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Full Length Research

Knowledge, Attitude and Practice towards Covid – 19 Preventive Measures among Residents of Bayelsa State

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The COVID -19 pandemic has become a major public health challenge globally with unprecedented measures being adopted to control the rapid spread of the epidemic. The knowledge, attitudes and practices of the people towards COVID -19 is critical to the effectiveness, adherence and success of the control measures adopted of this pandemic in a country. This study investigated the knowledge, attitude and practice (KAP) towards COVID -19 preventive measures among residents of Bayelsa State in Nigeria. A descriptive cross- sectional survey design was adopted for this study. The population for the study comprised of 1,500 residents, aged 20 years and above in Bayelsa State. The research instrument was a self -structure questionnaire. Multi- stage stratified random sampling technique was used; Proportionate stratified random sampling technique was used to get the 10% of respondents, representing each stratum. The statistical tools used for analysis of the data include descriptive statistics of percentage and mean, and inferential statistics of chi- square, one-way ANOVA and Z- test (using the statistical package for social sciences – SPSS). Results: based on knowledge of Covid-19 preventive measures among residents of Bayelsa State based on age, educational level and religion shows no significance for all items except for the statements that: the COVID- 19 virus spreads via respiratory droplet of infected individuals; Not all persons with COVID-19 will develop to severe cases; There is certainly no effective cure for COVID-19,but early symptomatic and supportive treatment can help most patients recover from the infection and Isolation and treatment of people who are infected with the COVID -19 virus are effective ways to reduce the spread of the virus. This study recorded good knowledge, positive attitudes and good practice of COVID -19 preventive measures among participants of Bayelsa State Though the practice of Covid-19 preventive measures was significantly different among the various age groups. This might be as a result of the way the disease affects the different age group. Also there is significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on religion, with the belief that the disease is caused by devil. Hence few recommendations were made.

Key Words: Knowledge, Attitude, Practice, Covid – 19, Preventive Measures.

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INTRODUCTION

The COVID – 19 pandemic, also known as the coronavirus, is an ongoing pandemic disease of 2019 (COVID – 19), caused by the transmission of severe acute respiratory syndrome; coronavirus 2 (SARS – COVID -2), first identified in December 2019 in Wuhan, China. The out-break was declared a public health emergency of International concern in January 2020 and a pandemic in March 2020. Its rapid global spread across over 215 countries and territories has become one of the largest pandemics in recent times with several devastating significant public health challenges (WHO 2020).

The disease had plagued the world with about 7.8 million confirmed cases and over 430,000 deaths as of June 13th, 2020. As of 28 October 2020, more than 44.3 million cases have been confirmed with more than 1.17 million deaths attributed to COVID-19, (Kate,2020). Unprecedented measures have been adopted to control the rapid spread of the ongoing COVID -19 epidemic in Nigeria. The knowledge, attitude, and practices (KAP) people hold towards this new disease is critical to understanding the epidemiological dynamics of the disease, and could play a major role in the way they accept measures put in place to curb its spread and their willingness to the effectiveness, compliance and success of infection prevention and control (IPC) measures adopted in the states and Nigeria at large.

As a worldwide pandemic, Bayelsa state was not an exception from the deadly COVID-19. As at 27 October 2020; the number of COVID-19 confirmed cases as revealed by the NCDC data were: 403, Active: 1, Recovered: 381 and Deaths: 21. From the foregoing, among the 36 states, the highest death rate per state; Bayelsa State assumes 14th position, which is on the average.

The clinical presentation of COVID – 19 symptoms include fever, fatigue, dry cough, malaise and breathing difficulties (dyspnea). So far the disease is characterized by high morbidity and mortality rates alongside other diseases. The mode of transmission is through droplet infection from person to person, and there have been no recorded cases of transfusion – transmitted coronavirus. Also there is no data to suggest that mosquitoes or ticks spread the virus that causes COVID -19 (Rine, Margaret, Danladi, Dauda & Patricia (2020).

According to the above authors, prior to the WHO pronouncement of COVID -19, as a global pandemic, many Nigerians regarded the disease as a distant white man's infirmity that could never spread to their abode. Without recourse to expert advice and recommendations, Nigerians and their government downplayed the emergence of COVID -19 in their territory, there by hesitating the adoption of initial preventive means which would have saved costs while protecting the citizenry from undue exposure to the virus. But with the confirmation of the index COVID -19 case in Lagos, Nigeria on February 20, 2020, other parts of the country including most State continued their normal routines and social activities without observing the sketchy preventive measures initially outlined by Nigeria Center for Diseases Control (NCDC). Most Nigerians opined that COVID- 19 is a 'big man disease'' (ie disease of the highly influential persons). As the number of COVID -19 cases gradually increased among the Nigerian population, especially the metropolitan cities including Abuja, the Federal Capital Territory (FCT), probable fear amidst misinformation regarding COVID -19, characterized the state of the inhabitants of the affected regions.

Furthermore, the prevailing presence of urban slums, dense population, inadequate access to potable water, fragile healthcare system, sharing of sanitation facilities with a high degree of social mixing among the inhabitants of Nigeria, will make the implementation of hygiene and other public health measures necessary for the curbing of the coronavirus impossible (Winter, Dzombo, and Barchi, 2019) Also, the spread of misinformation and tales regarding the COVID -19 and promotion of unscientific traditional treatment within Nigeria further jeopardized the implementation of preventive measure , (Joannidis, 2020),which is also applicable to Bayelsa state.

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 knowledge and right attitude towards practicing the COVID – 19 preventive measures.

Area of Study

Bayelsa State is one of the 36 states of Nigeria. It occupies the extreme south of the country and is approximately mid-way between the eastern and western boundaries of the country with the Republic of Cameroon and Benin respectively. The state is bounded in the north by Delta State, east by Rivers State and the west and south by the Gulf of Guinea. Bayelsa State is a picturesque (visually charming or having pleasing or interesting qualities) tropical rain forest, with an area of about 21,110 square kilometres. More than three quarters of this area is covered by water, with a moderately low land stretching from Ekeremor to Nembe. The network of many creeks and rivers in the south, all flow into the Atlantic Ocean via the major rivers such as San Bartholomew, Brass, Nun, Sangana among others. The people of Bayelsa State were originally traditionalists. Nevertheless, the concept and acceptance of God as the creator had never been in doubt in any of the sub-religions. This is why every Izon dialect has a specific name for God. The major occupations of

Bayelsans (Izon-man) are farming, fishing, canoe-carving and collection of palm products (Yanga, 2006).

Bayelsa State is made up of three senatorial districts, comprising of eight Local Government Areas as follows (1) Central Senatorial District, (Yenagoa, Kolokuma/Opokuma and Southern Ijaw Local Government Areas,), (2) East Senatorial District; (Ogbia, Nembe and Brass LGAs,) and (3) West Senatorial District; (Ekeremor and Sagbama LGAs). Its capital is at Yenagoa, (Corporate Nigeria, 2007). It has a population of around 2 million people, (National Population Commission, 2006).

STATEMENT OF PROBLEM

Health is wealth and having a good knowledge and the right attitude towards the practice of any disease condition, serves as the key to attaining good health. COVID -19 had caused so many deaths in the whole world and Bayelsa State is not an exception. Could this high mortality rate be due to lack of knowledge or not having the right attitude to practice the COVID -19 guidelines or preventive measures? The battle of COVID -19 is still continuing in Nigeria, Bayelsa state inclusive. To guaranty the final success, people's adherence to these control measure are important, which is largely affected by their knowledge, attitudes and practices (KAP) towards COVID -19. There is however a paucity of studies on this area in Bayelsa State. Hence the need for the present study which is knowledge, attitudes and practice towards COVID -19 preventive measures among residents of Bayelsa State.

Aim of the Study

The aim of this study is to investigate the Knowledge, Attitude and Practice of COVID -19 preventive measures among residents of Bayelsa State.

OBJECTIVES OF THE STUDY

In specific terms, the study intends to determine:

1. The knowledge about COVID -19 preventive measures among residents of Bayelsa State,
2. The source of knowledge about COVID -19 preventive measures among residents of Bayelsa State.
3. The knowledge about COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level, and religion.
4. The attitude towards COVID -19 preventive measures among residents of Bayelsa State.
5. The attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level, and religion.
6. The practice of COVID -19 preventive measures among residents of Bayelsa State.
7. The practice of COVID -19 preventive measures among residents of Bayelsa State.

based on age, educational level, and religion.

The following Research Questions Guided the Study.

1. What is the knowledge about COVID -19 preventive measures among residents of Bayelsa States?
2. What is the source of knowledge about COVID -19 preventive measures among residents of Bayelsa State?
3. What is the knowledge about COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level and religion?
4. What is the attitude towards COVID -19 preventive measures among residents of Bayelsa State?
5. What is the attitude towards COVID -19 preventive measures among residents of Bayelsa State based on age, educational level and religion?
6. What is the practice of COVID -19 preventive measures among residents of Bayelsa State?
7. What is the practice of COVID -19 preventive measures among residents of Bayelsa State based on age, educational level and religion?

Hypotheses:

1. There is no significant difference in knowledge of COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level and religion.
2. There is no significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level and religion.
3. There is no significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level and religion.

Delimitation of the Study:

This study was delimited to residents of Bayelsa State in Nigeria.

Significance of the study:

1. The results of this study may motivate residents of Bayelsa State to practice the COVID- 19 preventive measures regularly and thereby reducing the rate of spread of the disease in Bayelsa State.

2. Findings from the study may serve as a baseline data for the Bayelsa State government and non-governmental organizations, to encourage and create awareness programmes/campaigns about the importance of abiding to the COVID -19 preventive measures, so as to reduce the morbidity and mortality rates of the pandemic disease.
3. Deaths from COVID -19 can be averted by being knowledgeable and developing the right attitude towards the practice of COVID -19 preventive measures.

Review of Related Literature

Conceptual Framework

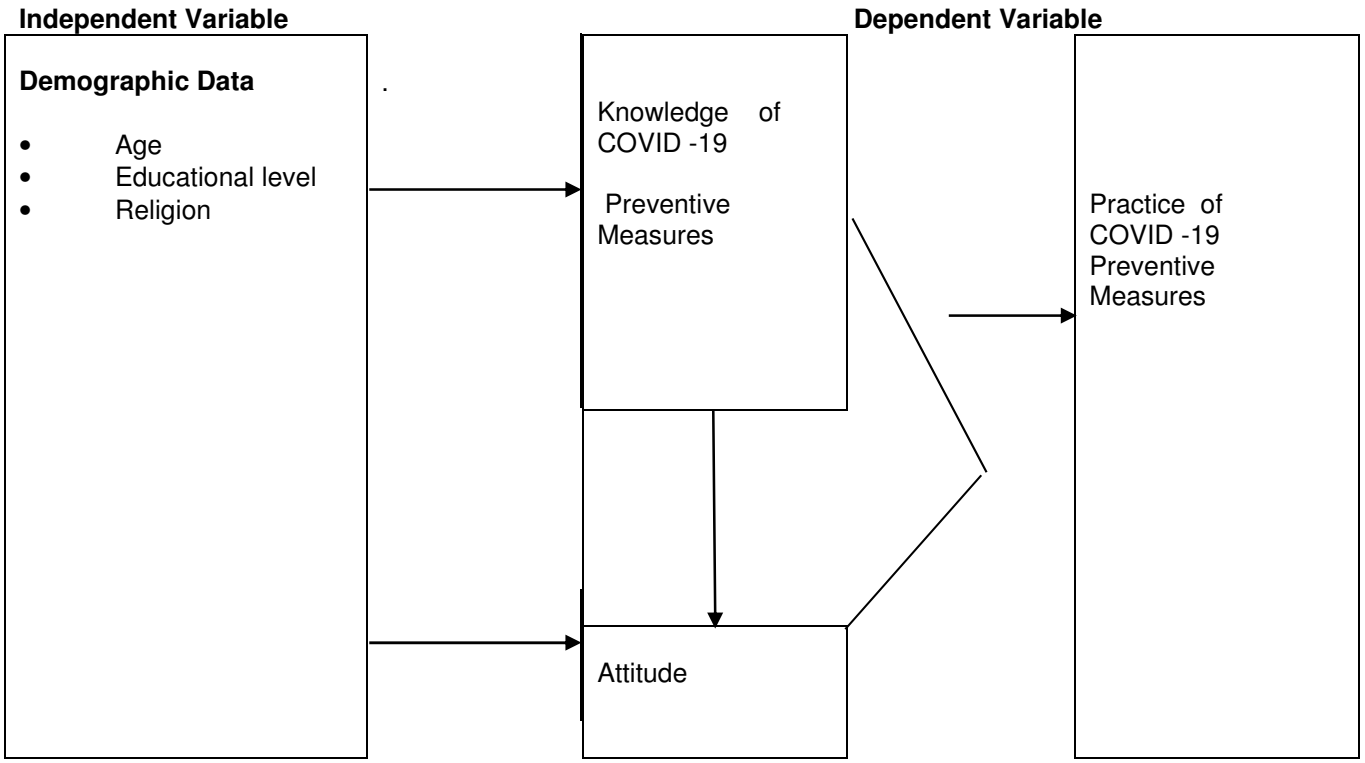

Figure 1. Conceptual Framework on Knowledge, Attitudes and Practices Towards COVID -19 Preventive Measures. Source: Ikemike. D.O

According to Ikemike (2020).The above conceptual framework postulates that: an individual's age, educational level and religion can determine the development of good knowledge and the right/positive attitude towards the practice of an intended action that may determine either a positive or negative outcome.
According to Goetz and Lecompte (1984 in Smyth, 2002), conceptual framework becomes the heart of any study as the research gains momentum. It increasingly scaffolds, strengthens and keeps research on track by:

- Providing clear links from the literature to the researcher goals and questions.
- In forming the research design.
- Providing reference points for discussion of literature, methodology and analysis of data.
- Contributing to the trustworthiness of the study.

Concept and History of COVID -19

Although it is still unknown exactly where the COVID -19 out-break first started. This new coronavirus appeared in Wuhan, China, in late December 2019 after health officials noticed an increase in pneumonia cases with no known cause. This cases have since been linked to several early infected people who had visited Huanan Seafood Wholesale Market, located in Wuhan,, Hubei, China,(Sun, He, Wang, Lai, Ji and Zhai, 2020).

According to Adhanom, and Tredos, and Jr, Berkeley, (2020). The World Health Organization named the disease '' COVID -19,''the year in which the outbreak of the disease was first identified in 2019. The virus that

caused the outbreak is known as severe acute respiratory syndrome coronavirus 2 (SARS –CoV-2), a newly discovered virus, that is closely related to **bat coronaviruses.** Within a few months, SARS – CoV-2 has spread to hundreds of countries around the world after being transmitted through person to person contact, (Periman 2020) Pangolin Coronavirus (Cyranoskki and Zhang, Wu etal, 2020).

In the works of Clarly, (2020). The term 'coronavirus' refers to a group of viruses known to affect birds and animals, including humans, COVID-19, which first appeared in China in December 2019, is a type of coronavirus. Coronaviruses are named for the spiky projections on their surfaces. These resemble the points on a crown. Corona means 'Crown' in Latin.

According to the above author, there are hundreds of coronaviruses, but only seven are known to affect people. Four human coronaviruses only cause mild cold or flu-like symptoms. Three other coronaviruses pose more serious risks. All the seven types of human coronaviruses cause upper respiratory infections. Symptoms resemble those of the common cold or flu and may include nasal congestion, sore throat, dry cough, headache and fever.

According to the Centre for Disease Control (CDC) (2020). Coronavirus occasionally cause complications in the lower respiratory tract, such as pneumonia. These complications are more common among infants, older adults and people with other illnesses or weakened immune system. The seven coronaviruses that affect humans can be categorized into two groups: Common Human Coronaviruses. There are four common human coronaviruses: (1)229E, (2) NL63, (3) OC43 and (4) HKUI.

According to the above author; common human coronavirus usually causes mild to moderate symptoms. Most people around the world will develop at least one of these viral infections over their lifetime. Those who contract these viruses are able to recover on their own most of the time. Three additional human coronaviruses originated as animal infections. Overtime, these viruses evolved and were eventually transmitted to humans. These coronaviruses pose more serious risks to human health. They are described below:

SARS – CoV

SARS –CoV. Causes severe Acute Respiratory Syndrome (SARS). According to the World Health Organization (WHO) (2002). The first human cases appeared in southern China. SARS –CoV. May have originated in bats and were transmitted to other animals before infecting humans. During the 2002 -2003 epidemic; 8,000 people in 26 countries around the world contracted SARS. There were 774 reported deaths. The outbreak was contained in the mid-2003 with the implementation of infection control practices such as isolation and quarantine. Since then, a handful of cases have occurred due to laboratory accidents. However, if the virus re- emerges, it could pose a significant threat to the public.

MERS – CoV

MERS –CoV. Causes Middle East Respiratory Syndrome (MERS). According to World Health Organization (WHO). It emerges in September 2012 in Saudi Arabia, although initial cases were later traced back to Jordan. Humans contract MERS –CoV through contact with camels that have contracted the infection. The virus is also transmitted by coming into very close contact with a person who has the infection. Since 2012, 27 countries have reported more than 2, 400 MERS cases. To date, the majority of cases have occurred in Saudi Arabia.

In 2015, an outbreak in South Korea led to 186 cases and 36 deaths. According to the Centre for Disease Control (CDC)(2020). This outbreak originated with a traveller returning from the Middle East. Also according to the European Centre for Disease Prevention and Control (ECDPC), there were more than 200 cases of MERS –CoV reported in 2019.

Coronaviruses are Zoonotic viruses. That means, commonly affect animals such as; birds, bats, camels, and pigs. In rare cases, coronaviruses 'jump' species, which means they are transmitted from an animal with the infection to a human through direct or indirect contact . Scientists call this event a 'zoonotic spillover'. When this happens, the resulting corona virus poses a threat to human populations, as is the case with SARS – CoV -2.

From the foregoing; how do you protect yourself from this coronavirus?

The Centre for Disease Control (CDC) (2020). Recommends that all persons should wear cloth face mask in public places where it is difficult to maintain a 6 feet distance from others. This will help slow the spread of the virus from people without symptoms or people who do not know they have contracted the virus. Cloth face mask should be worn while continuing to practice social distancing. The following basic protective measures can help to protect one from contracting the virus:

1. Stay home: According to the CDC , the best way to protect one's self from the virus is to avoid being exposed to it. That means staying home to avoid coming into contact with people who have the virus.
2. Wash your hands thoroughly with soap and water for at least 20 seconds, especially if you have been in a public area.
3. Use an alcohol –based hand sanitizer, when it is not possible to wash your hands.

4. Avoid touching your face, because the virus can survive on surfaces that you touch with your hands. If your hands come in contact with your mouth, nose, and eyes, the virus might enter your body. However it is not thought to be the main way that the virus spreads.
5. Practice social distancing. If you need to leave your house, maintain your distance from anyone who might have the virus, especially if the virus is being transmitted in your community. The CDC recommends that staying at least 6 feet (1.83 meters) away from others.
6. Seek regular updates: The situation is evolving rapidly. It is important to follow instructions from public health officials.

Empirical Studies related to Knowledge, Attitudes and Practices towards COVID-19 Preventive Measures

Rine, Margaret, Dauda and Patricia (7 July 2020) carried out a cross –sectional Epidemiological survey in North- Central Nigeria on Knowledge, Attitudes and Practices towards COVID -19. From a total of 589 received, 80.6, 59.6, 90.4 and 56.2% were from respondents between ages18 – 39 years. The results revealed that; majority of respondents (79.5%) had positive attitudes towards the adherence of government Infection preventive control IPC) measures, with 92.7, 90.4,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. Pearson's correlation showed significant relationship between knowledge of COVID -19 and attitude towards preventive measures (r = 0.177, p =0.004, r =0.137. p = 0.001). 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.

Adela, Lucia, Lum, Jean, Fabrice, Hamadama, Nyemb, Marie, Jean –Louis and Essame., (4 September 2020), also carried out a cross – sectional symptomatology online survey on Knowledge, attitude and practices towards COVID -19 preventive measures and symptoms, during the exponential rise of the outbreak in Cameroon. The study sought to understand if (a) demographic variables of Cameroon residents could influence KAP and symptomatology, and (b) KAP could influence the risk of having COVID -19. The population of the study was (1006), 53.1% were female, 26.6% were students, 26.9% interacted face to face and 62.8% were residents in Yaounde with a median age of 33.The overall high score was 84.19% for knowledge, 69% for attitude, and 60.8% for practice towards COVID -19. Age ≥ 20 years was associated with a high knowledge of COVID -19. Women had lower practice scores to men (OR = 0.72; 95%CI 0.56 -0.92).41 respondents had ≥ 3 symptoms and only 9 (22.95%) of them had called 1510 (emergency number). There was no significant difference between KAP and symptomatology. The presence of ≥ 3 symptoms in 4% of residents (with 56% of them having co –morbidities) supports the current trend in the number of confirmed cases (8681) in Cameroon. The continuous increase in the number of cases and the overall good knowledge warrants further investigation to assess the effectiveness of the measures put in place to curb the spread of the disease .Sensitization is paramount to preclude negative health- seeking behaviours and encourage positive preventive and therapeutic practices, for fear of an increase in mortality.

Bao, Wei, Hai-Mei, Qian-Quin, Xiao-Ge, Wen-Tian and Yi (2020). Investigated Chinese resident's Knowledge, Attitudes and Practices towards COVID-19 during the rapid rise period of the outbreak. A quick online cross – sectional survey design was adopted. An online sample of Chinese residents was successfully recruited via the author's network with residents and popular media in Hubei, China. A self- structured online questionnaire was completed by the participants. The knowledge questionnaire consisted of 12 questions regarding the clinical characteristics and prevention of COVID – 19. Assessments on resident's attitudes and practices towards COVID -19 includes questions on confidence in winning the battle against COVID -19 and wearing masks when going out in recent days. Among the survey completers (n = 6910), 65.7% were women, 63.5% held a bachelor degree or above, and 56.2% engaged in mental labor. The overall correct rate of the knowledge questionnaire was 90%. The majority of the respondents (97.1%) had confidence that China can win the battle against COVID -19. Nearly all of the participants (98.0%) wore masks when going out in recent days. In multiple logistic regression analysis, the COVID – 19 knowledge score (OR: 0.75 - 0.90, P ≤ 0.001) was significantly associated with a lower likelihood of negative attitudes and preventive practices towards COVID - 19. Most Chines residents of a relatively high socioeconomic status, in particular women, are knowledgeable about COVID – 19, hold optimistic attitudes, and appropriate practices towards COVID -19. Health education programmes aimed at improving COVID – 19 knowledge are helpful for Chinese residents to hold optimistic attitudes and maintain appropriate practices.

The Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) by Ajzen and Fishbein (1999), postulates that; Intentions are formulated via a reasoned process whereby the individual considers the consequences of their actions, either

implicitly or explicitly. The attitude reasoned to be the most likely to achieve the most positive outcome for the individual is the enacted.

The TRA hypothesizes two determinants of interventions: attitudes and subjective norms which are underpinned by attitudinal and normative traits about the consequences of the action or practice. The strength of a person's attitude (i.e, their positive or negative evaluation of performing the action) combined with the weight of social pressure they perceived, they are under to perform the action (subjective norm), will influence the strength of their intention to perform the subjective action. The diagram is shown below.

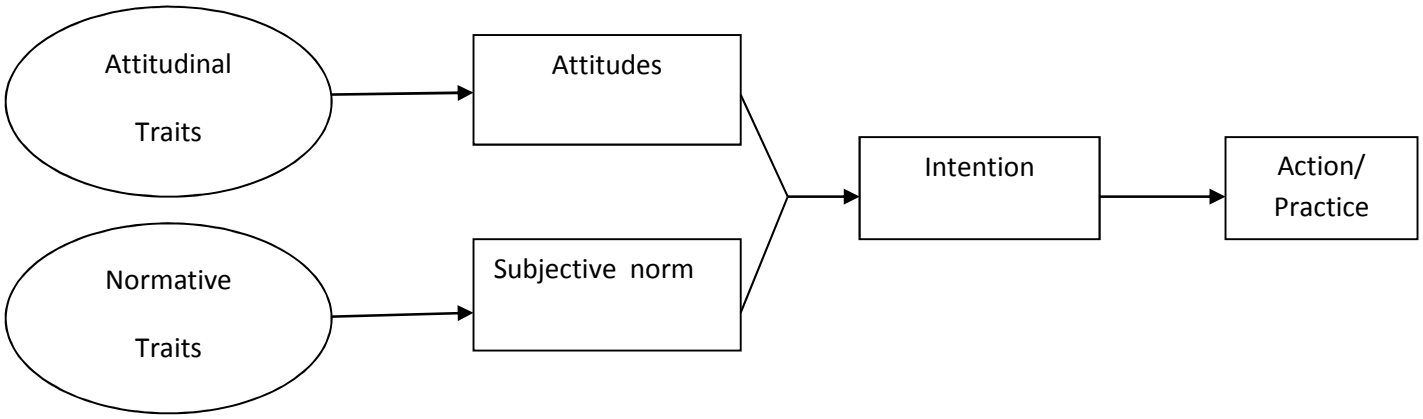

Figure 2. Theory of Reasoned Action . Source: Ajen & Fisfbein, (1999).

METHODOLOGY

A descriptive cross - sectional survey design will be adopted for this study. The population for the study comprised of 1,500 residents, aged 20 years and above in Bayelsa State. Multi- stage stratified randam sampling technique will be used; Proportionate stratified random sampling technique will be used to get the 10% (150) of respondents representing each stratum. The statistical tools to be used for analysis of the data include descriptive statistics of percentage and mean, and inferential statistics of chi- square, one-way ANOVA and Z- test (using the statistical package for social sciences – SPSS).

The research instrument is a 25 item self -structure questionnaire known as Knowledge, Attitudes and Practices towards COVID-19 Preventive Measures Questionnaire (KAPTCPMQ). It consists of section A and B. Section A contains the demographic data, while Section B comprises True, False and I don't know items, about Knowledge of COVID -19 Preventive measures. A four point modified likert- type of scale will be used to generate data for the attitude, with responses of; Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagree (1) for positive questions and Strongly Agree (1), Agree (2), Disagree (3) and Strongly Disagree (4) responses for negative questions. While Frequency will be used to generate data for practice of COVID-19 preventive measures, with responses of Always (4), Sometimes (3) Occasionally (2) and Rarely (1).

In order to ensure the face and content validity of the instrument, the questionnaire was presented to few experts in the field, and whose expert opinions, comments, criticisms and observations were used in preparing the final draft of the questionnaire. To ascertain the reliability of the instrument, test re-test method was used. The questionnaire was administered to twenty (20) persons, outside the study area. The same questionnaire was re-administered after two weeks interval on same respondents. The two sets of data were then correlated using Pearson Product moment correlation to obtain a correlation coefficient. A correlation co-efficient of 0.76 was considered reliable for the study.

One hundred and fifty (150) copies of questionnaire administered to the respondents with the aid of eight trained research assistants being used to ensure proper distribution of questionnaire to the respondents on their various locations (towns) within the eight local government areas of Bayelsa State, for purposes of proper distribution and retrieval of questionnaire, which took about two weeks to round up all the selected towns. The return rate of the instrument would be calculated or established, and percentage return rate would be considered for the study.

The completed copies of questionnaire will be collated, coded and analyzed using the Statistical Package for Social Sciences (SPSS) batch version 25. Descriptive statistics of mean would be used to answer the research questions. The criterion mean of 2.50 will be used in taking decision for research questions. The criterion mean was calculated as follows:

$\frac{4+3+2+1}{4}=\frac{10}{4}=2.5$

For the research questions on Knowledge, Attitudes and Practices towards COVID -19 Preventive measures, an item mean or grand mean that equal to or greater than the criterion mean of 2.50 was adjudged as "good knowledge, positive attitude and consistent practice" according to the variable in question, but any item mean or ground mean that was less than 2.50 will be considered as " poor knowledge, negative attitude and inconsistent practice'' Inferential statistics of Chi-square for (knowledge), ANOVA for(Attitudes) and Z-test for(Location) set at .05 alpha level will be used to test the hypotheses, using the statistical package for social sciences batch system.

RESULTS

Research Question One

What is the knowledge about COVID -19 preventive measures among residents of Bayelsa State?

Table 1: Responses on the Knowledge about COVID -19 preventive measures among residents of Bayelsa State

S/N	Items	True		False		I don't know	
		N	%	N	%	N	%
1	The COVID- 19 virus spreads via respiratory droplet of infected individuals	141	94.0	4	2.7	5	3.3
2	The main clinical symptoms of COVID -19 are fever, fatigue, dry cough, malaise and difficulty in breathing	145	96.7	2	1.3	3	2.0
3	Person with COVID-19 cannot spread the virus to others when a fever is not present	53	35.3	84	56.0	13	8.7
4	Not all persons with COVID-19 will develop to severe cases.	120	80.0	10	6.7	20	13.3
5	Only those who are elderly, have chronic illnesses, and are obese are more likely to be severe cases.	106	70.7	23	15.3	21	14.0
6	Ordinary residents can wear masks to prevent the infection by the coronavirus.	125	83.3	15	10.0	10	6.7
7	Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the coronavirus.	91	60.7	33	22.0	26	17.3
8	It is not necessary for children and young adults to take measures to prevent the infection by the coronavirus.	59	39.3	69	46.0	22	14.7
9	Eating or contacting wild animals would result in the infection by the coronavirus	61	40.7	51	34.0	38	25.3
10	There is certainly no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection.	118	78.7	9	6.0	23	15.3
11	People who have contact with someone infected with the COVID -19 virus should be immediately isolated in a proper place to be observed for a period of 14 days.	122	81.3	2	1.3	26	17.3
12	To prevent being infected by COVID-19, individuals should avoid going to crowded places such as motor parks and avoid taking public transportations.	121	80.7	10	6.7	19	12.7
13	Isolation and treatment of people who are infected with the COVID -19 virus are effective ways to reduce the spread of the virus.	139	92.7	3	2.0	8	5.3
14	Coronaviruses are named for the spiky projections on their surfaces, which resemble the point on a crown	100	66.7	8	5.3	42	28.0
15	The word 'Corona' means 'Crown' in Latin.	81	54.0	10	6.7	59	39.3
16	Mosquito bite can prevent the chances of contracting COVID -19.	43	28.7	85	56.7	22	14.7

Table 1: presents the responses on the Knowledge about COVID -19 preventive measures among residents of Bayelsa State. The responses show that the respondents have very high knowledge about covid-19 and its preventive measures. This is indicated in the percentage of respondents who responded positively to the covid-19 preventive measures items.

Research Question Two

What is the source of knowledge about COVID -19 preventive measures among residents of Bayelsa State?

Table 2: source of knowledge about COVID -19 preventive measures among residents of Bayelsa State

S/N	Source	N	%
1.	Television	83	55.3
2.	News paper	30	20.0
3.	Seminar/workshop	15	10.0
4.	Campaign	22	14.7
	Total	150	100

Table 2 presents the source of knowledge about COVID -19 preventive measures among residents of Bayelsa State. 55.3% heard from television, 20% from newspapers and 10% heard from seminar/workshop while 14.7% heard from campaigns.

Research Question Three

What is the knowledge about COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level, gender, religion and location?

Table 3a: knowledge about COVID -19 preventive measures among residents of Bayelsa State, based on age

S/N	Items	Age	True		False		I don't Know	
			N	%	N	%	N	%
1.	The COVID- 19 virus spreads via respiratory droplet of infected individuals	20-39	51	96.2	1	1.9	1	1.9
		40-49	48	100.	0	0	0	0
		50 +	26	89.7	0	0	3	10.3
2.	The main clinical symptoms of COVID -19 are fever, fatigue, dry cough, malaise and difficulty in breathing	20-39	50	94.3	1	1.9	2	3.8
		40-49	47	97.9	1	2.1	0	0
		50 +	27	93.1	1	3.4	1	3.4
3.	Person with COVID-19 cannot spread the virus to others when a fever is not present	20-39	21	39.6	26	49.1	6	11.3
		40-49	17	35.4	29	60.4	2	4.2
		50 +	10	34.5	16	55.2	3	10.3
4.	Not all persons with COVID-19 will develop to severe cases.	20-39	38	71.7	5	9.4	10	18.9
		40-49	41	85.4	0	0	7	14.6
		50 +	21	72.4	6	20.7	2	6.9
5.	Only those who are elderly, have chronic illnesses, and are obese are more likely to be severe cases.	20-39	41	77.4	7	13.2	5	9.4
		40-49	37	77.1	3	6.3	8	16.7
		50 +	18	62.1	5	17.2	6	20.7
6.	Ordinary residents can wear masks to prevent the infection by the coronavirus.	20-39	44	83.0	4	7.5	5	9.4
		40-49	41	85.4	5	10.4	2	4.2
		50 +	23	79.3	3	10.3	3	10.3
7.	Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the coronavirus.	20-39	31	58.5	13	24.5	9	17.0
		40-49	29	60.4	12	25.0	7	14.6
		50 +	17	58.6	4	13.8	8	27.6

Table 3a: **continuation**

8,	It is not necessary for children and young adults to take measures to prevent the infection by the coronavirus.	20-39	21	39.6	25	47.2	7	13.2
		40-49	20	41.7	18	37.5	10	20.8
		50 +	10	34.5	15	51.7	4	13.8
9.	Eating or contacting wild animals would result in the infection by the coronavirus	20-39	23	43.4	13	24.5	17	32.1
		40-49	19	39.6	15	31.3	14	29.2
		50 +	11	37.9	12	41.4	6	20.7
10.	There is certainly no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection.	20-39	43	81.1	4	7.5	6	11.3
		40-49	35	72.9	1	2.1	12	25.0
		50 +	22	75.9	1	3.4	6	20.7
11.	People who have contact with someone infected with the COVID -19 virus should be immediately isolated in a proper place to be observed for a period of 14 days.	20-39	46	86.8	7	13.2	53	100.0
		40-49	36	75.0	1	2.1	11	22.9
		50 +	20	69.0	1	3.4	8	27.6
12.	To prevent being infected by COVID-19, individuals should avoid going to crowded places such as motor parks and avoid taking public transportations.	20-39	42	79.2	3	5.7	8	15.1
		40-49	38	79.2	5	10.4	5	10.4
		50 +	21	72.4	2	6.9	6	20.7
13.	Isolation and treatment of people who are infected with the COVID -19 virus are effective ways to reduce the spread of the virus.	20-39	51	96.2	1	1.9	1	1.9
		40-49	45	93.8	0	0	3	6.3
		50 +	23	79.3	2	6.9	4	13.8
14.	Coronaviruses are named for the spiky projections on their surfaces, which resemble the point on a crown	20-39	35	66.0	4	7.5	14	26.4
		40-49	36	75.0	3	6.3	9	18.8
		50 +	17	58.6	1	3.4	11	37.9
15.	The word 'Corona' means 'Crown' in Latin.	20-39	27	50.9	2	3.8	24	45.3
		40-49	30	62.5	3	6.3	15	31.3
		50 +	13	44.8	5	17.2	11	37.9
16.	Mosquito bite can prevent the chances of contracting COVID -19.	20-39	18	34.0	27	50.9	8	15.1
		40-49	17	35.4	27	56.3	4	8.3
		50 +	5	17.2	19	65.5	5	17.2

Table 3a is the response of knowledge about COVID -19 preventive measures among residents of Bayelsa State, based on age. In all the age groups responses where tilted towards affirmative of positive covid-19 practices. That is, generally all age brackets have some level of awareness of covid-19 and its preventive measure

Table 3b: knowledge about COVID -19 preventive measures among residents of Bayelsa State, based on the level of education

Edu. Level	True		S/N	Items	False		I don't Know	
	N	%	1.	The COVID- 19 virus spreads via respiratory droplet of infected individuals	N	%	N	%
FSLC	32	94.1			2	5.9	0	0
WASC	48	92.3			1	1.9	3	5.8
BSc	48	96.0			1	2.0	1	2.0
MSc	7	87.5			0	0	1	12.5
Ph.D.	5	100.0			0	0	0	0
FSLC	33	97.1	2.	The main clinical symptoms of COVID -19 are fever, fatigue, dry cough, malaise and difficulty in breathing	1	2.9	0	0
WASC	49	94.2			1	1.9	2	3.8

Table 3b: continuation

BSc	49	98.0			0	0	1	2.0
MSc	8	100.0			0	0	0	0
Ph.D.	5	100.0			0	0	0	0
FSLC	12	35.3	3.	Person with COVID-19 cannot spread the virus to others when a fever is not present	22	64.7	0	0
WASC	17	32.7			29	55.8	6	11.5
BSc	12	24.0			32	64.0	6	12.0
MSc	7	87.5			0	0	1	12.5
Ph.D.	5	100.0			0	0	0	0
FSLC	24	70.6	4.	Not all persons with COVID-19 will develop to severe cases.	3	8.8	7	20.6
WASC	37	71.2			5	9.6	10	19.2
BSc	45	90.0			2	4.0	3	6.0
MSc	8	100.0			0	0	0	0
Ph.D.	5	100.0			0	0	0	0
FSLC	21	61.8	5.	Only those who are elderly, have chronic illnesses, and are obese are more likely to be severe cases.	7	20.6	6	17.6
WASC	39	75.0			6	11.5	7	13.5
BSc	33	66.0			9	18.0	8	16.0
MSc	8	100.0			0	0	0	0
Ph.D.	5	100.0			0	0	0	0
FSLC	30	88.2	6.	Ordinary residents can wear masks to prevent the infection by the coronavirus.	2	5.9	2	5.9
WASC	43	82.7			6	11.5	3	5.8
BSc	41	82.0			6	12.0	3	6.0
MSc	6	75.0			0	0	2	25.0
Ph.D.	4	80.0			1	20.0	0	0
FSLC	18	52.9	7.	Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the coronavirus.	12	35.3	4	11.8
WASC	33	63.5			10	19.2	9	17.3
BSc	30	60.0			10	20.0	10	20.0
MSc	7	87.5			1	12.5	0	0
Ph.D.	3	60.0			0	0	2	40.0
FSLC	9	26.5	8,	It is not necessary for children and young adults to take measures to prevent the infection by the coronavirus.	17	50.0	8	23.5
WASC	20	38.5			25	48.1	7	13.5
BSc	22	44.0			24	48.0	4	8.0
MSc	4	50.0			2	25.0	2	25.0
Ph.D.	4	80.0			0	0	1	20.0
FSLC	24	70.6	9.	Eating or contacting wild animals would result in the infection by the coronavirus	6	17.6	4	11.8
WASC	16	30.8			24	46.2	12	23.1
BSc	16	32.0			18	36.0	16	32.0
MSc	2	25.0			2	25.0	4	50.0
Ph.D.	3	60.0			0	0	2	40.0
FSLC	25	73.5	10.	There is certainly no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection.	5	14.7	4	11.8
WASC	44	84.6			2	3.8	6	11.5
BSC	36	72.0			2	4.0	12	24.0
MSc	7	87.5			0	0	1	12.5
Ph.D.	5	100.0			0	0	0	0
FSLC	30	88.2	11.	People who have contact with someone infected with the COVID -19 virus should be immediately isolated in a proper place to be observed for a period of 14 days.	0	0	4	11.8
WASC	41	78.8			2	3.8	9	17.3
BSc	40	80.0			0	0	10	20.0
MSc	5	62.5			0	0	3	37.5
Ph.D.	5	100.0			0	0	0	0
FSLC	27	79.4	12.	To prevent being infected by COVID-19, individuals should avoid going to crowded places such as motor parks and avoid taking public transportations.	1	2.9	6	17.6

Table 3b: continuation

WASC	42	80.8			3	5.8	7	13.5
BSc	40	80.0			5	10.0	5	10.0
MSc	6	75.0			1	12.5	1	12.5
Ph.D.	5	100.0			0	0	0	0
FSLC	31	91.2	13.	Isolation and treatment of people who are infected with the COVID -19 virus are effective ways to reduce the spread of the virus.	1	2.9	2	5.9
WASC	48	92.3			1	1.9	3	5.8
BSc	49	98.0			1	2.0	0	0
MSc	5	62.5			0	0	3	37.5
Ph.D.	5	100.0			0	0	0	0
FSLC	28	82.4	14.	Coronaviruses are named for the spiky projections on their surfaces, which resemble the point on a crown	1	2.9	5	14.7
WASC	31	59.6			3	5.8	18	34.6
BSc	34	68.0			3	6.0	13	26.0
MSc	4	50.0			0	0	4	50.0
Ph.D.	3	60.0			1	20.0	1	20.0
FSLC	19	55.9	15.	The word ‘Corona’ means ‘Crown’ in Latin.	1	2.9	14	41.2
WASC	25	48.1			6	11.5	21	40.4
BSc	28	56.0			1	2.0	21	42.0
MSc	6	75.0			1	12.5	1	12.5
Ph.D.	3	60.0	16.	Mosquito bite can prevent the chances of contracting COVID -19.	1	20.0	1	20.0
FSLC	9	26.5			21	61.8	4	11.8
WASC	14	26.9			30	57.7	8	15.4
BSc.	13	26.0			30	60.0	7	14.0
MSc.	5	62.5			2	25.0	1	12.5
Ph.D.	2	40.0			1	20.0	2	40.0

Table 3b; presents the response of knowledge about COVID -19 preventive measures among residents of Bayelsa State, based on their level of education. the groups responses where tilted towards positive covid-19 practices. That is, irrespective of the level of education, there have been some level of awareness of covid-19 and its preventive measures as presented in table 3b.

Table 3C: knowledge about COVID -19 preventive measures among residents of Bayelsa State, based on Religion

S/N	Items	Religion	True		False		I don’t Know	
			N	%	N	%	N	%
1.	The COVID- 19 virus spreads via respiratory droplet of infected individuals	Christianity	99	95.2	2	1.9	3	2.9
		Islam	7	70.0	1	10.0	2	20.0
		Others	35	97.2	1	2.8	0	0
2.	The main clinical symptoms of COVID -19 are fever, fatigue, dry cough, malaise and difficulty in breathing	Christianity	102	98.1	1	1.0	1	1.0
		Islam	8	80.0	1	10.0	1	10.0
		Others	35	97.2	0	0	1	2.8
3.	Person with COVID-19 cannot spread the virus to others when a fever is not present	Christianity	28	26.9	69	66.3	7	6.7
		Islam	7	70.0	1	10.0	2	20.0
		Others	18	50.0	14	38.9	4	11.1
4.	Not all persons with COVID-19 will develop to severe cases.	Christianity	83	79.8	7	6.7	14	13.5
		Islam	7	70.0	1	10.0	2	20.0
		Others	30	83.3	2	5.6	4	11.1
5.	Only those who are elderly, have chronic illnesses, and are obese are more likely to be severe cases.	Christianity	75	72.1	16	15.4	13	12.5
		Islam	6	60.0	1	10.0	3	30.0
		Others	25	69.4	6	16.7	5	13.9
6.	Ordinary residents can wear masks to prevent the infection by the coronavirus.	Christianity	85	81.7	13	12.5	6	5.8
		Islam	6	60.0	2	20.0	2	20.0
		Others	34	94.4	0	0	2	5.6

Table 3C: continuation

7.	Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the coronavirus.	Christianity	62	59.6	27	26.0	15	14.4
		Islam	7	70.0	1	10.0	2	20.0
		Others	22	61.1	5	13.9	9	25.0
8.	It is not necessary for children and young adults to take measures to prevent the infection by the coronavirus.	Christianity	39	37.5	53	51.0	12	11.5
		Islam	5	50.0	2	20.0	3	30.0
		Others	15	41.7	14	38.9	7	19.4
9.	Eating or contacting wild animals would result in the infection by the coronavirus	Christianity	37	35.6	41	39.4	26	25.0
		Islam	6	60.0	0	0	4	40.0
		Others	18	50.0	10	27.8	8	22.2
10.	There is certainly no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection.	Christianity	89	85.6	3	2.9	12	11.5
		Islam	5	50.0	2	20.0	3	30.0
		Others	24	66.7	4	11.1	8	22.2
11.	People who have contact with someone infected with the COVID -19 virus should be immediately isolated in a proper place to be observed for a period of 14 days.	Christianity	91	87.5	2	1.9	11	10.6
		Islam	5	50.0	0	0	5	50.0
		Others	26	72.2	0	0	10	27.8
12.	To prevent being infected by COVID-19, individuals should avoid going to crowded places such as motor parks and avoid taking public transportations.	Christianity	86	82.7	8	7.7	10	9.6
		Islam	7	70.0	1	10.0	2	20.0
		Others	28	77.8	1	2.8	7	19.4
13.	Isolation and treatment of people who are infected with the COVID -19 virus are effective ways to reduce the spread of the virus.	Christianity	100	96.2	1	1.0	3	2.9
		Islam	9	90.0	0	0	1	10.0
		Others	30	83.3	2	5.6	4	11.1
14.	Coronaviruses are named for the spiky projections on their surfaces, which resemble the point on a crown	Christianity	67	64.4	5	4.8	32	30.8
		Islam	9	90.0	1	10.0	0	0
		Others	24	66.7	2	5.6	10	27.8
15.	The word 'Corona' means 'Crown' in Latin.	Christianity	50	48.1	7	6.7	47	45.2
		Islam	7	70.0	2	20.0	1	10.0
		Others	24	66.7	1	2.8	11	30.6
16.	Mosquito bite can prevent the chances of contracting COVID -19.	Christianity	18	17.3	69	66.3	17	16.3
		Islam	6	60.0	3	30.0	1	10.0
		Others	19	52.8	13	36.1	4	11.1

Table 3c presents the response of knowledge about COVID -19 preventive measures among residents of Bayelsa State, based on their religion. the groups responses generally show positive covid-19 practices. That is, irrespective of their religious affiliation, there have been some levels of awareness of covid-19 and its preventive measures.

Research Question Four

What is the attitude towards COVID -19 preventive measures among residents of Bayelsa State?

Table 4: Mean responses of attitude towards COVID -19 preventive measures among residents of Bayelsa State

S/N	Items	Mean (X)	Criterion Mean	Decision
1.	That COVID -19 will finally be successfully controlled?	3.57	2.50	Positive

Table 4: **continuation**

2.	Having faith in prayer alone can prevent you from contracting COVID-19	3.02	2.50	Positive
3.	That COVID -19 is caused by evil spirits	2.36	2.50	Negative
4.	Avoid touching one's face with hands, because the virus can survive on surfaces that you touch with your hands	3.40	2.50	Positive
5.	Staying home can avoid your coming into intact with people who might have the virus?	3.16	2.50	Positive

Table 4 presents the item means of responses of attitude towards COVID -19 preventive measures among residents of Bayelsa State. respondents show positive attitude towards covid-19 preventive measures among residents of Bayelsa State.

Research Question Five

What is the attitude towards COVID -19 preventive measures among residents of Bayelsa State based on age, educational level, gender, religion and location?

Table 5a: Item mean analysis of attitude towards COVID -19 preventive measures among residents of Bayelsa State based on age

S/N	Items	Age	N	Criterion mean	Mean	Decision
1.	That COVID -19 will finally be successfully controlled?	20-39 yrs.	73	2.5	3.52	Positive
		40-49 yrs.	48	2.5	3.69	Positive
		50 yrs. & Above	29	2.5	3.48	Positive
2.	Having faith in prayer alone can prevent you from contracting COVID-19	20-39 yrs.	73	2.5	3.00	Positive
		40-49 yrs.	48	2.5	3.04	Positive
		50 yrs. & Above	29	2.5	3.04	Positive
3.	That COVID -19 is caused by evil spirits	20-39 yrs.	73	2.5	2.26	Negative
		40-49 yrs.	48	2.5	2.44	Negative
		50 yrs. & Above	29	2.5	2.48	Negative
4.	Avoid touching one's face with hands, because the virus can survive on surfaces that you touch with your hands	20-39 yrs.	73	2.5	3.48	Positive
		40-49 yrs.	48	2.5	3.42	Positive
		50 yrs. & Above	29	2.5	3.17	Positive
5.	Staying home can avoid your coming into intact with people who might have the virus?	20-39 yrs.	73	2.5	3.40	Positive
		40-49 yrs.	48	2.5	2.94	Positive
		50 yrs. & Above	29	2.5	2.93	Positive

Table 5a; presents the item mean analysis of attitude towards COVID -19 preventive measures among residents of Bayelsa State based on their ages. All the means of the items analyzed are greater than the criterion mean which only indicates positive attitude towards COVID -19 preventive measures among residents of Bayelsa State, except the statement 'that Covid-19 is caused by evil spirits' was responded negatively by all age group.

Table 5b: Item mean analysis of attitude towards COVID -19 preventive measures among residents of Bayelsa State based on their educational level

S/N	Items	Level of Education	N	Mean (X)	Criterion mean	Decision
1.	That COVID -19 will finally be successfully controlled?	FSLC	34	3.35	2.5	Positive
		WASC	52	3.62	2.5	Positive
		BSc	50	3.60	2.5	Positive
		MSc	8	3.88	2.5	Positive
		Ph.D.	5	3.80	2.5	Positive
2.	Having faith in prayer alone can prevent you from contracting COVID-19	FSLC	34	3.24	2.5	Positive
		WASC	52	2.98	2.5	Positive
		BSc	50	2.82	2.5	Positive
		MSc	8	3.38	2.5	Positive
		Ph.D.	5	3.80	2.5	Positive
3.	That COVID -19 is caused by evil spirits	FSLC	34	2.18	2.5	Negative
		WASC	52	2.44	2.5	Negative
		BSc	50	2.16	2.5	Negative
		MSc	8	2.38	2.5	Negative
		Ph.D.	5	2.40	2.5	Negative
4.	Avoid touching one's face with hands, because the virus can survive on surfaces that you touch with your hands	FSLC	34	3.41	2.5	Positive
		WASC	52	3.39	2.5	Positive
		BSc	50	3.28	2.5	Positive
		MSc	8	3.88	2.5	Positive
		Ph.D.	5	3.80	2.5	Positive
5.	Staying home can avoid your coming into intact with people who might have the virus?	FSLC	34	3.29	2.5	Positive
		WASC	52	2.96	2.5	Positive
		BSc	50	3.08	2.5	Positive
		MSc	8	3.88	2.5	Positive
		Ph.D.	5	4.00	2.5	Positive

Table 5b presents the item mean analysis of attitude towards COVID -19 preventive measures among residents of Bayelsa State based on their level of education. All the means of the items analyzed are greater than the criterion mean which only indicates positive attitude towards COVID -19 preventive measures among residents of Bayelsa State, except the statement that Covid-19 is caused by evil spirits was responded negatively.

Table 5c: item mean analysis of attitude towards COVID -19 preventive measures among residents of Bayelsa State based on their religious affiliation

S/N	Items	Religion	N	Mean (X)	Criterion mean	Decision
1.	That COVID -19 will finally be successfully controlled?	Christianity	104	3.55	2.5	Positive
		Islam	10	3.40	2.5	Positive
		Others	36	3.67	2.5	Positive
2.	Having faith in prayer alone can prevent you from contracting COVID-19	Christianity	104	2.88	2.5	Positive
		Islam	10	3.70	2.5	Positive
		Others	36	3.25	2.5	Positive
3.	That COVID -19 is caused by evil spirits	Christianity	104	2.09	2.5	Negative
		Islam	10	3.60	2.5	Positive
		Others	36	2.81	2.5	Positive
4.	Avoid touching one's face with hands, because the virus can survive on surfaces that you touch with your hands	Christianity	104	3.30	2.5	Positive
		Islam	10	3.60	2.5	Positive
		Others	36	3.64	2.5	Positive
5.	Staying home can avoid your coming into intact with people who might have the virus?	Christianity		3.03	2.5	Positive
		Islam		3.10	2.5	Positive
		Others		3.56	2.5	Positive

Table 5c presented the item mean analysis of attitude towards COVID -19 preventive measures among residents of Bayelsa State based on their religious affiliation. The responses show positive attitude towards COVID -19 preventive measures in all items except Christians responding negatively to the statement 'that Covid-19 is caused by evil spirits' with mean (2.09) lower than the criterion mean, while Islam and other religious groups were in the affirmative.

Research Question Six

What is the practice of COVID -19 preventive measures among residents of Bayelsa State?

Table 6: Mean responses of practice towards COVID -19 preventive measures among residents of Bayelsa State.

S/N	Items	Mean (X)	Criterion Mean	Decision
1.	In recent days, have you gone to any crowed place?	2.93	2.50	Positive
2.	In recent days, have you worn a mask when leaving home?	3.13	2.50	Positive
3.	In recent days, do you maintain social distance of at least 6 feet (1,83 meters) away from others in crowded places?	3.03	2.50	Positive
4.	In recent days, do you use hand sanitizer with at least 60 percent alcohol content, when it is not possible to wash your hands thoroughly with soap and water for at least 20 seconds?	3.21	2.50	Positive

Table 6 presents the item means of responses of practice towards COVID -19 preventive measures among residents of Bayelsa State. respondents show positive practice towards covid-19 preventive measures among residents of Bayelsa State.

Table 7a: Item mean analysis of practice towards COVID -19 preventive measures among residents of Bayelsa State based on age

S/N	Items	Age	N	Criterion mean	Mean	Decision
1.	In recent days, have you gone to any crowed place?	20-39 yrs.	73	2.5	2.90	Positive
		40-49 yrs.	48	2.5	2.92	Positive
		50 yrs. & Above	29	2.5	3.04	Positive
2.	In recent days, have you worn a mask when leaving home?	20-39 yrs.	73	2.5	3.11	Positive
		40-49 yrs.	48	2.5	3.15	Positive
		50 yrs. & Above	29	2.5	3.17	Positive
3.	In recent days, do you maintain social distance of at least 6 feet (1,83 meters) away from others in crowded places?	20-39 yrs.	73	2.5	3.00	Negative
		40-49 yrs.	48	2.5	3.06	Negative
		50 yrs. & Above	29	2.5	3.07	Negative
4.	In recent days, do you use hand sanitizer with at least 60 percent alcohol content, when it is not possible to wash your hands thoroughly with soap and water for at least 20 seconds?	20-39 yrs.	73	2.5	3.26	Positive
		40-49 yrs.	48	2.5	3.17	Positive
		50 yrs. & Above	29	2.5	3.14	Positive

Table 7a presents the item mean analysis of practice towards COVID -19 preventive measures among residents of Bayelsa State based on their ages. All the means of the items analyzed are greater than the criterion mean which only indicates positive practice towards COVID -19 preventive measures among residents of Bayelsa State.

Table 7b: Item mean analysis of practice towards COVID -19 preventive measures among residents of Bayelsa State based on their educational level

S/N	Items	Level of Education	N	Mean (X)	Criterion mean	Decision
1.	In recent days, have you gone to any crowed place?	FSLC	34	3.14	2.5	Positive
		WASC	52	2.87	2.5	Positive
		BSc	50	2.80	2.5	Positive
		MSc	8	3.88	2.5	Positive
		Ph.D.	5	4.00	2.5	Positive
2.	In recent days, have you worn a mask when leaving home?	FSLC	34	3.46	2.5	Positive
		WASC	52	3.17	2.5	Positive
		BSc	50	2.98	2.5	Positive
		MSc	8	3.38	2.5	Positive
		Ph.D.	5	3.40	2.5	Positive
3.	In recent days, do you maintain social distance of at least 6 feet (1,83 meters) away from others in crowded places?	FSLC	34	3.46	2.5	Positive
		WASC	52	2.98	2.5	Positive
		BSc	50	2.92	2.5	Positive
		MSc	8	3.25	2.5	Positive
		Ph.D.	5	3.20	2.5	Positive
4.	In recent days, do you use hand sanitizer with at least 60 percent alcohol content, when it is not possible to wash your hands thoroughly with soap and water for at least 20 seconds?	FSLC	34	3.73	2.5	Positive
		WASC	52	3.15	2.5	Positive
		BSc	50	3.06	2.5	Positive
		MSc	8	3.38	2.5	Positive
		Ph.D.	5	3.80	2.5	Positive

Table 7b presents the item mean analysis of practice towards COVID -19 preventive measures among residents of Bayelsa State based on their level of education. All the means of the items analyzed are greater than the criterion mean which indicates positive practice towards COVID -19 preventive measures among residents of Bayelsa State,

Table 7c: item mean analysis of practice towards COVID -19 preventive measures among residents of Bayelsa State based on their religious affiliation

S/N	Items	Religion	N	Mean (X)	Criterion mean	Decision
1.	In recent days, have you gone to any crowed place?	Christianity	104	2.82	2.5	Positive
		Islam	10	3.10	2.5	Positive
		Others	36	3.22	2.5	Positive
2.	In recent days, have you worn a mask when leaving home?	Christianity	104	3.02	2.5	Positive
		Islam	10	3.10	2.5	Positive
		Others	36	3.47	2.5	Positive
3.	In recent days, do you maintain social distance of at least 6 feet (1,83 meters) away from others in crowded places?	Christianity	104	2.98	2.5	Positive
		Islam	10	2.90	2.5	Positive
		Others	36	3.22	2.5	Positive
4.	In recent days, do you use hand sanitizer with at least 60 percent alcohol content, when it is not possible to wash your hands thoroughly with soap and water for at least 20 seconds?	Christianity	104	3.19	2.5	Positive
		Islam	10	2.90	2.5	Positive
		Others	36	3.33	2.5	Positive

Table 7c presented the item mean analysis of practice towards COVID -19 preventive measures among residents of Bayelsa State based on their religious affiliation. The responses show positive attitude towards COVID -19 preventive measures in all items.

Hypotheses

Hypothesis One

There is no significant difference in knowledge of COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level, and religion.

Table 8a: Chi-Square Tests for knowledge of COVID -19 preventive measures among residents of Bayelsa State, based on age

Item 1	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10.454[a]	4	.033**
Likelihood Ratio	12.050	4	.017
Linear-by-Linear Association	.327	1	.567
Item 2			
Pearson Chi-Square	3.661[a]	4	.454
Likelihood Ratio	5.190	4	.268
Linear-by-Linear Association	.223	1	.636
Item 3			
Pearson Chi-Square	1.923[a]	4	.750
Likelihood Ratio	2.149	4	.708
Linear-by-Linear Association	.016	1	.899
Item 4			
Pearson Chi-Square	13.418[a]	4	.009**
Likelihood Ratio	13.721	4	.008
Linear-by-Linear Association	.041	1	.840
Item 5			
Pearson Chi-Square	6.721[a]	4	.151
Likelihood Ratio	7.343	4	.119
Linear-by-Linear Association	1.059	1	.303
Item 6			
Pearson Chi-Square	1.148[a]	4	.887
Likelihood Ratio	1.133	4	.889
Linear-by-Linear Association	.183	1	.668
Item 7			
Pearson Chi-Square	3.355[a]	4	.500
Likelihood Ratio	3.235	4	.519
Linear-by-Linear Association	.663	1	.416
Item 8			
Pearson Chi-Square	3.322[a]	4	.506
Likelihood Ratio	3.289	4	.511
Linear-by-Linear Association	.400	1	.527
Item 9			
Pearson Chi-Square	1.262[a]	4	.868
Likelihood Ratio	1.239	4	.872
Linear-by-Linear Association	.028	1	.868
Item 10			
Pearson Chi-Square	10.457[a]	4	.033**
Likelihood Ratio	11.064	4	.026
Linear-by-Linear Association	3.046	1	.081

Table 8a: continuation

Item 11			
Pearson Chi-Square	8.818[a]	4	.066
Likelihood Ratio	9.615	4	.047
Linear-by-Linear Association	6.858	1	.009
Item 12			
Pearson Chi-Square	3.987[a]	4	.408
Likelihood Ratio	3.740	4	.442
Linear-by-Linear Association	1.952	1	.162
Item 13			
Pearson Chi-Square	11.429[a]	4	.022**
Likelihood Ratio	10.786	4	.029
Linear-by-Linear Association	8.112	1	.004
Item 14			
Pearson Chi-Square	3.718[a]	4	.446
Likelihood Ratio	3.824	4	.430
Linear-by-Linear Association	.055	1	.814
Item 15			
Pearson Chi-Square	9.162[a]	4	.057
Likelihood Ratio	8.184	4	.085
Linear-by-Linear Association	.146	1	.703
Item 16			
Pearson Chi-Square	4.556[a]	4	.336
Likelihood Ratio	4.914	4	.296
Linear-by-Linear Association	.091	1	.763
N of Valid Cases	150		

** indicates significance at 0.05 alpha level

Table 8a; presents the Chi-Square Tests for knowledge of COVID -19 preventive measures among residents of Bayelsa State, based on age. The Asymptotic Significance (2-sided) at 0.05 alpha level are as follows: Item 1 P (.033) < 0.05 significant; item 2 P (.454) > 0.05 not significant; item 3 P (.750) > 0.05 not significant; item 4 P (.009) < 0.05 significant; item 5 P (.151) > 0.05 not significant; item 6 P (.887) > 0.05 not significant; item 7 P (.500) > 0.05 not significant; item 8 P (.177) > not significant; item 9 P (.868) > 0.05 not significant; item 10 P (.033) < 0.05 significant; item 11 P (.066) > 0.05 not significant; item 12 P (.408) > 0.05 not significant; item 13 P (.022) < 0.05 significant; item 14 P (.446) > 0.05 not significant; item 15 P (.057) > 0.05 not significant and item 16 P (.336) > 0.05 not significant.

Table 8b: Chi-Square Tests for knowledge of COVID -19 preventive measures among residents of Bayelsa State, based on level of education

Item 1	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.493[a]	8	.592
Likelihood Ratio	6.864	8	.551
Linear-by-Linear Association	.012	1	.912
Item 2			
Pearson Chi-Square	3.532[a]	8	.897
Likelihood Ratio	4.948	8	.763
Linear-by-Linear Association	.182	1	.670
Item 3			
Pearson Chi-Square	27.199[a]	8	.001**
Likelihood Ratio	34.163	8	.000
Linear-by-Linear Association	1.235	1	.266

Table 8b: **continuation**

Item 4			
Pearson Chi-Square	11.112[a]	8	.195
Likelihood Ratio	13.878	8	.085
Linear-by-Linear Association	8.660	1	.003
Item 5			
Pearson Chi-Square	8.318[a]	8	.403
Likelihood Ratio	11.878	8	.157
Linear-by-Linear Association	2.455	1	.117
Item 6			
Pearson Chi-Square	6.846[a]	8	.553
Likelihood Ratio	6.280	8	.616
Linear-by-Linear Association	.730	1	.393
Item 7			
Pearson Chi-Square	9.858[a]	8	.275
Likelihood Ratio	11.527	8	.174
Linear-by-Linear Association	.016	1	.898
Item 8			
Pearson Chi-Square	11.467[a]	8	.177
Likelihood Ratio	13.527	8	.095
Linear-by-Linear Association	4.662	1	.031
Item 9			
Pearson Chi-Square	23.402[a]	8	.003**
Likelihood Ratio	24.407	8	.002
Linear-by-Linear Association	8.560	1	.003
Item 10			
Pearson Chi-Square	10.617[a]	8	.224
Likelihood Ratio	10.759	8	.216
Linear-by-Linear Association	.005	1	.946
Item 11			
Pearson Chi-Square	8.081[a]	8	.426
Likelihood Ratio	9.025	8	.340
Linear-by-Linear Association	.530	1	.467
Item 12			
Pearson Chi-Square	4.191[a]	8	.839
Likelihood Ratio	5.108	8	.746
Linear-by-Linear Association	.779	1	.377
Item 13			
Pearson Chi-Square	19.940[a]	8	.011**
Likelihood Ratio	14.300	8	.074
Linear-by-Linear Association	.115	1	.735
Item 14			
Pearson Chi-Square	9.326[a]	8	.316
Likelihood Ratio	9.088	8	.335
Linear-by-Linear Association	2.057	1	.151
Item 15			
Pearson Chi-Square	9.221[a]	8	.324
Likelihood Ratio	9.754	8	.283
Linear-by-Linear Association	.737	1	.391
Item 16			

Table 8b: **continuation**

Pearson Chi-Square	9.088[a]	8	.335
Likelihood Ratio	8.335	8	.401
Linear-by-Linear Association	.085	1	.770
N of Valid Cases	150		

** indicates significance at 0.05 alpha level

Table 8b; presents the Chi-Square Tests for knowledge of COVID -19 preventive measures among residents of Bayelsa State, based on educational level. The Asymptotic Significance (2-sided) at 0.05 alpha level are as follows: Item 1 P (.592) > 0.05 not significant; item 2 P (.897) > 0.05 not significant; item 3 P (.001) < 0.05 significant; item 4 P (.195) > 0.05 not significant; item 5 P (.403) > 0.05 not significant; item 6 P (.553) > 0.05 not significant; item 7 P (.275) > 0.05 not significant; item 8 P (.177) > not significant; item 9 P (.003) < 0.05 significant; item 10 P (.224) > 0.05 not significant; item 11 P (.426) > 0.05 not significant; item 12 P (.839) > 0.05 not significant; item 13 P (.011) < 0.05 significant; item 14 P (.316) > 0.05 not significant; item 15 P (.324) > 0.05 not significant and item 16 P (.324) > 0.05 not significant.

Table 8c: Chi-Square Tests for knowledge of COVID -19 preventive measures among residents of Bayelsa State, based on religion

Item 1	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.498[a]	4	.014**
Likelihood Ratio	8.445	4	.077
Linear-by-Linear Association	.026	1	.873
Item 2			
Pearson Chi-Square	10.401[a]	4	.034**
Likelihood Ratio	6.115	4	.191
Linear-by-Linear Association	.694	1	.405
Item 3			
Pearson Chi-Square	17.504[a]	4	.002**
Likelihood Ratio	18.381	4	.001
Linear-by-Linear Association	3.057	1	.080
Item 4			
Pearson Chi-Square	.877[a]	4	.928
Likelihood Ratio	.827	4	.935
Linear-by-Linear Association	.101	1	.750
Item 5			
Pearson Chi-Square	2.423[a]	4	.658
Likelihood Ratio	2.007	4	.734
Linear-by-Linear Association	.208	1	.648
Item 6			
Pearson Chi-Square	9.328[a]	4	.053
Likelihood Ratio	11.772	4	.019
Linear-by-Linear Association	.768	1	.381
Item 7			
Pearson Chi-Square	4.407[a]	4	.354
Likelihood Ratio	4.572	4	.334
Linear-by-Linear Association	.316	1	.574
Item 8			
Pearson Chi-Square	5.707[a]	4	.222
Likelihood Ratio	5.713	4	.222
Linear-by-Linear Association	.094	1	.759

Table 8c: continuation

Item 9			
Pearson Chi-Square	8.054[a]	4	.090
Likelihood Ratio	11.172	4	.025
Linear-by-Linear Association	1.270	1	.260
Item 10			
Pearson Chi-Square	12.345[a]	4	.015**
Likelihood Ratio	11.001	4	.027
Linear-by-Linear Association	5.430	1	.020
Item 11			
Pearson Chi-Square	14.106[a]	4	.007**
Likelihood Ratio	12.882	4	.012
Linear-by-Linear Association	6.613	1	.010
Item 12			
Pearson Chi-Square	3.873[a]	4	.423
Likelihood Ratio	3.903	4	.419
Linear-by-Linear Association	1.483	1	.223
Item 13			
Pearson Chi-Square	7.350[a]	4	.119
Likelihood Ratio	6.556	4	.161
Linear-by-Linear Association	5.647	1	.017
Item 14			
Pearson Chi-Square	4.446[a]	4	.349
Likelihood Ratio	7.074	4	.132
Linear-by-Linear Association	.320	1	.572
Item 15			
Pearson Chi-Square	9.504[a]	4	.050**
Likelihood Ratio	9.665	4	.046
Linear-by-Linear Association	3.981	1	.046
Item 16			
Pearson Chi-Square	21.724[a]	4	.000**
Likelihood Ratio	20.822	4	.000
Linear-by-Linear Association	12.166	1	.000
N of Valid Cases	150		

** indicates significance at 0.05 alpha level

Table 8c; presents the Chi-Square Tests for knowledge of COVID -19 preventive measures among residents of Bayelsa State, based on religion. The Asymptotic Significance (2-sided) at 0.05 alpha level are as follows: Item 1 P (.014) < 0.05 significant; item 2 P (.034) < 0.05 significant; item 3 P (.002) < 0.05 significant; item 4 P (.928) > 0.05 not significant; item 5 P (.658) > 0.05 not significant; item 6 P (.053) > 0.05 not significant; item 7 P (.354) > 0.05 not significant; item 8 P (.222) > not significant; item 9 P (.090) > 0.05 not significant; item 10 P (.015) > 0.05 not significant; item 11 P (.007) < 0.05 significant; item 12 P (.423) > 0.05 not significant; item 13 P (.119) > 0.05 not significant; item 14 P (.349) > 0.05 not significant; item 15 P (.050) < 0.05 significant and item 16 P (.000) < 0.05 significant.

Hypothesis Two

There is no significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level, and religion.

Table 9a: ANOVA of attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on age

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.386	2	3.193	.322	.725
Within Groups	1457.107	147	9.912		
Total	1463.493	149			

Table 9a; presents the ANOVA of attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on age. Between groups sum of squares is 6.386, degree of freedom (df) 2 and mean square 3.193. the within groups sum of squares is 1457.107, df 147 and mean square 9.912. Total sum of square is 1463.493 and df 149.the F value of the ANOVA is .322 at P (.725) > 0.05 alpha level. Since P (.725) greater than 0.05 alpha level, the null hypothesis that there is no significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on age is upheld.

Table 9b: ANOVA of attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on educational level

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	115.167	4	28.792	3.110	.017
Within Groups	1342.307	145	9.257		
Total	1457.473	149			

Table 9b; presents the ANOVA of attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on educational level. Between groups sum of squares is 115.167, degree of freedom (df) 4 and mean square 28.792. The within groups sum of squares is 1342.307, df 145 and mean square 9.257. Total sum of square is 1457.473 and df 149. The F value of the ANOVA is 3.110 at P (.017) < 0.05 alpha level. Since P (.017) less than 0.05 alpha level, the null hypothesis that there is no significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on educational level is rejected. That is, there is significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on educational level.

Table 9c: ANOVA of attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on religion

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	154.122	2	77.061	8.651	.000
Within Groups	1309.371	147	8.907		
Total	1463.493	149			

Table 9c; presents the ANOVA of attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on religion. Between groups sum of squares is 154.122, degree of freedom (df) 2 and mean square 77.061. The within groups sum of squares is 1309.371, df 147 and mean square 8.907. Total sum of square is 1463.493 and df 149. The F value of the ANOVA is 8.651 at P (.000) < 0.05 alpha level. Since P (.000) less than 0.05 alpha level, the null hypothesis that there is no significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on educational level is rejected. That is, there is significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on religion.

Hypothesis Three

There is no significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level, and religion.

Table 10a: ANOVA of practice towards COVID -19 preventive measures among residents of Bayelsa State, based on age

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	155.133	2	77.071	8.851	.000
Within Groups	1310.361	147	8.107		
Total	1463.503	149			

Table 10a presents the ANOVA of practice towards COVID -19 preventive measures among residents of Bayelsa State, based on age. Between groups sum of squares is 155.133, degree of freedom (df) 2 and mean square 77.071. The within groups sum of squares is 1310.361, df 147 and mean square 8.107. Total sum of square is 1463.503 and df 149. The F value of the ANOVA is 8.851 at P (.000) < 0.05 alpha level. The null hypothesis is rejected, that is, there is significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on age.

Table 10b: ANOVA of practice towards COVID -19 preventive measures among residents of Bayelsa State, based on educational level

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	101.682	4	25.420	2.383	.055
Within Groups	1418.557	145	10.666		
Total	1520.239	149			

Table 10b; presents the ANOVA of practice towards COVID -19 preventive measures among residents of Bayelsa State, based on educational level. Between groups sum of squares is 101.682, degree of freedom (df) 4 and mean square 25.420. The within groups sum of squares is 1418.557, df 145 and mean square 10.666. Total sum of square is 1520.239 and df 149. The F value of the ANOVA is 2.383 at P (.055) > 0.05 alpha level. The null hypothesis is upheld, that is, there is no significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on educational level.

Table 10c: ANOVA of practice towards COVID -19 preventive measures among residents of Bayelsa State, based on religion

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	42.153	2	21.076	1.847	.161
Within Groups	1677.740	147	11.413		
Total	1719.893	149			

Table 10c; presents the ANOVA of practice towards COVID -19 preventive measures among residents of Bayelsa State, based on educational level. Between groups sum of squares is 42.153, degree of freedom (df) 2 and mean square 21.076. The within groups sum of squares is 1677.740, df 147 and mean square 11.413. Total sum of square is 1719.893 and df 149. The F value of the ANOVA is 1.847 at P (.161) > 0.05 alpha level. The null hypothesis is upheld, that is, there is no significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on religion.

SUMMARY OF RESULT

1.There is very high knowledge about covid-19 and its preventive measures among residents of Bayelsa State. This is indicated in the percentage of respondents who responded positively to the covid-19 preventive measures items.

1. The source of knowledge about COVID -19 preventive measures among residents of Bayelsa State are as follows: 55.3% heard from television, 20% from newspapers and 10% heard from seminar/workshop while 14.7% heard from campaigns.
2. There is positive attitude towards covid-19 preventive measures among residents of Bayelsa State.
3. Respondents show positive practice towards covid-19 preventive measures among residents of Bayelsa State.

4. The Pearson Chi Square test show no significance in the association based on age for all the items except for Knowledge that the COVID- 19 virus spreads via respiratory droplet of infected individuals; Not all persons with COVID-19 will develop to severe cases; There is certainly no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection and Isolation and treatment of people who are infected with the COVID -19 virus are effective ways to reduce the spread of the virus that were significantly different in association.
5. The Pearson Chi Square test show no significance in the association based on educational level for all the items except for items 3,9 and 13.
6. The Pearson Chi Square test show no significance in the association based on religion for items 1, 2, 3, 10, 11, 15 and 16.
7. There is no significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on age.
8. There is significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on educational level.
9. There is significant difference in attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on religion.
10. There is significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on age.
11. There is no significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on educational level.
12. There is no significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on religion.

DISCUSSION OF FINDINGS

Knowledge of COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level, and religion.

In hypothesis one, the Pearson Chi-Square test for association of knowledge of Covid-19 preventive measures among residents of Bayelsa State based on age, educational level and religion shows no significance for all items except for the statements that: the COVID-19 virus spreads via respiratory droplet of infected individuals; Not all persons with COVID-19 will develop to severe cases; There is certainly no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection and Isolation and treatment of people who are infected with the COVID -19 virus are effective ways to reduce the spread of the virus. Also, for items 3,9 and 13 for level of education and items 1, 2, 3, 10, 11, 15 and 16. Generally, the respondents exhibited reasonable amount of knowledge about Covid-19 and its preventive measures. Notwithstanding, responses from the research questions also indicates ignorance from some respondents based on their level of education and religious belief. For instance, maintaining social distance of at least 6 feet (1.83 meters) away from others in crowded places was observed to be a major issue among the respondents which is presently one major problem in fighting Covid-19. Even as it is a veritable practice to curbing the scourge, people have constantly defied it thereby increasing person to person transmission. According to the CDC, the best way to protect one's self from the virus is to avoid being exposed to it. That means staying home to avoid coming into contact with people who have the virus or keeping a distance at least 6 feet (1,83 meters) away from others in crowded places if one must go out.

Attitude towards COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level, and religion.

In hypothesis one, the Pearson Chi-Square test for association of knowledge of Covid-19 preventive measures among residents of Bayelsa State based on age, educational level and religion shows no significance for all items except for the statements that: the COVID-19 virus spreads via respiratory droplet of infected individuals; Not all persons with COVID-19 will develop to severe cases; There is certainly no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection and Isolation and treatment of people who are infected with the COVID -19 virus are effective ways to reduce the spread of the virus.. The findings of this research is in consonance with the findings of Rine, Margaret, Dauda and Patricia (2020) who carried out a cross –sectional Epidemiological survey in North- Central Nigeria on Knowledge, Attitudes and Practices towards COVID -19. The Pearson's correlation showed significant relationship between knowledge of COVID -19 and attitude towards preventive measures ($r = 0.177$, $p = 0.004$, $r = 0.137$. $p = 0.001$). This study recorded good knowledge and attitudes among participants.

Practice of COVID -19 preventive measures among residents of Bayelsa State, based on age, educational level, and religion.

Findings in hypothesis three indicates that there is significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on age, there is no significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on educational level and there is no significant difference in practice of COVID -19 preventive measures among residents of Bayelsa State, based on religion. Responses to the research questions three also

show Respondents show positive practice towards covid-19 preventive measures among residents of Bayelsa State. the practice of Codid-19 preventive measures was significantly different among the various age groups. This might be as a result of the way the disease affects the different age group. According the World Health Organization (WHO), the disease mostly affects the elderly and children so the practice for the preventive measures is more adhered to by the elderly than those within the age range of 20 years to 49 years which would have brought about the significance difference among the age range.

CONCLUSION

Majority of the residents of Bayelsa state have good knowledge, positive attitude and good practice towards COVID-19 preventive measures, despite the fact that some religionists adhere to the belief that, the disease is caused by devil and so prayer alone can serve as a preventive measure.

RECOMMENDATIONS

The COVID-19 Pandemic is real and so people should adhere to “Its” preventive guidelines, irrespective of religious backgrounds. Reason being that God can only help those who help themselves. Hence the following recommendations were made:

1. Cloth face masks should be worn while continuing to practice social distancing of at least g feet (1.83 meters).
2. Wash your hands thoroughly with soap and water for at least 20 seconds especially if you have been in a public area.
3. Use an alcoholic –based hand sanitizer when it is not possible to wash your hands.
4. Avoid touching your face, because the virus can survive on surfaces that you touch with your hands. If your hands come in contact with your mouth, nose and eye, the virus might enter your body.
5. Seek regular updates. The situation is evolving rapidly. It is important to follow instructions from public health officials.

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APPENDIX A

Questionnaire on Knowledge, Attitude and Practice towards COVID-19 preventive measures among residents of Bayelsa State in Nigeria.

The researcher is a lecturer in Bayelsa Medical University, Yenagoa.
This questionnaire is mainly aimed at eliciting relevant information on Knowledge, Attitude and Practice towards COVID-19 preventive measures among residents of Bayelsa State.

It is purely an academic exercise and respondents are expected to answer the questions to the best of their knowledge. Information given herein shall be treated confidentially, and do not write your name on any part of this questionnaire. Your co-operation is highly solicited in this regard.

Yours Sincerely,

Dr (Mrs) Ikemike Dolfina .O

Section A: Demographic Data

Instruction: Please respond to the items or statements as they apply to you by ticking (√) in the appropriate box below:

1. Age group: 20 - 39years ☐ 40 – 49 years ☐ 50 years and above ☐

2. Marital Status: Single ☐ Married ☐ Divorced ☐ Widow/widower ☐

Educational Level: FSLC ☐ WASC ☐ BSc ☐ Masters ☐ Ph.D ☐

3. Religion: Christianity ☐ Islam ☐ Others ☐

4. Location: Urban ☐ Rural ☐

5. Gender : Male ☐ Female ☐

6. Source: Television ☐ News paperSe☐ar/workshop Car☐ign ☐

Section B:

Instruction: Please respond to the items or statements as they apply to you by ticking (√) on any of the options provided

Questionnaire on Knowledge towards COVID -19 preventive measures

S/N	Questions	True	False	I don't know
1	The COVID- 19 virus spreads via respiratory droplet of infected individuals			
2	The main clinical symptoms of COVID -19 are fever, fatigue, dry cough, malaise and difficulty in breathing			
3	Person with COVID-19 cannot spread the virus to others when a fever is not present			
4	Not all persons with COVID-19 will develop to severe cases.			
5	Only those who are elderly, have chronic illnesses, and are obese are more likely to be severe cases.			
6	Ordinary residents can wear masks to prevent the infection by the coronavirus.			
7	Unlike the common cold, stuffy nose, runny nose, and sneezing are less common in persons infected with the coronavirus.			
8	It is not necessary for children and young adults to take measures to prevent the infection by the coronavirus.			
9	Eating or contacting wild animals would result in the infection by the coronavirus			
10	There is certainly no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover from the infection.			
11	People who have contact with someone infected with the COVID -19 virus should be immediately isolated in a proper place to be observed for a period of 14 days.			
12	To prevent being infected by COVID-19, individuals should avoid going to crowded places such as motor parks and avoid taking public transportations.			
13	Isolation and treatment of people who are infected with the COVID -19 virus are effective ways to reduce the spread of the virus.			
14	Coronaviruses are named for the spiky projections on their surfaces, which resemble the point on a crown			
15	The word 'Corona' means 'Crown' in Latin.			

Continuation: Questionnaire on Knowledge towards COVID -19 preventive measures

16	Mosquito bite can prevent the chances of contracting COVID -19.				
	Instruction: Please respond to the items or statements as they apply to you by ticking **(√)** on any of the options provided				
	Questionnaire on Attitude	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
17	That COVID -19 will finally be successfully controlled?				
18	Having faith in prayer alone can prevent you from contracting COVID-19				
19	That COVID -19 is caused by evil spirits				
20	Avoid touching one's face with hands, because the virus can survive on surfaces that you touch with your hands				
21	Staying home can avoid your coming into intact with people who might have the virus?				
	I cannot be affected by COVID-19				
	Questionnaire on Practices	**Always**	**Sometimes**	**Occasionally**	**Rare**
22	In recent days, have you gone to any crowed place?				
23	In recent days, have you worn a mask when leaving home?				
24	In recent days, do you maintain social distance of at least 6 feet (1,83 meters) away from others in crowded places?				
25	In recent days, do you use hand sanitizer with at least 60 percent alcohol content, when it is not possible to wash your hands thoroughly with soap and water for at least 20 seconds?				