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Knowledge, attitudes and perception on prevention and control of COVID-19 in Obowo local government area Imo state Nigeria

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Abstract
The study was aimed to ascertain the people's Knowledge, Attitudes and Perception on the prevention and control of COVID-19 in Obowo Local Government Area Imo State Nigeria. Survey method was adopted using questionnaires for data collection. A total of 200 questionnaire were shared. Also, in-depth interviews (IDIs) observing COVID-19 protocol (Social distancing and putting face mask) were conducted in order to determine the level of participants' knowledge on transmission, treatment and approaches to control. Results from the distribution showed that more than 200(100.0%) of the respondents have heard about COVID-19 and Health workers 102(51.0) and Radio/TV 50(25.0) were their major source of information. About 123(63.0) optioned Air droplets via breathing, sneezing and coughing as the major mode of transmission while 43(21.5) said touching of contaminated objects and surfaces. The results also showed that 99(49.5) respondents believed Coughing is the major symptoms while 31(15.5) said sneezing, fever 23(11.5), shortness in breath 22(11.0). However, 106(53.0) of the respondents identified Hand washing and social distancing as the major prevention and control, use of face mask 51(25.5), while 31(15.5) identified disinfecting contaminated surface. This study recorded good knowledge and attitudes among participants, however, community-based health campaigns are necessary to hold optimistic attitudes and practice appropriate intervention measures devoid of misconceptions.

Keywords: Chhani, consumption, fuel-wood, households, Lanchaan

Introduction

The World Health Organization declared COVID-19 outbreak a public health emergency of international concern (PHEIC-Pandemic) on January 30, 2020. Currently, COVID-19 has spread to over 200 countries and territories, with over 7.5 million cases and 419,568 deaths globally as of June 2020 (WHO, 2020) [8]. In Nigeria, the first reported COVID-19 case was in Lagos on February 27, 2020, while the number of cases and death had gradually increased. As of June 12, 2020, COVID-19 cases in Nigeria have reached 15181 and 399 deaths, including healthcare workers.

The virus is transmitted through direct contact with respiratory droplets of an infected person (generated through coughing and sneezing). Individuals can also be infected from and touching surfaces contaminated with the virus and touching their face (e.g., eyes, nose, mouth). The COVID-19 virus may survive on surfaces for several hours, but simple disinfectants can kill it. Based on current knowledge of the situation of the mode of transmission of COVID- 19, the WHO, the United States Centres for Disease Control (CDC), the United Kingdom's National Health Service (NHS), the Nigeria Centre for Disease Control (NCDC) and other national CDCs have recommended the most effective ways of preventing its spread. These include frequent hand washing using running water with soap for at least 20 seconds. In the absence of water, frequent use of hand sanitizers (with at least 70% alcohol-base) is advocated. It is also very important to avoid touching the eyes, nose, and mouth with hands as transmission of this virus can occur with the possible transfer of the virus from a contaminated source to gain access into the human body. Other means of possible prevention of transmission of this virus include: maintenance of social distancing (maintaining at least 1 metre distance with anyone) and the practice of respiratory hygiene, making sure that the mouth and nose are covered with the elbow or tissue when coughing or

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sneezing as well as appropriate disposal of the used tissue immediately. The use of face mask, minimizing of handshake and other unnecessary body contact, the avoidance of overcrowded places (of more than five people) and regular cleaning of all "high-touch" surfaces every day, such as counters, doorknobs, toilets, phones, etc are other important preventive measures. Other preventive measures include staying at home if one feels unwell until he/she recovers. This is to help protect the person and others from possible COVID-19 viruses. If however, the person develops fever, cough and difficulty in breathing, he/she is advised to immediately call the number provided by the National or State CDC medical provider who will quickly direct the person to the right health facility. This will also help to prevent possible spread of the disease. For these preventive measures to be effective, the population need to be educated and mobilized to accept them because they have their different culture and values. For the preventive measures to achieve the desired goal there is need to create strong awareness. Against the background, the main purpose of this KAP study is to explore changes in knowledge, attitude and practices of Imo Communities on the preventive measures against COVID-19 and use the result to provide information for the evaluation of the COVID-19 community prevention approach. The result of this will help to improve the quality of health education material and quick eradication of the disease.

Study Area
Obowo LGA is found between Latitude 5 o 10 1 N-5 o 5 1 N and Longitude 6 o 35 1 E-7 o 28 1 E. The rainy season begins in April and lasts until October, with annual rainfall varying from 1,500mm to 2,200mm. An average annual temperature above 20 °C (68°F) creates an annual relative humidity of 75% with humidity reaching 90% in the rainy season. The major occupation of the people is farming and this is still done at the subsistence level.

Some of the people also embraced small scale trading and fishing. Garri remains the major staple food of the people, the produce good quantity of vegetable; they also produce oil, kernel broom (local ones) and baskets. Obowo have a number of markets such as Orie – Alike, Eke-Avutu, Nkwo-Okoronaogele etc. Culturally Obowo have their rich culture Iwa-Akwa festival, which embraces the general Obowo citizen. Other festivals includes Ekpofestival at Umunachi, Umungwa, Umuagu and Amuzi, Mbomuzo festival at Umulogho and Amanze, Egbe nkwu Avutu. Ntumaka – Alike and Umuariam. Obowo is also a tourist delight with blue Abadaba Lake, isi iyi Umuokoro-Umuariam, Uzii water etc. There are tourist attraction in the area of Umuariam game reserve centre with live monkey.

Study population
The study population included 200 respondents residing in Obowo Local Government Area.

Data collection
Data collection was done by questionnaire method. All COVID-19 protocol Wearing of Face mask and social distancing were observed. The researcher administered the questionnaire to the participants by asking them questions and filling it by her self-maintaining social distance and wearing face mask.

Data Analysis
Data obtained from the questionnaire were analyzed using percentage and formula respectively. Values were tested using Anova.

Results
Table 1 shows demographic characteristics of the respondents. From the table, female respondent (59.5%) were higher than male respondent (40.5%). People of the age 41-50 years had the highest number of respondents (28.0%) followed by 51 and above (25.5%), 10-20 years (19.0%), 21-30 years (14.5%) while 31-40years had the least respondent (13.0%). Marital status showed that people that were married 55.0% had the highest number of respondent followed by Single (34.5%), Widow (10.5%) while people that Divorced was the least (0.0%). On Education status showed that people that had no education (35.5%) had the highest number of respondent followed by ones that had secondary school (26.5%), secondary (26.5%) while tertiary had the least number of respondent (18.5%). Occupational status showed that farmers/traders had the highest number of respondent (49.5%) followed by students (18.5%), Artisans (16.5%) while civil servants/health workers had the least number of respondent (15.5%).

Table 2 shows respondent knowledge and source of information. From the tables, when asked have you heard about COVID-19 (100.0%) of the respondents answered yes while (0.0%) said no. On source of information about COVID-19, the highest respondents (51.0%) had their information from Radio/TV/Media, health workers, (25.0%), (10.5%) from friends/family, (8.0%) from church while the least respondents was (5.5%) that had their source of information from village meetings.

Table 3 shows respondent knowledge on mode of transmission. From the table, people that said Air droplets via breathing, sneezing and coughing (63.0%) had the highest number of respondents followed by Touching of contaminated objects or surfaces (21.5%), Eating of contaminated food or water (10.5%) while the least respondents (5.0%) were people that said Kissing, hugging and sex.

Table 4 shows respondent's knowledge on symptoms. From the table, Fourty nine point five percent (49.5%) said the symptoms of COVID-19 is cough, sneezing (15.5%), fever (11.5%), shortness of breath (11.0%), fatique (8.0%), muscle pain (3.0%) while the least (1.5%) respondent were the ones that said sore throat.

Table 5 shows respondents' knowledge on prevention and control. From the tables, the highest number of respondents (53.0%) were Hand washing and social distancing followed by use of nose mask (25.0%), Disinfecting contaminated surface (15.5%) while those that said Consuming gins, herbs and African foods (6.0%) was the least respondents.

Table 1: Demographic characteristics of the respondent

Characteristics	No of respondents	Total (%)
Sex		
Male	81	40.5
Female	119	59.5
Age		
10-20	38	19.0
21-30	29	14.5
31-40	26	13.0
41-50	56	28.0
51+	51	25.5
Marital status		
Single	69	34.5
Married	110	55.0
Divorced	0	0.0
Widow	21	10.5
Education status		
None	71	35.5
Primary	39	19.5
Secondary	53	26.5
Tertiary	37	18.5
Occupation		
Civil Servant/Health workers	31	15.5
Farmers/traders	99	49.5
Students	37	18.5
Artisans	33	16.5

Table 2: respondent knowledge and source of information

Variables	No of respondents	Total (%)
Have you heard about COVID-19		
Yes	200	100.0
No	0	0.0
If yes what are your source of information		
Radio/TV/Media	102	51.0
Friends/Family	21	10.5
Healthworkers	50	25.0
Church	16	8.0
Village meeting	11	5.5
Total	200	100.0

Table 3: Respondent knowledge on mode of transmission

Mode of transmission	No of respondents	Total (%)
Air droplets via breathing, sneezing and coughing	126	63.0
Touching of contaminated objects or surfaces	43	21.5
Kissing, hugging and sex	10	5.0
Eating of contaminated food or water	21	10.5
Total	200	100.0

Table 4: Respondent's knowledge on symptoms

Symptoms	No of respondents	Total (%)
Cough	99	49.5
Shortness of breath	22	11.0
Sneezing	31	15.5
Fever	23	11.5
Sore throat	3	1.5
Fatique	16	8.0
Muscle pain	6	3.0
Total	200	100.0

Table 5: respondents' knowledge on prevention and control

Prevention and control	No of respondents	Total (%)
Hand washing and social distancing	106	53.0
Disinfecting contaminated surface	31	15.5
Use of nose mask	51	25.5
Consuming gins, herbs and African foods	12	6.0
Total	200	100.0

Discussion

The emergence of COVID-19 from the city of Wuhan, China in December 2019 and its rapid global spread across over 215 countries and territories has become one of the largest pandemics in recent times with several devastating and significant public health challenges (WHO, 2020) [8]. Being the most populous African nation and the 7th most populated country in the world, Nigeria's population could undoubtedly be associated with a higher risk of increased morbidity and mortality due to COVID-19. With the infection prevention and control (IPC) strategies adopted by the NCDC and Nigerian government to curtail COVID-19, the adherence of the citizenry depends largely on their level of awareness and knowledge regarding the pandemic (Zhong *et al* 2020) [9]. Unconcerned attitudes and adherence to false and superstitious beliefs by the public often arise due to inadequate awareness, which further affects the level of preparedness and the proper implementation of IPC measures at the national or subnational levels.

Findings from this study indicated that 100% of the study participants were aware and knowledgeable about the COVID-19. Results obtained from the research questions regarding knowledge of COVID-19 in terms of respondents' knowledge of the source of COVID-19, transmission of COVID-19, symptoms of COVID-19, preventive COVID-19 and what the major sources of information about COVID-19 among Nigerians are, were significantly high.

Our findings showed that 100.0% of the respondents had a good understanding of COVID-19. The outcome is not unrelated to the current national response activities by the Nigerian Center for Disease Control and Prevention/Presidential Task Force on COVID-19 (NCDC/PTF). However, a study in Egypt reported that the age group 50 and above had a lower mean knowledge score of COVID-19 (Abdelhafiz *et al* 2020) [1].

The knowledge about COVID-19 was gained by respondents mostly through television and social media. The improvement in technology and the ease of accessing information online and television may explain the high level of knowledge of HCWs in this study that relied on these means of communication to obtain information about COVID-19. This result was consistent with previous studies in (Hager *et al* 2020; Reuben *et al* 2020) [3, 6]. The wide media coverage of COVID-19 by WHO, Federal and state government in Nigeria, and strict preventive and control measures imposed by the government and its agencies (NCDC) may be responsible for the high mean knowledge score by respondents in this study. Also, the practice of posting and reposting of professional information in the social media group page such as WhatsApp, Facebook, and Twitter accounts may be a second reason. Currently, there is no treatment against COVID-19 globally play a vital role in the management, control, and prevention of the spread of the disease. Good knowledge on the transmission and preventive measures against SAR-CoV-2 can help to

improve their skills to limit occupational risk and further spread to the community (Hamoud *et al* 2014) [4]. However, precautions are necessary when using social media as sources of medical knowledge because of information overload Khan *et al* (2014) [5], lack of peer review, and misleading information. A previous study reported the possibility that there exist dual pandemic, COVID-19 pandemic, and a pandemic of infodemic Saqlain *et al* (2020) [7], which may seriously jeopardize response efforts to contain the spread of the virus. The result obtained in this study were similar to the previous report in China (Zhong *et al* 2020) [9]; Italy (Dilucca *et al* 2020) [10]; Egypt (Abdelhafiz *et al* 2020) [1].

Concerning Symptoms of COVID-19 49.5% of the respondesnt had it that coughing was the main symptoms of COVID-19. The majority of the respondents in this study reportedly took different precautionary measures including social distancing, improved personal hygiene and use of face mask during the lockdown period. This generally indicates the optimism and willingness of the Nigerian population in effecting attitudinal and behavioral changes relevant in the fight against the COVID-19 pandemic.

As expected, because respondents had relatively high knowledge of the COVID-19, even though laden with several misconceptions, their knowledge of precautionary behavior was also high. For instance, a good percentage agreed that a range of WHO approved and global practices such as hand washing and social distancing, disinfecting contaminated surfaces. Only a little percentage agreed relying on consumption of gins, herbs and African foods as precautions to the spread of the pandemic.

Consequently, individuals need to be informed about the potential risk of infection (COVID-19) in order to adopt the right precautionary measures. One suggestion for this result is the knowledge factor. That is, Obowo have knowledge of COVID-19 and therefore are better able to adopt precautionary measures.

Conclusion
The knowledge areas include source, transmission, symptoms, sources of information and preventive behavior toward COVID-19. The findings tentatively affirm that Nigerians are highly knowledgeable about COVID-19and their premier sources of information about the pandemic are the traditional media. It is therefore recommended that all stake holders should intensify their effort in sensitizing the general public to understand and comply with all precautionary measures to curb COVID-19. Efforts toward assessing the KAP of the under- privileged and vulnerable population and the dissemination of health education via indigenous languages among these groups should be intensified. Efforts targeting every group of the Nigerian population would constitute holistic and viable approach in curtailing COVID-19.

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