



Information Behavior of Undergraduates to Preventive Measures of Corona Virus: A Post COVID Experience

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Abstract

This study was conducted with the primarily purpose of evaluating the information awareness, seeking behavior and use of preventive measures of corona virus. The survey research design of the analytical type and a purposive sampling was adopted for the study. The total sample size for this study was five hundred and thirty-eight (538). The instrument for data collection was a questionnaire. A total of 443 (92.7%) copies of questionnaire were returned and found usable. Data collected were analyzed using descriptive and multiple regression statistical tools. The study revealed that respondents were aware that omicron variant of corona virus is a new type of virus. However, majority agreed that the type of genetic materials in corona virus is DNA which contradicts proven studies and research. Findings on information needs of respondents revealed that majority need information on causes, symptoms, test procedures and transmission level of corona virus among others. The result on the sources by which the undergraduates get their information on corona virus revealed that the internet was the major sources of information while library was the least sources of accessing information. Furthermore, findings on the pattern of the use of preventive measures of corona virus information revealed undergraduates utilized the information on corona virus majorly for symptom identification; patient isolation/quarantine procedure and treatment procedure. The result on the regression analysis revealed a significant effect of information sources on attitude to use preventive measures of corona virus. Finally, the result revealed information awareness, needs and use have a significant influence on attitude of undergraduates to preventive measures of the virus. It was concluded that the library was the less consulted source of information related to the corona virus information on health needs. Hence, library should do more in providing accurate and credible health related information to its respective users.

Keywords: Information awareness, seeking behavior, attitude and corona-virus

Introduction

The outbreak of Coronavirus was first reported in late 2019 with its first cause in Wuhan, China, and since then it has spread like wildfire to more than 196 countries globally. This strain of virus is described as a critical acute respiratory syndrome Corona virus 2(SARS-CoV2) with its ability to kill humans in a fast rate. The mortality rate of this disease has resulted to health care management crisis globally. A report by World Health Organization (WHO) on 16th of January, 2022 on COVID-19 confirmed cases and death toll of Coronavirus 19 at over 323 million confirmed cases globally and a death of over 5.5 million worldwide while in Nigeria, report according to Nigeria Centre for Disease Control on 21st of January 2022 confirmed cases on COVID-19 at 251,694 and a death toll at 3,123. Orunoye and Ahmed, (2020) reported

that since the breakout of the pandemic effort has been made to reduce the incessant spread of the infectious virus. A vital effort was made to discovering various transmission modes of the Coronavirus prior to former early studies suggestion that Coronavirus is transmitted through respiratory droplets form individuals infected with the virus or contaminated materials. (Ren et al, 2020). The trend of infection has been related with the emergence of the delta variant of SARS-CoV2. Rio et al (2021) and the latest is called omicron variant which according to world health organization is described as a variant of concern. The B.1.1.529 variant was first reported to WHO from South Africa on 24th of November 2021. (WHO, 2021). The omicron has been reported to be of concern basically of its large number of mutations, increasing risk of re-infection



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and episode of the virus in fully vaccinated individuals. (Umakanthan, et al 2021). The SARS- CoV2 has the potential to mutate with new variants. Hence, the emergence of new variants as long as ongoing transmission prevails. There are four major variants of concern since the resurfacing of the COVID- 19 namely the B.11.7 (Alpha), B.1.351, P.1 (Gamma), B.1617.2 (Delta) variants and B.1.1.529 (Omicron).

(Olaimat, Aolymat, Shahbaz & Holley, 2020). In response to the pandemic revenging the global, Nigeria as a sovereign nation in line with world practice of preventive measure against COVID-19 imposed social distancing rules and implemented a complete social restriction and lockdown in all states of the country. Adelakun (2020) stated that these regulations were proposed to cease the spread of this virus by reducing contact among individuals. Other preventive strategies of managing the virus and pandemic focused on isolation of infected individuals and careful infection control which includes appropriate measures adopted during the diagnosis and the administering of clinical care to infected individuals.

The mode of operation of this variant allows the virus to transmit easily and make the virus less responsive to treatments. Omicron of SARS-CoV2 has been reported to be more dangerous and highly transmissible. This variant has a large number of mutations, which are of concern. Thus, the Omicron strains of the virus present a critical challenge to managing the COVID-19 Pandemic globally inclusive of Nigeria. Effectively information awareness and use of preventive measures against the spread of this virus will be advantageous to the fight against the increasing mode of transmission of the virus. The world health organization has included airborne, fecal-oral, blood borne, and mother to child and animal to human transmission an improvement on the former. This virus has the ability and potential to degenerate to severe complications in quite a short time among infected individuals with different symptoms which ranges from respiratory discomforting syndrome, heart failure, multi-organ dysfunction among others.

It is of utmost important to note that the educational sector was one of the most critical sectors affected by the COVID-19 pandemic especially in Nigeria. This outbreak leads to the closure of many universities and higher institutions of learning in Nigeria which had a negative impact on the already ineffective educational sector in Nigeria. Anyika et al, (2021) Stated that Nigerian education system was tremendously affected by the COVID-19 pandemic. Thus, because of the ill preparedness of the use of ICT many institutions of learning in Nigeria find it was difficult to transmit to using e-learning and distance learning as a mode of teaching and learning. Limited number of institutions which were mostly private institutions of learning was able to embrace the use of Technology for aiding teaching and learning.

The impact of COVID 19 pandemic was not limited on health issues but on almost all human facet of livelihood. Its impact on the economy can't be underestimated which has led to countless loss of jobs. Also education was not left out, as schools at different levels were closed for a long period of time leading to embracing of e-learning as a mode of teaching and learning. Hence, this era of COVID 19 widen the gap between the digital haves and the have not. This was a major challenge among learning institutions in developing countries. Nicola et al. (2020) affirms that the pandemic had an overwhelming effect on the global economy. This further widened the level of anxiety in most developing countries especially in Nigeria who are struggling with diverse restlessness and economic instability.

The implementation of the preventive measures by the Nigeria government agencies in-charge of the enforcement of this measures and universities community surveillance mechanism on adhere to this preventive measure remains unknown and ineffective base on observation. Furthermore, undergraduate's use of preventive measures on COVID 19 virus base on observation is low and at a declining state. The spread of incorrect and misleading information of the transmission mode and the significant of preventive measures seems to have an impact on the young population especially in developing



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countries. Barua et al (2020) reaffirm that the spread of misinformation through the use of technology such as the internet and social media platforms is faster than the occurrence of COVID-19. This can have a significant effect on the health and behavior of people towards this virus. WHO (2020), acknowledged the significant effect of misinformation about COVID 19 propelling them on give instruction that the public are to seek information about COVID 19 solely form well-trusted sources.

Lack of awareness of available information and resources is a key challenge that highly affects information needs and seeking behavior pattern of students. Also, Knowledge of and ability in using information access tools determine information needs which might influence their seeking behavior and use of information. Another factor of information behavior among undergraduates is that they might want simple and common interfaces and are not interested on search of different databases with different search requirements and interfaces but rather simply, easy and simplest methods of use. Wilson (2010) states that Information needs are influenced by a variety of factors such as the range of information sources available, the uses, to which the information will be put, the background, motivation, professional orientation and individual characteristics of the user.

The big question on the information awareness, seeking behaviour and use of COVID-19 preventive measures among undergraduates becomes important in this study. The information sources available and used among undergraduates remain uncertain in the context of this study. Olaimat, Aolymat, Shahbaz & Holley, (2020) stated that the most common source of information on COVID 19 is the internet comprising E-news websites and Social media, mass media channels and scientific articles. The role of information technology and information retrieval systems cannot be underestimated as an effective source of information.

Thus, this study therefore focuses on information behavior of library and information science students with emphasizes on awareness, seeking behavior and use on attitude of COVID-19 preventive

measures in a Nigerian university. As indicated earlier, a key problem and constrain to the effective use of COVID-19 preventive measures is misinformation which has complicated the accuracy of information, leading to uncertainty, misunderstanding and misleading of people in using accurate information relevant to COVID 19 preventive measures (Baines and Elliott, 2020). Hence, the study undertook a quantitative approach with the purpose of evaluating information behavior of LIS undergraduates to preventive measures of COVID-19 in Nigeria.

Objective of the study

The main objective of the study is to investigate the information behavior of undergraduates to preventive measures of corona virus 19 in Federal University Oye-Ekiti (FUOYE). The specific objectives are to:

1. Examine the level of Awareness among undergraduates to preventive measures of Corona virus 19
2. Investigate the information needs of Undergraduates on preventive measures of Corona virus 19
3. Identify the sources through which undergraduates seek information to preventive measures of Corona virus 19
4. Investigate undergraduates pattern of use of information on preventive measures of Corona virus 19
5. Ascertain the frequency of use of Corona virus 19 preventive measures by undergraduates
6. Determine the attitudes of Undergraduates to preventive measures of Corona virus 19
7. Establish the effect of information sources on the attitude of undergraduates to preventive measures of Corona Virus
8. Establish the influence of information awareness, needs and use on the attitude of undergraduates to preventive measures of Corona virus

Research question

1. What is the level of Awareness among undergraduates to preventive measures of Corona virus 19?



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2. What is the information needs of Undergraduates to preventive measures of Corona virus 19?
3. What are the sources through which undergraduates seek information to preventive measures of Corona virus 19?
4. What is the pattern of use of information by undergraduates on preventive measures of Corona virus 19?
5. What is the frequency of use of Corona virus 19 preventive measures by undergraduates?
6. What is the attitudes of Undergraduates to preventive measures of Corona virus 19?

study. Hence, Library and Information Science Undergraduates in Federal University Oye-Ekiti, Ekiti, Nigeria was selected as the sample group for this study. The entire Undergraduates in the Department of Library and Information Science were included in this study using the total enumeration technique. Hence, the total sample size for this study is five hundred and thirty-eight (538). This study made use of a structured questionnaire to obtain responses from the respondents. The questionnaire is titled "Information Behavior of Undergraduates to Preventive Measures of Corona-virus" (IBUPMC).

The face and content validity was achieved with the aid of specialists from the field of librarianship, public health, and health informatics who helped to evaluate the validity of the questionnaire. Ethical consideration and issues were of importance to this study. The privacy and confidentiality of the respondents was ensured throughout the process of data collection. A total of five hundred and thirty-eight (538) questionnaires were administered among undergraduates in the Department of library and information science. However, four hundred and forty-three (443) questionnaires were filled correctly and were found usable for the finding of this study thereby giving a response rate of 92.7%.

Hypotheses

H₀₁: There is no significant effect of information sources on the attitude of undergraduates to preventive measures of Corona Virus 19

H₀₂: There is no significant influence of information awareness, needs and use on the attitude of undergraduates to preventive measures of Corona Virus 19

Methodology

This study was a quantitative study using a descriptive survey research design of an analytical type with an attempt to investigate the information behaviour of corona virus preventive measures among undergraduates in Nigeria. A purposive sampling was used in this to determine the sample for this

Result

Table 1: Students Demographic Information:

Characteristics	Frequency	Percentage (%)
Gender		
Male	229	51.7
Female	214	48.3
Total	443	100
Level/ part		
100	111	25.1
200	131	29.6
300	98	22.1
400	103	23.3
Total	443	100

Source: Field Work, 2022.

Table 1 revealed the personal information of the students considered for this survey. It was discovered that 51.7% of the students were male while 48.3% were female. This

indicates that the responses gathered are not restricted to one sex but both. Also, it was discovered that 29.6% of the students were in 200 level followed by 25.1% of the



students were in 100 level, 23.3% of them were in 400 level and 22.1% of them were in 300 level. This also indicates a good coverage as all students were from various

levels/ parts in the Department of Library and information science and they were evenly distributed.

Table 2: Undergraduates Level of Awareness on Corona virus 19

Statements	Extremely aware	Moderately aware	Slightly aware	Not at all	Mean	Standard deviation
Covid-19 is a virus	380(85.8%)	42(9.5%)		21(4.7%)	3.76	0.683
The incubation period of virus is 12- 14days	255(57.6%)	188(42.4%)			3.58	0.495
Omicron variant is a new type of virus	275(62.1%)	126(28.4%)		42(9.5%)	3.43	0.903
Intensive and emergency treatment should be more given to diagnose patient	223(50.3%)	183(41.3%)	33(7.4%)	4(0.9%)	3.41	0.668
Coronavirus 19 mutates	192(43.3%)	209(47.2%)	42(9.5%)		3.34	0.644
Omicron variant is more dangerous than the previous COVID 19 variant	227(51.2%)	144(32.5%)	21(4.7%)	51(11.5%)	3.23	0.984
No active treatment of coronavirus 19	186(42%)	183(41.3%)	53(12%)	21(4.7%)	3.21	0.830
The type of genetic materials in coronavirus 19 is DNA	171(38.6%)	188(42.4%)	84(19%)		3.20	0.734
Their similarly signs and symptoms of other variants of coronavirus 19	125(28.9%)	245(55.3%)	20(4.5%)	53(12%)	3.00	0.899
Every aged group can be infected with corona virus 19	128(28.9%)	189(42.7%)	63(14.2%)	63(14.2%)	2.86	0.992

Source: Field Work, 2022.

Table 2 revealed the respondents level of awareness of corona virus. The table provides the answer to the first research question. As observed on table 2 all the respondents considered and agreed that covid-19 is a virus and with an incubation period of the virus to be between 12- 14 days with the mean scores of 3.76 and 3.58 respectively. Furthermore, more than 90% of the respondents were aware that omicron variant of coronavirus is a new type of virus.

More than 80% of the students reported that they are aware that omicron variant of coronavirus is more dangerous than the previous. However, this seems to be relatively not true rather this variant is more transmittable compare to others. Furthermore, respondents agreed that there is no active treatment of coronavirus; there are similar signs and symptoms of other coronavirus variants and that every aged group can be infected with corona virus with



Oluwatobi, I. O., Oluwaseun, J. A. and Ajie, I. A. their mean scores ranging from 2.86 to 3.23. All the mean scores listed in table 4.2 are all high which entails that majority of the students were all aware to some certain extent regarding each statements in the

©2023 Federal University of Kashere table. However, they agreed that the type of genetic materials in coronavirus is DNA which is contradicts proven studies and research findings.

Table 3 Undergraduates Information needs on Corona virus 19

Information needs	Yes	Not sure	No	Total
Information on causes of coronavirus	422(95.3%)	21(4.7%)		443(100%)
Information on causes of coronavirus symptom	359(81%)	84(19%)		443(100%)
Information on causes of test procedures	359(81%)	63(14.2%)	21(4.7%)	443(100%)
Information on how coronavirus spread or transmission level	335(75.6%)	84(19%)	24(5.4%)	443(100%)
Information on coronavirus preventive measures	335(75.6%)	84(19%)	24(5.4%)	443(100%)
Information on coronavirus cures	335(75.6%)	105(23.7%)	3(0.7%)	443(100%)
Information on aged groups more vulnerable to coronavirus attack	359(81%)	42(9.5%)	42(9.5%)	443(100%)
Information on coronavirus patient isolation procedures	317(71.6%)	84(19%)	42(9.5%)	443(100%)
Information on drugs combination for coronavirus treatment	359(81%)	63(14.2%)	21(4.7%)	443(100%)
Information on drug dosage for coronavirus preventive	275(62.1%)	105(23.7%)	63(14.2%)	443(100%)

Source: Field Work, 2022.

The table showed that 95.3% of the students agreed that they need information on causes of coronavirus while 81% of the students both agreed that information on causes of coronavirus symptoms and information on test procedures were both recognized as the vital information needed among them. Furthermore, more than 75% of the students agreed that they need Information on

coronavirus spread or transmission level and Information on coronavirus prevent measures as well as Information on cures of coronavirus. Moreover, 81% of the students felt they need information on drugs combination of coronavirus treatment and information on aged groups more vulnerable to coronavirus attack.

Table 4: Undergraduates sources of information on COVID 19

Sources	Yes	No	Total
Internet	443(100%)		443(100%)
Social media platforms	422(95.3%)	21(4.7%)	443(100%)
Newspapers	338(76.3%)	105(23.7%)	443(100%)
Radio	317(71.6%)	126(28.4%)	443(100%)
Television	338(76.8%)	105(23.7%)	443(100%)
Healthcare professions (Doctors, Health, Pharmacist)	422(95.3%)	21(4.7%)	443(100%)
Friends and family	314(70.9%)	129(29.1%)	443(100%)
Seminars	195(44%)	248(56%)	443(100%)
Leaflets	244(55.1%)	199(44.9%)	443(100%)
Books/journals/magazines from the library	184(41.5%)	259(58.5%)	443(100%)

Source: Field Work, 2022.

Table 4 presented the information on the sources by which the students get their

information on corona virus. As shown in the table all the students utilize the internet while 95.3% of the respondents got their



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information from the healthcare professions (Doctors, Health, and Pharmacist) and social media. Furthermore, from the table it was discovered that more than 70% of the students interviewed made use of radio, television and family/friends as sources of

information on corona virus. Moreover, less than 50% of the students made use of Books/journals/magazines from the library and seminars as their source of information on corona virus. Lastly, just 55% of the students get their information from leaflets.

Table 5: Undergraduates pattern of use of information on Corona virus 19

Statements	Yes	No	Total
For symptom identification	422(95.3%)	21(4.7%)	443(100%)
For patient isolation/quarantine procedure	432(97.5%)	11(2.3%)	443(100%)
For treatment procedure	377(85.1%)	66(14.9%)	443(100%)
Finding dosage for patient treatment	398(89.8%)	45(10.2%)	443(100%)
For self-protection for contacting corona virus	377(85.1%)	66(14.9%)	443(100%)

Source: Field Work, 2022.

As observed in the table more than 80% of the students utilized the information on corona virus for symptom identification; for coronavirus patient isolation/quarantine

procedure; for coronavirus treatment procedure; finding dosage for coronavirus patient treatment and for self-protection for contacting coronavirus.

Table 6: The Frequency of use of preventive measures of Coronavirus 19

Frequency of use	Every time	Occasionally	Almost never	Never	X	SD
wash hand regularly with water and soap	380(85.8%)	63(14.2%)			3.86	0.350
Face mask use when outdoor	338(76.3%)	84(19%)	21(4.7%)		3.72	0.547
Follow the 2-meter distance between you and other	317(71.6%)	126(28.4%)			3.72	0.452
cover mouth and nose when coughing and sneezing	296(66.8%)	105(23.7%)	42(9.5%)		3.57	0.660
Use hand sanitizer regularly	254(57.3%)	189(42.7%)			3.57	0.495
Avoid crowded places	275(62.1%)	147(33.2%)	21(4.7%)		3.57	0.583
Disinfected from when I get home	317(71.6%)	63(14.2%)	21(4.7%)	42(9.5%)	3.48	0.957
Avoid touching my face, eye and nose with my hand	254(57.3%)	147(33.2%)	21(4.7%)	21(4.7%)	3.43	0.791
Usually wash/disinfect hands immediately after coughing and sneezing	223(52.6%)	168(37.9%)	21(4.7%)	21(4.7%)	3.38	0.786
Body temperature check regularly	233(52.6%)	147(33.2%)	42(9.5%)	21(4.7%)	3.34	0.836

Source: Field Work, 2022.

Table 6 presented the information about student's frequency of use of preventive measures of Corona virus. As presented in the table more than 80% of the respondents agreed to use of preventive measures which includes washing of hands regularly with water and soap; use of facemask when outdoor; Follow the 2-meter distance between them and others; cover mouth and

nose when coughing and sneezing; make use of hand sanitizer regularly; avoid crowd places; always disinfecting when they get home; always avoid touching their face, eye and nose with their hand; Usually wash/disinfect hands immediately coughing and sneezing and always check their body temperature. These were all represented with high mean scores ranging from 3.34 to



3.86 which means majority of the students at some point frequently made use of corona

virus preventive measures.

Table 7: Undergraduates attitudes to preventive measures of Corona virus 19

Statements	Always	Very often	Sometimes	Rarely	Not at all	Mean	SD
Wearing face mask	335(75.6%)	108(24.4%)				4.76	0.430
Washing hand regularly with soap and water	296(66.8%)	147(33.2%)				4.67	0.471
Keeping away from crowded place	317(71.6%)	105(23.7%)		21(4.7%)		4.62	0.722
Seeking medicate advice with onset of symptom	296(66.8%)	63(14.2%)	84(19%)			4.48	0.794
Cleaning/disinfecting thing you might touch	296(88.8%)	84(19%)	42(9.5%)	21(4.7%)		4.43	1.003
Stop shaking hands with other	290(65.5%)	65(14.7%)	67(15.1%)	21(4.7%)		4.41	0.911
Taking preventive medication	254(57.3%)	126(28.4%)	21(4.7%)	42(9.5%)		4.34	0.943
Avoiding traveling to affected areas	250(56.4%)	105(23.7%)	42(9.5%)		46(10.4%)	4.16	1.254
Avoid crowd places	241(54.4%)	122(27.5%)	21(4.7%)	21(4.7%)	38(8.6%)	4.14	1.239
Avoiding public transport	224(50.6%)	103(23.3%)	47(19.6%)	41(9.3%)	28(6.3%)	4.02	1.246

Source: Field Work, 2022.

As shown in the table majority of the undergraduates (more than 80%) had used virtually all the preventive measures of corona virus listed in table 7 which includes Wearing of face mask; Washing hands regularly with soap and water; keeping away from crowded place; Taking preventive medication; Cleaning/disinfecting thing you might touch; Stop shaking hands with other; Seeking medicate advice with onset of symptom; Avoiding traveling to affected areas and avoiding public transport. All the

listed measures or behaviors were all represented with high mean scores which range from (4.02 to 4.76) which implies that majority of the students perpetually made a good attitude to the use of the preventive measures listed in the table.

Testing of Hypotheses

H₀₁: There is no significant effect of information sources on the attitude of undergraduates to preventive measures of Corona Virus 19.

Table 8: Multiple Regression of the Effect of Information Sources on Attitude of Undergraduates to Preventive Measures of Corona Virus 19

R	R ²	Adjusted R Square	Std. Error of the Estimate		
.686 ^a	.471	.460	4.92555		
ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	9336.635	9	1037.404	42.760	.000 ^b
Residual	10505.040	433	24.261		
Total	19841.675	442			

Source: Field survey, 2022

*significance at 0.05

a. Dependent Variable: attitude to preventive measures of corona virus

b. Predictors: (Constant), information sources (*Books from the library, Radio, Leaflet, Healthcare*)



Result in Table 8 reveal the regression analysis results showing the effect of information sources on attitude of undergraduates to preventive measures of corona virus. The table shows that the R square and Adj. R squared values were .471 and .460 respectively. This implies that (46.0%) of the variation in the attitude of undergraduates to the preventive measures of the spread of omicron variant of COVID 19 is accounted for by a unit change in

information sources. The table also shows that the analysis of variance (ANOVA) for the regression yielded an F- ratio of 42.760 (significant at 0.05). This implies that the effect of information sources on attitude to use of corona virus preventive measures was significant. In other words, information sources have a significant effect on the attitude of undergraduates to preventive measures of corona virus 19.

Table 9: Results showing the Relative Effect of Information Sources on Attitude of Undergraduates to Preventive Measures of Corona Virus

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.
	B	Std. Error			
(Constant)	65.962	2.204		29.927	.000
Social media	-7.763	1.784	-.247	-4.351	.000
Newspaper	6.699	1.042	.426	6.429	.000
Radio	.007	.998	.000	.007	.994
Television	-4.958	1.285	-.315	-3.859	.000
Healthcare professions (Doctors, Health, Pharmacist)	-5.524	1.614	-.175	-3.423	.001
Friends and family	2.522	.963	.171	2.620	.009
Seminars	-7.602	1.017	-.564	-7.478	.000
Leaflet	2.876	.959	.214	3.000	.003
Books from the library	-3.627	.621	-.267	-5.838	.000

Source: Field survey, 2022

a. Dependent Variable: Attitude to preventive measures

In testing the relative effect of information sources (Books from the library, Radio, Leaflet, Healthcare professions (Doctors, Health, Pharmacist), Social media, Newspaper, Friends and family, Seminars, Television) on the attitude of undergraduates to preventive measures of COVID 19. Table 9 shows the relative effect of each of the indicators as following; Social media ($\beta = -.247$, $p < 0.05$); Newspaper ($\beta = .426$, $p < 0.05$); Radio ($\beta = .000$, $p > 0.05$); Television ($\beta = -.315$, $p < 0.05$); Health care Professions ($\beta = -.175$, $p < 0.05$); Friends and family ($\beta = .171$, $p < 0.05$); Seminars ($\beta = -.564$, $p < 0.05$); Leaflet ($\beta = .214$, $p < 0.05$); Books from the library ($\beta = .214$, $p < 0.05$) and However, Radio was the only source that did not influence the attitude to preventive measures of Corona Virus 19

among undergraduates. ($\beta = .000$, $p > 0.05$). In other words, Social media has a negative relative effect of 24.7% on attitude to use preventive measures of corona-virus among undergraduates. while newspaper has relative effect of 42.6%; television has relative effect of 31.5%; Health care professions has a negative relative effect of 17.5%; friends and family has relative effect of 17.1%; seminars has a negative relative effect of 56.4 %; leaflet has relative effect of 21.4% and books from the library as a relative effect of 21.4% on the attitude of undergraduates to preventive measures of corona virus

Ho₂: There is no significant influence of information awareness, needs and use on the attitude of undergraduates to preventive measures of Corona Virus 19.



Table 10: Multiple Regression on the influence of Information awareness, needs and use on the Attitude of Undergraduates to Preventive Measures of Corona-Virus 19

R	R ²	Adjusted R Square	Std. Error of the Estimate		
.951 ^a	.904	.903	2.08528		
ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	17932.722	3	5977.574	1374.657	.000 ^b
Residual	1908.953	439	4.348		
Total	19841.675	442			

Dependent Variable: attitude of undergraduates to Preventive Measures of Corona-Virus 19

Predictors: (Constant) frequency of use of covid-19 preventive measures, information needs, awareness

Result in Table 10 reveal the regression analysis results showing the influence of information awareness, needs and use on the attitude of undergraduates to preventive measures of COVID 19. The table shows that the R square and Adj.R squared values were .904 and .903 respectively. This implies that (90.3%) change in the attitude of undergraduates to preventive measures of corona-virus is accounted for by a unit change in information awareness, needs and

use. The table also shows that the analysis of variance (ANOVA) for the regression yielded an F- ratio of 1374.657 (significant at 0.05). This implies that the influence of information awareness needs and use on the attitude of undergraduates to preventive measures of COVID 19. In other word information awareness, needs and use have a significant influence on attitude of undergraduates to preventive measures of corona-virus 19

Table 11: Relative influence of Information awareness, Needs and Use on Attitude to Preventive Measures of Corona Virus 19 among Undergraduates

Models	Unstandardized Coefficients		Standardized T Coefficients	Sig.
	B	Std. Error		
(Constant)	5.185	1.108	4.679	.000
Information Awareness	.162	.022	.128	.000
Information Needs	-.357	.033	-.179	.000
Frequency of Use of Covid-19 preventive measures	1.067	.022	.812	.000

Source: Field survey, 2022

Dependent Variable: Attitude to preventive measures

In testing the relative influence of information awareness, needs and use on attitude to preventive measures of COVID 19 among undergraduates. Table 11 shows the relative effect of each of the indicators was following; information awareness ($\beta = .128$, $p < 0.05$); information needs ($\beta = -.179$, $p < 0.05$) and frequency of use of COVID 19 ($\beta = .812$, $p > 0$). In other words, information awareness has a relative effect of 12.8% on attitude to preventive measures of COVID 19 among undergraduates while information needs have a negative relative effect of -17.9. Finally, frequency of use has relative effect of 81.2% on attitude to

preventive measures of COVID 19 among undergraduates.

Discussion of Findings

Generally, the findings in this study reflect the information awareness, needs and information sources of corona virus. The study revealed that respondents are extremely aware of the corona virus 19. Some of the information undergraduates were aware of about omicron variant of corona virus is that it is a new type of virus. This reflects a high level of information awareness among undergraduates in this study. The high level of awareness about



corona virus in this study could be attributed to the fact that majority of the respondents in this study were young. This could have a role to play in their ability to gather information with a high tendency to use ICT tools and devices to access information. This finding collaborate Bazaid et al (2020) findings which reported that majority of respondents in their study displayed a high level of knowledge and adherence to suggested preventative measures. Likewise, Zhong et al (2020) reported a high level of knowledge of COVID-19 among the understudied Chinese residents during the rapid rise period of the COVID-19 outbreak. In similar study Azlan et al (2020) in a cross-sectional study in Malaysia reported a high level of Public knowledge and practices towards COVID-19.

The study revealed that most undergraduates need information on the causes of corona virus, causes of corona virus symptoms, information on test procedures of the virus and information on drugs combination for corona virus treatment. This finding share similar findings with Omoisejimi and Oyovwe-tinuoye (2020) in their study on Covid 19 information seeking behaviors of Nigerian health practitioners which reported from its findings that all its respondents need information on causes of COVID 19 virus, symptoms, test procedures, preventive measures, cures, age groups vulnerable to COVID 19 attack and isolation procedure.

Furthermore, findings in this study revealed information about the sources by which the students get and sort of information on omicron variant of corona virus. A major source of information utilized among respondents in this study is the internet, healthcare professions (Doctors, Health, and Pharmacist), and social media platforms. This finding collaborates Oyeyemi et al (2020) study that reported internet as the most common source of information about COVID-19 also in a similar study understudied in Egypt by Abdelhafez et al (2020) the use of internet was reported to be highly used. Likewise, Olaimat et al (2020) in their study on knowledge and information sources about COVID 19 among University students in Jordan reaffirm that the most common source of the student's information about COVID 19 was the internet which includes, electronic news websites and

social media such as twitter, Facebook, YouTube, Instagram, Snapchat and WhatsApp. However, because of the uncensored nature of the internet there has been an increasing influx of fake news about COVID 19. Hence, information found on the internet must be verified from other reliable sources. Conclusively, it would be surprising to reveal that finding in this study reported that information resources from the library on omicron variant of COVID 19 were the least use source of information among undergraduates. This reveals that the library is not an effective source of information on COVID 19. Alzoubi et al (2020) reported that social media was the most common source of information among students in Mutah University.

Also findings on the pattern of use of omicron variant of corona virus information among the undergraduates' revealed students utilized the information on omicron variant of corona virus majorly for symptom identification; patient isolation/quarantine procedure and treatment procedure. This finding conforms to Omoisejimi and Oyovwe-tinuoye (2020) finding on the usage of COVID 19 information. They found out that a 100 percent of the respondent in the study agreed to use COVID 19 information for symptoms identification, patient isolation, treatment procedure and patient treatment.

In addition, results on student's frequency of use of preventive measure of Covid 19 revealed a high level of use of preventive measures among respondents in this study. This includes washing of hands regularly with water and soap; make use of facemask when outdoor; Follow the 2-meter distance between them and others; cover mouth and nose when coughing and sneezing; among others. This finding is conformity with previous studies (Zhong et al 2020; Machida et al 2020 and Bazaid et al 2020) on use and adherence to preventive measures of COVID 19

Furthermore, the result on the regression analysis showing the effect of information sources on attitude of undergraduates to use preventive measures of COVID-19 revealed a significant effect of information sources on attitude to use corona virus preventive measures. Also, in testing the relative effect of information sources (Books from the



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library, Radio, Leaflet, Healthcare professions (Doctors, Health, Pharmacist), Social media, Newspaper, Friends and family, Seminars, Television) on the attitude of undergraduates to preventive measures of COVID 19. Findings revealed that all the information sources identified in this study Social media; Newspaper; Radio; Television; Health care Professions; Friends and family; Seminars; Leaflet; Books from the library all has a relative effect on the attitude of undergraduates to preventive measures of COVID 19. However, Radio was the only source that did not influence the attitude to preventive measures of COVID 19 among undergraduates.

Lastly, the regression analysis results showing the influence of information awareness, needs and use on the attitude of undergraduates to preventive measures of COVID 19. The result revealed information awareness, needs and use have a significant influence on attitude of undergraduates to preventive measures of corona-virus 19. Conclusively, information awareness, needs and use has a significant relative effect on attitude to preventive measures of COVID 19 among undergraduates.

Conclusion

The outbreak of COVID-19 pandemic over the past two years has negatively impacted the entire global. This impact has left low and middle income countries which Nigeria is included in a challenging state. The educational sector has been one of the most affected by the COVID-19 pandemic. Schools were locked up for a long time with no access to teaching and learning. The adoption of technology for teaching and learning seems to be hoax resulting to a negative impact on the attitude of students to learning after relaxing the lockdown. The mutating nature of SARS-Cov2 has brought about a much more dangerous variant of COVID-19 called the omicron variant. Hence, the important of this study on the awareness, needs, sources and use on attitude to preventive measures of omicron variant of COVID-19 among undergraduates. This study is considered necessary because undergraduates' ability to have timely and adequate information will help curb the further outbreak of the virus. This study provides insight on the level of

awareness, needs, sources and use of omicron variant of COVID-19 preventive measures among undergraduates.

Furthermore, attitude toward use of preventive measures of omicron variant of the virus is crucial to control the COVID-19 pandemic. This study shows that undergraduates in Nigeria has a relatively high frequency of use and good attitude towards some preventive measures such as washing of hands regularly with water and soap, make use of facemask when outdoor, Follow the 2-meter distance between them and others, cover mouth and nose when coughing and sneezing among others. Considering the volume of information resources available for COVID-19 virus and its variants, there are tendencies for misinformation. Hence, this study finds it critical to investigate the information sources used by undergraduates in this study. The internet was identified as the key source of information among respondents. The nature of the internet has made it an easy prey of uncensored and unverified information to be in circulation and spread easily among users.

There has been a lot of misconception and misinformation about the virus by social media platforms. It is important to note from the findings of this study that the library was the less consulted sources of information related to this virus. Libraries should be a place where information related to the health needs of it respective users should be met and provided. Also, the library should serve as a place to awaken awareness on health information to its users. Libraries should champion the campaign on awareness and use of preventive measure of this pandemic. Libraries in this part of the world have not done much in the aspect to providing health information literacy service on the COVID 19 pandemic to its users. Beyond the adherence to the preventive measures of this virus, government must be observant and at alert to the mutating nature of COVID-19 virus so as to limit the spread of the virus and the ripple effect on the entire sectors in the nation.

References

Abdelhafz AS, Mohammed Z, Ibrahim ME, Ziady HH, Alorabi M, Ayyad M, (2020). Knowledge, Perceptions, and



Oluwatobi, I. O., Oluwaseun, J. A. and Ajie, I. A.

Attitude of Egyptians Towards the Novel Coronavirus Disease (COVID-19). *Journal of Community Health*; 45:881–890.

<https://doi.org/10.1007/s10900-020-00827-7> PMID: 32318986.

Adelakun, I. S. (2020). Coronavirus (COVID-19) and Nigerian education system: impacts, management, Responses, and way forward. *Education Journal*. 3(4). 88-102. <https://doi.org/10.31058/j.edu.2020.34009>.

Al-Hanawi, M. K., Angawi, K., Alshareef, N., Qattan, A. M. N., Helmy, H. Z. & Abudawood, Y. (2020). Knowledge, Attitude and Practice Toward COVID-19 Among the Public in the Kingdom of Saudi Arabia: A Cross-Sectional Study. *Frontiers in Public Health* 2020; (8): 217. <https://doi.org/10.3389/fpubh.2020.00217> PMID: 32574300.

Aluh, D. O. & Onu, J. U. (2020). The need for psychosocial support amid COVID-19 Crises in Nigeria. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. <http://dx.doi.org/10.1037/tra000074>.

Alzoubi, H., Alnawaiseh, N., Al-Mnayyis, A., Abu-Lubada, M., Aqel, A. & Al-Shagahin. (2020). COVID-19-Knowledge, Attitude and Practice among Medical and Non-Medical University Students in Jordan. *Journal of pure and applied microbiology*. 14(1), 17-24.

Anyika, V. O., Anikelechi, I. G. & Thobejane, T. D. (2021). The impact of Covid-19 on Nigeria education System. *Journal of Intellectual Disability-Diagnosis and Treatment*. 9(3), 222-227.

Azlan, A. A., Hamzah, M. R., Sern, T. J., Ayub, S. H. & Mohamad. E. (2020). Public knowledge, attitudes and practices towards COVID-19: A cross-sectional study in Malaysia.

©2023 Federal University of Kashere

PLoS ONE 15(5). <https://doi.org/10.1371/journal.pone.0233668>.

Baines, D. & Elliott, R. (2020). Defining misinformation, disinformation and mal-information: An urgent need for clarity during the COVID-19 infodemic. Available at: <https://ideas.repec.org/p/bir/birmec/20-06.html>.

Barua, Z., Barua, S., Aktar, S., Kabir, N., & Mingze. L. (2020). Effect of misinformation on COVID-19 Individual responses and recommendations for resilience of disastrous consequences of misinformation (2020). *Progress in disaster science*, 8(7-8) <https://doi.org/10.1016/j.pdisas.2020.100119>.

Bazaid, A. S., Aldarhami, A., Binsaleh, N. K., Sherwani, S. & Althomali, O. W. (2020). Knowledge and Practice of personal protective measures during the COVID-19 pandemic: A cross-sectional study in Saudi Arabia. *PLoS ONE* 15(12): e0243695. <https://doi.org/10.1371/journal.pone.0243695>.

Chen, C. (1980). Citizen information seeking patterns: A new England study. *Simmons Librarian* 12:3-4.

Chukwuorji, J. C. & Iorfa, S. K. (2020). Commentary on the coronavirus pandemic: Nigeria. *Psychological Trauma: Theory, Research, Practice, and Policy* 12(S1), S188-S190. Doi: 10.1037/tra0000786.

Li, Y., Liu, G., Egolet, R. O., Yang, R., Huang, Y. & Zheng, Z. (2021). Knowledge, Attitudes, and Practices Related to COVID-19 Among Malawi Adults: A Community-Based Survey. *International Journal of Environmental Research and Public Health*, 18, 4090. <https://doi.org/10.3390/ijerph18084090>.



- ©2023 Federal University of Kashere
doctors in Delta State. *Library philosophy and practice (e-journal)*. 4153. <https://digitalcommons.unl.edu/libphilprac/4153>.
- Longo, D. R., Schubert, S. L., Wright, B. A., LeMaster, J., Williams, C. D. & Clore, J. N. (2010). Health Information seeking, receipt, and use in diabetes self-management. *Annals of family medicine*, 8(4):334-340. doi:10.1370/afm.1115.
- Machida, M., Nakamura, I., Saito, R., Nakaya, T., Hanibuchi, T., & Takamiya, T. (2020). Adoption of Personal protective measures by ordinary citizens during the COVID-19 outbreak in Japan. *International Journal of infectious diseases*. 94: 139-44. <https://doi.org/10.1016/j.ijid.2020.04.014> PMID: 32283285.
- Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-jabir, A., Iosifidis, C., Agha, M. & Agha, S. (2020). The socio-economic implications of the coronavirus pandemic (COVID-19): A review. *International Journal of Surgery*, 78: 185-193. <https://doi.org/10.1016/j.ijsu.2020.04.018>.
- Nigeria Centre for Disease Control. COVID-19 Nigeria. (2020). <https://covid19.ncdc.gov.ng/>. Accessed 20 Sept 2020.
- Olaimat, A. N., Aolymat, I., Shahbaz, H. M. & Holley, R. A. (2020). Knowledge and information sources about COVID-19 among university students in Jordan: A cross-sectional study. *Frontiers in public Health* 8:254. <http://doi.org/10.3389/fpubh.2020.00254>.
- Olapegba, P. O., Ayandele, O., Kolawole, S. O., Oguntayo, R., Gandi, J. C., Dangiwa, A. L. & Iorfa, S. K. (2020). COVID-19 knowledge and perceptions in Nigeria. *psyArXiv*. <https://doi.org/10.31234/osf.io/J356x>.
- Omosekejimi, A. F. & Oyovwe-Tinuoye, G. O. (2020). Information seeking behaviors of Nigerian Health Practitioners: A study of medical
- Orunoye, E. D. & Ahmed, Y. M. (2020) An appraisal of the potential impacts of Covid-19 on tourism in Nigeria. *Journal of economics and technology research*. 1(1). available online <https://doi.org/10.22158/jetr.v1n1P32>.
- Oyeyemi, O. T., Oladoyin, V. O., Okunlola, O. A., Mosobalaje., Oyeyemi, I. T., Adebimpe, W. O., Nwuba, R. I., Anuoluwa, I. I., Tiamiyu, A. M., Ovuakporie-uvo, O. O., Adesina, I. A., Olatunji, B. P., Kone, J. K., Oluwafemi, Y. D., Obajaja, C. O. & Ajiboye, A. A. (2020). COVID-19 pandemic: an online-based survey of Knowledge, perception, and adherence to preventive measures among educated Nigerian adults. *Journal of Public Health: From Theory to Practice*. <https://doi.org/10.1007/s10389-020-01455-0>.
- Ren, S. Y., Wang, W. B., Hao, Y. G., Zhang, H. R., Wang, Z. C. & Chen, Y. L. (2020). Stability and infectivity of corona-virus in inanimate environments. *World J Clin Cases*; 8(8): 1391–1399. <https://doi.org/10.12998/wjcc.v8.i8.1391>.
- Rio, C. D., Malani, P. N., & Omer, S. B. (2021). Confronting the delta variant of SARS-CoV-2. *JAMA*. <https://doi.org/10.1001/jama.2021.14811>.
- Suciu, M. C., Alexandru, S. G. & Mituca, M. O. (2021). Creative and Cultural Sectors during the COVID-19 Pandemic. Proceedings of the 4th international conference on economics and social science. pp. 288-298.
- Wilson, T. D. (2010). Fifty years of information behavior research. *Bulletin of the American society for information science and technology*.



World Health Organization. (2020). Coronavirus disease (COVID-2019) situation reports. 2020. <https://www.who.int/emergencies/diseases/novelcoronavirus-2019/situation-reports>.

World Health Organization. Classification of Omicron (B.1.1.529): SARS-CoV-2 Variant of Concern. [https://www.who.int/new/item/26-11-2022-classification-of-omicron-\(b.1.1.529\)-sars-cov-2-variant-of-concern](https://www.who.int/new/item/26-11-2022-classification-of-omicron-(b.1.1.529)-sars-cov-2-variant-of-concern).

Uzoagba, N. C. (2019). Availability and use of library resources and services in national open university of Nigeria (NOUN). Unpublished dissertation submitted to department of library and information science, University of Nigeria, Nsukka.

Umakanthan, S., Patil, S., Subramaniam, N., & Sharma, R. (2021). COVID-19 Vaccine hesitancy and resistance india explored through a population based longitudinal survey. *Vaccines*,9,1064. <https://doi.org/10.3390/vaccines9101064>.

Zhong, B. L, Luo, W, Li, H. M, Zhang, Q. Q., Liu, X. G., Li, W. T. & Li, Y. (2020). Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. *International journal of biological sciences*; 16(10): 1745–1752. <https://doi.org/10.7150/ijbs.45221>.