KNOWLEDGE OF AND PREVENTIVE STRATEGY COMPLIANCE OF SARS COVID-19 AMONG MARKET TRADERS IN IBADAN METROPOLIS NIGERIA

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Abstract
This study was on knowledge of and preventive strategy compliance of COVID-19 among market traders in Ibadan metropolis Nigeria, Cross-sectional survey designed was used, Population consists of all the market traders in Ibadan metropolis, Sample for the study consist of 200 respondents selected through multistage sampling procedure, stage 1:Purposive sampling techniques was used to select 5 markets that have higher population density, Stage 2: Accidental sampling techniques was used to select 40 participants from each of the selected markets making a total of 200. The instrument used for data collection was a self-developed questionnaire designed in three sections, Two hypotheses were formulated and tested, Descriptive statistics of frequency and percentage were used to analyze the demographic characteristics of respondents while Inferential statistics of Chi-square were used to analyze the hypotheses at 0.05 alpha level/The results of the findings show that there is a significant knowledge of COVID-19 among the market traders in Ibadan Metropolis, this revealed that the chi-square calculated value (x^2 = 46.08, DF= 15, P>0.05).Therefore, the Null hypothesis was rejected. The result also shows that the preventive strategies compliance to COVID -19 was not significant among the market traders in the Ibadan metropolis, this revealed that the chi-square calculated value (x^2 = 6.47, DF=9 P<0.05). therefore, the null hypothesis was accepted Based on the findings, it was recommended that public health education campaigns should be intensified by government and non-governmental agencies and enforcement of implementations of safety rules by the agencies that are saddled with the responsibility, mass media should also be regulated to disseminate correct information about COVID-19 and its prevention strategies, these will enhance the prevention of the spread of COVID-19 and its relapse or reoccurrence in the community.

Keywords: Knowledge, Prevention strategy compliance, COVID-19, Market traders, Ibadan metropolis

Introduction
Coronavirus disease 2019 (abbreviated COVID-19) is a respiratory disease that is caused by a novel Coronavirus, it was first detected in December 2019 in Wuhan, China (Wang, Horby, Hayden, and Gao 2020) It was a global health threat and so far the largest outbreak of typical pneumonia since the severe acute respiratory syndrome (SARS) outbreak 18 years ago (Hawryluck, Gold, Robinson, Pogorski, Galea and Styra 2004). In response to this serious situation, on 11th March 2020,

the *World Health Organization (WHO)* declared the 2019-20 Coronavirus outbreak a pandemic, and WHO was deeply concerned by the unprecedented swift global spread and severity of the outbreak, by ignorance and inaction of some countries Oluwabusolami, Atekoja, Zaccheus. Karimat and Oluwadamilare (2021) observed that as it stands one might not consider COVID as an emerging but already emerged respiratory disease as it has stayed more than a year consistently causing global disease burden in different countries of the world.

Coronaviruses are a diverse group of viruses infecting many different animals and can cause mild to severe respiratory infections in humans the outbreak of COVID-19 posed an extraordinary threat to global public health (Liu, Liao, Qian, Yuan, Wang, and Liu 2020) the current understanding of the nature of SARS-CoV-2.COVID-19 was also summarized based on published findings which covers the basic biology of SARS-CoV-2, including the genetic characteristics, the potential zoonotic origin, and its receptor binding. (Ben Hu, Hua Guo, Peng Zhou, and Zheng-Li Shi 2021)

Guan, Ni, and Hu, (2020) reported that COVID-19 causes morbidity in the range of mild respiratory illness to severe complications characterized by acute respiratory distress syndrome, septic shock, and other metabolic and hemostasis disorders and death). Most of the fatal cases and severe illnesses like acute respiratory distress syndrome (ARDS) occurred in older adults and people who have underlying medical comorbidities like diabetes, cancer, hypertension, heart, lung, and kidney diseases

In other to stem the tide of the COVID-19 disease spreading, the WHO issued guidelines in dealing with the outbreak which includes suspending all inbounds and outbounds flights, closing all malls and shops in the country, except pharmacies and grocery stores, and closing down schools and universities (Tang, Tou, Wang, Chen, Wang . Huang 2020). Despite the unprecedented national measures in combating the outbreak, the success or failure of these efforts is largely dependent on public behaviour. Specifically, public adherence to preventive measures established by the government is of prime importance to prevent the spread of the disease. Adherence is likely to be influenced by the public's knowledge and attitudes toward COVID-19. Evidence shows that public knowledge is important in tackling pandemics The rapid and almost unstoppable spread of the virus has called on governments to take different levels of action. As part of these procedures, work and social gatherings were abruptly shut down, disrupting operations and rules in many industries, including the wider sports and leisure industry.

Olapegba *et al*. (2020) observed that the infection has no immediate treatment and vaccine, and it has according to World Health Organization (WHO, 2020) become a worldwide pandemic causing significant morbidity and mortality. There were 1,603,428 confirmed cases, 356,440 recoveries from the illness, and 95,714 deaths worldwide as of April 9, 2020 (Worldometers, 2020). On 27

February 2020, Nigeria confirmed its first case of COVID-19 disease in Lagos State, an Italian citizen who works in Nigeria returned on 25 February from Milan, Italy through the Murtala Muhammed International Airport, fell ill on 26 February and was transferred to Lagos State Bio-security Facilities for isolation and testing, as of April 9, 2020, there were 288 laboratory-confirmed cases of COVID-19 in Nigeria with 51 discharges and 7 deaths (Nigeria Centre for Disease Control, NCDC, 2020). However, as at July 2022, Nigeria has a record of cases of coronavirus as follows 262,912 confirmed cases, 256, 609 recoveries from the illness, and 3,147 deaths**.** (Worldometer 2022). To contain the spread of the virus in Nigeria, the federal Government placed restrictions and preventive measures such as; the face-mask; social distancing, and use of sanitizers in washing hands and cleaning surfaces, this safety measures are all applicable to all sectors and individuals including market traders. However, the Government has persuaded all citizens to ensure safety compliance.

Civil societies and government agencies also embarked on enlightenment campaigns for good hygiene and social distancing. Temperature screening was conducted at airports and those returning from countries with numerous confirmed cases of COVID-19 were implored to self-isolate. The infection has no immediate treatment and vaccine as at often and it has according to World Health Organization (WHO, 2020) become a worldwide pandemic causing significant morbidity and mortality. There are 1,603,428 confirmed cases, 356,440 recoveries from the illness, and 95,714 deaths worldwide as of April 9, 2020.

Worldometers, (2020). However as, at July 2022 There are 600,731,971 confirmed cases, 574,878,626 recoveries from the illness, and 6,471,586 deaths worldwide which shows the rate of increase in the spread of the deadly disease worldwide (Worldometers, 2022).

Pathak, (2020) stated that the main symptoms of COVID-19 include: Fever – Coughing- Shortness of breath- Trouble breathing- Fatigue -Chills, sometimes shaking- Body aches- Headache- Sore throat- Congestion/running nose- Loss of smell or taste- Nausea- Diarrhea. The virus can lead to pneumonia, respiratory failure, heart problems, liver problems, septic shock, and death. Many COVID-19 complications may be caused by a condition known as cytokine release syndrome or a cytokine storm, this is when an infection triggers the immune system to flood the bloodstream with inflammatory proteins called cytokines, they cwhichill tissue and damage body organs knowledge is an abstract concept without any reference to the tangible world. It is one of the most specific human processes which have been subjects of human inquiry from ancient times. Plato argued that knowledge is a result of a reasoning process and that our sensory experience plays no role. Knowledge can be obtained only from rational reasoning grounded in axioms, like in mathematics, and it should be distinguished from opiniothe n which is a product of our senses while Attitudes reflect fixed behavior, a certain way of thinking, and emotion. It works with the perception of objects

and people, exposure to and understanding of information, selection of friends, co-workers, and so on. Attitudes can be defined in different ways as mental postures, indicative of behavior, feelings, desires, fears, convictions, state of readiness, cumulative perception, and tendency to work with or against an object in the environment.,

Nwagbara, Osual, Chireshe, Bolarinwa, Saeed, and Khuzwayo (2021) observed that most of the participants in their study had adequate knowledge related to COVID-19. Despite adequate knowledge, the attitude was not always positive, thereby necessitating further education to convey the importance of forming a positive attitude and continuous preventive practices towards reducing contraction and transmission of COVID-19knowledge, attitude, perception, and preventive practices towards COVID-19 in Sub-Saharan Africa).

Ekwebene, Ogbuagu, Yanmeer, Orji, and Ani (2020) reported that the traders are very much aware of the existence of COVID-19 and their main source of information was television From the result, a greater percentage of the traders believe some symptoms are consistent with COVID-19 which are Cough and catarrh (91.06%), fever(80.08%), headache (65.45%) and sore throat (58.54%) and this shows that the traders have a sound perception on the symptoms of a symptom of COVID-19, it also shows that they practice compelled responses toward prevention and spread of this virus, showing while they do them seldomly. This depicts danger and therefore more enlightenment campaigns should be done in other to dispel the ignorant

Mohammed, *et al* (2020) reported that the majority of the study participants were knowledgeable with positive attitude and practice about COVID-19. However, the results showed that men have less knowledge, less optimistic attitudes, and less good practice toward COVID-19, than women. We also found that older adults are likely to have better knowledge and practices, than younger people.

Compliance with the preventive measures was elicited with ten questions which were graded to assess the level of compliance of each respondent. A correct answer was assigned 1 point and wrong answer 0 points. The results were represented as 7-10, Good compliance, 6-4 Fair compliance, and 0-3 Poor compliance (Oluwabusolami, Zaccheus Karimat, and Oluwadamilare 2021, the study further shows that the majority of the respondents have good knowledge (72.4%); poor perception (34.7%) and poor attitude (21.0%) about COVID-19. In conclusion, individuals should believe that COVID-19 is real and strictly adhere to COVID-19 protocol. The government needs to do more in sensitization, provision of facilities and vaccines, and providing incentives in form of palliatives to cushion the effects of the pandemic. Chiaha, Okechukwu, Ajanaku, Adewole, and Jibril. (2021).in their study on Knowledge, Attitude and Perception of COVID-19 Pandemic among Residents of Gwagwalada Area Council, Abuja, they concluded that Awareness, knowledge on mode of transmission, prevention, and common

symptoms of COVID-19 was high in this study. However, knowledge on the infectiousness of an asymptomatic person was not enough to elicit desired behavioral change, they therefore recommended that there is still a lot of misunderstanding and perception of risk about COVID-19 that requires local stations to campaign and debunk for fighting against the disease.

Maria de Fatima C, Mariada luzlima, M.Janice de JesusXavier S.Silvania da VeigaLael, M.S. Julio M. R. and EdnaDuarte L. (2021). Knowledge, attitudes and practices towards COVID-19: A cross- in their study onsectional study in the resident cape-verdean population, reported that knowledge related to COVID-19 among the study participants was high, however there isneed to increase knowledge about COVID-19 in the resident Cape Verdean population through health literacy, which can also result in improvements in the attitudes and practices of the population regarding the pandemic. Rine, Margaret, Dauda and Ejembi (2021) in a study conducted on knowledge, attitude, and practices toward COVID-19: An Epidemiological Survey in North-Central Nigeria reported that respondents had good knowledge (99.5%) of COVID-19, gained mainly through the internet/social media (55.7%) and Television (27.5%). The majority of the respondents (79.5%) had positive attitudes toward the adherence to government IPC measures with 92.7, 96.4, and 82.3% practicing social distancing/self-isolation, improved personal hygiene, and using face masks respectively. However, 52.1% of the respondents perceived that the government is not doing enough to curtail COVID-19 in Nigeria

The majority of people in sub-Saharan Africa do not comply with the health and safety measures recommended by the World Health Organization (WHO) and the health departments of the countries concerned. Market failures are mainly due to ignorance, misinformation, misconceptions, or misconceptions about COVID-19**.** A market is a public place where buying and selling of products, goods, and services in which money is being exchanged, and infected surfaces are being exposed to COVID-19 which is characterized by rapid transmission, and can occur by close contact with an infected person. The Nigerian Government from the very first outbreak of this virus in Nigeria necessitated the prevention majors among citizens, sectors of the economy, businesses which traders, market women and men are inclusive. However, most markets in Nigeria are crowded and over populated by both traders and consumers. Hence the nature of these markets has initiated the unstable compliance of traders towards the preventive measures against COVID-19**.** This research therefore assessed the knowledge of and preventive strategy compliance of COVID- 19 among market traders in Ibadan metropolis Nigeria

Hypotheses

Two hypotheses were tested as follows:

1. There will be no significant knowledge of COVID -19 among the market

traders in Ibadan Metropolis

2. The preventive strategies compliance to the prevention of COVID -19 will not be significant among the market traders in the Ibadan metropolis

Methodology

This cross-sectional survey design was used to assess the knowledge and attitude towards prevention strategy compliance of COVID19 pandemic among market traders in the Ibadan metropolis, Population consists of all the market traders in the Ibadan metropolis, Sample for the consist of 200 respondents selected through multistage sampling procedure, stage 1:Purposive sampling techniques were used to select 5 markets that have higher population density i.e, Bodija, Gbagi-tuntun, Alesinloye, Oja Oba, and Shasha, Stage 2: Accidental sampling techniques were used to select 40 participants including male and female from each of the selected markets making a total of 200.

The instrument used for data collection was a self-developed questionnaire designed in three sections section A deals with the demography characteristics of respondents, Section B deals with the Knowledge of respondents on COVID-19, with 16 items designed in Yes or No format while section C deals with the Compliance Response to prevention strategies of COVID-19 with 10 items designed in four-point Likert Scale of 'Strongly agreed', 'Agreed', 'Strongly disagreed' and 'disagreed'.

Each working day of the week was assigned for the administration of the questionnaire to respondents in each of the selected markets with the help of the five trained assistants, thus Monday, Tuesday Wednesday Thursday, and Friday for Bodija, Gbagituntun, Alesinloye, Oja oba, and Shasha markets respectively. Each of the items of the questionnaire was interpreted in modern languages for those market traders that don't understand the English language. The questionnaire was collected on the spot after filling by respondents which enhance the high rate of returns.The collected instrument was coded and analyzed using descriptive statistics of Frequencies count and percentages for the demographic characteristics of respondents while the inferential statistics of Chi-square was used to analyze the hypotheses at a 0.05 level of significance.

Results and discussion

Table 1.0: Frequency and percentage distribution of respondents by sex

Sex	Frequency	Percentage
Male	53	26.5
Female	147	73,5
Total	200	100

In table 1.0, out of 200 respondents, 53(26.5) were male while 147(73.5) were female

Table 1.1: Frequency and percentage distribution of respondents by Age

Age	Frequency	Percentage
20-30 years	45	22.5
31-40years	62	31
41-50years	55	27.5
51 years and above	38	19
Total	200	100

In table 1.1: out of 200 respondents, 45(22.5%) were in the age range of 20-30years,62(31%) were between 31-40years, and 55(27.5%)were between 41-50years while 38(19%) were between 51years and above.

Table 1.2: Frequency and percentage distribution of respondents by Marital Status

Status	Frequency	Percentage
Single	35	17.5
Married	107	53.5
Divorced	47	23.5
Widow	11	5.5
Total	200	100

In table 1.2, out of 200 respondents, 35(17.5%) were Single, 107(53.5%) were Married, 47(23.5%) were divorced while 11(5.5%)were widow.

Table 1.3: Frequency and percentage distribution of respondents by Religion

Religion	Frequency	Percentage
Muslim	118	59
Christian	72	36
Traditional	10	5
Total	200	100

In table 1.3, out of 200 respondents, 118(59%) were Muslim, 72(36%) were Christian while 10(5%) were traditional religion

Table1.4: Frequency and percentage distribution of respondents by Educational Status

Educational Status	Frequency	Percentage
Primary	116	58
Secondary	72	36
Tertiary	12	6
Total	200	100

In table 1.4, 0ut of 200 respondents, 116(58%) have Primary education, 72(36%) have secondary education and 12(6%) have tertiary education.

Hypothesis 1: Market traders in Ibadan Metropolis will not have significant knowledge of COVID- 19

Table 2.0: Chi-square (X^2) analysis of Knowledge of COVID-19 among market traders in Ibadan Metropolis

S/N	Knowledge	Yes	No	Sig P value	Remark
1	SARS-CoV-2 can be contracted by touching a surface or object, on which the virus is attached, and then touching one's mouth, nose, or, perhaps, eyes.	110	90		
2	SARS-CoV-2 can be contracted by touching a surface or object, on which the virus is attached, and then touching one's mouth, nose, or, perhaps, eyes.	125	75	P>0.05	Not Sig.
3	SARS-CoV-2 spread through respiratory droplets, which occur when infected people cough and sneeze.	116	84		
4	People eating bush/wild animals can be infected with COVID-19	112	88		
5	The main clinical symptoms of COVID-19 are: cold, congestion, fever, fatigue, dry cough, myalgia and shortness of breath, running nose, and sneezing	120	89		
6	People should avoid touching their eyes, nose, and mouth with unwashed hands.	104	96		
7	The effective treatment for COVID-19.is administration of Antibiotics	122	78		
8	Currently. there is no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the disease.	122	78		
9	Elderly people and those with serious chronic illnesses, such as heart or lung disease and diabetes, are at increased risk of developing more	92	108		

	serious complications from COVID-19.		
10	Pregnant women are more susceptible to infections than non-pregnant women.	142	58
11	Washing hands with soap and water, or using a hand sanitizer containing at least 60% alcohol, for at least 20 seconds. after being in a public place, after nose-blowing, coughing, or sneezing, are necessary to prevent COVID-19 transmission	148	52
12	The effective ways to reduce the spread of the virus are isolation and treatment of people infected with the SARS-CoV-2,	27	173
13	People should only wear a mask if they are infected with the virus, or if they are caring for someone with suspected SARS-CoV-2 infection.	131	69
14	Healthy food and drinking water increase the body's immunity and resistance to COVID-19.	131	69
15	To prevent the transmission of SARS-CoV-2, people must avoid going to crowded places and avoid taking public transport	144	56
16	People in contact with someone infected with SARS-CoV-2 should be immediately quarantined, in an appropriate location, for a general observation period of 14 days.	143	57

N=200
DF.. =15
X^2 Cal=46.08
X^2 Crit.=25.00

As shown in Table 2.0, there is a significant knowledge of will be no significant knowledge of will be no significant knowledge of COVID-19 among the market traders in Ibadan Metropolis, this revealed that the chi-square calculated value (x^2 = 46.08, DF= 15, p >0.05). therefore, the Null hypothesis was rejected. This implied that there was a significant knowledge of COVID-19 among the market traders in Ibadan Metropolis

Hypothesis 2: Market traders in Ibadan metropolis will not significantly comply with COVID-19 preventive strategies.

Table 3.0: Chi-square (X^2) analysis of preventive strategies compliance against COVID-19 among Market traders in Ibadan metropolis

S/N	**Compliance attitude to the prevention of COVID-19**	**Strongly Agreed**	**Agreed**	**Disagreed**	**Strongly disagreed**	**Sig (P value**	**Remark**
1	I have stopped attending a crowded place like a place of worship	50	53	59	38		
2	I frequently washed my hands with soap and water, for at least 20 seconds, especially after going to a public place, or after nose-blowing, coughing, or sneezing since the onset of COVID-19	49	47	58	46	P<0.05	Sig.
3	I am used to keeping my distance from others, to avoid Contacting Sars COVID-19	47	48	55	50		
4	I make use of a face mask essentially to protect myself from contacting COVID-19 infection.	52	54	36	58		
5	I advise other traders in the market that sick people should seek	48	49	41	62		

	medical attention and stay at home until they get better before they mix up with healthy people, especially in the market				
6	I abide by COVID19 preventive measures to avoid being arrested by the Nigeria NDC task force	49	46	59	46
7	customers are not being attended to without a face mask on	41	45	58	56
8	There is provision for a hand washing stand in our shop	42	46	80	32
9	Place of sitting with considerable length distance between 2 people is being provided for customers in our shop	50	48	49	53
10	The customers complied with social distancing in our market	47	44	52	57
		475	480	547	498

N=200

Df..= 9

X^2 Cal. = 6.47

X^2 Crit.=16.32

As shown in table 3.0, the preventive strategies compliance to SARs COVID-19 was not significant among the market traders in Ibadan metropolis, this revealed

that the chi-square calculated value (x^2 = 6.47, DF= 1, p <0.05). Therefore, the Null hypothesis was accepted. This implied that the preventive strategies compliance to COVID- 19 was not significant among the market traders in the Ibadan metropolis. The result shows that there is a significant knowledge of COVID- 19 among the market traders in Ibadan Metropolis, this revealed that the chi-square calculated value (x^2 = 46.08, DF= 9, p >0.05). therefore, the result is in line with the findings of Oluwabusolami, Zaccheus Karimat, and Oluwadamilare, (2021) who reported that the majority of the respondents have good knowledge (72.4%), it also corroborates the findings of Ekwebene, Ogbuagu, Yanmeer, Orji and Ani (2020) which found out that the traders are very much aware of the existence of COVID-19 and their main source of information was television From the result, a greater percentage of the traders believe some symptoms are consistent with COVID-19 which are Cough and catarrh (91.06%), fever(80.08%), headache (65.45%) and sore throat (58.54%) and this shows that the traders have a sound perception on the symptoms of a symptom of COVID-19. These findings also support the findings of Rine, Margaret, and Dauda. and Ejembi (2021) in a study conducted on kknowledge, aattitudes, and ppractices towards COVID-19: An Epidemiological Survey in North-Central Nigeria reported that respondents had good knowledge (99.5%) of COVID-19, gained mainly through the internet/social media (55.7%) and Television (27.5%) and the majority of the respondents (79.5%) had positive attitudes toward the adherence of government IPC measures. Mohammed, *et al* (2020) also reported that the majority of the study participants were knowledgeable with positive attitudes and practices about COVID-19. However, the results showed that men have less knowledge, less optimistic attitudes, and less good practice toward COVID-19. Chiaha, Okechukwu, Ajanaku, Adewole, and Jibril. (2021).in their study concluded that awareness, knowledge of the mode of transmission, prevention, and common symptoms of COVID-19 was high in this study. However, knowledge of the infectiousness of an asymptomatic person was not enough to elicit desired behavioural change

The findings also showed that the preventive strategies compliance to COVID-19 was not significant among the market traders in the Ibadan metropolis, this revealed that the chi-square calculated value (x^2 = 6.47, DF= 1, p <0.05). the result is in line with the findings of Oluwashola, Zaccheus,Karimat, and Oluwadamilare, (2021), the study shows that the majority of the respondents have good knowledge (72.4%); poor perception (34.7%), and poor attitude (21.0%) about COVID-19. These findings also supported the findings of Rine, Margaret, and Dauda. and Ejembi (2021) in a study conducted on knowledge, aattitudes, and ppractices towards COVID-19: An Epidemiological Survey in North-Central Nigeria reported that respondents had good knowledge (99.5%) of COVID-19, gained mainly through the internet/social media (55.7%) and Television (27.5%) and the majority of the respondents (79.5%) had positive attitudes toward the adherence of government IPC measures. the results also supported the findings of

Chiaha, Okechukwu, Ajanaku, Adewole, and Jibril. (2021) concluded that knowledge of the infectiousness of an asymptomatic person was not enough to elicit desired behavioural change

Conclusion and recommendations

It was found out that there was a significant knowledge of COVID-19 among the market traders in Ibadan Metropolis, however, the preventive strategies compliance to COVID-19 was not significant among the market traders in Ibadan metropolis.

Based on the findings, it was recommended that public health education campaigns should be intensified by government and non-governmental agencies and enforcement of implementations of safety rules by the agencies that are saddled with the responsibility, mass media should also be regulated to the dissemination of correct information about COVID-19 and its prevention strategies, these will enhance the prevention of the spread of COVID-19 and its relapse or reoccurrence in the community.

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