ORIGINAL ARTICLE

Compliance with the COVID-19 Schools' Reopening Guidelines in Public and Private Primary Schools in a South-West Nigerian Town

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Keywords

COVID-19,

Guidelines,

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ABSTRACT

Background: The COVID-19 pandemic took the world by surprise with various burdens of morbidity and mortality in different countries, including Nigeria. Consequently, schools in Osun State were shut to prevent spread of the disease. The Federal Ministries of Education and Health and the Nigeria Centre for Disease Control prepared a set of COVID-19 schools' reopening guidelines for a safe school environment upon resumption. However, there is sparse documentation on compliance with these guidelines in primary schools nationwide.

Objective: To assess and compare the compliance of public and private primary schools in Ile-Ife with the COVID-19 schools' reopening guidelines.

Methods: A comparative cross-sectional study with 100 (50 public and 50 private) randomly selected primary schools in Ile-Ife. The instrument was a checklist of the COVID-19 guidelines assessed in the schools by the research team. Data were analysed using SPSS version 25. Univariate analysis was used to present the compliance in the schools, while the Chi-Square test was used for comparison, and p-values less than 0.05 were considered significant. Ethical approval was obtained accordingly.

Results: Overall, only 21 schools (21%) had good compliance, comprising six public (12%) and 15 private (30%) schools. There was a significant association between the type of school and compliance (p = 0.027).

Conclusion: Compliance with the COVID-19 guidelines was generally low, although better among the private compared to the public schools. The materials needed for the prevention and control of COVID-19 and other infections should be provided in schools at all times.

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INTRODUCTION

The COVID-19 pandemic took the world by surprise and had far-reaching global effects on health and healthcare, education, trade and economy, travel/transportation, and tourism.[1,2] Between March 11, 2020, when the WHO declared COVID-19 a pandemic,[3] and May 5, 2023, when the WHO declared that the pandemic was no longer a global health emergency,[4] 232 countries and territories had been affected, with over 765 million cases and over 6.9 million fatalities reported,[5] giving a case fatality ratio of about 1%.[5]

Nigeria, like other impacted nations, experienced significant COVID-19 statistics and consequences. As of the day the World Health Organization declared COVID-19 no longer a global health emergency, Nigeria had reported approximately 260,000 cases and over 3,000 deaths,[6] resulting in a case fatality rate of 1.15%, which is comparable to the global rate.

As a result of the pandemic, and in line with the application of prevention and control measures, over 100 countries (including Nigeria) instituted either a full or partial lockdown at various times, and by the end of May 2020, over one-third of the world's population was living under some form of lockdown due to COVID-19.[7–9]

Sequel to the lockdown, the Federal Government of Nigeria ordered the closure of all federal schools in the country on the 20th of March 2020, with concurrence by state governments and private school owners. This lasted about three months, and by the 29th of June 2020, it was announced that primary and secondary schools should resume in the country but just for pupils and students in the classes where they will have to write external examinations (Primary 6, Junior Secondary 3 and Senior Secondary 3) to enable them to do so.

It is estimated that the closure of schools due to the COVID-19 pandemic affected over 1.3 billion pupils across 186 countries.[10–12] In Nigeria, an estimated 80 million children, youth, and adult learners in the educational system were deprived of access to schools during the period of closure, with an expected setback in education.[13]

Some schools resorted to online/virtual learning in response to school closure because it was not clear when the lockdown would end, and countries could not wait indefinitely to reopen schools due to the time lost and the distortion of the academic calendar. While this was a commendable initiative, it faced significant challenges in Nigeria at the time, where internet and electricity access stood at 46.6% and 56.5%, respectively.[14,15] Additionally, the expenses for acquiring online learning materials and internet data were substantial.

Some of the problems that were identified due to the closure of schools as a result of COVID-19 include interrupted learning, loss of the school year, malnutrition (in areas where school meals are more adequate than home meals),[14] parents being saddled with the extra responsibility of homeschooling (for those that could practice it), challenges creating and maintaining online learning, extra economic burden of online

learning on parents, rise in school drop-out rates, increased exposure of the children to violence and exploitation (including sexual), negative use of the internet by children especially when unsupervised, and a rise in school drop-out rates after schools resumed.[15]

Due to the necessity to resume schools, the Federal Ministry of Education, the Federal Ministry of Health, the Nigeria Centre for Disease Control (NCDC), and the Nigeria Education in Emergencies Working Group prepared a document known as the "Guidelines for Schools' and learning facilities' reopening after COVID-19 pandemic closures." [13] The document contained a set of guidelines that must be met before the reopening of schools and sustained afterward so that the safety of the students and staff can be guaranteed.

The guidelines were drafted in close collaboration with health, environmental, education, and school safety experts tasked with charting a pathway for the safe reopening of our schools and learning facilities for quality teaching and learning.[13] After the completion of the external examinations, the Osun State Government announced the full reopening of primary and secondary schools in the state, effective September 21, 2020.

The proper implementation of the guidelines was necessary to protect the staff and students from COVID-19 and other diseases contracted via the respiratory system and contact, thereby ensuring a healthy school environment. Hence, this study assessed the compliance of the public and private primary schools in Ile-Ife, Osun State, Nigeria, with the prescribed guidelines for reopening schools. The findings from this study added to the literature on infection prevention and control (IPC) in primary schools in Ile-Ife, and assisted policy makers on education to find out gaps in IPC in the schools.

MATERIALS AND METHODS

This study was conducted in Ile-Ife, an ancient city in Osun State, South-West Nigeria. Ile-Ife (also known as Ife) is regarded as the cradle of civilization and the ancestral and spiritual home of the Yoruba ethnic group. This study utilized a comparative cross-sectional design. It included all public and private primary schools registered with the Osun State Universal Basic Education Board and the Ife-Central Local Government Areas' Education Authority in Osun State that have been operational for a minimum of 12 months.

The sample size was determined by the formula for comparing two groups with proportions as the outcome:[16]

$$N = \frac{2(Z\alpha + Z\beta)^2 \, xPQ}{(p1 - p2)^2}$$

Where N is the minimum sample size in each group.

Zα is the standard normal deviate which is 1.96 at 95% confidence level.

Zβ is the critical value depending on the power used, which is 0.84 at a power of 80%.

P is the average of the proportions of interest in both groups which is $\frac{p1 + p2}{2}$;

Q is 1 – P.

P1 is the proportion of interest in the first group (public primary schools).

P2 is the proportion of interest in the second group (private primary schools).

Ile-Ife had 82 public primary schools and 57 private primary schools, totaling 139 primary schools at the time of this study.[17]

According to a study done by Rogers et al. in Sierra Leone in 2014 to assess the compliance of primary schools in Freetown with the protective guidelines against Ebola Virus Disease (EVD) after the reopening of schools, 50% of the public schools had good compliance while 72% of the private schools had good compliance.[18] These proportions were used to calculate the sample size for the number of schools that participated in this study.

So, p1 is 50% = 0.50, p2 is 72% = 0.72, P = $\frac{0.5+0.72}{2}$ = 0.61; Q = 1- 0.61 = 0.39.

Substituting these proportions above in the formula, this gave:

$$\frac{2(1.96+0.84)^2 \ x \ 0.61 \ x \ 0.39}{(0.5-0.72)^2} = \frac{15.68 \ x \ 0.2379}{0.0484}$$

= 77 schools.

The minimum sample size was 77 schools in each group (public and private), comprising 154 primary schools. However, there are 139 primary schools in Ile-Ife, so the formula for the correction of sample size for finite populations (less than 10,000) was applied:[16]

$$Nf = \frac{n}{1+\frac{n}{N}}$$

Where nf is the corrected sample size.

n is the calculated sample size when the population of interest is greater than 10,000, which is 77.

N is the actual population of interest, which is 139.

$$Nf = \frac{77}{1+\frac{77}{139}} = \frac{77}{1+0.55} = \frac{77}{1.55} = 49.68,$$

approximately 50.

So, the corrected and final sample size was 50 public and 50 private schools, totaling 100 primary schools. Simple random sampling (computer-generated random numbers) was used to select the schools required for the study (50 public and 50 private schools).

The research instrument for assessing school compliance was a checklist adapted from the guidelines for reopening schools prepared by the Federal Ministry of Education, the Nigeria Centre for Disease Control (NCDC), and the Nigeria Education in Emergencies Working Group.

Table 1: Type/Ownership of the Schools

Type of School	Frequency	Percentage (%)
Public	50	50.0
Private	50	50.0
Total	**100**	**100.0**

The checklist assessed the risk level in the schools, which was reported according to the colour codes of green, yellow, and red. Green means no risk (risk level is zero), yellow means moderate risk (the risk can and is being mitigated), and red means high risk (an unacceptable level of risk that cannot be mitigated at the moment).

According to the authorities, the least accepted level was a moderate risk (yellow),[13] so the objective was for each school to have only a yellow or green colour code in each item after assessment. Ultimately, only the assessments with the yellow or green colour codes passed before and after the resumption.[13] Any assessment with a red required that the school be closed until the risk was mitigated to at least a yellow.

The checklist was pretested with 10% of the sample size, which are five private and five public primary schools, comprising 10 schools. The pretest was conducted in Osu, Atakunmosa West Local Government Area of Osun State. The pretest provided an opportunity to ensure that the information from the checklist answered the study's objectives. It also provided the opportunity to clear the ambiguities that arose from the instrument before it was used for the main study.

Data were collected by the lead researcher and six trained research assistants using the checklist in the various schools selected. After the checklist was configured into electronic tablets, the assessment and reportage were done electronically using Kobo collect (a data collection software). Each item on the checklist was assessed and reported accordingly, and the data generated were sent to the cloud. Then, the data on the cloud was downloaded on a Microsoft Excel spreadsheet, cleaned, and imported to the SPSS version 25 software for analysis.

The compliance of the schools was assessed by scoring the 35 criteria on the checklist using the colour codes. Any item reported as red was scored zero; any item reported as yellow was scored one, while any item reported as green was scored two. In this study, the criteria were divided into 25 major and 10 minor criteria. The expectation was that all schools should score a green in all the major criteria.

Since the authorities had instructed that the yellow code should be the least acceptable colour code, a yellow was accepted for the minor criteria. If a school scored a red in any of the 35 criteria, that school was considered to have poor compliance (according to the instructions from the guidelines).

Since there were 35 items on the checklist, out of which 25 were the major criteria in which they must score a green (2 points), and 10 were minor criteria in which they must score at least a yellow (1 point), the maximum total score that can be obtained was 70. In contrast, the least acceptable score was 60 (2 points for each of the 25 the major criteria and at least 1 point for each of the 10 minor criteria). Consequently, scores $\geq$ 60 (between 60 and 70) were categorized as good compliance, while scores < 60 (below 60) were

categorized as poor compliance. However, any school that scored above 60 but had a red in any item was still categorized as poor compliance.

Data analysis was done with IBM SPSS version 25.[19] Univariate analysis (tables, frequencies, and percentages) was used to summarize the data on the level of compliance of the schools with the guidelines. Bivariate analysis (Pearson's Chi-Square) was used to compare the levels of compliance with the COVID-19 guidelines among the public and private primary schools in Ile-Ife. The confidence level used was 95%, with p-values less than 0.05, which was considered statistically significant.

RESULTS

Table 1 shows that 100 primary schools were used for this study, of which 50% were public schools and 50% were private schools.

Tables 2A and 2B show the criteria used to determine the level of compliance of the schools with the COVID-19 guidelines. It shows that 35 criteria were used, out of which 25 were major and 10 were minor criteria. It also shows if each criterion was fully in place (green), partially in place (yellow), or not in place at all (red) in terms of availability. Additionally, it presents the proportions of schools (both public and private) within each category of criterion availability. It also compares school types (public versus private) regarding each criterion.

Figure 1 shows that only 21% (less than a quarter) of the primary schools had good compliance with the COVID-19 guidelines, while 79% (more than

Ethical approval for this study was obtained from the Human Research and Ethics Committee of the Institute of Public Health, Obafemi Awolowo University, Ile-Ife (approval number: IPHOAU/12/1568). Permission to carry out the study was obtained from the Education Authority of Ife-Central Local Government Area. An informed consent was also obtained from the various school heads to administer the checklist in their schools. The school heads were assured that the identities of their schools were anonymous and the data obtained were confidential.

three-quarters) of the schools had a poor level of compliance.

Table 3 indicates that just 6 (12%) of public schools complied well with the COVID-19 guidelines, while 15 (30%) of private schools did. The difference is statistically significant, with a p-value of 0.027.

Table 2A: Major Criteria for Compliance with the COVID-19 Guidelines

Major Criteria	Not in place (red)		Partially in place (yellow)		Fully in place (green)		Total N=100	Statistics
	Public n=50 freq. (%)	Private n=50 freq. (%)	Public n=50 freq. (%)	Private n=50 freq. (%)	Public n=50 freq. (%)	Private n=50 freq. (%)		
Premises fenced and gated	13 (26.0)	6 (12.0)	22 (44.0)	9 (18.0)	15 (30.0)	35 (70.0)	100 (100.0)	X^2 = 16.031 *p<0.001
Drop-off and pick-up points	22 (44.0)	9 (18.0)	18 (36.0)	11 (22.0)	10 (20.0)	30 (60.0)	100 (100.0)	χ^2= 17.141 *p<0.001
Scheduled arrival/departure	24 (48.0)	9 (18.0)	18 (36.0)	12 (24.0)	8 (16.0)	29 (58.0)	100 (100.0)	χ^2= 19.937 *p<0.001
Adequate classrooms	6 (12.0)	3 (6.0)	19 (38.0)	9 (28.0)	25 (50.0)	38 (76.0)	100 (100.0)	χ^2= 7.254 *p=0.028
Alternative timetables	22 (44.0)	16 (32.0)	19 (38.0)	11 (22.0)	9 (18.0)	23 (46.0)	100 (100.0)	χ^2= 9.206 *p=0.010
Furniture two meters apart	4 (8.0)	2 (4.0)	18 (36.0)	10 (20.0)	28 (56.0)	38 (76.0)	100 (100.0)	χ^2=4.468 p=0.105
Adequate doors and windows	1 (2.0)	0 (0.0)	17 (34.0)	8 (16.0)	32 (64.0)	42 (84.0)	100 (100.0)	χ^2= 5.591 *p=0.039
Disinfection of school premises	15 (30.0)	8 (16.0)	27 (54.0)	19 (38.0)	8 (16.0)	23 (46.0)	100 (100.0)	χ^2= 10.780 *p=0.005
Disinfection schedule	20 (40.0)	6 (12.0)	22 (44.0)	20 (40.0)	8 (16.0)	24 (48.0)	100 (100.0)	χ^2= 15.634 *p<0.001
Infrared thermometers	17 (34.0)	9 (18.0)	20 (40.0)	9 (18.0)	13 (26.0)	32 (64.0)	100 (100.0)	χ^2= 14.656 *p=0.001
Hand sanitizer (gate)	9 (18.0)	3 (6.0)	23 (46.0)	14 (28.0)	18 (36.0)	33 (66.0)	100 (100.0)	χ^2= 9.601 *p=0.008
Hand sanitizer (classroom)	9 (18.0)	5 (10.0)	25 (50)	16 (32.0)	16 (32.0)	29 (58.0)	100 (100.0)	χ^2= 6.874 *p=0.032
Pupils and staff wearing masks	4 (8.0)	2 (4.0)	37 (74.0)	24 (48.0)	9 (18.0)	24 (48.0)	100 (100.0)	χ^2= 10.255 *p=0.004
School stock of facemasks	4 (8.0)	2 (4.0)	37 (74.0)	24 (48.0)	9 (18.0)	24 (48.0)	100 (100.0)	χ^2= 10.255 *p=0.004
Disposal of used facemasks	18 (36.0)	8 (16.0)	26 (52.0)	13 (26.0)	6 (12.0)	29 (58.0)	100 (100.0)	χ^2= 23.294 *p<0.001
Water available and adequate	3 (6.0)	0 (0.0)	24 (48.0)	10 (20.0)	23 (46.0)	40 (80.0)	100 (100.0)	χ^2= 13.352 *p<0.001
Soap available and adequate	1 (2.0)	0 (0.0)	30 (60.0)	10 (20.0)	19 (38.0)	40 (80.0)	100 (100.0)	χ^2= 18.475 *p<0.001
Adequate hand-washing points	3 (6.0)	1 (2.0)	23 (46.0)	9 (18.0)	24 (48.0)	40 (80.0)	100 (100.0)	χ^2= 11.125 *p=0.003
Functional school clinic	29 (58.0)	15 (30.0)	15 (30.0)	10 (20.0)	6 (12.0)	25 (50.0)	100 (100.0)	χ^2= 17.100 *p<0.001
Disinfection of school clinic	28 (56.0)	17 (34.0)	16 (32.0)	15 (30.0)	6 (12.0)	18 (36.0)	100 (100.0)	χ^2= 8.721 *p=0.013

	Not in place (red) Public	Not in place (red) Private	Partially in place (yellow) Public	Partially in place (yellow) Private	Fully in place (green) Public	Fully in place (green) Private	Total N=100	Statistics
Pupils educated on COVID-19	14 (28.0)	10 (20.0)	21 (42.0)	8 (16.0)	15 (30.0)	32 (64.0)	100 (100.0)	χ^2= 12.643 *p=0.002
Teachers trained on COVID-19	14 (28.0)	11 (22.0)	20 (40.0)	8 (16.0)	16 (32.0)	31 (62.0)	100 (100.0)	χ^2= 10.290 *p=0.006
Staff taught on COVID (others)	14 (28.0)	10 (20.0)	21 (42.0)	9 (18.0)	15 (30.0)	31 (62.0)	100 (100.0)	χ^2= 11.032 *p=0.004
Shifted class sessions	20 (40.0)	16 (32.2)	21 (42.0)	12 (24.0)	9 (18.0)	22 (44.0)	100 (100.0)	χ^2= 8.351 *p=0.015
No large gatherings	18 (36.0)	8 (16.0)	20 (40.0)	13 (26.0)	12 (24.0)	29 (58.0)	100 (100.0)	χ^2= 12.380 *p=0.002

*Significant

Table 2B: Minor Criteria for Compliance with the COVID-19 Guidelines

| Minor Criteria	Not in place (red) Public n=50 freq. (%)	Not in place (red) Private n=50 freq. (%)	Partially in place (yellow) Public n=50 freq. (%)	Partially in place (yellow) Private n=50 freq. (%)	Fully in place (green) Public n=50 freq. (%)	Fully in place (green) Private n=50 freq. (%)	Total N=100	Statistics
Disinfection of boarding facilities	4 (8.0)	2 (4.0)	46 (92.0)	45 (90.0)	0 (0.0)	3 (6.0)	100 (100.0)	χ^2=3.678 p=0.159
Sleeping beds two metres apart	3 (6.0)	1 (2.0)	47 (94.0)	46 (92.0)	0 (0.0)	3 (6.0)	100 (100.0)	χ^2= 4.011 p= 0.135
Policy of one person per bed	6 (12.0)	1 (2.0)	44 (88.0)	47 (94.0)	0 (0.0)	2 (4.0)	100 (100.0)	χ^2= 5.670 p= 0.059
Residential learners not going out	18 (36.0)	13 (26.0)	18 (36.0)	8 (16.0)	14 (28.0)	29 (58.0)	100 (100.0)	χ^2= 9.885 *p=0.007
Educating community on COVID-19	18 (36.0)	10 (20.0)	25 (50.0)	26 (52.0)	7 (14.0)	14 (28.0)	100 (100.0)	χ^2= 4.639 *p=0.098
Capacity for remote learning	28 (56.0)	17 (34.0)	21 (42.0)	14 (28.0)	1 (2.0)	19 (38.0)	100 (100.0)	χ^2= 20.289 *p<0.001
Safety/ protection of online learning	30 (60.0)	19 (38.0)	20 (40.0)	12 (24.0)	0 (0.0)	19 (38.0)	100 (100.0)	χ^2= 23.469 *p<0.001
Remediation classes for lost time	21 (42.0)	9 (18.0)	25 (50)	15 (30.0)	4 (8.0)	26 (52.0)	100 (100.0)	χ^2= 23.433 *p<0.001
Mental health for pupils at the moment	18 (36.0)	19 (38.0)	24 (48.0)	12 (24.0)	8 (16.0)	19 (38.0)	100 (100.0)	χ^2= 8.509 *p=0.014
Continuous mental health for pupils	16 (32.0)	18 (36.0)	26 (52.0)	14 (28.0)	8 (16.0)	18 (36.0)	100 (100.0)	χ^2= 7.564 *p=0.023

*Significant
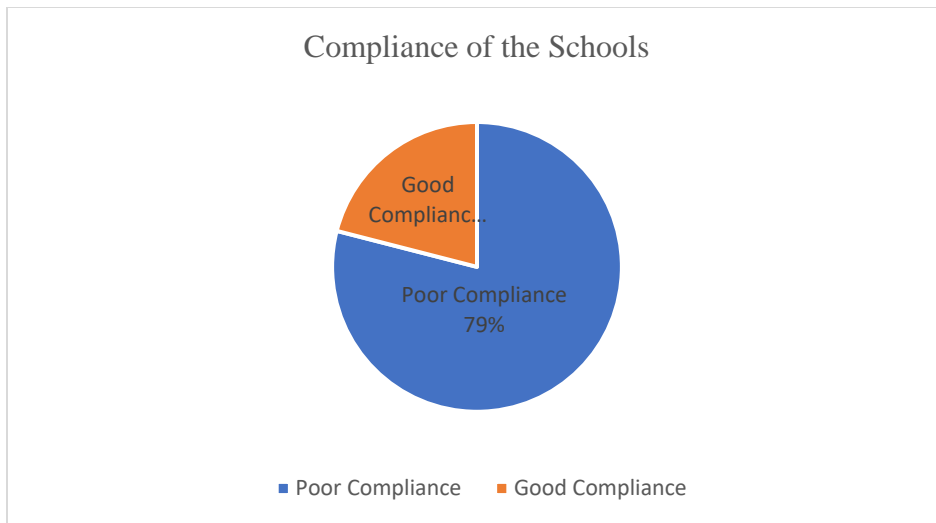
Figure 1: Categorization of the Compliance of the Schools with the COVID-19 Guidelines

DISCUSSION

Only 21 schools (21%) had good compliance with the COVID-19 guidelines, while 79 schools (79%) had poor compliance. Among the 21 schools with good compliance, six were public schools (12% of public schools and 28.6% of schools with good compliance), while 15 (30% of private schools and 71.4% of schools with good compliance) were private schools, and this difference was statistically significant. A possible reason for this low level of compliance in public and private schools may be due to the stringency of the guidelines stipulated by the authorities that formulated them.

The expectation was that all schools should have a green in all the criteria, meaning they were all fully in place. Even when the school had a yellow in any criterion (partially in place or not in place, but there are plans to provide it), it was expected to upgrade to a green as soon as possible. A red in any criteria was unacceptable, and such a school was automatically considered non-compliant.

Nonetheless, this stringency was reduced in this study as the criteria were divided into major and minor based on their relevance in a primary school setting. A green was accepted for the major criteria, while a yellow was accepted for the minor criteria. The percentage of schools with good compliance might have been lower if the assessment had been strictly done as recommended by the formulating authorities.

This difference in the proportion of public and private schools with good compliance may be because the private school heads were more committed to providing the criteria on the guidelines as they did not want their schools shut down a second time. As of the time of this study, most of the private school heads were still counting their losses from the initial shutdown due to the COVID-19 pandemic.

A similar study done in Benue State, Nigeria, using the same guidelines as this study, reported

that the majority of the schools assessed fell short of the required standard in terms of water, sanitation, and hygiene (WASH) infrastructure and social distancing, especially in the classrooms.[20] However, this study was conducted only in public schools and included primary and secondary schools.

Before the COVID-19 pandemic, basic amenities like potable running water for regular and adequate handwashing and other sanitation and hygiene needs have remained a major challenge in Nigerian schools. It is estimated that about 33% of Nigerian school children do not have access to adequate water to meet their daily hygiene needs.[21] The COVID-19 pandemic further brought this situation to the fore.

The compliance with the COVID-19 guidelines in the schools, as reported by this study, was similar to the result obtained from another study done in Kaduna State, Nigeria, in 2021, in which up to 73% of the schools needed additional materials and supplies to have good compliance with the COVID-19 prevention guidelines.[22] In other words, only 27% of the schools assessed had all the needed materials for good compliance. However, the study was conducted among primary and secondary schools in Kaduna State, and the teachers were the respondents.

Table 3: Comparison of Compliance between the Public and Private Schools

School type	Level of Compliance		Total	Statistics
	Poor Compliance Freq. (%)	Good Compliance Freq. (%)	Freq. (%) N = 100	
Public n = 50	44 (88)	6 (12)	50 (100)	$\chi^2 = 4.882$ df = 1
Private n = 50	35 (70)	15 (30)	50 (100)	*p = 0.027
Total N = 100	**79 (79)**	**21 (21)**	**100 (100)**	

*Significant

In terms of comparison, a higher proportion of the schools with good compliance were private schools, and there was a significant association between the type of school (public or private) and the level of compliance. This was also the case in a study carried out among some primary and secondary schools in North-Central Nigeria in 2014 to assess their preparedness/readiness for the prevention and control of Ebola Virus Disease (EVD) just before the resumption of schools at that time.[23]

The low level of compliance found among the schools in this study was at variance with the findings from a study carried out in Ogun State, Nigeria, in which 93.7% of the schools were said to have good compliance with COVID-19 prevention and control guidelines.[24] However, the criteria used for assessing compliance were self-developed by the authors and were nine as against 35 in this study.

In addition, the responses used for assessing compliance were obtained from the pupils, unlike in this study, where the researcher and the

research assistants assessed the criteria independently. Also, the interstate variations in schools' compliance with the guidelines may be because different state governments in the country had various levels of commitment to providing the materials in the guidelines.

CONCLUSION

A very low percentage (less than a quarter) of the primary schools in Ile-Ife had good compliance with the COVID-19 prevention guidelines. This outcome should be a cause for concern for all stakeholders. In addition, most of the schools with good compliance were private schools. Much work must be done, especially in public schools, to ensure that all primary schools in the area fully comply with the COVID-19 prevention guidelines and other infection prevention and control measures.

This will help prevent the spread of communicable diseases (respiratory, contact, gastrointestinal, vector-borne, etc.) among schoolchildren presently and in the future and ensure a healthy school environment for the pupils, teachers, and other school staff. Even though COVID-19 may no longer be a global health emergency, the guards should not be let down, and the huge gaps revealed need to be adequately addressed for posterity.

RECOMMENDATIONS

The Osun State Government, through the Universal Basic Education Board, should ensure that all public primary schools in the state are adequately and regularly provided with the materials needed for effective infection prevention and control. This provision can also be extended to private primary schools.

In addition, teachers, other school staff, and even pupils should be regularly and adequately trained in infection prevention and control. Furthermore, regular and especially unscheduled visits should be made to the schools to ensure adequate and sustained compliance with infection prevention and control measures.

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