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Perception of Asaba People in Delta State Nigeria towards National Community Response to Covid-19

Ngozi G. Orofuke¹, Ayirioritse P. Ighosewe², Christiana I. Elusoji³, Uzochukwu Ofonakara⁴, Matthew Chindeum Ezeh⁵

Charles C. Ofili¹, Michael O. Otutu¹, Eugene O. Ohanme^{4*}

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ABSTRACT

The 2019 coronavirus pandemic has caused global concern and led to measures such as hygiene, isolation, and social distancing. 99.5% of respondents knew about COVID-19, according to a Nigerian newspaper report, and most of them cited the internet, social media, and television as their main information sources. The majority of defensive methods, according to 82.3% of respondents, include good cleanliness, self-isolation/social distance, face masks/gloves, and prayer. Also, 52.1% of respondents, however, said that the government was not doing enough to stop the pandemic in Nigeria. People who were well-informed on COVID-19 felt favorably about the country's reaction. Most responders did not comply with preventive measures because they thought the pandemic was more of a hoax than a real threat. An accurate information dissemination plan is advised to guarantee adherence to preventive measures and to increase public awareness of the pandemic. In view of the ongoing epidemic, the study emphasizes the necessity of precise information dissemination tactics to guarantee adherence to preventive measures.

INTRODUCTION

A new virus known as COVID-19 was identified in Wuhan, Hubei Province, China, in 2019. Severe acute respiratory syndrome coronavirus 2 is the virus's cause. SARS-CoV-2 (Zhu *et al.*, 2020). First diagnosed as a pneumonia-like illness in December 2019 from an idiopathic perspective, the sickness was officially recognized as a global public health emergency on January 30, 2020 (Zhu *et al.*, 2020). Since then, additional research and reports from many locations around the world have revealed more about COVID-19. As of May 9, 2020, there were 4,067,112 confirmed cases of COVID-19 worldwide and 280,507 documented deaths. As of May 14, 2020, there were 4,308,809 reported cases of COVID-19, including 296,680 deaths (Zhang *et al.*, 2021).

On February 27, 2020, the first verified case of COVID-19 was reported in Nigeria. The first case of COVID-19 in Nigeria, according to the National Center for Disease Control (NCDC), involved an Italian national who arrived on a Turkish Airlines flight from Milan via Istanbul on February 24. (Harapan *et al.*, 2020). From that point on, the number of cases has increased steadily. As of May 14, 2020, 5,962 coronavirus infections had been confirmed, 1,180 cases had been discharged, and 168 deaths had been reported. The majority of COVID-19 infections in Nigeria have been linked to contacts with previously confirmed cases and returning tourists (Harapan *et al.*, 2020).

In attempt to stop the virus's spread, the Nigerian federal government has implemented a number of measures, such as the closure of all educational institutions, lockdowns in Lagos and the Federal Capital Territory (FCT), instructions for people to stay at home, and prohibitions on public gatherings (Jacobs & Okeke, 2022).

The NCDC has also raised public awareness of the coronavirus pandemic by employing crucial communication techniques in print, social, and electronic media to inform Nigerians of its spread (Dan-Nwafor *et al.*, 2020).

Social workers are essential in supporting efforts to avoid disease because they assist in managing anxiety and other pandemic-related issues while also providing accurate information from reliable sources (Ross & de Saxe Zerden, 2020). Many people find lockdown procedures and physical segregation to be unavoidably upsetting, startling, confusing, and alienating, especially vulnerable populations like people with disabilities (PWDs) (Bhattad & Pacifico, 2022). Thus, the advocacy role of social workers is to shape social policy with respect to the safety of the economically disadvantaged and disabled, for whom lockdowns would have adverse consequences. Social service providers in China played a crucial role in the COVID-19 response by assisting in the identification of vulnerable populations' needs, planning volunteer aid, mobilizing local resources, and conducting studies on the quality of life in Sichuan province (Wang & Liu,

¹ Department of Community Medicine, Delta State Primary Healthcare Development Agency, Delta State Nigeria

² Department of Paediatrics, Delta State Specialist Hospital, Asaba, Delta State, Nigeria

³ Department of Nursing Sciences, Benson Idahosa's University, Benin City. Edo State, Nigeria

⁴ Department of Pharmacology and Therapeutics, Faculty of Basic Clinical Sciences, Alex Ekwueme Federal University Ndufu-Alike Ikwo, Ebonyi State, Nigeria

⁵ Department of Economics, Dennis Osadebay University, Asaba, Delta State, Nigeria

* Corresponding author's e-mail: eugene.ohanme@funai.edu.ng

2022). However, the governments of Nigeria's failure to recognize or understand the role of social workers highlights the absence of a professional mandate and the challenges associated with putting social work practice into practice (Androff & Mathis, 2022).

The Novel Coronavirus Disease

With no known cure or vaccine, COVID-19 is a worldwide epidemic that has significantly increased morbidity and death. 95,714 fatalities, 356,440 recoveries, and 1,603,428 confirmed cases were reported globally as of April 9, 2020. An Italian national was designated as the index case in Nigeria, where there were 288 laboratory-confirmed infections, 51 discharges, and 7 fatalities (Mallah *et al.*, 2021). Civil societies and government organizations started educating the public about proper hygiene and social separation in order to stop the disease's spread. Airports screened passengers for temperature, and travelers returning from nations where there had been many confirmed cases were advised to separate themselves (Pollard *et al.*, 2020). The Nigerian government instituted containment measures, such as sealing national borders, closing schools, and putting in place lockdowns, and it banned meetings with more than fifty participants for a period of four weeks. The state governments established isolation facilities and curfews, while testing laboratories were established in Lagos, Abuja, and Irua (Ibrahim *et al.*, 2020).

The Corona Virus (COVID-19)

The virus that causes COVID-19, a serious respiratory illness first identified in Wuhan, China in December 2019, is called SARS-CoV-2. It spreads via the mouth, nose, and eyes and produces symptoms like fever, coughing, and shortness of breath (Khan *et al.*, 2020). The virus can cause serious respiratory issues or even death during its one to fourteen-day incubation period, particularly in the elderly and those with chronic conditions. Since no known cure or vaccination for COVID-19 exists, medical interventions are restricted to supportive care, experimental medications, and therapies (Hu *et al.*, 2021).

MATERIAL AND METHODS

Study Design

For this study, a cross-sectional survey of 589 volunteers who were chosen at random from the communities of Umuagu, Umuaji, and Akwebulu in Asaba, was employed. The volunteers were given a questionnaire and interviewed about covid-19 compliance and preventive strategies. Residents of Asaba in Oshimili North LGA Delta in State made up the study's population. Before the final form was given to the participants in Asaba, the questionnaire underwent peer review and a pilot test in two hospitals in Amai, which is not the location of this study. The questionnaire were structured into five distinctive parts to collect information on

- (i) Demographic characteristics
- (ii) Knowledge of Covid-19 disease

- (iii) Awareness of the preventive measures in the metropolis

- (iv) The compliance rate with preventive measures in the metropolis

- (v) Factors that affect the awareness of Covid 19 preventive measures

Community members were chosen through the use of the convenient sampling technique. Data were gathered over a two-week period. The data that was gathered was examined to ascertain the degree of adherence to recommended preventive actions.

Study Area

The study was carried out at Asaba, a city in Delta State, South-South Nigeria's Oshimili North Local Government Area. Oshimili North had 172,773 residents as of the 2006 population census (National Population Commission, 2010). This community's decision was influenced by its urban status and the congestion brought on by Onitsha Market's enormous market area (Yimer *et al.*, 2022).

Scope of Study

This study was limited to the knowledge, awareness of prevention methods and the factors influencing the practice of preventive measures in 589 randomly selected volunteers within the ages 18 and above in Oshimili North Local Government Area of Delta State, Nigeria.

Study of Population

The target population were people from age 18 years upwards from which the sample size was selected by simple sampling technique. The research study populations were residents in Oshimili North Local Government Area.

Sample Size Determination

The sample size was determined using Fisher's Formula:

$$n = z^2 p (1-p) / e^2$$

Where

n = Minimum required sample size in population >10,000.

Z = Standard normal deviation at 95% confidence interval. Level of significance is 1.96.

P = Prevalence of women who have knowledge of good nutrition from literature reviewed = 0.185.

E = Acceptable margin of sampling error (0.05).

n = 589 (Jung, 2014)

Sampling Procedure

To choose the three villages and three areas that make up the community, simple random sampling was utilized. This was done to ensure that every region had an equal chance of being chosen for the study. To choose respondents who agreed to take part in the study, the availability sampling technique was used. This was predicated on earlier phone conversations in which the respondents were invited to take part in the research. Ten houses from each of the chosen villages made up the total of thirty homes that were chosen for the study. Heads of households, both male and female, fifty years of age and older, were chosen for the interview.

Inclusion Criteria

Volunteers who have been resident in the Umuagu, Umuaji and Akwebulu communities in Asaba of Oshimili North Local Government Area for at least ten years from 18years old, were selected for the study

Exclusion Criteria

Volunteers under the age of eighteen who did not live in the Asaba Oshimili North Local Government Area’s Umuagu, Umuaji, or Akwebulu villages were not chosen for the study.

Method and Instrument for Data Collection

Data was gathered using a semi-structured questionnaire that the interviewer provided. The poll was adapted from a similar study conducted among Chinese citizens (18) to fit the objectives of the research. The questionnaire’s reliability coefficient (Cronbach’s alpha) after pretesting and reliability testing was 0.82 (Tavakol & Dennick, 2011). Face validity was established from the pretest to confirm that the answers accurately reflected the questions and that the questions themselves fit the study’s objectives. Public health experts concluded that the questions addressed all relevant aspects of the topic, proving the questions’ content validity. The questionnaire asked questions about sociodemographic data, information availability, awareness of COVID-19 symptoms, transmission, and prevention, views against foreigners of Asian or Caucasian heritage living abroad, recent returnees from international travel, and COVID-19 survivors. Other subjects included were COVID-19 pandemic associated behaviors such handwashing, using face masks, social distancing, utilizing over-the-counter drugs, and using herbal medicines (Adesegun *et al.*, 2020).

True/false questions were utilized to construct the knowledge section’s questions, and a scoring system was developed to assess knowledge. The first nine questions, which concentrated on COVID-19 symptoms and transmission, were awarded one point each, while the next eight questions, which addressed COVID-19 prevention, were worth two points each. In total, there were twenty-five points. Each incorrect answer was assigned a zero. 13–17 (50–69%) was regarded as having intermediate knowledge, 18–25 (>70%) as having strong knowledge, and less than 13 (<50%) as having inadequate information. To the next whole number, the overall score was rounded. To construct a 5-point attitude scale. Twelve questions were used to score attitudes using a Likert scale and yes/no questions. A positive attitude was worth one point, while a negative attitude was worth zero. A total score

of less than fifty percent was considered to be poor, and a total score of more than fifty percent was considered to be good. Multiple-choice and yes/no questions made up the practice component. Five questions were used to grade practice; a score of less than fifty percent indicated bad practice. Positive practice received one point.

Validity of the Research Instrument

The researcher used a self-structured questionnaire with contents relevant to the topic and was assessed by the researcher’s supervisor prior to the administration of questionnaire, so as to ensure the questionnaire is valid and subsequently approved (Ranganathan & Caduff, 2023).

Reliability of the Research Instrument

Test-re-test was used prior to this study. The pretesting replies were utilized to adjust the questions. Subsequently, the same respondents took a second test to ascertain the questionnaire’s validity, and the results of both tests were correlated after calculation. (Ranganathan & Caduff, 2023).

Ethical Considerations

This study involved children from Novena University, who were interviewed in the presence of their parents. Parental consent was obtained, and the study aimed to respect the indigenous belief system and interview children first before adults to avoid influencing their views.

Data Collection

The study used in-depth interviews to gather data from 36 respondents, including 6 children and 30 household heads, between October 10 and November 5, 2020. The interviews were conducted in Igbo and English, with participants informed about the research’s objectives, anonymity, confidentiality, and the freedom to withdraw at any time. The interviews were transcribed into English, and the original meaning of the participants’ words was preserved to ensure reliability and validity of the data (Jamshed, 2014).

The study analyzed respondents’ responses on COVID-19, physical/social distancing, hand washing, and lockdown impact on child care. Analytical themes were identified, and the data was manually analyzed to maintain originality and avoid manipulation.

RESULTS AND DISCUSSION

Results

Table 1: Sociodemographic characteristics of Participants

Variable		Frequency (n = 589)	Percent (%)
Age (years)	18–29 years	261	44.3
	30–39 years	214	36.3
	40–49 years	93	15.8
	50–59 years	21	3.6

Gender	Female	238	40.4
	Male	351	59.6
Marital status	Married	230	39.0
	Single	354	60.1
	Divorced	3	0.5
	Widow/widower	2	0.3
Level of education	High school	26	4.4
	College/bachelor	348	59.1
	Master	153	26.0
	PhD	31	5.3
	Others	31	5.3
Residential location	Urban	331	56.2
	Semi-urban	213	36.2
	Rural	45	7.6

Table 2: Perception of respondents towards national community response to covid 19

S/N	Variable	Frequency (n = 598)	Percent (%)
1	Do you think that the government has/is doing enough to stop the global pandemic in Nigeria?		
	Yes	139	23.6
	No	307	52.1
	Maybe	143	24.3
2	Do you agree with the obligatory lockdown/measures Nigeria is taking?		
	Yes	374	63.5
	No	115	19.5
	Maybe	100	17.0
3	Do you agree with the government stay-at-home order?		
	Yes	428	72.7
	No	84	14.3
	Maybe	77	13.1
4	Are you complying with the government stay-at-home order?		
	Yes	460	78.1
	No	25	4.2
	Sometimes	104	17.7
5	Do you believe in Chinese doctors' intervention in Nigeria?		
	Yes	73	12.4
	No	401	68.1
	Maybe	115	19.5
6	Will you accept COVID-19 vaccine?		
	Yes	171	29.0
	No	268	45.5
	Maybe	150	25.5
7	On a scale of 1–5, how satisfied are you with your country's response against the COVID-19 pandemic?		
	Not satisfied	141	23.9
	Partly satisfied	155	26.3
	Satisfied	234	39.7
	More than satisfied	34	5.8
	Very satisfied	25	4.2

8	How satisfied are you with the media/social media coverage of the COVID-19 pandemic?		
	Very satisfied/keeps me updated	267	45.3
	Makes me worry more/stressful	55	9.3
	Not enough information	70	11.9
	There are more lies than truth	138	23.4
	I don't follow any media update	8	1.4
	No comment	51	8.7
9	What do you think we can do as a community to reduce the spread COVID-19 (select all that applies)?		
	Follow/respect the health recommendations of my country	531	90.2
	Eat healthy/practice sports	311	52.8
	Attending religious gatherings	28	4.8
	Social distancing/avoid crowd	464	78.8
	Volunteer to support whenever possible	268	45.5
	Avoid handshakes and face kissing	438	74.4
I don't know	5	0.8	
10	Do you think we can prevent such a global pandemic in the future?		
	Yes	415	70.5
	No	34	5.8
	Maybe	140	23.8
11	Which of these can prevent/help against the occurrence of such a global pandemic in the future? (select all that applies)		
	Reduced international travels	266	42.2
	Improve surveillance in the human and animal health sectors	394	66.9
	Establish early alerts and global warning systems for infectious diseases	486	82.5
	Collaboration between environmental, animal and human health workers	344	58.4
	Intensify research on preventive measures such as vaccines/diagnosis	460	78.1
	Raise public awareness of proper hygiene/healthy habits	452	76.7
	Prioritize human life/health welfare over animal or environmental ones	208	35.3
12	Are you willing to read and share with others the right information about COVID-19?		
	Yes	552	93.7
	No	8	1.4
	Maybe	29	4.9

Table 3: Mean score of COVID-19 knowledge in relation to attitude and perception towards preventive measures and national response

Attitudes towards preventive measures, perception towards national response	Mean score	Std. error	95% Confidence interval	
			Lower bound	Upper bound
Negative attitude	1.886	0.018	1.852	1.921
Positive attitude	1.961	0.014	1.934	1.988
Negative perception	1.896	0.014	1.868	1.925
Positive perception	1.951	0.017	1.917	1.984

Table 4: ANOVA source table for knowledge of covid 19 attitude and preventive measures and perception of national responses

Source	Type III sum of squares	Df	Mean square	F	p-value
Corrected model	1.756 ^a	3	0.585	8.789	0.000
Intercept	1983.049	1	1983.049	29,778.429	0.000
Attitude towards preventive measures	0.740	1	0.740	11.116	0.001
Perception of national response	0.393	1	0.393	5.896	0.015

Attitude towards preventive measures * perception of national response	0.393	1	0.393	5.896	0.015
Error	38.957	585	0.067		
Total	2224.000	589			
Corrected total	40.713	588			

^aR Squared = 0.043 (Adjusted R Squared = 0.038)

Table 5: Pearson’s correlation table for relationship between knowledge of COVID-19, attitude towards preventive measures and perception of national response

	Perception of national response	
	Pearson’s correlation (r)	p-value
Knowledge of COVID-19	0.177	0.004
Attitude towards preventive measures	0.137	0.001

589 people in all took part in this online survey. The majority of the study’s participants were men: 59.6% (351), 80.6% (475) were in the 18–39 age range, 90.4% (522) held a bachelor’s degree or above, and 56.2% (331) were city dwellers. The majority of respondents, 56.5% (333) and 58.7% (346), reside in homes with a maximum of five occupants and those organized in linear (straight) street patterns (Table 1).

Regarding the national and community reaction to COVID-19, only 63.5% (374) of the respondents agreed with the mandatory lockdown implemented, indicating that 52.1% (307) of the respondents thought the government was not doing enough to contain the pandemic in Nigeria. The majority of respondents, 45.5% (268) and 68.1% (401), respectively, do not think Chinese doctors should be involved in Nigeria’s effort to combat COVID-19 and would not take COVID-19 vaccinations if they become available. Yet, as indicated by 90.2% (531), 78.8% (464), and 74.4% (438) of the respondents, observing/respecting health advice, social distancing/avoiding crowds, avoiding handshakes, and face kissing were some of the measures to limit community spread COVID-19. The majority of respondents 45.3% (267), 70.5% (415), and 93.7% (552) were pleased with how the COVID-19 pandemic was covered by the media, hopeful that a repetition of the pandemic might be avoided, and ready to read about and distribute accurate information about the virus to others (Table 2).

People who are well-informed about COVID-19 will view the virus favorably. With a mean score of 1.961 for positive attitudes toward COVID-19 and 1.886 for negative attitudes toward COVID-19 (Tables 4,4,5,5), residents of north-central Nigeria who were well-versed in the virus had a significantly positive attitude toward COVID-19, $F(1,585) = 11.116, p = 0.001 (p < 0.05)$. As a result, hypothesis 1 was supported.

People who are well-informed about COVID-19 will view the national response to the pandemic favorably. (Table 3).

Residents who were well-versed in COVID-19 had a positive impression of the national response to the virus, $F(1,585) = 5.896, p = 0.015 (p < 0.05)$; the mean scores for

positive and negative perceptions of the national response to COVID-19 were 1.951 and 1.896, respectively. The theory that people who are well-informed on COVID-19 will see the country’s response to the pandemic favorably was validated (Table 4).

The spread of the COVID-19 virus in Asaba is inversely correlated with high COVID-19 knowledge. Regression model 1 summary findings showed that the 95% confidence interval for the coefficient of determination, $R^2 = 0.041, F(1,587) = 0.316$, and $DW = 2.075$, were as follows. This demonstrated that the model can account for a 4.1% variation in the COVID-19 virus’s propagation. The model’s ANOVA’s F-statistic revealed no closeness of fit, indicating that the model is not statistically significant at the 95% confidence interval ($p < 0.05$) level. The Durbin-Watson score of 2.075 indicates that there is no multicollinearity in the autocorrelation between the variables being examined. (Table 5).

Discussion

With the COVID-19 epidemic affecting more than 200 countries, it has grown to be one of the biggest in history. The purpose of this study was to evaluate people’s awareness and adherence to information about COVID-19, including its source, transmission, symptoms, preventive measures, mortality rate, and main sources of information in Asaba, Nigeria. The findings demonstrated that a sizable segment of Nigerians are aware of and informed about COVID-19, and a sizable fraction of them think China is the country that created the biological weapon. This view could make it more difficult for Nigeria to accept aid from the Chinese government and have an impact on bilateral relations between Nigeria and China (Khalifa *et al.*, 2021).

Religious leaders are also affected because a sizable portion of the population thinks COVID-19 is a disease brought on by sins and disbelief. Contrary to popular belief, Nigerians are very aware of preventive measures. Most of them concur that the best ways to stop the virus from spreading are to wash your hands, avoid close contact with others, disinfect surfaces, close schools, and fumigate public areas. (Sisti & Buonsenso, 2023).

Over 90% of respondents agreed that COVID-19 has high fatality rates, with 79,384 deaths worldwide as of April 7, 2020. The mass media and traditional media are identified as major sources of information about COVID-19, with the internet being the premier source of knowledge during outbreaks. The survey aimed to assess compliance and identify key areas of concern for optimal sub-national and community intervention (Alimohamadi *et al.*, 2021).

A survey in Asaba, Nigeria, revealed that the majority of respondents were educated and knowledgeable about COVID-19, with a high percentage of males and singles. They believed the virus was caused by a virus, but a majority believed everyone was at risk. Despite taking precautionary measures during lockdown, 27.5% visited crowded places, indicating the government's inability to implement strict measures. The study found a significant relationship between COVID-19 knowledge and positive attitudes (Adedeji-Adenola *et al.*, 2022).

A study on Nigerians found that 45.3% believe prayer is effective in COVID-19 prevention, largely due to strict religious beliefs. Despite the lockdown, many were bored, nervous, and stressed. Only 25.3% were satisfied with government efforts, and only 29.0% would accept vaccines (Bentzen, 2021). The underprivileged and vulnerable population had limited knowledge about COVID-19, affecting their KAP. The Nigerian government and NCDC should take proactive measures to counter misconceptions and promote information dissemination (Tolstrup Wester *et al.*, 2022).

A study in Nigeria found a positive attitude towards COVID-19, with three-quarters believing it will be successfully controlled. Factors such as information and educational qualifications influenced the belief in confirmed cases. However, age or gender did not significantly influence attitude (James *et al.*, 2022).

CONCLUSION

The findings from this study affirm that Nigerians are highly knowledgeable, believe in the lethality of this pandemic but show very poor preventive practices due to local belief in the black African adaptations against COVID-19. Though compliance to the preventive measures is very low, very educated people and the female gender showed more compliance than men. The data imply that the mitigation of the COVID-19 outbreak is imminent provided people adopt a positive outlook and follow the government's recommended course of action. Notwithstanding their drawbacks, social media and the internet made a substantial contribution to the knowledge that was required. Not much was noteworthy about the government's attempts to contain COVID-19.

Contribution to knowledge

This study has established that there is strong evidence of a number of factors between the knowledge levels of the patients with their attitude and preventive practice. The essential factor - local belief has grave effect on preventive practices

Recommendation

i. Public health education campaigns should go on, dispelling myths and offering updates on clinical presentation, prevention, and control strategies, evidence-based policies, and other topics. To reach the younger population, these campaigns should engage the public more on social media and other Internet platforms; to reach the older generation, they should use other traditional media. All stake holders should intensify their effort in sensitizing the general public to understand and comply with all precautionary measures to curb COVID-19.

ii. Public health education initiatives should be planned on a regular basis in the remote locations.

iii. The primary target audience for COVID-19 should be those with lower levels of education and understanding.

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