COVID-19: Socio-demographic determinants of knowledge

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Abstract

Background: Knowledge on etiology, risk factors, mode of transmission, signs and symptoms of COVID-19 is an essential element in pandemic control. Assessing the level of knowledge and determining sources from which information were derived is a fundamental element of situation analysis imperative in COVID-19 control.

Materials and method: The study is a cross sectional study. All eligible visitors who presented at the general out-patient department for Medicare were enlisted into the study until required sample size was achieved. Pre-tested interviewer administered questionnaire was used to elicit information from respondents. Statistical analysis was done with multinomial logistic regression analysis using SPSS version 23.1 with statistical significance set at 0.05. Ethical approval and permission for the study from relevant authorities were granted.

Results: Over all composite score for good knowledge was 1037(35.4%) with predominant statistically significant difference in knowledge. There was better knowledge score for females, public servants, married persons, respondents aged 31-40 years and those who had tertiary education.

Conclusion: Knowledge of COVID 19 was poor. Higher educational qualification enhances better knowledge. Females, public servants, married persons, respondents who attended tertiary institution and those aged 31-40 years had better knowledge score.

Introduction

Knowledge on information concerning etiology, risk factors, transmission, signs, symptoms and containment of the severe acute respiratory syndrome corona-virus-2 (SARS-COV-2) popularly called covid-19, is an essential and fundamental element in the control of the novel disease pandemic. Evidence has demonstrated positive effects of appropriate health knowledge in health promotion and disease control.[1] Adequate knowledge about pandemics and general health information helps to correct misconception about circumstances related to pandemics, increasing perception or sustainability against infection risk

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and improving self-efficacy of self-protection.[2] Promotion of health knowledge is a fundamental strategy to maintain people's health during public health emergency, so an adequate health knowledge would help communities to understand risk factors and generate rapid responses to contain infection out-breaks.[3] Therefore, the importance of acquiring and assessing the level of knowledge of covid-19 cannot be over emphasized.

Reports revealed that in December 2019, several health facilities reported clusters of patients with pneumonia of unknown cause that were epidemiologically linked to a seafood and wet animal wholesale market in Wuhan, Hubie province, China.[4] Genome of the causative agent was fully sequenced and analyzed with SARS-COV-2 identified as the cause of covid-19.[5] It was then a new member of the corona-viridae, a family of viruses with positive sens, single stranded RNA genome.[6] The disease is associated with several signs and symptoms including fever, cough,

shortness of breath, loss of taste and smell sensation. The virus has an incubation period of 2-14 days with infected person having symptoms which could range from asymptomatic, mild to severe respiratory disease.[7] At extreme the infection would lead to multiple organ failure and subsequently death.[8]

Case fatality rate of COVID-19 in China was 2.3% though this was much lower than severe acute respiratory syndrome (SARS) 9.5%, middle east respiratory syndrome (MER) 34.4% and H7N9 39.0%.[9] The pandemic had a global impact and caused a wide range disruption of services including education, health, tourism and business.[10] In Nigeria the first case was reported on 27th February 2020, in an Italian who entered the country on 24th February 2020 via a Turkish airline from Milan enroute Istanbul.[11] The first death in Nigeria occurred on 23rd march 2020, in a male returnee traveler aged 67 years who had an underlying medical condition and was undergoing chemotherapy.[12] The pandemic had a devastating effect on the existing weak health care system, stretching it beyond limit to point of near collapse. The existing manpower were inadequate and poorly trained for the task prompting the recruitment of ad-hoc staff. The educational system came to a halt as most schools were shut down. Businesses were grounded due to lockdown of non-essential services in some parts of the country such as Abuja, Lagos and Ogun State.[13] One promising factor which has good prospect for prevention of the disease is the COVID vaccine. However, it is unclear if the vaccine can prevent transmission of the virus.[14] In addition to other measures, some preventive action aimed at containment include, partial lockdown, contact tracing, self-isolation, quarantine, promotion of public health infection prevention measures such as regular hand washing, respiratory etiquette, social distancing etc.[15] Despite these preventive measures aimed at control, the overall objective is to find a definitive treatment for this deadly virus, therefore vigorous research on this topic should be encouraged to achieve this goal.

The objective of this study is to determine the level of knowledge of COVID-19 and its co relationship with socio demographic factors among visitors attending the general out-patient department in General Hospital Bonny.

The rationale behind this study lies on the need to evaluate knowledge of covid-19 among residents and to use the information derived to plan containment strategy. Importantly, the island is a cosmopolitan town with lots of international oil companies (IOC) which attracts large number of local and foreign workers resulting in the town being an epicenter of the disease in Rivers State. To the knowledge of the authors, no study on this subject have been conducted in the island, therefore this study is essentially important in establishing baseline information and will ultimately assist in providing useful information needed for containment.

Materials and method

The study is a descriptive cross-sectional facility-based study conducted at General Hospital Bonny, in Bonny Island, Rivers State Nigeria. The study was conducted over a two months period (15th March -18th May 2021) among visitors that came to the facility for Medicare during the active phase of the COVID-19 pandemic. All visitors who presented at the general outpatient department were enlisted for the study. Exclusion was made for minors (less than 18 years), persons who are elderly and incapacitated, individuals that did not give consent and health care workers (this is to give an un-biased opinion from the general public). Using the formula for cross sectional study,[16] a total sample size of three hundred and sixty-six (366) was derived after making necessary adjustments for attrition. All eligible respondents were enlisted until required sample size was achieved. Visitors interviewed previously were not interviewed again upon their visit to the facility at a later date. Data was collected using an adapted structured interviewer administered pretested questionnaire prepared in English language. Questions examined respondents' socio-demographic characteristics, their knowledge and awareness of covid-19 disease. To determine respondents' knowledge, questions from the questionnaire had weights attached to them to create a composite score of knowledge. Interpretation of scores was based on an adapted grading scale. Points were awarded on discrete basis using a Likert scale of 0-2. For knowledge score, answer to questions described as correct were graded good with two (2) points, answers that are

borderline are graded as fair with one (1) point while answers to questions that are incorrect are graded as poor with zero (0) points. Data collected was cleaned, coded and entered into excel spread sheet which was exported into SPSS version 21.0 for analysis. Multivariate logistic regression analysis was used to determine the relationship between knowledge and other variables. Statistical significance was set at 0.05, data was presented in a simple frequency distribution table. Ethical approval was derived from the ethics review committee of Rivers State hospital management board. Also, permission for the study was granted by the management of Rivers State hospital management board, while written informed consent was extracted from study respondents.

Results

Table 1: Presenting symptoms

Variables	Frequency (%) (N=366)
Age	
0-20	47(12.8)
21-30	88(24.1)
31-40	119(32.5)
41-50	57(15.6)
=50	55(15.0)
Sex	
Male	133(36.3)
Female	233(63.7)
Marital status	
Married	229(62.6)
Single	127(34.7)
Separated/divorced	4(1.1)
Widowed	6(1.6)
Occupation	
Unemployed	96(26.2)
Public servant	149(40.7)
Private sector/artisan	17(4.6)
Businessman/woman	104(28.5)
Religion	
Christian	364(99.5)
Muslim	2(0.5)
Tribe	
Igbo	59(16.1)
Yoruba	8(2.2)
Hausa	10(2.7)
Rivers ethnic minority	235(64,2)
Non-rivers ethnic minority	54(14.8)
Educational qualification	
Nil	2(0.5)
Primary	25(6.8)
Secondary	129(35.2)
Tertiary	210(57.5)

Discussion

Results obtained from this study revealed an overall composite score of 1037 (35.4%) for good knowledge. Also, females, public servants, married persons, respondents who attended tertiary institution and those aged 31-40 years had better knowledge score. Most scores obtained from knowledge questions show statistically significant difference for age, occupation and educational status while sex and marital status revealed scores that were predominantly not significant. The composite score for good knowledge derived in this survey was abysmal. This result has semblance to the result in a population-based study in Iran and among college adolescents in Nigeria with 34.7% and 42.4% respectively.[17,18] In contrast some studies conducted in Ghana, Cameroon and a hospital-based survey in Benin Nigeria revealed an overall knowledge score of 90% 84.2% and 72% respectively.[19,20,21] The knowledge score recorded in this study was incongruous with the level of formal education of respondents. About 92.7% of respondents had secondary (35.2%) and tertiary (57.5%) education. Expectedly, this level of literacy should enhance desire to access information especially on life threatening disease like COVID-19. More so, most residents in the Island have opportunity to access various forms of news media including internet, electronic and print media. The authors in their opinion reason that, the Island being an hour and half journey by boat, via a frequently turbulent sea from the capital city, was insulated and isolated from the panic and anxiety which enveloped residents in the urban city, hence the enthusiasm to acquire knowledge on COVID-19 was dampened.

There was a predominantly female respondents in this study. Good knowledge score for females was 640 (21.8%) while males had 397 (13.6%). Most score on knowledge questions were statistically not significant. This result was similar to findings in studies carried out in Iran and Benin city, Nigeria respectively in which predominantly female respondents participated in the study.[17,22] However, some studies in Nigeria contrasted with this result with more male respondent.[23] The high number of female participants seen in this study could be attributed to the facility-based nature of the study. Expectedly, women visit health facilities more than

Table 2: Educational qualification and socio-demographic characteristics

	Educational qualification and sex				
	Nil	**Primary**	**Secondary**	**Tertiary**	**Total**
Male	0(0)	6(24.0)	54(41.9)	73(34.8)	133(36.3)
Female	2(100)	19(76.0)	75(58.1)	137(65.2)	233(63.7)
Total	2(0.5)	25(6.8)	129(35.2)	210(57.5)	366(100)
	Educational qualification and age				
0-20	0	4(8.5)	25(53.2)	18(38.3)	47(12.8)
21-30	0	4(4.5)	33(37.5)	51(58.0)	88(24.0)
31-40	2(1.7)	3((2.5)	34(28.6)	80(67.2)	119(32.5)
41-50	0	4(7.0)	23(40.3)	30(52.7)	57(15.6)
=50	0	10(18.2)	14(25.5)	31(56.3)	55(15.1)
Total	2(0.5)	25(6.8)	129(35.2)	210(57.5)	366(100)
	Educational qualification and marital status				
Married	2(0.9)	13(5.7)	73(31.9)	141(61.5)	229(62.6)
Single	0	8(6.3)	56(44.1)	63(49.6)	127(35.2)
Separated	0	0	0	4(100)	4(1.0)
Widowed	0	4(66.7)	0	2(33.3)	6(1.2
Total	2(0.5)	25(6.8)	129(35.2)	210(57.5)	366(100)
	Educational qualification and occupation				
Unemployed	0	4(4.2)	33(34.4)	59(61.4)	96(26.2)
Public servant	0	8(5.4)	42(28.2)	99(66.4)	149(40.7)
Artisan/private	0	2(11.8)	7(41.2)	8(47.0)	17(4.6)
Business	2(1.9)	11(10.6)	47(45.2)	44(42.3)	104(28.5)
Total	2(0.5)	25(6.8)	129(35.2)	210(57.5)	366(100)

Table 3: Knowledge of COVID 19 and socio-demographic characteristics (part1)

	Over all knowledge on COVID 19		
	Good	**Fair**	**Poor**
Meaning of covid 19	39	18	309
Covid 19: myth or real	322	6	38
Understanding of covid 19	36	96	234
Signs/symptoms of covid 19	72	270	24
Route of transmission	328	0	38
Treatment of covid 19	136	20	210
Persons most at risk	26	308	32
Prevention of covid 19	78	280	8
Total	1037(35.4)	998(34.1)	893(30.5)

	Knowledge of covid 19 and sex							
	Male			**Female**				
	Poor	**Fair**	**Good**	**Poor**	**Fair**	**Good**	x^2	**p**
Meaning of covid 19	89	34	10	145	62	26	1.515	0.679
Covid 19: myth or real	13	0	120	25	6	202	5.614	0.060
Understanding of covid 19	111	4	18	198	14	21	9.88	0.079
Signs/symptoms of covid 19	10	90	33	14	180	39	33.05	0.000
Route of transmission	7	0	126	31	0	202	24.6	0.001
Treatment of covid 19	69	12	52	141	8	84	5.9	0.052
Persons most at risk	14	108	11	18	200	15	8.6	0.124
Prevention of covid 19	4	102	27	4	178	51	14.17	0.048
Total	**317(10.8)**	**350(12.0)**	**397(13.6)**	**576(19.7)**	**648(22.1)**	**640(21.8)**		

Table 3: Knowledge of COVID 19 and socio-demographic characteristics (part 2)

Knowledge of COVID 19 and marital status

	Married			Single			Separated			Widowed			X^2	P
	Poor	Fair	Good	Poor	Fair	Good	Poor	Fair	Good	Poor	Fair	Good		
Meaning	148	61	20	78	33	16	4	0	0	4	2	0	8.35	0.499
Myth or real	23	4	202	15	0	112	0	0	4	0	2	4	15.3	0.018
Understanding	193	12	24	107	6	14	3	0	1	6	0	0	13.9	0.527
Signs/Symptoms	14	175	40	8	89	30	2	0	2	0	6	0	40.32	0.048
Transmission	13	0	216	21	0	106	2	0	2	2	0	4	56.3	0.000
Treatment	132	15	82	72	5	50	2	0	2	4	0	2	2.76	0.838
Individuals at risk	26	191	12	6	107	14	0	4	0	0	6	0	20.5	0.15
Prevention	8	179	42	0	93	34	0	2	2	0	6	0	29.03	0.113
Total	**557**	**637**	**638**	**307**	**333**	**376**	**13**	**6**	**13**	**16**	**22**	**10**		
	(19.0)	(21.8)	(21.8)	(10.5)	(11.4)	(12.8)	(0.5)	(0.6)	(0.5)	(0.6)	(0.8)	(0.2)		

Knowledge of COVID 19 and occupation

	Unemployed			Public Servant			Artisan/Private			Business			x^2	p
	Poor	Fair	Good	Poor	Fair	Good	Poor	Fair	Good	Poor	Fair	Good		
Meaning	53	32	11	90	36	23	11	6	0	80	22	2	31.8	0.00
Myth/real	15	0	81	13	0	136	0	0	17	10	6	88	22.03	0.001
Understanding	85	4	7	125	6	18	13	0	4	86	8	10	32.4	0.006
Signs/Symptoms	12	69	15	6	110	33	0	15	2	6	76	22	44.7	0.018
Transmission	16	0	80	13	0	136	0	0	17	9	0	95	48.05	0.001
Treatment	52	6	38	78	6	65	12	0	5	68	8	28	11.1	0.084
Individuals at risk	3	84	9	15	123	11	4	13	0	10	88	6	26.9	0.029
Prevention	0	74	22	4	111	34	0	17	0	4	78	22	61.2	0.000
Total	**236**	**269**	**263**	**344**	**392**	**456**	**40**	**51**	**45**	**273**	**286**	**273**		
	(8.1)	(9.2)	(9.0)	(11.7)	(13.4)	(15.6)	(1.4)	(1.7)	(1.5)	(9.3)	(9.8)	(9.3)		

Knowledge of covid 19 and educational qualification

Educational Qualification	Nil			Primary			Secondary			Tertiary			x^2	p
	Poor	Fair	Good	Poor	Fair	Good	Poor	Fair	Good	Poor	Fair	Good		
What is covid 19	2	0	0	21	4	0	85	32	12	126	60	24	11.605	0.236
Is covid 19 Real?	0	0	2	0	4	21	15	2	112	23	0	187	-	-
What is covid 19?	2	0	0	25	0	0	100	12	17	182	6	22	35.5	0.002
Signs/Symptoms	0	2	0	0	23	2	12	95	22	12	150	8	41.3	0.039
Transmission	0	0	2	2	0	23	9	0	120	27	0	183	43.5	0.003
Treatment	2	0	0	19	9	6	81	8	40	108	12	90	12.9	0.044
Individuals at risk	0	0	0	0	25	0	16	106	7	16	177	119	31.07	0.009
Prevention	0	2	0	0	21	4	5	99	25	3	158	49	32.5	0.052
Total	**6**	**4**	**4**	**67**	**77**	**56**	**323**	**354**	**355**	**497**	**563**	**622**		
	(0.2)	(0.1)	(0.1)	(2.3)	(2.6)	(1.9)	(11.0)	(12.1)	(12.1)	(17.0)	(19.2)	(21.4)		

Knowledge of COVID 19 and age

	Poor	Fair	Good	Poor	Fair	Good	Poor	Fair	Good	Poor	Fair	Good	Poor	Fair	Good	x^2	p
Meaning of	21	18	8	63	21	4	78	25	16	34	21	2	38	11	6	29.89	0.003
Myth/real	6	0	41	6	2	80	14	2	103	7	0	50	5	2	48	12.50	0.13
Understanding	44	2	1	69	6	13	106	4	9	44	2	11	46	4	5	51.77	0.00
Signs/Symptoms	6	37	4	2	70	16	8	82	29	8	41	8	0	40	15	108.53	0.00
Transmission	10	0	47	9	0	72	4	0	85	8	0	59	7	0	65	66.52	0.00
Treatment	27	2	28	51	4	33	74	10	35	20	2	35	38	2	15	307.04	0.00
Individuals Most at risk	4	43	0	10	70	8	10	95	14	6	49	2	2	51	2	43.164	0.002
Prevention	0	37	10	0	69	19	4	89	26	4	45	8	0	40	15	82.149	0.000
Total	**118**	**139**	**129**	**210**	**242**	**245**	**298**	**307**	**317**	**131**	**160**	**175**	**136**	**150**	**171**		
	(3.7)	(4.7)	(4.4)	(7.1)	(8.3)	(8.4)	(10.2)	(10.5)	(10.8)	(4.5)	(10.8)	(4.5)	(5.5)	(6.0)	(4.7)	(5.1)	(5.8)

Table 4:   Sources of information and socio-demographic characteristics

Age	Internet/television social media	Radio	Print media	all the above	comm. Public	Public health education	Total
0-20	15(31.2)	21(44.7)	4(8.5)	0	6(12.8)	1(2.8)	**47(12.8)**
21-30	20(22.7)	39(44.3)	7(7.9)	2(2.3)	13(14.9)	7(7.9)	**88(24.1)**
31-40	30(25.2)	51(42.8)	9(7.6)	2(1.7)	21(17.6)	6(5.1)	**119(32.5)**
41-50	20(35.1)	16(28.1)	6(10.5)	2(3.5)	9(15.8)	4(7.0)	**57(15.6)**
=50	17(31.0)	19(34.5)	4(7.3)	1(1.8)	12(21.9)	2(3.5)	**55(15.0)**
Educational qualification							
Nil	2(100)	0	0	0	0	0	**2(0.5)**
Primary	5(20.0)	11(44.0)	2(8.0)	2(8.0)	5(20.0)	0	**25(6.8)**
Secondary	34(26.4)	54(41.9)	14(10.9)	3(2.3)	15(16.2)	9(2.3)	**129(35.2)**
Tertiary	61(29.0)	81(38.6)	14(6.7)	2(1.0)	41(19.5)	11(5.2)	**210(57.5)**
Occupation							
Unemployed	33(34.4)	29(30.2)	10(10.4)	2(2.1)	19(19.8)	3(3.1)	**96(26.2)**
Public servant	39(26.2)	62(41.6)	8(5.4)	3(2.25)	(16.8)	12(8.0)	**149(40.7)**
Artisan/private	4(23.5)	6(35.3)	4(23.5)	0	1(5.9)	2(11.8)	**17(4.6)**
Business	26(25.0)	49(47.1)	8(7.7)	2(1.9)	16(15.4)	3(2.9)	**104(28.5)**
Marital status							
Married	65(28.4)	85(37.1)	23(10.0)	2(0.9)	37(16.2)	17(7.4)	**229(62.2)**
Single	34(26.8)	57(44.9)	7(5.5)	5(3.9)	21(16.5)	3(2.4)	**127(34.7)**
Separated	1(25.0)	2(50.0)	0	0	1(25.0)	0	**4(1.1)**
Widowed	2(33.3)	2(33.3)	0	0	2(33.4)	0	**6(1.6)**
Sex							
Male	36(27.1)	53(39.8)	12(9.0)	2(1.5)	23(17.3)	7(5.3)	**133(36.3)**
Female	66(28.3)	93(40.0)	18(7.7)	5(2.1)	38(16.3)	13(5.6)	**233(63.7)**
Total	**102(27.8)**	**146(39.9)**	**30(8.2)**	**7(1.9)**	**61(16.6)**	**20(5.6)**	**366(100)**

their male counterparts.[24] Several issues ranging from obstetric, gynecological, ante-natal post-natal and also child welfare clinic make women attend hospital for Medicare more than their male counterparts. Also, illness behavior and perception to illness are more profound in females. The knowledge score for females was higher than their male counterparts though mostly not significant. A study conducted in Northern Nigeria was in consonance with the findings in this study which reveals an insignificant high knowledge score for females.[25] In contrast, some studies conducted in Iraq and Nepal reveals a significantly higher knowledge score for males than females.[26,27] The result from this study was expected given that more females than males attended tertiary, secondary, and primary school respectively. The import is higher literacy level for females which increases chances to seek information and knowledge about COVID-19. Majority of the respondents were educated with 210 (57.5%) and 129 (35.2%) attending tertiary and secondary education respectively. This result has semblance with the result obtained in a similar study conducted in Benin, Edo state Nigeria with 54. 4% and 34.0% of respondents having certificate from tertiary and secondary educational institution.[22] In divergence, a study carried out in Rivers State

Nigeria had more respondents attending secondary (52.9%) than tertiary (34.9%) education.[28] Interestingly, both studies have over 85% of literate respondents. Respondents with tertiary education had better knowledge score. Most knowledge score were statistically significant. The result obtained in this study was in tandem with the result seen in Ghana and Nigeria with significantly high knowledge score for respondent with tertiary education.[19,29] Interestingly most literatures reviewed did not express contrary view. It is believed that formal education helps to correct misconception about circumstances related to pandemics, helps increase the desire to acquire information concerning pandemics and other related events.[2]

Most respondent were married with largely insignificant good knowledge score. Some studies have semblance with the result obtained in this study in which 61.7% and 74.7% of the participants were married.[27,30] However other studies revealed study respondents that were predominantly single.[22,13] Some studies corroborate our findings on knowledge score describing married respondents as having significantly higher knowledge score.[29,30] In contrast some studies found a significantly higher knowledge score among single than married

respondent.[17,25] Remarkably, a study in Niger Delta region Nigeria found no difference in mean knowledge score between married and single respondents but rather revealed an insignificant higher knowledge score for widowed respondents.[31]

It is believed that anxiety and responsibility to protect their family from the pandemic could have prompted married respondents to acquire more knowledge on the subject matter.

The predominant age grade in this study were respondents aged 31-40 years. Also, respondents within this age grade were significantly more knowledgeable on COVID 19. A study in Cameroon corroborates results seen in this study with respondents within the age grade 30-40 years as most predominant and most knowledgeable.[20] However, a contrary result was seen in a sub-Sahara African study with a significant higher knowledge score and predominant age grade 21-30 years.[25] In addition, other studies identified respondents above forty-one years with a significant higher mean knowledge score.[17] Interestingly further regression analysis revealed respondents within age grade 31-40 years as being more formally educated than any other age grade. In the previous section of this discussion, we noted that formal education influences knowledge, therefore it is logical to reason that higher educational attainment of this age grade was responsible for the higher knowledge score.

Public servants were relatively most predominant respondents with a significantly high knowledge score. Results from a hospital-based survey in Nigeria was in tandem with our findings.[21] Regrettably, a South –South Nigerian study did not concur with result from this study, it rather revealed a significantly higher knowledge score for self-employed respondents.[32] Important to note that all studies reviewed shows that unemployed person, artisans and students were relatively less knowledgeable on covid-19 than self-employed and public servants. Interestingly public servants and business persons were more educated, which may also account for better knowledge score. Further findings from this study revealed that majority of public servants and business persons acquire information on covid-19 via television. It is little surprise that despite its disadvantage of being comparatively an expensive source of news media,

these group of respondents could afford it due to their superior financial chest. This source of news media has audio–visual advantage which enhances better knowledge acquisition hence further strengthening reason for better knowledge score.

Television and internet/social media were the two most predominant sources of information on COVID-19. Respondents got the least information on COVID-19 from print media. Regrettably, less information was acquired via radio and community public health awareness campaign. Ironically, the two most predominant sources of information are the most expensive. Taking into cognizance the fact that a quarter of respondents are unemployed with poor income, this media source might not be affordable. Community public health awareness campaign is an important, less expensive, more efficient and effective source of information. It has the advantage of conveying necessary information to recipients in the language they understand. It can also be used to reach population that have no electricity nor network for assessing electronic and internet media source. Also, majority of inhabitants of Bonny Island live in the remote parts of the Island with no electricity nor internet services. The authors therefore summits that, the unimpressive knowledge score seen in this study could be, in addition to other factors, largely attributed to poor community public health education and awareness campaign. Authors recommends that authorities (government, traditional institutions, religious organization) should fully exploit the potential of this source of information dissemination to improve knowledge score of residents on COVID-19 and other related health issues.

Limitation of this study lies in it being a facility-based study. Some residents patronize unorthodox outlets for Medicare. A population-based study should be conducted to fill this gap.

Conclusion
Knowledge of COVID 19 was poor. Higher educational qualification enhances better knowledge. Females, public servants, married persons, respondents who attended tertiary institution and those aged 31-40 years had better knowledge score.

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