Bauchra N., Lain M. & Huaping Z. (2022). *School and Community Reopening during the COVID-19 pandemic a mathematical modeling study.* https://doi.org/10.1098/rsos.211883 royalsocietypublishing.org/journal/rsos.

Yin, R. K. (2009). *Case study research: Design and methods (4th Ed.).* Thousand Oaks, CA: Sage

Dr. Nnenna Grace Ezechi And Nkacha Nne Idika-Mba