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May 2022

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# ASSESSMENT OF HEALTH INFORMATION LITERACY OF NIGERIANS ON THE PREVENTIVE MEASURES OF COVID 19 PANDEMIC: A CROSS SECTIONAL ONLINE SURVEY

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#### Abstract

The study assessed the health information literacy level of Nigerian on the preventive measures and management of COVID 19 pandemic using online cross sectional survey. The research design adopted for the study is descriptive survey research design. Nigerians between the age of 15 and above made up the population of the study. Online survey using Google form was conducted between using social media platforms. To assess the health information literacy level of Nigerians on the preventive measures of COVID-19; a 25 objective questions constructed by the researcher called "COVID-19 Health Related Information Literacy Assessment Scale" was used. Data collected was analyzed using frequency distribution table and percentage. The null hypotheses one was tested using Mann Whitney U, while the hypothesis two was tested using Kruskal Wallis Test at 0.05 significance level. The computation and analysis of the data collected was performed with the aid of SPSS version 23. The study revealed that, the major sources of information for COVID-19 related health information among Nigerians are social media (facebook, twitter, whatsapp etc.), friends and family, radio programmes. the COVID-19

health literacy level of Nigerians is moderate. Though many scored high in the scale used, most of the respondents are incorrect in most of the advance questions such as recommended meter for social distancing, most appropriate way to wear face shield, contracting COVID-19 through books, spoons, plates among others touched by infected person, and even what to do after coughing or sneezing during COVID-19 among other technical and advance questions. Gender was not a significant factor in the COVID-19 Health Information Literacy Level of Nigerians on the preventive measures of COVID 19 pandemic; while there was a significant difference in the health information literacy level of Nigerians on the preventive measures of COVID 19 pandemic according to educational level, as Nigerians with higher level of education had higher COVID-19 Health Information Literacy level than those with lower educational level. The study recommended among other things that, Federal government should adopt more proactive measures of education Nigerians on the advanced ways to prevent and manage COVID-19. Also, in order to reach wider audience with little or no cost the government should mandate churches and mosques to devote few minutes for enlightening and educating their members on the global best practice in the prevention and management of COVID-19

**Keywords:** COVID-19 pandemic, health information literacy, COVID-19 preventive measures, COVID-19 related health information; COVID-19 Health Information Literacy Level

#### Introduction

Understanding the health information literacy of any population on the prevention and management of a health emergency such as COVID-19 is the best measure to reduce the spread of such virus among the population at geometric rate. COVID-19 is a deadly virus which started in Wuhan, Hubei Province, China, in December, 2019 (WHO, 2020). COVID-19 was declared a public health emergency of international concern on the 30<sup>th</sup> January, 2020, and recognized as a pandemic on 11<sup>th</sup>March, 2020 by World Health Organisation (2020). As a measure to reduce the spread of the virus lockdown were declared in many countries of the world including Nigeria. Effort at educating Nigerians on the global best practice towards the prevention and management of COVID-19 have been carried out through social media platforms, health workers, teachers and even religious leaders. It is expected that the knowledge and literacy level of Nigerians on the prevention and management of COVID-19 have improved over the years.

Two years since the first recorded cases of COVID-19 in Nigeria on 27<sup>th</sup> February, 2020, the number of cases is increasing daily across the federation. The first case was an Italian who travelled from Italy to Nigeria (Maclean and Dahir, 2020). Notwithstanding the fact that the country was on total lockdown for almost six months. Months after the reopening of businesses, churches, mosques, schools and offices in Nigeria the number of new cases is increasing across the country. As at 27<sup>th</sup> of February, 2022 exactly two years after the first recorded case, Nigeria have a total of 254, 501 confirmed case of COVID-19. This is an alarming 61.1% increase from 27<sup>th</sup> February, 2021 which have a total of 155,422 confirmed case of COVID-19 which is exactly one year after the first recorded case (Nigeria Center for Disease Control, 2022). This implies that there is high increase in the spread of COVID-19 virus even after the first one year of the first index case in Nigeria. This increase might be due to inadequate COVID-19 related health information literacy level or other factors among Nigerians.

Health information literacy is the ability to search for health related information using the most appropriate and authentic source, access, retrieve and evaluate the health information and to use such health related information for healthy daily living. According to Norman (2011) "health literacy is the skill to search, find, understand, and evaluate health information and employ this information to make diagnoses or appropriate health-based decisions". This implies that a health information literate person will possess the knowledge and skills of understanding when the need to source for health information is required, the most appropriate and authentic source of health information, make best use of such health information for effective health related decision for daily healthy living. Zarocostas (2020) argued that poor health literacy of COVID-19 among a population is an underestimated public health problem globally. Similarly, Abel and McQueen (2020) utilizing proactive health literacy has never been more needed than in these days when an

infectious disease crisis arrives at a time of information excess and high expectations of controlling health.

At this junction, there is urgent need to provide a comprehensive data on the health information literacy level of Nigerians on the preventive measures of COVID-19 pandemic. There are complex, contradictory, and false information about COVID-19, this have necessitated the need for assessing the health information literacy of Nigerians on the prevention and management of COVID-19. Above all, data on the health information literacy of Nigerians on the preventive measures of COVID-19 is important because it will show the COVID-19 health information literacy level of Nigerians on how to prevent the spread of the deadly virus. The data will also be of benefit to Nigeria centre for Disease Control (NCDC), World Health Organisation (WHO), Nigerian government, researchers, and other institutions and organisations involved in public health education, literacy and policy as it will be a valid source of information for policy formulation and implementation to prevent the spread of COVID-19 among Nigeria.

From the forgoing, it is imperative to assess the the health information literacy level of Nigerian undergraduates on the preventive measures and management of COVID 19 pandemic using online cross sectional survey.

#### **Purpose of the study**

The main purpose of the study is to assess the health information literacy level of Nigerian on the preventive measures and management of COVID 19 pandemic using online cross sectional survey. Specifically, the study seeks to:

 Identify the sources of health information on the preventive measures and management of COVID 19 pandemic among Nigerian.

- Assess the health information literacy level of Nigerian on the preventive measures of COVID 19 pandemic.
- Determine the health information literacy level of Nigerians on the preventive measures of COVID 19 pandemic according to gender
- Determine the health information literacy level of Nigerians on the preventive measures of COVID 19 pandemic according to educational level

# Hypotheses

The following null hypotheses will guide the study and will be tested at 0.05 level of significance.

**Ho1:** There is no significant difference in the health information literacy level of male and female Nigerians on the preventive measures of COVID 19 pandemic.

**Ho<sub>2</sub>:** There is no significant difference in the health information literacy level of Nigerians on the preventive measures of COVID 19 pandemic according to educational level

#### **Literature Review**

COVID-19 virus persists on surfaces for up to several days; 4 hours on copper, 24 hours on cardboard and up to 2–3 days on plastic & stainless steel (WHO, 2021). The incubation period in human ranges from 1-14 days (WHO, 2021). Its most common symptoms are fever, dry cough, tiredness, aches and pains, sore throats, diarrhea, conjunctivitis, headache, loss of taste or smell, rash on the skin, or discolouration of fingers or toes among others (Center for Disease Control, 2021). COVID-19 related health information can be sourced from many sources both printed and electronic means.

An empirical study carried out by Onyebuchi, Momoh-Jimoh and Aguh (2021) identified that, social media; such as Facebook, WhatsApp, twitter etc., asking friends and family members, asking health worker, watching television programme and listening to radio as the major source of information on COVID-19 among Nigerians. Omosekejimi and Oyovwe-Tinuoye (2020) identified Internet, World Health Organization (WHO) website, Daily newspapers, Nigerian Centre for Diseases Control (NCDC) website, Network News and colleagues (medical doctors) as the major sources of health information about COVID-19. Similarly, Adenubi, Adebowale, Oloye, Bankole, Ayoajayi & Akinloye (2020) study revealed that, the common sources of information on COVID-19 are TV/radio, social media, Friends, and Workplace Newspaper. Mubeen, Kamal, Kamal and Balkhi (2020) also found out that, the most pursued platform for information for coronavirus was found to be social media, followed by television and print media.

In another study, Shaukat and Naveed (2021) found out that, the COVID-19 health literacy of university students in Pakistan was not at an optimal level as majority of the students expressed difficulty for half of the items of the health literacy scale. This implies that university students in Pakistan have inadequate COVID-19 health literacy for prevention and management of the virus. Gender was not a significant predictor of the COVID-19 health literacy of university students in Pakistan, however, location of residence was a significant factor as students who live in urban area possessed high health literacy level than those who lives in rural area. Similar study among adult population of Karachi, Pakistan by Mubeen, Kamal, Kamal and Balkhi (2020) found out that, there was inadequate knowledge and awareness regarding spread and prevention of COVID-19 among adult population of Karachi, Pakistan. Although a large majority of participants correctly identified sources of transmission, measures and precautions to be taken for coronavirus, their knowledge for symptom identification was deficient. In a cross-sectional study conducted among German population, Okan, Bollweg, Berens, Hurrelmann, Bauer and Schaeffer (2020) found out that, majority of German population that responded to the survey had inadequate COVID-19 health information literacy. Gender and level of education was not a significant factor in determining the COVID-19 health literacy of German population. Labban, Thallaj and Labban (2020) assessed the knowledge of information on COVID-19 prevention and management among Syrian population and found out that, the majority of the participants showed generally moderate knowledge about COVID 19. Gender and level of education were significant factors in the level of knowledge of COVID-19 information among the respondents. Syrians with higher education possess high knowledge of COVID-19 information than those with low level of education.

Review of extant literature revealed that much of the studies conducted in Nigeria aimed at assessing the COVID-19 health information literacy, ended up just examining the level of awareness of the existence of COVID-19 and in some cases the symptoms. Few of the study on health literacy on COVID-19 pandemic were regional study; for instance, in Southwestern Nigeria, Ukwenya, Fuwape and Ilesanmi, (2021) carried out a study to assess the health literacy of community members in Akure, Ondo State. In South-South, Nigeria, Patrick and Adekola (2021) assessed the health literacy on COVID-19 among adults in Port Harcourt Metropolis. These studies also ended up examining mere awareness of COVID-19 virus and not really on the health literacy. It is imperative to note that awareness of COVID-19 virus is just a part of the wider COVID-19 health literacy. To the researchers' best knowledge, no nation-wide cross sectional survey has been carried out among Nigerian population since the country recorded her index case of COVID-19 on the 27<sup>th</sup> of February, 2020. It is this gap in literature that the present study sought to fill.

#### Methodology

The research design chosen for the study is descriptive survey research design. According to Nworgu (2015) descriptive survey aims at collecting data on and describing it in a systematic manner, the characteristics, features or facts about a given population. The descriptive survey was considered appropriate because this study seeks to collect, describe and summarize nationwide data on the health information literacy of Nigerians on the preventive measures of COVID 19 pandemic. Nigerians between the age of 15 and above made up the population of the study. Online survey using Google form was conducted between using social media platforms. A total of 7890 Nigeria populations across the federation were surveyed. To assess the health information literacy level of Nigerians on the preventive measures of COVID-19; a 25 objective questions constructed by the researcher called "COVID-19 Health Related Information Literacy Assessment Scale" was used. Each question carries 4 marks; thus correct answer is 4 marks while wrong answer is 0. The total score of a respondent is ranked as follows: 0-20 (very poor COVID-19 health information literacy level); 21-40 (poor COVID-19 health information literacy level); 41-60 (good COVID-19 health information literacy level); 61-80 (very good COVID-19 health information literacy level); and 81-100 (excellent COVID-19 health information literacy level). Data collected was analyzed using frequency distribution table and percentage. The null hypotheses one was tested using Mann Whitney U, while the hypothesis two was tested using Kruskal Wallis Test at 0.05 significance level. The null hypotheses were accepted when the Pvalue is greater than the alpha value, but where the p-value is less than the alpha value, the null hypotheses was rejected. The computation and analysis of the data collected was performed with the aid of SPSS version 23.

## Results

Gender	Frequency	Percentage
Male	4747	60.2%
Female	3143	39.8%
Total	7890	100%
Highest Educational level		
No formal education	1355	17.2%
Primary school	1773	22.5%
Secondary shool	2295	29.1%
Tertiary education	2467	31.3%
Total	7890	100%

# **Table 1: Socioeconomic Variables of Respondents**

Data above shows that out of 7890 Nigerians that responded to the survey across the 36 states of the federation, majority 4747 representing 60.2% were male, while 3143 representing 39.8% are female. in terms of educational background, majority of the respondents 2467 (31.3%) attended tertiary institution. Followed by those that attended secondary school, which are 2295 representing 29.1% of the total respondents. While those who had no formal education and those who attended primary school were 1355 (17.2%) and 1773 (22.5%) respectively.

 Table 2: Summary of responses on the sources of COVID-19 related health information among Nigerians

Sources of COVID-19 related health information among	Agree	Disagree	
Nigerians			
WHO website	2544 (32.2%)	5346(67.8%)	
NCDC website	3758(47.6%)	4132(52.4%)	
Social media (facebook, twitter, whatsapp etc.)	5765(73.1%)	2125(26.9%)	
Television	3779(47.9%)	4111(52.1%)	
Radio	4025(51%)	3865(49%)	
Newspapers	2651(33.1%)	5275(66.9%)	
UNICEF website	1259(16%)	6631(84%)	
From friends and family	5793(73.4%)	2097(26.6%)	
From health worker	2184(27.7%)	5706(72.3%)	
from church or mosque	1353(17.1%)	6537(82.9%)	

From the result above, 73.1% of the respondent's source COVID-19 health information from social media (facebook, twitter, whatsapp etc.), majority 73.4% source COVID-19 health information from their friends and family, while 51% source theirs from radio programmes. Only few of the respondents, 16%, 17.1%, 27.7%, 32.2% and 33.1 source COVID-19 related health information from UNICEF website, from church or mosque, From health worker, WHO website and Newspapers respectively.

S/N	Questions	Correct (%)	Incorrect (%)
1	Best hand washing practice to prevent COVID-19 is?	4528 (57.4)	3362 (42.6)
2	Social distancing during COVID-19 as recommended by	3331(42.2)	4559(57.8)
	WHO & NCDC is		
3	The best practice during COVID-19 is to cough or sneeze	4101(52)	3789(48)
	into		
4	Two or more persons sharing the same face mask is	4456(56.5)	3434(56.5)
	healthy		
5	Someone wearing facemask cannot be infected with	4270(54.1)	3620(45.9)
	COVID-19 even if he/she hugs an infected person		
6	The recommended way to wear face shield is	3555(45.1)	4335(54.9)
7	To prevent COVID-19, it was recommended to cough	3887(49.3)	4003(50.7)
	into		
8	COVID-19 cannot be contracted through the nose	4242(53.8)	3648(46.2)
9	To prevent COVID-19 Alcoholic based Hand sanitizer	4425(56.1)	3465(43.9)
	should be used after thorough washing of hands.		
10	After coughing or sneezing into the hand, it was	3578(45.3)	4312(54.7)
	recommended that the person should		
11	Recommended duration for self-isolation after close	2668(33.8)	5222(48.5)
	contact with infected person is	. ,	
12	COVID-19 is a conspiracy not a virus	4066(51.5)	3824(48.5)

Table 3a: COVID-19 Health Related Information Literacy Assessment Scale Result

From the result of the first twelve (12) questions of the COVID-19 Health Related Information Literacy Assessment Scale. Majority of the respondents 57.4% know best methods to wash hand washing during COVID-19; 56.5% have the knowledge that it is inappropriate for two or more persons to wear the same face mask; 56.1% understands the importance of using alcoholic based Hand sanitizer after thorough washing of hands during COVID-19; 54.1%, understands that

someone wearing facemask can be infected with COVID-19 if he/she hugs an infected person; 53.8% have adequate knowledge that COVID-19 can be contracted through the nose; 52% understands way to cough or sneeze in public during COVID-19; and 51.5% acknowledge that COVID-19 is real and not a conspiracy. On the other hand, 57.8% of the respondents have inadequate understanding of WHO & NCDC recommeded meter for social distancing; 56.5% of the respondents do not understand that it is wrong for more than one person to wear thesame facemask; also, 54.9% do not understand the most appropriate way to wear face shield; 50.7% do not know the appropriate way to cough during COVID-19; finally, majority 54.8% do not understand what to do after coughing or sneezing into the hand during COVID-19.

S/N	Questions	Correct	Incorrect
13	COVID-19 is not real in Nigeria	4029(51.1)	3861(48.9)
14	COVID-19 cannot be contracted in the church or mosque	5869(74.4)	2021(25.6)
	because it's a place of worship		
15	Locally made face mask should not be washed with water	5979(75.8)	1911(24.2)
16	Best source of COVID-19 related health information are	5292(67.1)	2598(32.9)
17	COVID-19 can be contracted through plate, spoon or cup	2389(30.3)	5501(69.7)
	touched by infected person		
18	COVID-19 can be contracted through books touched by	1951(24.7)	5939(75.3)
	infected person		
19	COVID-19 can be cured by simply drinking salt and hot water	5205(66)	2685(34)
20	After contact with infected person the best practice is to	3694(46.8)	4196(53.2)
21	Touching one's nose, mouth and eyes after contact with	3755(47.6)	4135(52.4)
	contaminated surface is healthy		
22	When wearing face mask COVID-19 cannot be contracted	4832(61.2)	3058(38.8)
	through hand shake with infected person		
23	When wearing face mask COVID-19 cannot be contracted	5295(67.1)	2595(32.9)
	through kissing infected person		
24	Wearing face mask in private is recommended is a preventive	5201(65.9)	2689(34.1)
	measure to COVID-19		
25	COVID-19 is more dangerous to older persons than younger	3175(40.2)	4715(59.8)
	persons		

Table 3b: COVID-19 Health Related Information Literacy Assessment Scale

From the result of the remaining thirteen (13) questions of the COVID-19 Health Related Information Literacy Assessment Scale. 51.1% were correct that COVID-19 was real in Nigeria; 74.4% understand correctly that COVID-19 can be contracted in worship houses like church or mosque; also, 75.8% have knowledge of the most appropriate way to wash locally made facemask; 67.1% are aware of the most authentic source of COVID-19 related health information; 66% also understands that salt and hot water cannot cure COVID-19; 61.2% of the respondents also understands that COVID-19 can be contracted through hand shake even while wearing face mask; 65.9% also understands that it is inappropriate to wear facemask in private home while alone in the room. On the other hand, 69.7% do not understand that COVID-19 can be contracted through touching plate, spoon or cup touched by infected person; also, 75.3% of the respondents are not aware that COVID-19 can be contracted through books touched by infected person; 52.4% of the respondents are also not aware that touching one's nose, mouth and eyes after contact with contaminated surface is unhealthy and can lead to contracting COVID-19; finally, 59.8% of the total respondents do not understand that age is a risk factor of COVID-19 virus.

COVID-19 Health Literacy Level	Frequency	Percentage
Very poor COVID-19 health information	1136	14.4%
literacy level (0-20 marks)		
Poor COVID-19 health information	862	10.9%
literacy level (21-40 marks)		
Good COVID-19 health information	2768	35.2%
literacy level (41-60 marks)		
Very good COVID-19 health information	1053	13.3%
literacy level (61-80 marks)		
Excellent COVID-19 health information	2071	26.2%
literacy level (81-100 marks)		
Total	7890	100%

Table 4: COVID-19 Health Literacy Level of Nigerians

From the results above, out of 7890 Nigerians that responded to the survey, only 2071(26.2%) possesses excellent COVID-19 health information literacy level, having sored 81-100 marks. Also, only 1053(13.3%) had Very good COVID-19 health information literacy level, having sored61-80 marks. However, 35.2% of the entire respondents had Good COVID-19 health information literacy level, having sored 41-60 marks. While, 10.9% and 14.4% of the total respondents had poor and very poor COVID-19 health information literacy level respectively, having sored between 0-40 marks out of 100 marks in the 25 questions in the COVID-19 health related information literacy assessment scale

# **Test of Hypothesis**

**Ho1:** There is no significant difference in the health information literacy level of male and female Nigerians on the preventive measures of COVID 19 pandemic.

Table 5: Summary of Mann Whitney U test on the difference in the health information literacy level of male and female Nigerians on the preventive measures of COVID 19 pandemic.

Variable	Gender	Ν	Mean	Sum of	Mann	Ζ	P-	<b>Decisio</b> n
			Rank	Mean	Whitney U		value	
COVID-19	Male	4747	3949.73	18749362.00	7439837.000	-	0.813	Not
Health						0.237		Significant
Information								
Literacy	Female	3143	3939.11	12380633.00				
Level								

#### P>0.05

The summary of the Mann Whitney U test revealed that Mann Whitney U score of 7439837.000 with Z of -0.237 is significant at 0.813. since 0.813 is greater than 0.05 at which the null hypothesis is tested, we uphold the null hypothesis. Thus, we conclude that, gender was not a significant factor in the COVID-19 Health Information Literacy Level of Nigerians on the preventive measures of COVID 19 pandemic

**Ho2:** There is no significant difference in the health information literacy level of Nigerians on the preventive measures of COVID 19 pandemic according to educational level

Table 6: Summary of Kruskal Wallis test on the difference in the health information literacy level of Nigerians on the preventive measures of COVID 19 pandemic according to educational level

Variable	Level of Education	N	Mean Rank	Kruskal Wallis test	df	P- value	Decision
COVID-19	No formal education	1355	3828.60	12.689	3	0.000*	Significant
Health Information Literacy Level	Primary school	1773	3935.09				
	Secondary school	2295	3953.67				
	Tertiary education	2467	4034.71				
	Total	7890					

#### P>0.05

Summary of the Kruskal Wallis test showed that Kruskal Wallis test score of 12.689 at 3 df is significant at 0.000. with Nigerians with no formal education, obtaining 3828.60 mean rank; while those that attended primary school, secondary school and tertiary education, obtaining 3935.09, 3953.67 amd 4034.71 mean rank respectively. Since 0.000 is less than 0.05 at which the null hypothesis is tested we therefore reject the null hypothesis and accept the alternative hypothesis that, there was a significant difference in the health information literacy level of Nigerians on the preventive measures of COVID 19 pandemic according to educational level. Thus, we conclude that level of education is a significant factor in determining the COVID-19 Health Information Literacy Level of Nigerians on the preventive measures of COVID 19 pandemic measures of COVID 19 pandemic.

## **Discussion of findings**

The findings revealed that the major sources of information for COVID-19 related health information among Nigerians are social media (facebook, twitter, whatsapp etc.), friends and family, radio programmes. This might be the justification for the high rate of COVID-19 conspiracy theories among Nigerians as only few consult the most authentic source such as UNICEF website, WHO website or NCDC website. This finding is in accordance with that of Onyebuchi, Momoh-Jimoh and Aguh (2021) who identified that, social media; such as Facebook, WhatsApp, twitter etc., asking friends and family members, asking health worker, watching television programme and listening to radio as the major source of information on COVID-19 among Nigerians. It is also in support of the earlier finding of Mubeen, Kamal, Kamal and Balkhi (2020) who found out that, the most pursued platform for information for coronavirus was found to be social media, followed by television.

The findings revealed that the COVID-19 health literacy level of Nigerians is moderate. Though many scored high in the scale used, most of the respondents are incorrect in most of the advance questions such as recommended meter for social distancing, most appropriate way to wear face shield, contracting COVID-19 through books, spoons, plates among others touched by infected person, and even what to do after coughing or sneezing during COVID-19 among other technical and advance questions. This finding is contrary to that of Okan, Bollweg, Berens, Hurrelmann, Bauer and Schaeffer (2020) who found out that, majority of German population that responded to the survey had inadequate COVID-19 health information literacy. The discrepancy might be due to time frame. This finding partly support that of Shaukat and Naveed (2021) who found out that, the COVID-19 health literacy of university students in Pakistan was not at an optimal level as majority of the students expressed difficulty for half of the items of the health literacy scale. This implies that university students in Pakistan have inadequate COVID-19 health literacy for prevention and management of the virus. Nigerians had inadequate literacy level in advance COVID-19 health literacy.

The findings revealed that gender was not a significant factor in the COVID-19 Health Information Literacy Level of Nigerians on the preventive measures of COVID 19 pandemic. This implies that, being a male or female do not significantly influence the COVID-19 Health Information Literacy Level of Nigerians on the preventive measures of COVID 19 pandemic. This finding further validates that of Shaukat and Naveed (2021) who found out that, Gender was not a significant predictor of the COVID-19 health literacy of university students in Pakistan. Also, among German population, Okan, Bollweg, Berens, Hurrelmann, Bauer and Schaeffer (2020) found out that Gender was not a significant factor in determining the COVID-19 health literacy of German population.

The findings revealed that there was a significant difference in the health information literacy level of Nigerians on the preventive measures of COVID 19 pandemic according to educational level. This implies that, level of education is a significant factor in determining the COVID-19 Health Information Literacy Level of Nigerians on the preventive measures of COVID 19 pandemic. It was shown that Nigerian with higher level of education had higher COVID-19 Health Information Literacy level than those with lower educational level. This finding further validates that of Labban, Thallaj and Labban (2020) who Gender and level of education were significant factors in the level of knowledge of COVID-19 information among Syrians, as Syrians with higher education possess high knowledge of COVID-19 information than those with low level of education

#### Conclusion

The study assessed the health information literacy level of Nigerians on the preventive measures and management of COVID 19 pandemic using online cross sectional survey. Based on the findings, the study concluded that, the major sources of information for COVID-19 related health information among Nigerians are social media (facebook, twitter, whatsapp etc.), friends

and family, radio programmes. the COVID-19 health literacy level of Nigerians is moderate. Though many scored high in the scale used, most of the respondents are incorrect in most of the advance questions such as recommended meter for social distancing, most appropriate way to wear face shield, contracting COVID-19 through books, spoons, plates among others touched by infected person, and even what to do after coughing or sneezing during COVID-19 among other technical and advance questions. Gender was not a significant factor in the COVID-19 Health Information Literacy Level of Nigerians on the preventive measures of COVID 19 pandemic; while there was a significant difference in the health information literacy level of Nigerians on the preventive measures of COVID 19 pandemic; with higher level of education had higher COVID-19 Health Information Literacy level than those with lower educational level.

#### Recommendations

The following recommendations were suggested:

- Federal government should adopt more proactive measures of education Nigerians on the advanced ways to prevent and manage COVID-19
- 2. In order to reach wider audience with little or no cost the government should mandate churches and mosques to devote few minutes for enlightening and educating their members on the global best practice in the prevention and management of COVID-19
- COVID-19 task force should be proactive in enforcing COVID-19 protocols in crowded places such as market, parties etc.
- 4. More attention should be given to Nigerians with low or no formal education, since those with higher education have better options of sourcing authentic health information than those with lower education.

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