



Role of Secondary School Teachers in The Prevention of Covid-19 Among Their Students in Nnewi North Local Government Area of Anambra State, Nigeria.

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ABSTRACT

Background: There was relatively calmness in the world until the outbreak of Covid-19 in China which gradually spread to other parts of the world including Nigeria and shook the world to its root in the later part of 2019 and throughout the year 2020. **Objective:** This study examined the role of secondary school teachers in the prevention of Covid-19 among their students in Nnewi North Local Government Area, Anambra State, Nigeria. **Material and method:** A cross-sectional survey was conducted with secondary school teachers in Nnewi North LGA. A sample size of eighty was selected by simple random sampling and convenience sampling techniques. A structured four-point rating scale questionnaire with a reliability coefficient of 0.76 and observation method were used in gathering the necessary data suitable for the study which were analyzed with SPSS version 22.0. **Result:** It was discovered that the secondary school teachers have good knowledge of Covid-19 (78.5%) and its preventive measures (85.7%). They agreed that the preventive measures should be taught using lecture method (55.7%), demonstration (87.1%), discussion (54.3%), brainstorming (55.7%), use of audio-visuals (81.4%) and modelling (88.6) but it was observed that the preventive measures were not properly enforced among students. **Conclusion:** Teachers have adequate knowledge of Covid-19 preventive measures but do not enforcing them among the students. This can lead to general lockdown and subsequent disruption of teaching and learning. Discouraging the use of lecture methods in teaching secondary school students and encouraging secondary school teachers to enforce Covid-19 preventive measures among their students and were recommended as knowledge without application is useless.

Key words:

Covid-19;
Students
Teachers
Role

INTRODUCTION

The coronavirus disease of 2019 (COVID-19) pandemic gripped the world with a shock, thereby overwhelming the health system of most nations. Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus. Older

people and those with underlying medical conditions like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness nevertheless, anyone can get sick with COVID-19 and become seriously ill or die at any age.

The World Health Organization (WHO) declared the novel human coronavirus disease (COVID-19) outbreak, which began in Wuhan,

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China on December 8, 2019, a Public Health Emergency of International Concern (PHEIC) on January 30, 2020¹. With over seven million cases globally as of June 7 (2020): United States (over two million cases), Brazil (over 700,000 cases), Russia (over 500,000 cases), and in Africa, South Africa (over 54,000 cases) and Egypt (over 38,000 cases) bear the greater brunt. Following this WHO declaration, the Coronavirus Preparedness Group was constituted on January 31 in Nigeria (a country with 36 states and a Federal Capital Territory [FCT]).

WHO categorized Nigeria as one of the 13 high-risk African countries with respect to the spread of COVID-19 and she is also among the vulnerable African nations, given the weak state of the healthcare system². Nigeria reported its index case of Covid-19 on February 27, 2020; incidentally, the first in Nigeria and West Africa according to the Nigerian Centre for Disease Control³. In Nigeria, as at 13th March, 2022, 4,519,905 tests have been done with 254,945 confirmed positive cases of Covid-19 and 3,142 deaths reported⁴. In 2020, due to the fast spread of the disease, a lockdown or curfew in various states was implemented to contain the fast spread of the virus. All citizens except those on essential duties were expected to stay at home and maintain good hand washing hygiene practices, local and international travels were restricted, businesses, offices, public gatherings (including religious places), schools and universities were closed, public and private sports cancelled. The pandemic has brought about huge negative consequences on business, education, health and tourism globally⁵. Sociologically, the pandemic has caused global social disruption by limiting global social relations. The idea of “social distancing” negates regular social interaction, which is the bedrock of human society⁶.

The general purpose of this study was to determine the roles of secondary school teachers in the prevention of Covid-19 among their students in Nnewi North Local Government Area, Anambra State (Nigeria) while the specific objectives of the study are to: ascertain the level of knowledge of secondary school teachers in Nnewi North Local Government Area on COVID-19 prevention among their students; find out if the preventive measures of Covid-19 are known by secondary school teachers in Nnewi North Local Government Area; determine

appropriate methods of teaching to be adopted by secondary school teachers in Nnewi North Local Government in Covid-19 prevention among their students and to ascertain if Covid-19 preventive measures were enforced among the students by their teacher in Nnewi North Local Government Area.

Studies reviewed on Covid-19 and other diseases of public health concern showed few studies on the role of teachers in their prevention including a cross-sectional study which revealed that only 48.9% of teachers had adequate knowledge on HIV which will hinder their role in preventing the disease⁷. Also, a cross sectional descriptive study on Ebola virus disease (EVD) awareness among school teachers in a North-Central State, Nigeria to determine the awareness level among school teachers on EVD, causes, symptoms, curability and preventive measures revealed that participants had relatively high knowledge on EVD processes and they are prepared to handle future outbreak of communicable diseases in their domain⁸. The focus of the above authors among others were just on the knowledge and awareness of HIV and Ebola virus disease with less emphasis on the role of the teachers in preventing the diseases. The causative virus of Covid-19 (SARS-CoV-2) spreads very fast from one person to another but the spread can be halted if appropriate measures are adopted. Teachers are seen as role models by their students who are willing to learn from them and the information, they extract from their teachers are being passed to their families and the society at large. If the students are not adequately taught about Covid-19 preventive measures and do not see it being practiced by respected significant others (teachers), they might not really know about it and will go about spreading the deadly virus. Therefore, this study was carried out to determine the role of secondary school teachers in the prevention of Covid-19 among their students in Nnewi North Local Government Area, Anambra state (Nigeria).

MATERIALS AND METHODS

Study design: This study is a cross-sectional descriptive survey

Study Setting: This study was conducted in government owned secondary schools in Nnewi North Local Government Area, Anambra State. The

study population comprises the government owned secondary schools in Nnewi North Local Government Area, Anambra State. There are eight government owned secondary schools in Nnewi North LGA which include Akaboezem Community Secondary School, Nnewi; Nnewi High School, Nnewi; Nigeria Science and Technical College, Nnewi; Okongwu Memorial Grammar School, Nnewi; Maria Regina Model Comprehensive Secondary School, Nnewi; Girls' Secondary School, Nnewi (Anglican Girls); Women Education Centre, Nnewi and Community Secondary School, Nnewichi.

Sample and Sampling Technique: Simple random sampling technique was used in selecting four out of the eight schools which include Nnewi High School, Okongwu Memorial Grammar School, Girls' Secondary School Nnewi and Community Secondary School, Nnewichi while convenience sampling technique was used to select twenty teachers from each of the schools making it a total of eighty (80) teachers.

Research Instrument: A structured four-point rating scale questionnaire and observation by the researcher were used in gathering the necessary data suitable for the study. The questionnaire was made up of four (4) sections. The first section (section A) contains items on personal data of the respondents, section B measured the level of teachers' knowledge on Covid-19, section C determined the teachers' level of knowledge on preventive measures of Covid-19 and section D identified methods to be adopted in teaching Covid-19 preventive measures. The observation chart had just one section on the ways adopted by the teachers in enforcing Covid-19 preventive measures.

Validity of the Instrument: The questionnaire was validated for face and content validity by educationists who ensured that it measured what it was supposed to measure. Its ability to collect the required data was established before administration through a pre-test study.

Reliability of the Instrument: Split half reliability method was used to ascertain the internal consistency of the instrument. Copies of the questionnaire were administered to the teachers in

Living Word Secondary school, a private secondary school in Nnewi North Local Government Area, Anambra State, which has the same characteristics as the researcher's study area. Guttman Split-Half Coefficient was calculated to be 0.76 thereby indicating that the instrument is reliable.

Data Collection Procedure: The administrators of the secondary schools involved were met and permission was obtained. Questionnaires were shared to teachers in their staff rooms by the researcher after the purpose of the work was explained and informed consent obtained.

Method of Data Analysis: The data was coded and entered into spread sheet. Analysis was done using SPSS version 22.0. Descriptive statistics was used such as frequency distribution table, percentages, pie charts, bar charts, mean and standard deviation to summarize and present the result. The four points rating scale was given values as follows: Strongly Agree (SA) - 4, Agree (A) - 3, Disagree (D) - 2, Strongly Disagree (SD) -1. The decision rule was 2.5. Any score from 2.5 and above was accepted, while any score that was below 2.5 was rejected.

RESULTS

The table 3.1 shows the socio-demographic distribution of the secondary school teachers. The study revealed that majority (85.7%) are females, out of the proposed twenty teachers, only 10 filled the questionnaire in Community Secondary School Nnewichi. Majority of the teachers teach JSS 2 class and 68.6% falls between the age brackets of 25 and 35 years. The table shows that majority of the teachers are from Anambra state.

Research Question 1: What is the level of knowledge of secondary school teachers in Nnewi North Local Government Area on COVID-19?

In table 3.2, item 1 with mean response of 3.16 is accepted that Covid-19 is a respiratory disease caused by SARS-COV 2. Item 2 with mean score of 3.25 is also accepted that it is transmitted through respiratory droplets of various sizes. Item 3 with mean score of 2.3 is rejected that Covid-19 is not a disease of the digestive system caused by SARS-COV-2. Item 4 with a mean score of 1.8 is also

rejected that Covid-19 is transmitted not through sexual intercourse while item 5 with a mean score of 3.51 is accepted that it is transmitted through contact with an infected person or environment.

Table 1: Socio-demographic distribution of participants

		Frequency	Percentage
Sex	Male	10	14.2
	Female	60	85.7
School	Anglican Girls	18	25.7
	Nnewi High School	22	31.4
	Okonkwo Memorial	20	28.6
	Community Sec Sch	10	14.3
Class	JSS1	12	17.1
	JSS2	17	24.3
	JSS3	12	17.1
	SS1	12	17.1
	SS2	3	4.3
	SS3	7	10
	N/A	7	10
Age	25-35 years	48	68.6
	36-45 years	7	10
	> 40 years	11	15.7
	N/A	4	5.7
State	Anambra	46	65.7
	Imo	4	5.7
	Others	20	28.6

Research Question 2: What preventive measures of Covid-19 are known by secondary school teachers in Nnewi North Local Government Area?

In table 3.3, items 6, 7,8,10 and 11 with mean scores 3.56, 3.56, 3.63, 3.44 and 3.57 respectively were accepted that is social distancing, avoiding crowded areas, frequent hand washing, wearing of face mask covering one’s mouth while coughing were accepted as preventive measures of Covid-19 known by the teachers while items 9 and 12(not coming to school and not attending staff meeting) with mean scores of 1.94 and 1.78 respectively were rejected as preventive measures of Covid-19.

Research Question 3: What are the appropriate teaching methods to be adopted by secondary school teachers in Nnewi North Local Government in teaching Covid-19 preventive measures among their students?

In table 3.4, items 13, 14, 15, 16, 17 and 18 (lecture method, interactive teaching, use of visual aids, demonstration, modelling and brainstorming) having mean scores of 2.58, 2.98, 3.22, 3.56, 3.51 and 2.58 respectively were accepted by the teachers as appropriate methods of teaching preventive measures of Covid-19.

Research Question 4: What ways are secondary school teachers in Nnewi North Local Government Area adopting to enforce Covid-19 preventive measures among their students?

The symbol – shows absent that is the indicated way was not adopted while the symbol √ means present that is the indicated way was adopted by the teachers in the school. From the observation made, teachers are not fully playing their role in enforcing Covid-19 preventive measures among their students although they try to ensure that the classrooms are well ventilated and that the posters of Covid-19 preventive measures are pasted at strategic places in the school compound.

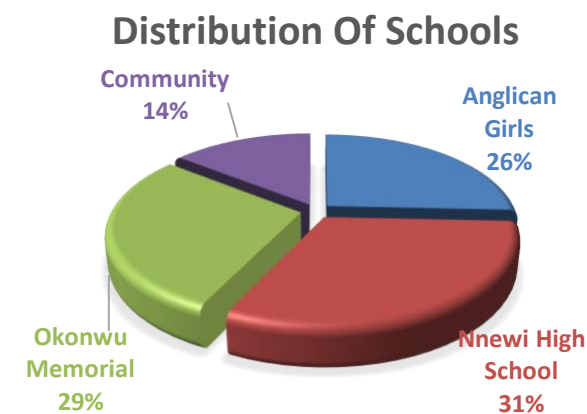


Fig.1: A pie chart showing distribution of schools.

DISCUSSION

Research Question 1: What is the level of knowledge of secondary school teachers in Nnewi North Local Government Area on COVID-19?

It was the opinion of the respondents that Covid-19 is a respiratory disease caused by SARS-COV 2 and

Table 2: Response of participants to questions on knowledge of Covid-19

Questions	N/A	SD	D	A	SA	Mean	SD	Decision
Covid-19 is a respiratory disease caused by SARS-COV 2	1(1.4)	4(5.7)	10(14.3)	26(37.1)	29(41.4)	3.16	0.96	Accepted
It is transmitted through respiratory droplets of various sizes	2(2.9)	1(1.4)	13(18.6)	22(31.4)	32(45.7)	3.25	0.97	Accepted
Covid-19 is a disease of the digestive system caused by SARS-COV 2	3(4.3)	18(25.7)	22(31.4)	16(22.9)	11(15.7)	2.3	1.12	Rejected
It is transmitted through sexual intercourse	1(1.4)	33(47.1)	22(31.4)	9(12.9)	5(7.1)	1.8	0.95	Rejected
It is transmitted through contact with an infected person or environment	1(1.4)	4(5.7)	4(5.7)	14(20)	47(67.1)	3.51	0.94	Accepted

Table 3: Response to questions on knowledge of preventive measures of Covid-19.

Questions	N/A	SD	D	A	SA	Mean	SD	Decision
Social distancing	2(2.9)	2(2.9)	6(8.6)	12(17.1)	48(68.6)	3.56	0.97	Accepted
Avoiding crowded areas	2(2.9)	2(2.9)	6(8.6)	12(17.1)	48(68.6)	3.56	0.97	Accepted
Frequent washing of hands	5(7.1)	3(4.3)	1(1.4)	13(18.6)	48(68.6)	3.63	1.18	Accepted
Not coming to school	4(5.7)	26(37.1)	26(37.1)	6(8.6)	8(11.4)	1.94	1.06	Rejected
Wearing face mask	4(5.7)	4(5.7)	3(4.3)	19(27.1)	40(57.1)	3.44	1.15	Accepted
Covering one's mouth while sneezing	3(4.3)	3(4.3)	3(4.3)	14(20)	47(67.1)	3.57	0.98	Accepted
Not attending staff meeting	2(2.9)	27(38.6)	31(44.3)	8(11.4)	2(2.9)	1.78	0.82	Rejected

Table 4: Response to appropriate teaching method to be adopted in teaching Covid-19.

Questions	N/A	SD	D	A	SA	Mean	SD	Decision
Lecture method	4(5.7)	9(12.9)	18(25.7)	31(44.3)	8(11.4)	2.58	1.04	Accepted
Interactive teaching/discussion	5(7.1)	4(5.7)	16(22.9)	22(31.4)	23(32.9)	2.98	1.18	Accepted
Use of visual aids like posters	2(2.9)	3(4.3)	8(11.4)	28(40)	29(41.4)	3.22	0.98	Accepted
Demonstration of hand washing	4(5.7)	1(1.4)	4(5.7)	18(25.7)	43(61.4)	3.56	1.06	Accepted
Modelling	1(1.4)	2(2.9)	5(7.1)	18(25.7)	44(62.9)	3.51	0.86	Accepted
Brainstorming	3(4.3)	10(14.3)	18(25.7)	29(41.4)	10(14.3)	2.58	1.05	Accepted

Table 3.5: Observation on the ways adopted by teachers in enforcing Covid-19 preventive measures.

S/N	Ways/Schools	Anglican Girls	Nnewi High School	Okongwu Memorial Grammar School	Community Secondary School
1.	Daily cleaning/Disinfection of surfaces	-	-	-	-
2.	Maintaining distance of at least 1m between students	-	-	-	-
3.	Ensure classrooms are well ventilated	☐	☐	☐	-
4.	Ensure regular hand washing by students	-	-	-	-
5.	Ensure students wear facemask in school	-	-	-	-
6.	Posters of Covid-19 preventive measures	☐	☐	☐	☐
7.	Punishing violators of the measures.	-	-	-	-
8.	Teachers wearing face mask	-	-	-	-

that it is transmitted through respiratory droplets of various sizes and through contact with an infected person or environment. This shows that secondary school teachers in Nnewi North Local Government Area have adequate knowledge of Covid-19. This finding is in line with the findings of Aliyu et al. ⁸ which showed that secondary school teachers had relatively high knowledge on Ebola Viral Disease (EVD) processes (a communicable disease) and they are prepared to handle future outbreak of communicable diseases in their domain. It is also in agreement with a cross-sectional study by Al-Hanawi et al. ⁹ which revealed that majority of the participants had high level of knowledge of Covid-19.

Research Question 2: What preventive measures of Covid-19 are known by secondary school teachers in Nnewi North Local Government Area?

The findings also revealed that it was the opinion of the respondents that social distancing, avoiding crowded areas, frequent hand washing, wearing of face mask covering one’s mouth while coughing are preventive measures of Covid-19 known by the teachers. The opinion of respondents from item 6 to 12 shows that they are aware of the preventive measures of Covid-19. Knowledge of the disease and its preventive measures by the secondary school teachers in Nnewi North Local Government Area increases their chances of preventing it by teaching to their students. This is in contrast with the findings of Fukuda, Ando & Fukuda ¹⁰ where it was

discovered that educators were unwilling to engage in preventive actions of Covid-19 due to lack of appropriate information on its preventive measures.

Research Question 3: What are the appropriate teaching methods to be adopted by secondary school teachers in Nnewi North Local Government in teaching Covid-19 preventive measures among their students?

The findings showed that the methods of teaching viewed by secondary school teachers in Nnewi North Local Government as appropriate for teaching Covid-19 preventive measures include lecture method, demonstration, discussion, brainstorming, use of audio-visuals and modelling the Covid-19 preventive measures. This finding supports Sarma and Oliveras ¹¹ who asserts that most of the teachers were discovered to use traditional method of teaching (lectures and question and answer sessions) while few adopted the interactive teaching methods (group discussions and case study methods) and that the subject teachers (61%) reported that supplementary materials were effective in supporting teaching about HIV/AIDS in the classroom setting.

Research Question 4: What ways are secondary school teachers in Nnewi North Local Government Area adopting to enforce Covid-19 preventive measures among their students?

The researcher observed that the teachers are not fully playing their role in the prevention of Covid-19 as they do not show good examples to their students by wearing face mask and deliberately washing their hands. They do not also ensure disinfection of surfaces, maintenance of social distancing in the classroom, regular hand washing and punishment of violators of Covid-19 preventive measures. This is in line with the findings of Yesuf and Abdu ¹² which showed poor practice (47%) of Covid-19 preventive measures among the teachers despite high knowledge of the disease (81.8%). In contrast, Aliyu et al. ⁸ observed that secondary school teachers had relatively high knowledge on Ebola Viral Disease (EVD) processes therefore they are prepared to handle future outbreak of communicable diseases in their domain.

CONCLUSION

The secondary school teachers in Nnewi North Local Government Area have good knowledge of Covid-19 and its preventive measures. They identified appropriate methods of teaching the

Declarations

Study Limitations: These include hostility of the teachers, loss of questionnaires and few studies on Covid-19 disease.

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preventive measures of Covid-19 as demonstration, use of audio-visual aids, brainstorming, modelling, lecture and discussion method but they do not fully play their role in enforcing the preventive measures. Therefore, good knowledge of a disease and its preventive measures does not entail the application of the preventive measures of that disease.

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Conflict Interests: No conflict of interest exists in this publication.

Ethical Consideration: Explanation of the purpose of the study was done, informed consent was obtained from the respondents. None of the respondents was forced as the survey is voluntary. Confidentiality of the respondents was maintained during and after data collection. No name was required on the questionnaire.

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