ASPECTS OF EPIDEMIOLOGICAL STUDY OF COVID-19 PANDEMIC: PERCEPTION AND BELIEFS IN DELTA STATE

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It is a sad commentary that after several months of the first confirmed case of the COVID-19 pandemic in Nigeria, there are still very scanty local data and information on the virus. As a result, the country still relies on foreign data and information. The purpose of this preliminary study is to investigate the perception and belief of the pandemic in Delta State of Nigeria a month after the first index case in the state. A questionnaire of 27 items was designed to represent five research questions (RQs). Both the hard and electronic copies of the questionnaire were randomly administered to residents in the state. The data collected were analyzed using simple percentages, bar and pie charts that are self- explanatory to make the results accessible and comprehensive to the general public. The results showed that many Deltans believed that the COVID-19 was real and not a product of the conspiracy theories. On the biological background of the disease, 89.3% of the respondents are conversant with the general clinical symptoms of COVID-19. Further, more of the respondents believed that both the elderly and people with health challenges were more likely to be killed by the virus. Remarkably, 70% of the respondents believe that the COVID-19 infection was preventable and curable and 60% of the respondents opined that Nigeria had the expertise to find a cure to the disease. However, 36.26% of the respondents opined that the response/handling of the pandemic by government and relevant agencies such as the NCDC is adequate while 50.5% of them have contrary view. Though many of the respondents believed that the closing of international borders, inter-state land borders and obeying the government lockdown rules were responsible for the relatively low spread of the COVID-19 pandemic, more than half of the respondents (53.6%) did not believe that Deltans are committed to adhering to all the guidelines given by government during the easing of the lockdown. These findings on some aspects of epidemiological study have provided local information on the perception of COVID-19 pandemic in Delta State which is now in public domain for further discussion and possible adoption. We also provided a few recommendations which included the need to fill the gap in the local information and data in order to enhance the possibility of achieving efficacious local treatment of this disease.

Key words: COVID-19, epidemiological study, perception, belief, Delta State.

INTRODUCTION

COVID-19 also known as Coronavirus is believed to be an infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Wu et al., 2020, Shereen et al., 2020). It is reported to have originated in December 2019 in Wuhan City, Hubei Province, where transportation interconnectivity to other places within China and overseas is enormously convenient (Chen, 2020; Qian, 2020). Its globalization began on 31 December 2019, when the World Health Organization (WHO) China Country Office was informed of cases of pneumonia of unknown etiology detected in Wuhan City and then posted by WHO as a disease outbreak on January 5, 2020 (WHO, 2020a). The spread and severity of the COVID-19 was so fierce at the global stage that WHO had to change the status from epidemic to pandemic on March 11, 2020 (Li, 2020; WHO, 2020b)

Nigeria recorded its first confirmed case on February 27, 2020. In March 2020, the number of daily new cases was relatively small as there were a total of 139 confirmed cases in 12 states with 128 (92%) still hospitalized, 9 (7%) recoveries and 2 (1%) deaths (NCDC, 2020a). However, this number has continued to increase in April and May. Since the identification of the first index case, both the federal and state governments as well as the private sector have put up a number of measures/protocols/policies/legislatures to combat the COVID-19 pandemic. Currently, the available data from the scanty literature depict a scenario wherein its spread rate and mortality rate are still relatively low when compared to the Nigeria population of about 202 million (World Bank, 2020) while the recovery rate has been moderate (DELSUC19RG, 2020). This has prompted several questions by Nigerians on the reasons for this scenario in the country such as: did COVID-19 ever get into the country or it did but could not survive in the country because of our high temperature and humidity (Okunfolami, 2020); is the scenario a consequence of Government's prompt and adequate response to the pandemic; is the recorded relative slow spread of the virus strain a consequence of the inadequate testing facilities in the country; are local herbal treatments responsible for the low death and moderate recovery rate caused by the virus; has our health system adequately responded to this virus pandemic? (Oyejobi et al., 2020; Gift and Olalekan, 2020). The public is asking these questions with the expectation that the answers will help them form their perception and belief about the COVID-19 pandemic as this will in turn help them to decide on how to respond to governmental, organizational and individual measures to stop the spread and curb the pandemic. Therefore, the need to provide the answers to these questions prompted the present project which is to determine the perception of Nigerians in the six geopolitical zones about the COVID-19 pandemic. As a preliminary study, the perception of Deltans will first be considered here so as to help them make informed decision on how to respond as mentioned above. Deltans here mean the population currently residing in Delta State irrespective of both their state of origin and country of origin.

It is pertinent to state that after the first index case in Ogun State, the Delta State University management was the first organization in the state to release a protocol to its staff and students to curb the spread of the disease (DELSU Bulletin, 2020) which became the blueprint for the state government and some other organizations in the state. Therefore, it is expected that the findings from this study will be useful to the state government, organizations and residents in Delta State which recorded its first confirmed case on April 7, 2020. Thus, the study aims to find out:

(1) If Deltans perceived the origin of the COVID-19 as a natural virus pandemic.
(2) If Deltans perceived that COVID-19 has biological background.
(3) If Deltans perceived that the COVID-19 is both preventable and curable.
(4) If Deltans perceived that the government has adequately handled the COVID-19 pandemic
(5) If Deltans perceived that the citizens are obeying government protocols/directives to combat the spread of the disease

Research questions

The following research questions (RQs) have been raised to guide the study:
RQ1: to what extent are Deltans aware of the origin of the COVID-19 as a natural virus

pandemic?
RQ2: to what extent are Deltans aware of the biological background of the COVID-19?
RQ3: to what extent are Deltans aware of the challenge of finding local treatment for the prevention and cure of the COVID-19 pandemic?
RQ4: to what extent are Deltans aware of the adequacy of government handling of the COVID-19 pandemic?
RQ5: to what extent are Deltans aware of the citizens obeying government protocols/directives to combat the spread of the disease.
A questionnaire of 27 items was designed to cover the above RQs in this preliminary study for Delta State.

METHODOLOGY

The design of the questionnaire with 27 items was in two sections (A and B). Section A was to obtain the biodata of the respondents such as gender, age, highest educational qualification and religion which are key to the demographical analysis of the items in Section B. The items of the questionnaire were carefully designed to represent the above five research questions for the study using the 5-point Likert scale with Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1). In the analysis, if the combination of the respondents scoring (5) and (4) is greater, then more respondents favour that item and otherwise when the combination of the respondents scoring (2) and (1) is greater.

A two path questionnaire administration methods were used on May 16, 2020. The first path was to administer e-questionnaire using Google form with a link to complete it. This link was sent to the respondents through a social media platform (WhatsApp) from 8.00 a.m. to 12.00 midnight. The second path was to randomly distribute ten hardcopies of the questionnaire from 8.00 a.m. to 6.00 p.m in two randomly chosen towns from the three senatorial districts of the state. A total of 216 respondents with 156 from the e-survey and 60 from the manual distribution participated. We quickly point out that our sample size was determined by the available random respondents respondents who were willing to participate on that day because of the palpable fear that engulfed the state after it recorded 3 new confirmed cases the previous day (May 15, 2020) (NCDCb). The data collected were analyzed using simple percentage, pie charts and bar charts to make it accessible and comprehensive to the general public.

RESULTS AND DISCUSSION

Results of the demographic analysis

The gender analysis showed that 58.8% of the respondents were males and 41.2% were females as shown in Figure 1a. There were 20.4% of the age ranging from 0- 20 years, 50% of the age ranging from 21- 40 years, 25% of the age ranging from 41-60 years and 4.4% of the age ranging from 61 and above years (Figure 1b).

All the respondents have one type of educational qualification with a very small percentage (0.4%) of them having primary school certificate, 26.4% have WAEC/ NECO, 40.3% have First Degrees, 19.4% have Master Degrees, 9.1% have Ph.D Degrees while 3.2% have one type of tertiary qualification outside First Degree, Master Degree and Ph.D Degree (Figure 1c). Delta State is predominantly a Christian state and this was reflected in the number of respondents as 94% were Christians, 2.6% were Muslims and 3.4% do not belong to any of the aforementioned religions (Figure 1d).

Result analysis of the items in the questionnaire

The first part of RQ1 was to seek how the participants perceived the origin of the COVID-19 pandemic. One of the representative items in this regards was: *the COVID-19 pandemic in Nigeria was a scam by the government to embezzle funds and put the people through hardship.* The analysis showed that 19.3% strongly agreed, 12.3% agreed, 23.1% were undecided, 29.2% disagreed and 16% strongly disagreed (Figure 2a). The implication is that more respondents (45.2%) were of the opinion that the COVID-19 was real and not a scam by government when compared to the 35.3% who believed it was a scam. Deltans like manyother Nigerians in general are religiously superstitious (Olorundare, 1986; Yesufu, 2016) and therefore another item for RQ1 was: *if the COVID-19*

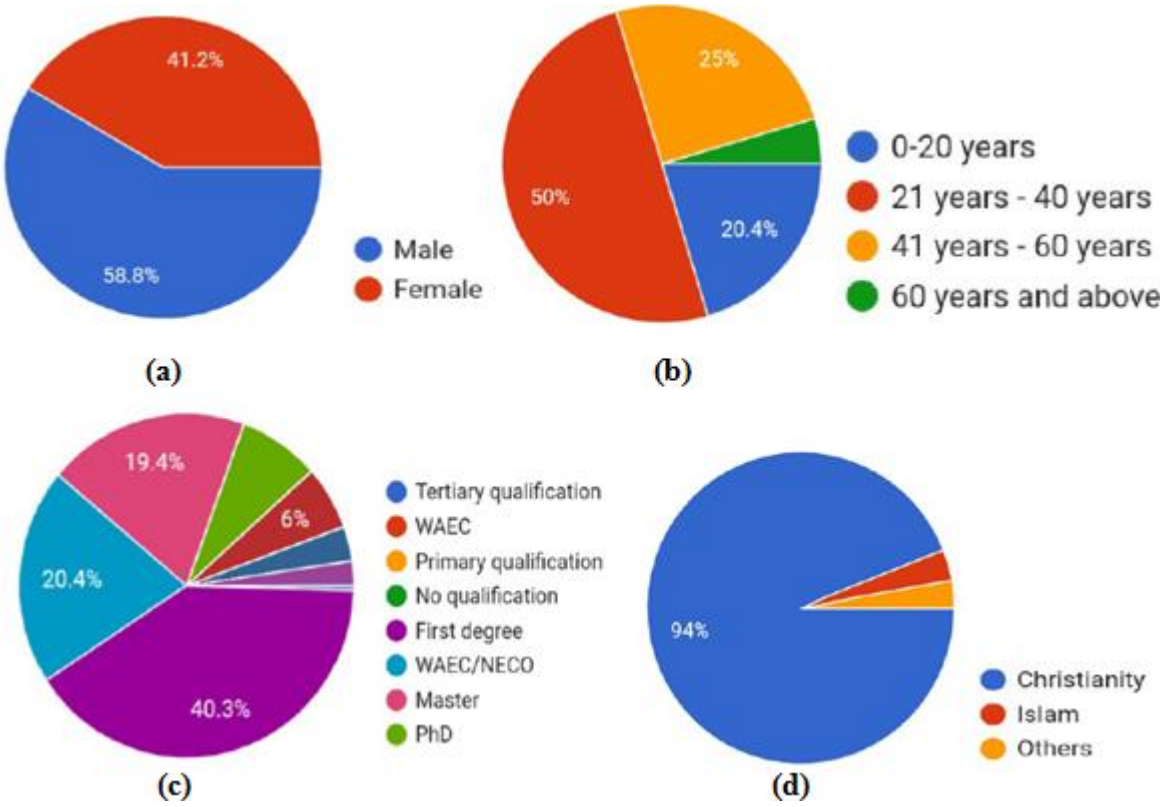

Figure 1. Pie charts showing the demographic analysis in percentage for (a) males and families (b) age ranges of the respondents (c) the highest educational qualifications of the respondents and (d) the religions of the respondents.

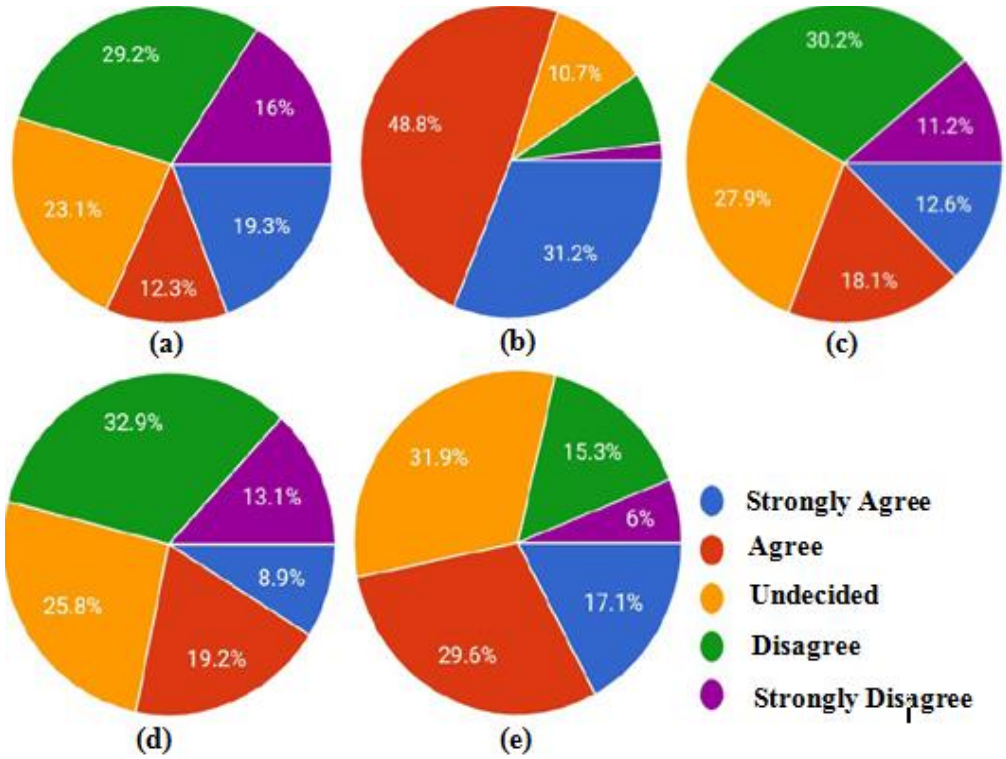

Figure 2. Pie charts showing the percentage of respondents on the items for RQ1 (a) COVID-19 pandemic in Nigeria is a scam by the government to embezzle funds and put the people through hardship (b) COVID-19 pandemic is a curse from God and not a natural disaster. (c) COVID -19 was a scheme by the world power to reduce the human population (d) COVID-19 was created by people who would want to introduce special vaccine as cure in order to create the biblical era of anti-Christ and (e) COVID-19 was a deliberately created biological weapon by China.

pandemic was a curse from God and not a natural disaster. A whopping 94.4% of the respondents did not think COVID-19 was a curse from God while only a tiny 5.6% opined it was (Figure 2b). Similarly, more of the respondents (41.4%) did not think COVID-19 *was a scheme by the world power to reduce the human population* while 30.7% opined it was (Figure 2c). Further, more of the respondents (46.0%) did not think *COVID-19 was created by people who would want to introduce special vaccine as cure in order to create the biblical era of anti-Christ* while only 28.1% thought it was (Figure 2d). On the contrary, more of the respondents (46.7%) opined that *COVID-19 was a deliberately created biological weapon by China* while only 21.3% thought it was not (Figure 2e). However, we note that these positions on all these items can change if the large percentage of undecided respondents decides to take more decisive options.

The self- explanatory bar charts showing the percentages of respondents by gender, age range and highest educational qualification on the item: *COVID-19 pandemic in Nigeria was a scam by the government to embezzle funds and put the people through hardship* are shown in Figure 3a, b and c respectively. We have left out the demographic analysis of this item by religion because of the overwhelming population of the Christian respondents. Thus, it is pertinent to point out that this trend of demographical analysis for each of the item was done for all the items in the questionnaire yielding a total of 108 bar charts for the remaining 26 items. Therefore, for brevity the bar charts for the demographic analysis of all the items which are self - explanatory for easy access and comprehension to the general public as stated above are available as supplementary results on request.

The virus is a biological entity that we can gain useful insight into its complexity from its

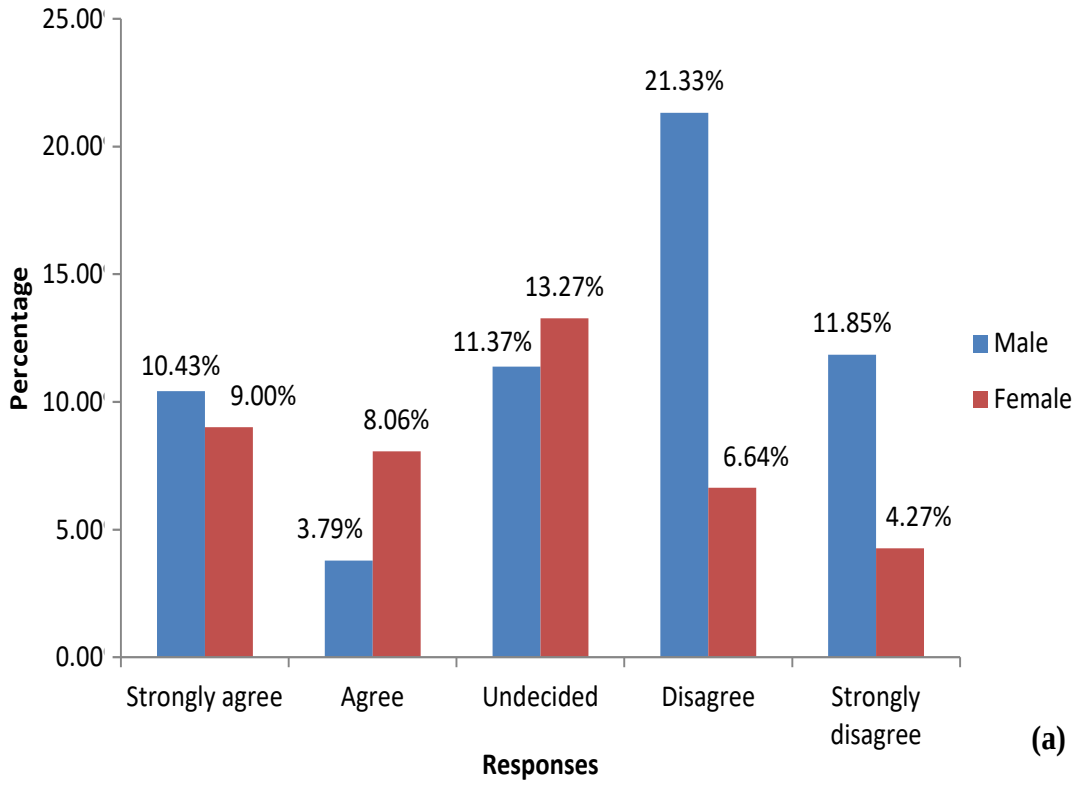

Figure 3a. Bar charts showing the percentage of respondents by gender on the item: COVID-19 pandemic in Nigeria is a scam by the government to embezzle funds and put the people through hardship.

epidemiological foundation (Mason, 2020). Therefore, the perception we sought in RQ2 was on the general biological knowledge of this particular strain of Coronavirus and the pie charts from the analysis of the respondents from the related representative items are shown in Figure 4. Starting with the item: *COVID-19 was a viral infection and it was the first Coronavirus*

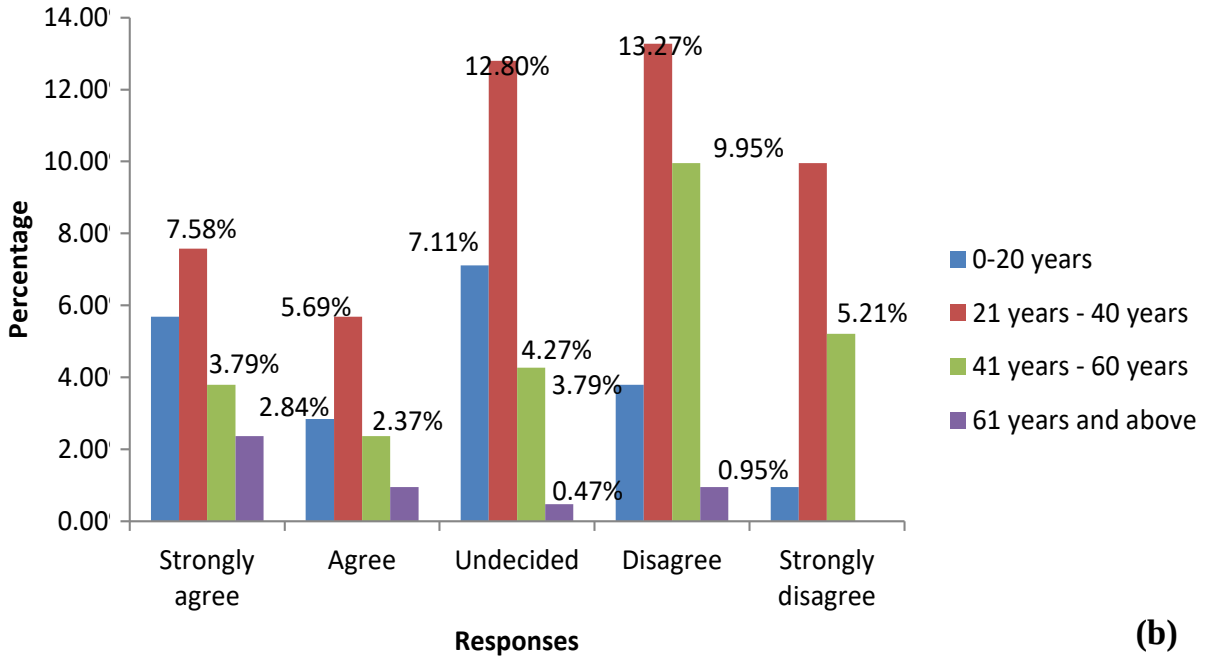

Figure 3b. Bar charts showing the percentage of respondents by Age on the item: COVID-19 pandemic in Nigeria is a scam by the government to embezzle funds and put the people through hardship.

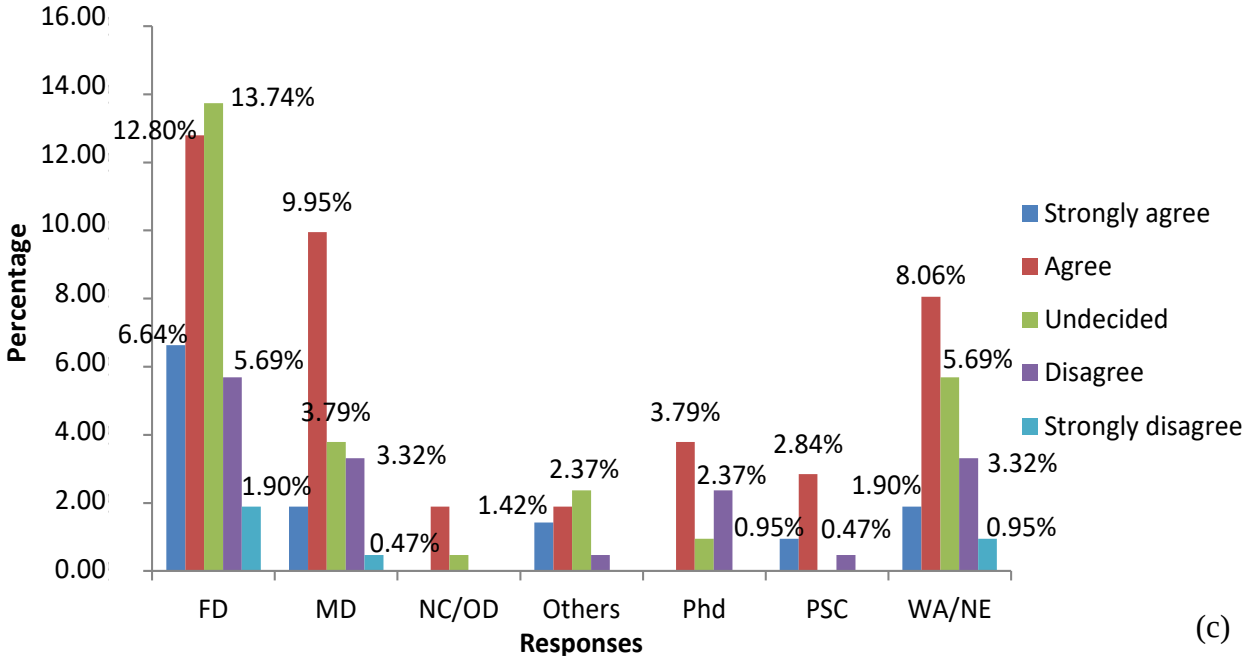

Figure 3c. Bar charts showing the percentage of respondents by Highest educational qualification on the item: COVID-19 pandemic in Nigeria is a scam by the government to embezzle funds and put the people through hardship.
Abbreviations used: FD = First Degree; MD = Master Degree; NC/OD = NCE/OND; Ph.d = Ph.D; PSC = Primary school Certificate and WA/NE = WAEC/NECO

strain to be pandemic, a total of 63.1% respondents were affirmative that it was the first virus strain to be pandemic (Liu et. al., 2020) and 24.3% of them did not think it was (Figure 4a). Then on the item: *COVID-19 was a deadly virus and therefore had killed more people than any other cause in Nigeria in recent times*. 48.8% of the respondents were in favour of that position while a slightly lower percentage of 42.1% held a contrary opinion (Figure 4b). It is important to point out that 80% of the respondents knew that *the main clinical symptoms of COVID-19 included fever, fatigue, dry cough, shortness of breath and respiratory*

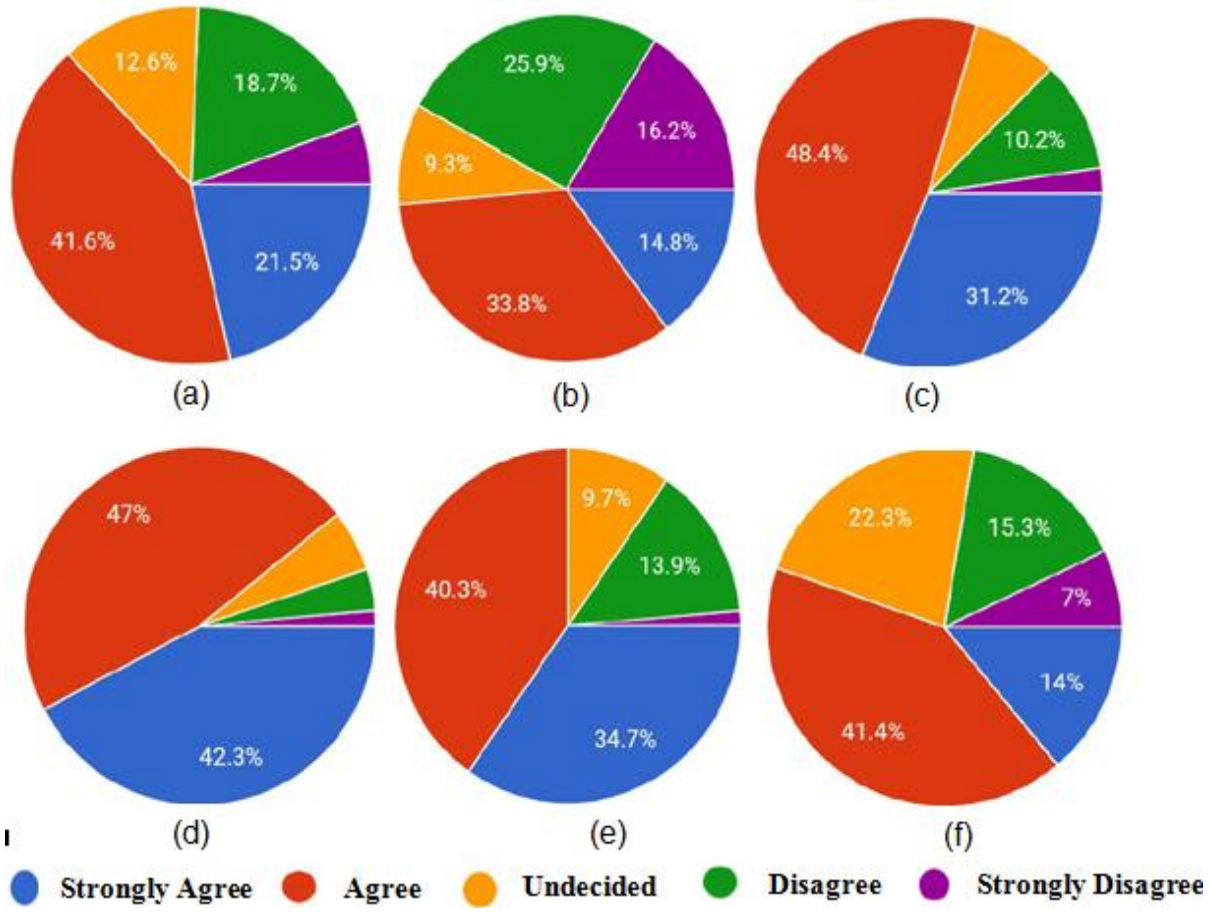

Figure 4. Pie charts showing the percentage of respondents on the items for RQ2 (a) Coronavirus:COVID-19 is a viral infection and it is the first Coronavirus strain to be pandemic (b) COVID-19 is a deadly virus and therefore has killed more people than any other cause in Nigeria in recent times (c) The main clinical symptoms of COVID-19 are only fever, fatigue, dry cough, shortness of breath and respiratory disorder (d) COVID-19 can spread from person to person through respiratory droplets of infected individuals (e) persons having health challenges are more likely to be killed by COVID-19 irrespective of their ages (f) The Nigeria temperature during this dry season has helped to slow the spread of the COVID-19 in the country.

disorder while only 14% did not know that these were the main symptoms (Figure 4c). Further, a whopping 89.3% of respondents opined that *COVID-19 could spread from person to person through respiratory droplets of infected individuals* (Figure 4d) and 75% opined that *persons having health challenges were more likely to be killed by COVID-19 irrespective of their ages* (Figure 4e). Moreso, 55.4 % of the respondents opined that the *Nigeria temperature during this dry season had helped to slow the spread of the COVID-19 in the country* while 22.3% have contrary opinion (Figure 4f).

Now on the RQ3, we sought to know the perception on the strategy for cure and prevention and the pie charts from the analysis of the representative items are depicted in Figure 5. The first item here was: *COVID-19 pandemic was curable and therefore not a death sentence.* It is interesting to observe that 31.2% strongly agreed and another 48.8% agreed (Figure 5a). The implication is that a total of 70% of the respondents were of the opinion that the COVID-19 was not a 'must kill' virus that cannot be recovered from; instead, they opined that an infected person can be cured with the appropriate treatment.

It is pertinent to infer that these participants who believed that the COVID-19 is a curable virus are likely to be among the 45.8% respondents that opined that *the locally made traditional herbal concoction popularly called "Agbo" could cure a COVID-19 patient* as against 22.5% who did not agree that it could be used while 31.8% were undecided (Figure 5b). Very remarkably, some of the respondents who were undecided, decisively opined that *the government should had initiated strategy from the very beginning on how to medically select*

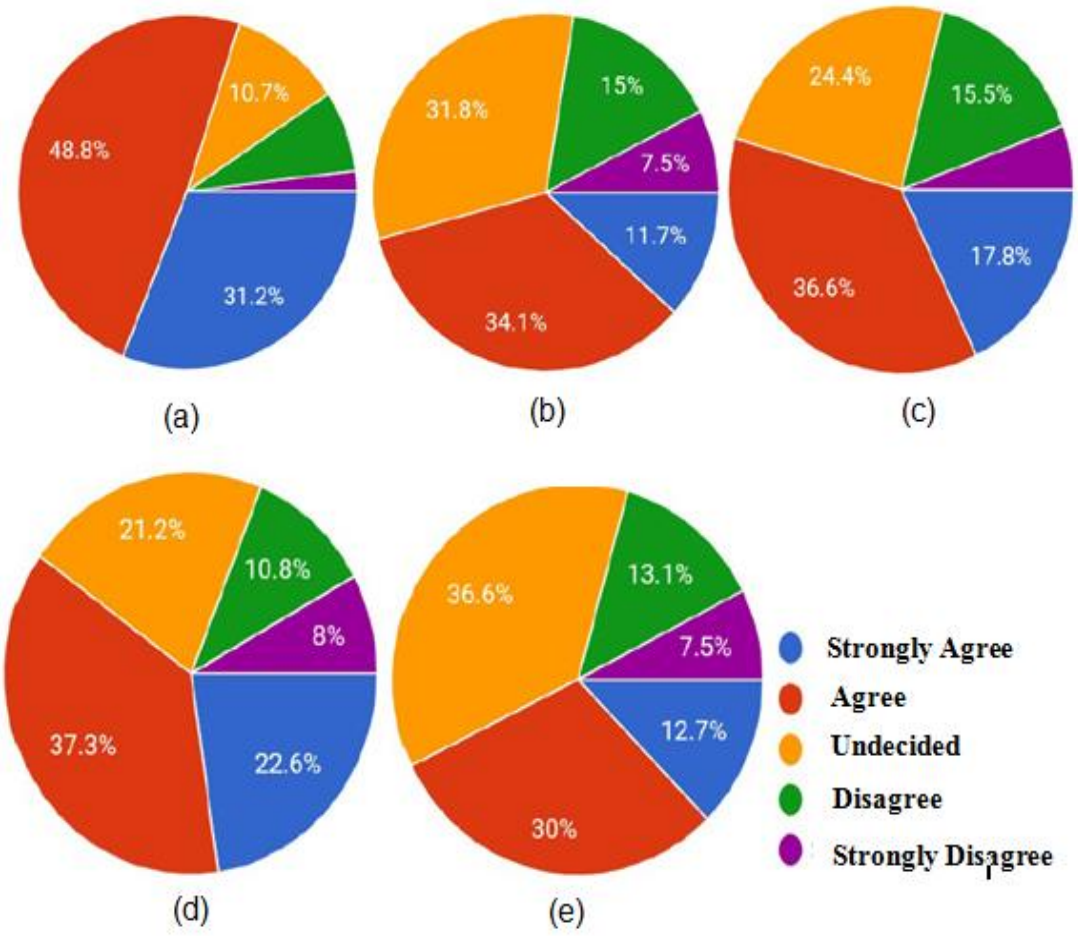

Figure 5. Pie charts showing the percentage of respondents on the items for RQ3 (a) COVID-19 is curable and not a death sentence (b) There are claims that the traditional herbal concoction called "Agbo" can cure a COVID-19 patient (c) Government should have initiated from the very beginning how to medically select the best Agbo combination for adoption both for prevention and cure of the COVID-19 and (d) Nigeria has the expertise to find a cure to COVID19 and (e) Chloroquine tablets and antibiotics can be used both to prevent and cure COVID-19.

the best Agbo combination for adoption both for prevention and cure of the COVID-19. Therefore, 54.4% were affirmative to this item which is an indication that these persons believed that *if government had initiated a study on the Agbo, there was a possibility that Nigeria would have found the best Agbo combination to prevent and cure the COVID-19* (Figure 5c). In the same spirit, approximately 60% of the respondents opined that *Nigeria had the expertise to find a cure to COVID19* while only 18.8% did not think Nigeria has the expertise (Figure 5d). Now on the item: *Chloroquine tablets and antibiotics could be used both to prevent and cure COVID-19,* 42.7% respondents were in affirmative of the item as against 20.6% who were not (Figure 5e) while 36.6% were undecided.

The items for RQ4 were to determine the adequacy of government preparedness for the COVID-19 and the pie charts from the various analyses are shown in Figure 6. For the first item, *the response/handling of the pandemic by government and relevant agencies such as the NCDC was adequate;* 36.26% of the respondents were affirmative while more than half of the respondents (50.5%) held contrary view, with 12.7% of the respondents undecided (Figure 6a). Also, for the item: *the daily reports/briefing by the NCDC and PTF on the COVID 19 pandemic was a true reflection of the status of the pandemic in Nigeria,* only 1.9% strongly agree and 23.6% agreed. Therefore, the total respondents that were non-affirmative was 55.2% while 19.3% were undecided (Figure 6b). We then sought to know if *the use of isolation centres for the COVID-19 patients had been effective*. 50.2% of the *respon-*

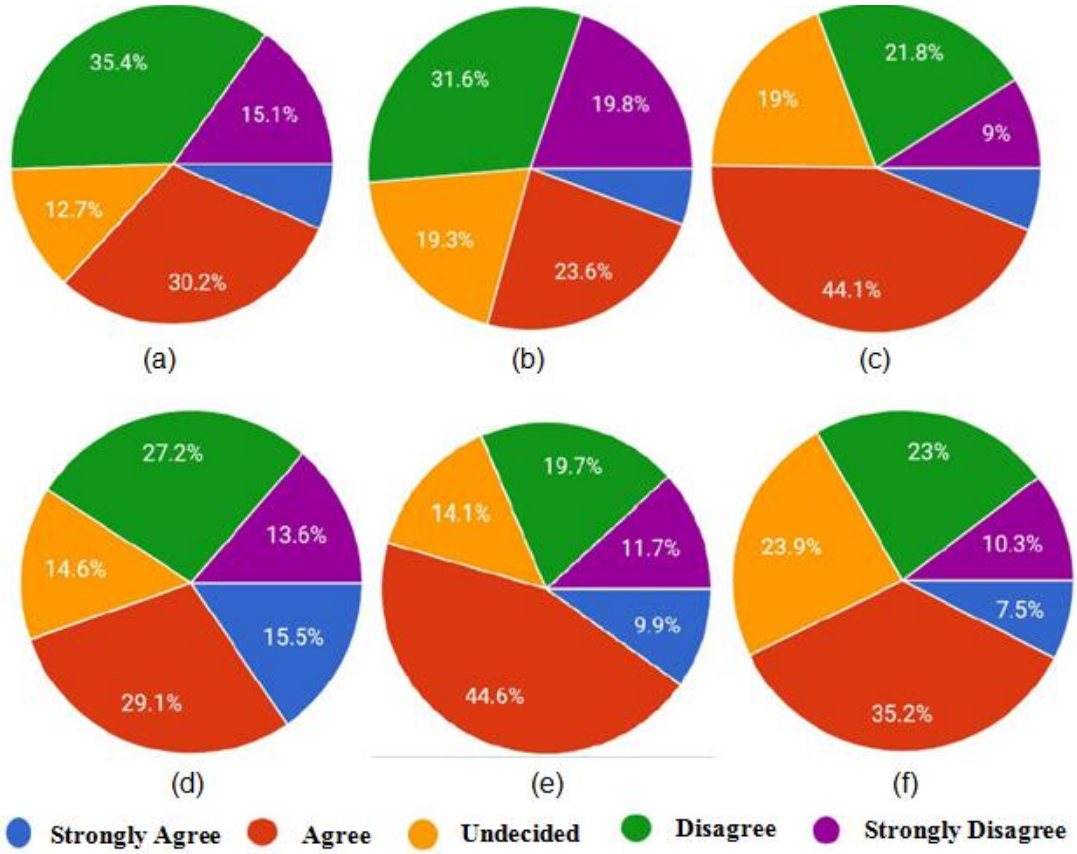

Figure 6. A pie chart showing the percentage of respondents on the items for RQ4 (a) The response/handling of the pandemic by government and relevant agencies such as the NCDC is adequate (b) The daily reports/briefing by the NCDC and PTF on the COVID 19 pandemic is a true reflection of the status of the pandemic in Nigeria (c) The use of isolation centres for the COVID-19 patients has been effective (d) The strategy of not giving the names and other details of the COVID-19 patients in the isolation centres/hospitals is very good (e) If there are no enough isolation centres, then new positive cases should be directed to isolate themselves in the private rooms in their homes with trained medical workers coming to attend to them and (f) The testing strategy of the COVID-19 suspects in the country has been improving in a commendable manner.

dents favoured the use of the isolation centres and 30.8% did not (Figure 6c). However, 54.5% affirmed that *If there were no enough isolation centres, then new positive cases should be directed to isolate themselves in the private rooms in their homes with trained medical workers coming to attend to them* while 31.4% held contrary opinion (Figure 6d). Further, 44.6% of the respondents believed that *the strategy of not giving the names and other details of the COVID-19 patients in the isolation centres/hospitals was very good* while a little less than that number (40.8%) wanted the government to give the information (Figure 6e). Also, more respondents (42.7%) opined that *the testing strategy of the COVID-19 suspects in the country had been improving in a commendable manner* while 33.3% believed the testing strategy was not improving (Figure 6f).

Finally, the analysis for the representative items in RQ5 on how Deltans perceive their level of compliance with government protocols/directives to combat the spread of the disease is shown in Figure 7. For the first item probing if *closing of inter-state land borders and obeying the government lockdown rules was responsible for the relatively low spread of the COVID-19 in the country*, more than two-third (68%) of the respondents were affirmative while 22.5% held contrary view (Figure 7a). Similarly, almost three-quater (74.6%) of the respondents believed that *closing of inter-state land borders and those between Nigeria and other countries had helped in minimizing the spread of the COVID-19* while 21.2% did not think so (Figure 7b). However, more than half of the respondents (53.6%) did not believe that *Deltans were committed to adhering*

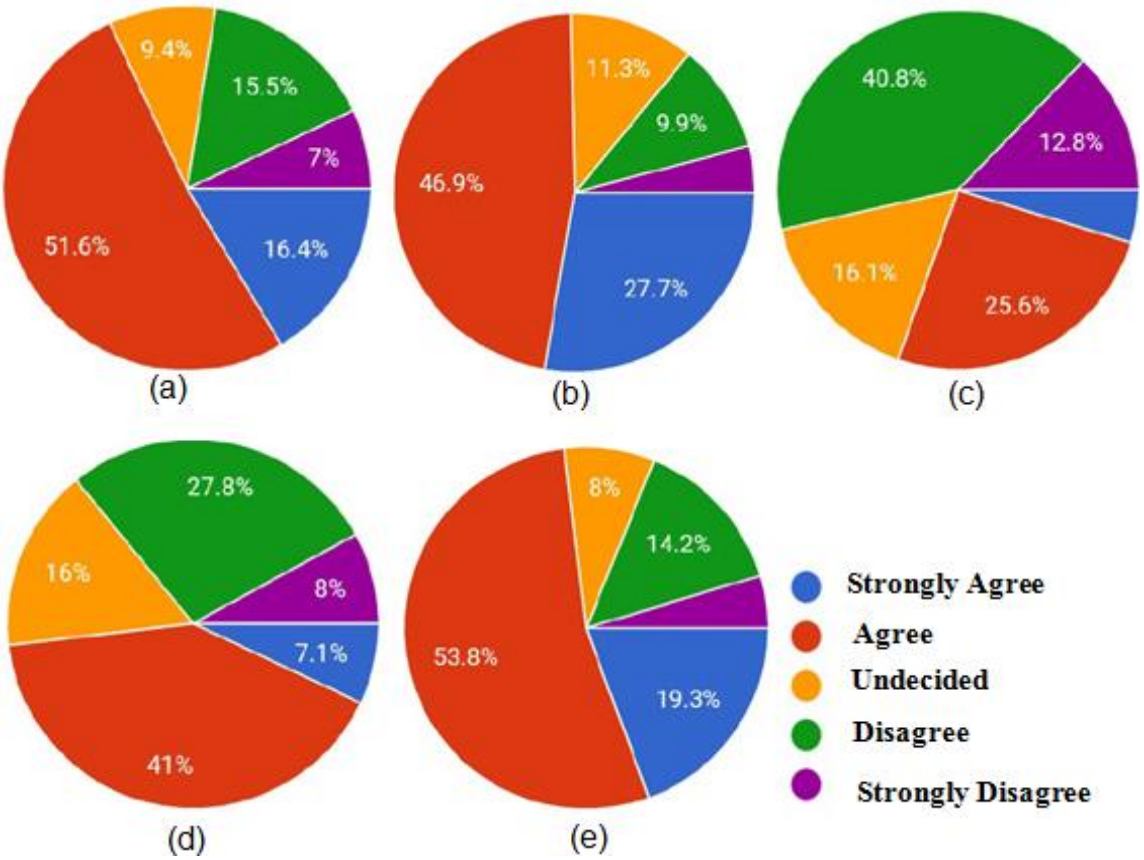

Figure 7. A pie chart showing the percentage of respondents on the items for RQ5 (a) Obeying the Government lockdown rules was responsible for the relatively low spread of the COVID-19 in the country (b) Closing of inter-state land borders and those between Nigeria and other countries has helped in minimizing the spread of the COVID-19 (c) Deltans are committed to adhering to all the guidelines given by government during the easing of the lockdown (d) The poor use of the face masks is because it is very difficult to use and not because people are not aware that COVID 19 is airborne and (e) The poor compliance with the social distancing rule is because many Deltans cannot incorporate it into their daily socio-economic activities.

to all the guidelines given by government during the easing of the lockdown and 31.3% believed they did (Figure 7c) . We decided to quickly probe why Deltans are not committed to adhering to all the guidelines using the two most common protocols: wearing of face masks and social distancing. As shown in Figure 7d, more of the respondents (41.8%) opined that *the poor use of the face masks was because it was very difficult to use and not because people were not aware that COVID 19 was airborne* while 35.8% had contrary opinion. Similarly, close to three-quarter (73.1%) of the respondents were of the opinion that *the poor compliance with the social distancing rule was because many Deltans cannot incorporate it into their daily socio-economic activities* (Figure 7e).

DISCUSSION

From the results of the survey, the observation on the origin is that a comparatively higher population of Deltans believed that COVID-19 was real and neither a scam nor a curse from God. Further, more of the respondents in the survey did not believe that the disease was created by the world power to reduce the human population or by people who would want to introduce a special vaccine as cure in order to create the biblical era of anti-Christ. The implication is that the survey results clearly show that only a fewer population of Deltans believed in those COVID-19 conspiracy theories (Shahsavari et. al., 2020: Ball and Maxmen, 2020). However, more Deltans from the survey believed the conspiracy theory that COVID-19 was a deliberately created biological weapon by China. It is worthy to point out that this issue has become political as the superpowers have been blaming each other (Khurshid, 2020), making the origin of the disease still an open problem.

The results from the survey that more of the

respondents in Delta State knew the main clinical symptoms of COVID-19 and its other biological background features such as it was more likely to cause death to people with health challenges and the elderly is remarkable. Further, we observed from the survey results that Deltans believe that both high temperature and humidity did not favour the spread of the disease. Consequently, this inverse variation of the spread parameters of the virus with increasing temperature as well as humidity which have been shown in several studies may be responsible for the relative low spread in the pandemic in the tropical region of Africa (Oliveiros, 2020). It is our opinion that the regular informative strategy of the state government which includes the Governor's tweets, educational adverts and jingles via the various media as well as its coordination on its website (DELTASTATEGOV, 2020a) has helped to make Deltans well informed. Further, some local government chairpersons as well as communities' leaders were moving around engaging the people using public address systems mounted on vehicles.

Another remarkable observation from the survey was that many Deltans believed that the COVID-19 was both preventable and curable and this could lead to positive or negative impact on them. On the negative impact, people with such mind set are not likely to be so scared of the virus and consequently may disobey the protocols to curb the spread. Thus for such persons, the economy should be opened because they believe we can live with the virus which is in line with the emerging global position that we have to live with the COVID-19 virus like as been done with HIV (Scharping, 2020). The reason is that like the latter, the former has escaped into the community and therefore the various governments, their agencies and the private sectors have to start making plans on the best strategy to reduce the mortality rate as have been done for HIV so that normalcy can be restored in every sector (Raboisson and Lhermie, 2020). Now the positive impact of the belief that the disease is both preventable and curable is that it will motivate Deltans to seek local treatment for both prevention and cure of the disease. Interestingly, the result from the study clearly shows that many Deltans still believed that government needed to focus on achieving a medically tested local herbal treatment such as combination of Agbo and that Nigeria had the experts to discover the local treatment for the disease (Adeyemi, 2020). Nigeria government has eventually decided to listen to the incessant calls for our own treatment and had set up a scientific committee to seek local treatment to the COVID-19 (Ifijeh, 2020; Mutethya, 2020). Therefore, we recommend that the Delta State government should equally set up such a scientific committee to medically study the best herbal combination for prevention and cure of the virus as done by Madagascar (Muanya, 2020). It is necessary to mention that though we observe from the survey that more Deltans favour the use of Chloroquine tablets and antibiotics, the 36.6% of the respondents that were undecided is the largest for any item in the six RQs and this may be attributed to the non-availability of scientific randomized clinical trials supporting their efficacy (Abena et al., 2020; Gao et al., 2020).

The Nigerian government was rated high in the approach adopted to handle the Ebola virus disease (EVD) outbreak in Nigeria which helped to reduce the number of death. As pointed out by Otu et. al. (2018), the 2014 EVD situation in Nigeria was effectively controlled using the incident management approach with massive support provided by the private sector and international community. This was why Nigeria was declared free of EVD on October 20, 2014 by the World Health Organization in less than three months after the first case was confirmed in Lagos, Nigeria on 23 July 2014. Therefore, there is the expectation that the Nigerian EVD experience will provide valuable insights to the government to guide reforms of the health systems in preparation for future infectious diseases outbreaks (Otu et al., 2018). The opinion of more than half of the respondents (50.5%) from the survey was that the response/handling of the pandemic by government and relevant agencies such as the NCDC was inadequate while 36.26% of the respondents believed the government has done well. More of the respondents opined that the daily briefing by the presidential task force was not the true reflection of the COVID-19 situation, the testing was too scanty and the isolation centers too few. However, we observed from the survey that more

of the respondents believed that government was improving on its testing strategy. Therefore, we recommend that the Delta State government should open more testing centres and isolation centres (Onabu, 2020).

The federal government imposed the closure of land borders on the 21st March, 2020 and then a five weeks' lockdown on 30 March, 2020 in Abuja, Lagos and neighboring Ogun State. The Delta State government closed the Asaba airport on March 27, 2020 and banned travelling in and out of the state for all the land borders on March 29, 2020. It then imposed a 14 day lockdown on April 1, 2020 (DELTASTATEGOV, 2020a). From the results of the survey, more than two-third of the respondents believed that the lockdown and interstate travelling ban helped to reduce the spread of the virus. However, the results from the survey also show that more than half of the respondents opined that Deltans were not committed to adhering to all the guidelines given by government. For example, one of the reasons adduced for not wearing face mark was that it was difficult to cope with it while three-quarter of the respondents were of the opinion that the poor compliance with the social distancing rule was because many Deltans could not incorporate it into their daily socio-economic activities (Afolaranmi, 2020). However, as the number of new cases was rising in the country, the Delta State government had to impose a dusk-to-dawn curfew in the state and extended the lockdown by another 14 days (Ahon, 2020). In addition, the government took stringent measures to ensure full compliance with prescribed protocols for averting the spread of COVID-19 in the state (DELTASTATEGOV, 2020b). It is expected that this tough stance will help to curb the spread of the pandemic in the state.

Conclusion

We have carried out a study on the survey and analysis of the perception and belief of the COVID-19 in Delta State as follows: origin of the COVID-19 pandemic, general biological knowledge of this particular strain of Coronavirus, strategy of cure and prevention, adequacy of government handling of the COVID-19 pandemic and Deltans response to government protocols and strategies to curb the spread of the disease. The simple percentage, pie charts and bar charts analysis adopted in this study is to meet our target of reaching the general public. We have discussed the results and made some recommendations. It is worthy to note that the results reveal a number of interesting knowledge on the perception of COVID-19 pandemic which is now in the public domain for further discussion (DELSUC19RG, 2020). The outlook is that there should be a more urgent and concerted efforts to fill the gap in the local information and data in order to scientifically study them and the possibility to adopt effective ones to locally treat and combat the COVID-19 pandemic which is an unseen and cruel enemy now living in our communities. One of such local information we urgently need is a compendium of all the self-medicated treatments used by individuals who recovered from the infection of the virus as well as the treatment administered to the patients that were successfully treated in the various hospitals in the state.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

SUPPLEMENTARY RESULTS

Request for supplementary results should be made to the Corresponding Author

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