International Journal of Information Science and Management
Vol. 20, No. 1, 2022, 171-185
https://dorl.net/dor/ 20.1001.1.20088302.2022.20.1.10.3

Original Research

Covid-19-Related Health Information Needs and Seeking Behavior among Lagos State Inhabitants of Nigeria

Ismail Olatunji Adeyemi
Assistant Lecturer, Department of Library and Information Science, Kwara State University, Malete, Nigeria
Corresponding Author:
adeyemiismailolatunji@gmail.com
ORCID iD: https://orcid.org/0000-0001-9822-5950

Adedoyin Oluwatosin Esan
Acting University Librarian atWellspring University, Benin, Nigeria
sayrald@yahoo.com
ORCID iD: https://orcid.org/0000-0002-0167-3042

Received: 03 February 2021
Accepted: 04 April 2021

Abstract

The outbreak of COVID-19 spurs the need for information among the Nigerian populace, and people exhibit different information-seeking behavior. Understanding information needs and seeking behavior becomes expedient to ensure the adequate provision of information to Nigerians in real-time. Hence, this study examined the health information needed and seeking behavior of Nigerians about COVID-19. The authors adopted a descriptive survey method using a Web-based questionnaire to collect data from a sample of 321 people. The collected data were analyzed using descriptive statistics, and the hypothesis was tested using Pearson's product-moment correlation. Results show that the Nigerian populace needs information on treatments/vaccines and preventive measures of the pandemic disease; it was revealed that the majority of Nigerians actively search for information about the disease; it was shown in the findings that social media is the most accessed information source; and findings revealed that environmental, demographic, interpersonal and financial factors affect information-seeking behavior. Findings show a statistically significant relationship between health information need and information-seeking behavior of Nigerians. The study concludes that most Nigerians health information needs center on treatment/vaccines of disease while most actively search for information on the disease.

Keywords: Information Need, Information Seeking Behavior, Information Sources, COVID-19, COVID-19 Information

Introduction

Generally, it has been established that information has become essential to every individual in every season and for every reason. To some people, information is the currency that puts food on the table. Information, to some, is what guides their decision-making process. Every individual maximizes information in various and different ways. The benefits of being informed are why everyone craves different types of information in their time of need. Information is needed, and applications may include economic, social, religious, academic, and health.

Individuals seek health information when there is a need to know about any health issue or phenomenon. This may be a disease that afflicts few individuals or a majority of the populace. Whichever one it is, individuals need the information to ensure their safety and well-being in a time of pandemic diseases like Corona Virus Disease (COVID-19). COVID-19 (formerly known as n-CoV) is a member of the large coronaviruses family. The world's apex health body further noted that the disease was discovered in 2019 and has not been previously identified in humans. It was further expressed that coronaviruses are zoonotic (transmissible between animals to people) (World Health Organization [WHO], 2020). Meanwhile, WHO declared COVID-19 as a pandemic disease which raises concerns. The pandemic disease is a disease that spreads over the world geometrically. With the potential high risk of the disease to Nigerians, it needs to be informed of the disease, and all that concerns it. The importance of being properly informed of the disease may help alleviate the infodemic that trails the dangerous disease. Leaving infodemic to thrive may be as dangerous as the spread of a pandemic disease. This may potentially affect Nigerians to promote fake news and misinformation in the long run.

In a pandemic situation, as it is with COVID-19, people primarily tend to seek information in palpable fear of the deadly disease. This has been observed to have led many Nigerians to seek information from unverifiable and questionable sources that only sprout fear in the turbulent time. This is deepened by the closure of libraries and information centers due to "lockdown" – a measure that involves grinding down all activities to curtail the spread of the disease (Adeyemi, 2020). With the absence of a gateway to verifiable information, many seek assistance with the Internet with its replete of information. Meanwhile, the information overload on the Internet may make it difficult for an average Nigerian to identify valid information from reliable sources. This underpins the importance for appropriate authorities to have an information system that is backed with people-centered data. This kind of practice will improve effective information dissemination about the disease to Nigerians.

The first case of COVID-19 disease can be traced to Wuhan, China, in December 2019. Since then, the transmission has been on a disturbing geometric rise, moving from epidemic to pandemic disease. The first case of COVID-19 in Nigeria was confirmed on 27 February 2020 (Elimian et al., 2020). As of 22 December 2020, the Nigeria Centre for Disease Control (2020) reported that there are 7890 confirmed cases of COVID-19 in Nigeria. In the face of all this challenge, there is palpable fear among the Nigerian populace about the disease. This anxiety has led to an increased interest in getting desired information about the disease. Towers *et al.* (2015) noted that it is essential to understand public opinion to identify people's information needs during a disease outbreak. Moreover, effective communication from the Nigeria Centre for Disease Control (NCDC), Ministry of Health (Lagos State and Nigeria), and Ministry of Information and Culture are essential for understanding information needs and seeking behavior (Nigeria Centre for Disease Control, 2020) Therefore, this study seeks to ascertain the health information needed and seeking behavior of Nigerians during the COVID-19 pandemic. On this premise, this study seeks to provide answers to the following research questions:

RQ1: What are the information needs of Nigerians about COVID-19?

RQ2: What is the information-seeking behavior of Nigerians about COVID-19?

RQ3: What source do Nigerians get for information about COVID-19?

RQ4: What are the factors affecting the information-seeking behavior of Nigerians about COVID-19?

Delimitation of the Study

The basis of this study is to examine the health information needed and seek the behavior of Nigerians during pandemics using COVID-19 as a case study. This means that the findings of this study should not be used to generalize other kinds of pandemic diseases. Hence, the findings are specific to the health information needs and seeking behavior of Nigerians concerning the COVID-19 pandemic. Moreover, due to the lockdown and inability to access participants, Nigeria's study sample is small. Future studies may increase the sample size. The study focuses only on Lagos State, Nigeria. Therefore, the findings of this study cannot be generalized to other residents in the remaining thirty-five (35) States and Federal Capital Territory (FCT) in Nigeria. Future studies may adopt mixed methods or qualitative approaches to explore Nigerians' health information needs and seeking behavior during the pandemic.

Review of Related Literature

According to Dastani, Mokhtarzadeh, Nasirzadeh and Delshad (2019), information need is the core of information-seeking behavior. Furthermore, they noted that information-seeking behavior encompasses elements of information search and factors that influence all the elements. Health information-seeking behavior may be viewed from the perspectives of health information needs, information seeking, and information use (St Jean, 2012). Moonaghi, Areshtanab, Joibari, Bostanabad and McDonald (2014) expressed that people's perception about a disease affects their information-seeking behavior, and this perception may arise from cultural or traditional beliefs and attitudes. It has been observed that the religious and cultural belief of people may affect their health information behavior. Zare-Farashbandi, Lalazaryan, Rahimi and Hassanazadeh (2016) opined that an individual's health information-seeking behavior includes information search, the discovery of information, and the use of information.

Nafees and Khan (2020) found that information needed among the general public in India during COVID-19 disease outbreak includes information on signs and symptoms, causes and treatments of illness, prevention, and control of the disease. Information needs lead information seekers to sources of information. Notably, the known sources of information provision in health information include the Internet, health care professionals, and the library (Garcia-Cosavalente, Wood & Obregon, 2010). Kuske et al. (2017) found that the Internet and health care professionals are the most frequently used sources of health information. It was also revealed that slightly fewer studies mentioned relatives and friends, brochures and magazines, books, broadcast media, and social media. The study revealed that health information-seeking behavior factors include demographic factors, environmental factors, interpersonal factors, psychological factors, and disease duration in the body system. It was further shown that the constructs of health information-seeking behavior are namely; passive attention, passive searching, active searching, and endless searching.

Passive attention is a situation whereby a health information user acquires information without intention seeking; passive searching is when an original search leads to information acquisition on health accidentally; active searching is where a health information seekers actively search for health information; and ongoing search is when an individual has an established knowledge about a particular health phenomenon but keeps searching to update knowledge (Kuske et al., 2017). Longo *et al*. (2010) described active information seeking as the effort to acquire information for a particular purpose, while passive searching can be described as the information that was come about through serendipity. Information provision

has continuously shifted the paradigm from conventional print to non-print formats, mainly owing to the advent of ICT. Health information-seeking involves techniques adopted by health information users to boost health information literacy to effectively manage their health (Kim & Park, 2012). The information dimension of health information seeking provides a strong focus on information type. Individual information seekers require health information to fulfill an identified need, culminated by observed health issues or medical diagnoses (Zimmerman & Shaw, 2020). This shows that health-related information is usually specific to a known diagnosis by information seekers. However, there may be instances whereby information seekers try to ascertain the symptoms attached to some diseases. Feng, Grepin and Chunara (2018) examined the health information-seeking behavior during the Ebola crisis in West Africa. The authors deployed mobile phones to carry out a nationwide survey, highlighting individual health and health-seeking behavior during the outbreak. It was found that deliveries at public facilities were at a minimum level after the epidemic.

Raj, Sharma, Singh & Goel (2015) found that the barriers to information seeking among health workers in Chandigarh in India include inadequate time, excess tasks at hand, lack of evidential information, and unavailability of needed materials. Other barriers include an overload of information, outdated information, technical language (use of medical, technical jargon), lack of funds to source information, conflicting information about a particular subject matter, and traveling before getting information. Dastani et al. (2019) submitted that health information users encounter challenges such as the intricacy of health issues, increasing disease occurrence, the necessity to participate in caregiving, and information overload on health issues. At this juncture, it is believed that an increase in information availability should not pose a challenge to an information seeker. However, what can pose a challenge would be the low availability of information concerning pandemics.

Esmaeilzadeh, Ashrafi-rizi, Shahrzadi and Mostafav (2018) revealed that the most popular sources for health information are social media and the Internet. This suggests that there was more focus on electronic health information than conventional print health information. Furthermore, it was shown that information-seeking behavior factors include complexity in ascertaining information quality, lack of correct information, and anxiety about leaking the health condition to others. Nafees and Khan (2020) found that news websites, dedicated news websites of the coronavirus, and medical staff were the most preferred and trustworthy sources of information related to COVID-19 in India during the pandemic. It is noteworthy that it has been observed that Twitter is often used to disseminate information during the pandemic. Twitter handle, such as the Nigeria Centre for Disease Control, brings details about the development of COVID-19 in Nigeria daily.

Dastani et al. (2019) found that most students seek information about sickness and treatment. Also, it was revealed in the study that most of the students consult internet resources or doctors. This underscores the focus on the Internet for health information. This shows that information seekers usually sought for health information from the Internet. Furthermore, it was shown that there is a statistically significant difference in using different information sources when seeking health information. Gavgani Zarea, Qeisari and Jafarabadi (2013) found that most public library users in Qazvin City in Iran were passive health information seekers. Results also show that majority of the users sourced health information from television, discussion with others, and books. It was shown that there is a significant difference in the education level of the public library users and the use of the Internet to get health information.

Maddock, Lewis, Ahmad and Sullivan (2011) found that most cancer patients desired a wide range of information that is easy to locate, simple to understand succinct information about cancer and its possible impact on day-to-day activities and that of their allies. It was also found that the majority of the respondents raised concerns about the information quality. Many find information about cancer on websites at the behest of the people they trust and health caregivers involved in their treatment. Results show a distinction in the ability of the cancer patients to find quality information they desire and sufficient understanding of the information to make an informed decision. Andualem, Kebede and Kumie (2013) found that most health workers in BahirDahr in Ethiopia identified their health information need in everyday activities. However, results show that there was no provision for health information materials for the majority of the health caregivers. The study also revealed that most health care professionals access the library for health information compared to the Internet. Results of the study show that demographic factors of the caregivers are associated with health information needs and seeking behavior.

ZainalAbidin, Sutan and Shamsuddin (2014) found that more than half of the diabetic patients in Tanjong Karang district in Malaysia had appropriate behavior when seeking health information. Majid, Ye, Tan and Xinying (2019) found that the most desired information about dengue disease among the general public in Singapore include medicines, symptoms of dengue infection, and possible vaccinations or treatments. It was revealed in the study that the most popular sources for seeking information include websites of hospitals/health agencies, social media, television, and newspapers. Results show that health caregivers were the most trusted for providing accurate information. The summary of the literature shows that studies have been carried out on different health information needs and seeking behavior as to Diabetes disease (Kuske et al., 2017; ZainalAbidin et al., 2014), Ebola disease (Feng et al., 2018), general health (Andualem et al., 2013; Dastani et al. 2019; Esmaeilzadeh et al., 2018; Gavgani Zarea et al., 2013; Raj et al., 2015), dengue disease (Majid et al., 2019), and cancer disease (Maddock et al., 2011). These studies did not address the COVID-19-related health information need and seeking behavior. Nafees and Khan (2020) examined COVID-19-related health information needs and seeking behavior of Indians. The study, however, only focused on healthcare practices, information needs, and sources. Meanwhile, this study extends that by investigating COVID-19-related information-seeking behavior, health information needs, information sources, and factors that affect health information-seeking behavior from the perspectives of Nigerians as the reality of Indians may not be obtainable in Nigeria. Based on this review, hypotheses were formulated and tested at a 0.05 level of significance:

H_{01}: There is no statistically significant relationship between sources of information and information-seeking behavior

H_{02}: There is no statistically significant relationship between information need and information-seeking behavior

Methodology

The descriptive survey design was adopted for this study as the aim was to explain a mainly known phenomenon, which spreads over a geographical area. The study adopts a simple random sampling technique as Lagos State residents had equal chances of being selected. Because this study was carried out when the pandemic was spreading, the Web-based questionnaire was used to collect data, which seems safer for the researchers, unlike paper questionnaires. The first draft of the questionnaire has twenty-nine (29) items. However, after peer-validation of the questionnaire from two research scholars in the area of information-seeking behavior, a total of twenty-two (22) items were adjudged to be accurate measures for what the study intended to achieve. The validated questionnaire has four (4) items on health information needs, five (5) items on health information-seeking behavior, seven (7) items on sources of information, and six (6) items on factors affecting health information behavior.

All items of the questionnaire adopt a 5-point Likert scale except for the items on sources of information where respondents could choose more than an option. The link of the Web-survey was shared with participants via various social media platforms such as WhatsApp (Community Development Association and Housing Estate groups) and Twitter. Three hundred twenty-one responses were collected from the respondents for five weeks between March and April 2020. The questionnaire was self-designed, adapting constructs from the body of literature. To ensure a high return rate, the researchers judiciously kept reminding prospective respondents and periodically resent the link to the Web-survey to serve as a reminder. The internal consistency of the questionnaire was tested using Microsoft Excel and shows a Cronbach's Alpha Reliability coefficient of 0.791. Descriptive statistics of frequency count and simple percentages were used to measure the research questions. In contrast, Pearson's product-moment correlation was used to test the hypotheses at a 0.05 level of significance.

Data Analysis and Interpretation

All data collected from the responses were analyzed with descriptive statistics (frequency count and simple percentage) on the "Google Forms". Hypotheses were tested using MS Excel.

Table 1
Demographic

Variables	Frequency	Percentage
Gender		
Male	183	57.0
Female	138	43.0
Total	321	100.0
Age		
Less than 20 years	6	1.9
21-30 years	204	63.5
31-40 years	84	26.2
41-50 years	18	5.6
51 years and above	9	2.8
Total	321	100.0
Occupation		
Student	69	21.5
Public service employee	81	25.2

Variables	Frequency	Percentage
Private employee	87	27.1
Self-employed	48	15.0
Others	36	11.2
Total	321	100.0

Source: Author's Fieldwork (2020)

Table 1 shows that male constitutes half of the respondents in this study. This indicates that more males participated in the study than females. Also, it can be view from Table 1 that respondents of ages 21-30 years comprise more than half of the respondents, only 6(1.9%) were below 20 years, and 9(2.8%) were 51 years and above. Moreover, it is shown that 81(25.2%) of the respondents were public service employees, and 87(27.1%) of the respondents were private employees. The least distribution under occupation was others, which may have the categories of the unemployed and all. It can also be seen from Table 1 that only less than a one-quarter representation of students participated in the study.

Table 2
Information Needs on COVID-19

Items	Responses									
	Strongly Agreed		Agreed		Neutral		Disagreed		Strongly Disagreed	
	N	%	N	%	N	%	N	%	N	%
Need information on symptoms	231	72.0	51	15.9	9	2.8	12	3.7	18	5.6
Information on number of cases	204	63.6	78	24.3	18	5.6	9	2.8	12	3.7
Information on vaccines/treatment of virus	276	86.0	27	8.4	9	2.8	3	0.9	6	1.9
Need to know preventive measures	273	85.1	24	7.5	9	2.8	3	0.9	12	3.7

Source: Author's Fieldwork (2020) (N.B.: SA+A=A, SD+D=D)

Table 2 indicates that most of the respondents agreed that they need information on the symptoms of COVID-19. Moreover, most of the respondents agreed that they needed information on the number of cases of COVID-19 in Nigeria. It can be seen in Table 2 that the majority of the respondents agreed that they need information on vaccines/treatment of COVID-19. Lastly, in Table 2, it can be inferred that most of the respondents agreed that they need information on the preventive measures for COVID-19. This shows that most of the respondents saw the need for information on symptoms, some cases, vaccines/treatment, and preventive measures of COVID-19.

Table 3
Information Seeking Behavior about COVID-19

Items	Responses									
	Strongly Agreed		Agreed		Neutral		Disagreed		Strongly Disagreed	
	N	%	N	%	N	%	N	%	N	%
Intentional search to acquire information	138	43.0	45	14.0	45	14.0	30	9.4	63	19.6
Acquire information by accident or by chance	81	25.2	69	21.5	60	18.7	51	15.9	60	18.7
No intention to acquire information on COVID-19	63	19.6	24	7.5	30	9.4	42	13.1	162	50.4
I have established knowledge of COVID-19 but acquire information for updates	120	37.4	84	26.2	57	17.7	27	8.4	33	10.3
Cultural and religious beliefs preclude acquisition of information on COVID-19	66	20.6	18	5.6	24	7.5	63	19.6	150	46.7

Source: Author's Fieldwork (2020) (N.B.: SA+A=A, SD+D=D)

Table 3 shows that most of the respondents agreed they searched information about COVID-19 to gather information about the disease. Also, Table 3 reflects that less than half of the respondents acquire information on COVID-19 by chance or accident. Moreover, it can be observed in Table 3 that the largest percentage of the respondents disagreed that they have no intention to acquire information on COVID19. These indicate that most of the respondents searched for information about the disease and were intentional about searching for it. Meanwhile, this indicates in the reflection as only less than half of the respondents came across information about COVID-19 by accident or chance. Furthermore, Table 3 indicates that most of the respondents agreed that they have knowledge of COVID-19 but acquire information for updates. This shows that it is a continuous knowledge process for most of the respondents as it concerns COVID-19. Moreover, it can be seen in Table 3 that the majority of the respondents disagreed that cultural and religious beliefs stop them from acquiring information on COVID-19.

Table 4
Sources of Information on COVID-19

Variables	Frequency	Percentage
Social media	312	97.2
Family and friends	291	90.7
Broadcast media	286	89.1
Print media	159	49.5
Library	78	24.3
NCDC and Ministry of Health websites	246	76.6
Health care professionals	297	92.5
Others	225	70.1

Source: Author's Fieldwork (2020) (N=321)

Table 4 highlights that less than half of the respondents consult print media (49.5%) and the library (24.3%) for information about COVID-19. Moreover, it can be observed in Table 4 that social media is the most consulted source among the respondents with 97.2%, this is followed by health care professionals with 92.5%, family and friends with 90.7%, broadcast media with 89.1%, National Center for Disease Control and Ministry of Health websites with 76.6% and others with 70.1%. It can be deduced that social media has the highest consultation among the respondents.

Table 5
Factors Affecting Information Seeking Behavior on COVID-19

Items	Responses									
	Strongly Agreed		Agreed		Neutral		Disagreed		Strongly Disagreed	
	N	%	N	%	N	%	N	%	N	%
Environmental factor	141	43.9	72	22.4	33	10.3	32	10.0	43	13.4
Financial factor	126	39.3	84	26.2	30	9.3	45	14.0	36	11.2
Religious factor	105	32.7	45	14.0	60	18.7	39	12.2	72	22.4
Cultural factor	93	29.0	57	17.7	48	15.0	45	14.0	78	24.3
Demographic factor	90	28.0	60	18.7	52	16.2	62	19.3	57	17.8
Interpersonal factor	105	32.7	75	23.4	54	16.8	36	11.2	51	15.9

Source: Author's Fieldwork (N.B.: SA+A=A, SD+D=D)

Table 5 indicates that more than half of the respondents agreed that environmental factor affects information-seeking behavior on COVID-19. Also, Table 5 signifies that most respondents agreed that financial factors affect information-seeking behavior on COVID-19. Moreover, it is shown in Table 5 that religious factor affects the information-seeking behavior of a bit less than half of the respondents. It can also be observed in Table 5 that cultural factor affects the information-seeking behavior of less than half of the respondents. Furthermore, less than half of the respondents agreed that demographic factors affect information-seeking behavior on COVID-19. Also, Table 5 indicates that respondents' preponderance agreed that interpersonal factors affect information-seeking behavior on COVID-19.

Test of Hypotheses

H_{01}: There is no statistically significant relationship between sources of information and information-seeking behavior

Table 6

Relationship between Sources of Information and Information Seeking Behavior

Constructs	N	Df	R-value	P-value	Remark
Sources of information	321	319	.514**	0.274	Sig…
Information seeking behavior					

** Correlation is significant at 0.01 level (2-tailed)

Table 6 indicates that the degree of freedom is 319, the r-value is 0.514, and the p-value is 0.274, more than the 0.05 significance level. Thus, the null hypothesis, which states that there is no statistically significant relationship between sources of information and information-seeking behavior, will be accepted as a result of this. This indicates Type II error and means that there is no statistically significant relationship between sources of information and information-seeking behavior.

H_{02}: There is no statistically significant relationship between information need and information-seeking behavior

Table 7

Relationship between Information Need and Information Seeking Behavior

Constructs	N	Df	R-value	P-value	Remark
Information need	321	319	.683**	0.017	Sig…
Information seeking behavior					

** Correlation is significant at 0.01 level (2-tailed)

It can be seen in Table 7 that the degree of freedom is 319, which was obtained from a sample size of 321. It can also be observed that the r-value is 0.683. The p-value is 0.017, which is less than the 0.05 significance level. Therefore, the null hypothesis that states no statistically significant relationship between information need and information-seeking behavior will now be rejected. This shows that there is a significant relationship between information need and information-seeking behavior.

Discussion

The study's findings revealed that the most needed COVID-19-related information among Lagos State inhabitants is information on vaccines/treatment of pandemic, and the majority needs information on preventive measures to take to stay safe from the virus. This is similar to the findings of Nafees and Khan (2020) that Indian populace information needed during the COVID-19 outbreak include prevention and control of the disease. Therefore, this makes it essential for the National Centre for Disease Control (NCDC) and the Lagos State Ministry of Health to provide information on the vaccines and treatments of the disease. The finding shows that most Lagos State inhabitants need information on the symptoms of COVID-19. This is consistent with Majid, Ye, Tan and Xinying (2019) findings on dengue-related disease as most sought-after information about the virus in Singapore includes dengue-related medicines,

primary symptoms of dengue infection, and different possible treatments.

Similarly, Nafees and Khan (2020) showed that the Indian populace needs information about the symptoms, causes, and treatments of COVID-19. This suggests that there is no disparity in the health information need of people in developed countries like Singapore and developing countries like Nigeria and India. Also, results show that most of the populace needs information about the number of cases of the pandemic in Nigeria. The information need of the populace on the number of cases may stem from the need to be aware of the cases of the disease. The hypothesis tested shows that there is a statistically significant relationship between information need and information-seeking behavior.

The results show that most of the respondents intentionally search for information on COVID-19 pandemic disease to gather information about the disease. This suggests that most people actively search for health information in the United States of America (Longo et al., 2010). Moreover, it was shown in the findings that less than half of the Lagos State inhabitants acquired information about COVID-19 by chance or accident. Results show that most of the respondents have the intention to acquire information on the disease, which means that a significant chunk of the inhabitants was intentional in getting information about the disease. This implies that most of the respondents are not passive information seekers. This is dissimilar to Gavgani Zarea et al. (2013) findings that health information seekers in selected public libraries in Iran were passive information seekers rather than active ones. The differences in the findings may be because Gavgani Zarea et al. (2013) were on general health while this current study is on a spreads easily specific disease that if hygiene is not taken seriously. Findings revealed that most of the respondents have knowledge of COVID-19 disease but only acquire information for updates. The findings show that most Lagos State inhabitants update their knowledge of pandemics by intentionally searching for more information about the disease. The findings show that Religious or cultural beliefs do not influence Lagos State inhabitants' information-seeking behavior. As against the prevalent socio-cultural factors that generally bedevil health issues in Nigeria, the study shows that subjective religious or cultural beliefs do not influence information seeking among Lagos State inhabitants. It was found that there is no statistical significant relationship between sources of information and information seeking behavior.

The study's findings revealed that social media is the most used source of information among the Lagos State inhabitants, while most of the source information about COVID-19 is from health care professionals. Related findings (Dastani et al., 2019; Esmaeilzadeh et al., 2018) revealed that the Internet, doctors, and social media are the most important information sources in seeking health information. This means that social media is now being utilized as a tool to source health-related information. The study also found that most Lagos State inhabitants source information from family and friends. It was found that more than half of the respondents did not source information about the disease from libraries or print media. This finding is quite revealing as it was noted that libraries and print media are essential sources of health information provision (Garcia-Cosavalente et al. 2010). Andualem et al. (2013) found that most health care professionals in Ethiopia access the library for health information compared to the Internet. This may be due to their health-related experience or knowledge as healthcare professionals, as this study focuses on the general populace. Moreover, the finding may be owing to the unavailability of health information resources in our various libraries in Nigeria. The study findings show that most of the Lagos State inhabitants consult broadcast media and

others. This supports the findings of Gavgani Zarea et al. (2013) that most of the health information seekers in Iran source information from watching television. Findings show that most of the respondents consult NCDC and Ministry of Health websites.

Results show that most Lagos State inhabitants agreed that environmental factors affect information-seeking behavior about the pandemic disease. Findings show that most of the respondents agreed that financial factor affects information-seeking behavior on COVID-19. Raj *et al.*'s (2015) finding supports the findings of this study as it revealed that lack of financial power to acquire information might affect health information-seeking behavior. The study revealed that religious factor affects the information-seeking behavior of a bit less than half of the respondents. The study findings show that cultural factors affect the information-seeking behavior of less than half of the Lagos State inhabitants. This supports the assumption of Moonaghi et al. (2014) that cultural or traditional belief affects information-seeking behavior. Results show that less than average inhabitants believe that demographic factors affect information-seeking behavior during pandemic disease. Esmaeilzadeh et al. (2018) show that the difficulty in determining the quality of the information found is a factor that affects information-seeking behavior. This may include prior knowledge of the health information seeker. It was revealed in the findings that most of the respondents agreed that interpersonal factors affect information-seeking behavior about COVID-19 disease.

The weakness of this study is basically in the sample size for the study. This occurred because of the adopted method of data collection, which online survey. It has been established that online surveys are usually between 30-40% lower than paper questionnaires (Cunningham et al., 2015). A deeper understanding of health-related information needs and seeking behavior can be explored using qualitative research or a mixed-methods approach. The strength of the research study is that it was able to relatively collect lots of data and information from the respondents using a web-based survey during the lockdown. On the strength of this, the study is cost-effective and health-wise appropriate for the perilous time. The study findings are generalizable because of quantitative research of a selected sample in Lagos State, Nigeria.

Key Findings

The following itemized findings are the fundamental findings of this study:

- National Centre for Disease Control (NCDC) and Lagos State Ministry of Health should provide adequate information on vaccines/treatments and preventive measures against the COVID-19.
- Findings suggest that the Lagos State Ministry of Health should provide health-related information during the pandemic.
- Research findings suggest that information on symptoms and vaccines/treatment are the most needed COVID-19-related information.
- Social media should be used as significant media in the dissemination of information about the disease.
- Future studies should extend the scope of the current study and consider mixed methods as research design.

Conclusion

The study concludes that the most critical COVID-19-related information needs of Lagos State inhabitants are information on the treatments/vaccines of the disease and information on the preventive measure to take in avoiding the disease. The study established that most Lagos State inhabitants actively search for information on the pandemic, but some passively search for information about the disease. The study concludes that social media is the most accessed source of information on COVID-19-related information. This established that social media is becoming a viable tool for disseminating health-related information. Also, the study established that libraries and print media are not accessed by the majority of Lagos State inhabitants for COVID-19-related information. The study concludes that the factors that affect the health information-seeking behavior of Lagos State inhabitants include environmental, financial, demographic, and interpersonal factors.

Recommendations

The following recommendations were made based on the findings and the conclusion of the study:

i. National Centre for Disease Control should endeavor to use their Twitter (as social media is the most accessed of all the sources) handle to provide information on vaccines/treatments and the preventive measure of the disease.

ii. Lagos State inhabitants are enjoined to access print media and e-library (to ensure social distancing) in their search for COVID-19-related information.

iii. Ministry of Health (both state and federal governments) should visualize and implement the provision of health information on COVID-19 that will be devoid of environmental and financial implications.

iv. Individuals should always endeavor not to let demographic and interpersonal factors affect their information-seeking behavior.

v. Lagos State inhabitants should also support the fight against COVID-19 by dispelling and doing away with misinformation and fake news.

vi. Public and national libraries are advised to organize temporary mobile information services to support government agencies in providing effective information about the disease.

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