Knowledge, Attitudes and Fears of HealthCare Workers towards the Corona Virus Disease (COVID-19) Pandemic in South-South, Nigeria

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Abstract

Background: The rapid spread of the Covid-19 around the world with attendant mortality and morbidity is worrisome. A good knowledge of the infection process and control would modify behavioral patterns and strengthen the willingness of health care workers to perform their duties. This study was designed to assess the knowledge, attitude and fears of health care workers towards the Coronavirus pandemic.

Materials and methods: This questionnaire-based descriptive study was conducted among healthcare workers in the South-South geopolitical zone of Nigeria. The questionnaire used for this study was constructed by the authors of this study and the content validity was calculated. Both paper and online version of the questionnaires were distributed to our participants and the obtained data were analyzed using descriptive statistics.

Results: A total of 300 completed questionnaires were analyzed in this study. The mean age of the participants was 33.6 ± 9.3 years with majority within the age group of 31-40 years, 126 (42%). Females were 172(57.33%) while males were 128 (42.67%).The majority 168 (56%) were highly aware of the pandemic and the most common source of their information was through colleagues 143 (47.67%). Majority of the participants 183 (61%) considered themselves at risk of being infected by the virus going to work these days. Most of the participants 186 (62%) agreed that work place safety is inadequate and lack of social insurance policy for healthcare workers was an obstacle to effective service delivery especially in this period of the pandemic. All the participants 300 (100%) agreed that there should be the provision of personal protective equipment (PPE) to all healthcare workers, especially the front liners and formidable social insurance policy as well as training and retraining of healthcare personnel.

Conclusion: The health care workers in this study are well aware of the etiology of Coronavirus disease, mode of transmission and symptoms. Fear of infection and lack of indemnity are factors militating against effective dispensation of statutory obligations and improvement in workplace safety will boost health workers willingness to effectively carry out their duties in the face of COVID-19 pandemic.

Keywords: Attitude; COVID-19; Health care workers; Knowledge

Introduction

The human race is threatened by the latest global epidemic caused by Coronavirus disease. The current outbreak of Coronavirus disease, tagged COVID 19 (Coronavirus disease 2019) was first reported in December 2019 in Wuhan, an emerging

business hub and the capital city of Hubei Province in central China. The disease defied geographical boundaries with the epidemic size doubling every 7.4 days [1] and by April 3rd, 2020, over one million cases had been diagnosed in 184 territories, in six continents [2,3] with 53,000 deaths globally [2,4]. The World Health Organization(WHO) initially named this disease "novel Coronavirus-infected pneumonia (NCIP)" and named the virus itself "2019 novel Coronavirus (2019-nCoV)" [5]. On 11 February, 2020, the WHO officially renamed this clinical condition COVID-19 (a shortening of Coronavirus Disease-19) [6]. Covid-19 was declared by WHO a public health emergency of international concern (PHEIC) on 30 January 2020 [7] and classified as a pandemic on 11 March 2020 [8].

Coronavirus belongs the Coronaviridae family which are enveloped, nonsegmented, single-stranded, positive-sense ribonucleic acid viruses [9]. Coronavirus is responsible for bilateral interstitial pneumonia which was believed to have originated in a seafood market in Wuhan [1]. Coronavirus is a zoonotic pathogen that can be transmitted via animal-to-human and human-to-human interaction [1]. The human-to-human transmission routes includes droplet inhalation transmission, direct transmission through coughing and sneezing, as well as contact transmission, including feco-oral, nasal, and eye mucous membrane contacts [10]. Evidence shows that virus transmission can occur during the incubation period in asymptomatic patients. Moreover, high sputum viral loads were found in a patient with NCIP during the recovery phase [11]. The mean incubation period is estimated to be 5.2 days, which allows air travelers to spread the disease globally [1]. Covid-19 patient presents with symptoms of severe pneumonia, including fever, fatigue, dry cough, and respiratory distress with fever and cough being the most common affecting almost 90 and 70% of infected subjects, respectively [12]. Forty percent of these patients experience fatigue and 18.6% suffer from dyspnoea, while nasal congestion, nausea and diarrhea are seldom reported [1,13].

The median age of Covid-19 patients varies from study to study. Li et al. [1] reported the median age of Covid-19 patients as 59 years with a male preponderance of 56% while Huang et al. [14] reported a lower median age of 49 years with male predominance of 73%. It was also reported that disease progression is faster in older patients of 70 years and above with a median time of 11.5 days from early symptoms to death while it is 20 days in patient under 70 years [15]. The severity of the infection also varies. According to the European Centre for Disease Prevention and Control (ECdC) [4], COVID-19 infection causes mild disease, with mild pneumonia or without pneumonia in about 80% of patients, most of whom recover spontaneously, moderate disease in 14% of infected patients and severe illness in 6% of the patients. The majority of severe cases and deaths were observed among the elderly and those with underlying chronic conditions such as diabetes, hypertension, and cardiovascular disease. Children are relatively unaffected by this virus, although it has been reported that about 1- 2% of covid-19 patients are children [16,17]. Presently, treatment of Covi-19 patients is mainly supportive as no specific antiviral therapy or vaccine exists for covid-19(April 2020). Consequently, the only option available is to apply preventive measures to curtail further inter-human spread of the virus. To this end, many countries adopted public health protocols to control the spread of the virus, most of them related to social distancing, hand washing, and lockdown of cities.

In Nigeria, Covid-19 was first reported in Lagos and then in the capital Abuja. As at 27 April 2020, Nigeria had recorded 1273 cases across 32 states and the federal capital territory with 40 deaths. The Nigerian government, like other global community, adopted measures to contain the spread of the disease. Some of the strategies implemented included social distancing, ban on public gathering including religious gatherings, continuous personal hygiene such as hand washing and use of hand sanitizers; use of face masks, limiting number of passengers in public vehicles, locking down public places and cities [18]. However, compliance with these measures was variable and largely dictated by economic factors.

The healthcare workers are extremely strained during the course of any pandemic [19-21] because of their role as key players in response to a pandemic. They are the primary sector that has contact with patients and are prone to exposure to infected cases in healthcare settings. By their professional obligation, they must be at their workplaces even if their health is at risk. Nevertheless, they should also protect their health while they are treating patients [1]. It has been reported that the level of knowledge directly affects the individual perception of susceptibility to a disease [22-24]. The lack of knowledge about the COVID-19 disease would be a mediating element in the increase of cases infected by the virus. Knowledge of the infection process and its precautions would modify behavioral pattern and strengthen health care workers willingness to perform their duties. There is dearth of data related to knowledge and attitude or risk perception by health care workers in our setting as regards Covid-19 pandemic. This study was designed to assess the level of preparedness of the health professionals to tackle the Covid-19 pandemic.

Materials and Methods

This questionnaire-based descriptive study was conducted among healthcare workers in the South-South geopolitical zone of Nigeria. The questionnaire used for this study was constructed by the authors of this study, while the content validity was calculated using a method previously used by Turner and Carlon [25]. We determined the content validity of our questionnaire by computing the index of item-objective congruence (IOC). Based on the index parameter, an IOC score >0.6 is assumed to show adequate content validity and all the scores obtained in our study for all the items of the questionnaire after IOC analysis were >0.6.

The questionnaire consisted of five sections with a total of 37 questions. The first section assessed the participants' socio-demographic variables such as age, gender, marital status, occupation, and means of transportation and frequency of contact with infected patients. The second section assessed the participant's knowledge about COVID-19 pandemic, third section evaluated the risk perception and attitude of participants towards COVID-19, fourth section assessed the fears of healthcare workers as regards COVID-19 and the fifth section evaluated

how to encourage healthcare workers to allay their fears using combination of yes-no and likert scale multiple questions.

Both paper and online version of the questionnaires were distributed to our participants. The online version of the questionnaire was constructed using Enketo Express for Kobo Toolbox (ee.kobotoolbox.org). The online version was used to get information from participants who we could not come in contact with one on one especially those in other states of the zone. The link of the online version of the questionnaire was distributed to the participants via email and Whatsapp platforms where they had access to fill the questionnaire between 1st May and 18th May 2020, while the paper version was administered to our participants using one on one method. The completed questionnaires were collected immediately. The participants of our study comprise of Medical Doctors (House Officers, Resident Doctors, General Practitioners and Consultants), Nurse/Midwives, Radiographers, Pharmacists, Physiotherapists, Optometrists, Medical Laboratory Scientists, Primary Healthcare Workers, Technicians, Drivers and Ancillary staff.

The purpose of the study was stated in the questionnaire and the participants were asked to fill the questionnaire after giving their consents. They were assured of the confidentiality of their information, and that it would be used only for the purpose of this study. All the participants were asked to only fill the questionnaire once to avoid duplication of data and that their participation in our study was entirely on voluntary basis. The responses from the online version of the questionnaire were retrieved automatically and data used for this study were collected using data spread sheet. The collected data were processed on SPSS version 21 and statistically analyzed using descriptive statistics.

Results

A total of 300 completed questionnaires were analyzed in this study. The mean age of the participants was 33.6 ± 9.3 years with majority within the age group of 31-40 years, 126 (42%). Greater number of the participants were females 172(57.33%) while males were 128(42.67%). Medical doctors were highest in number 144 (48%), followed by medical laboratory scientists 38(12.67%) and the least were drivers and ancillary staff, which were 2 (0.67%) each respectively. Among the medical doctors, resident doctors accounted for 102 (70.83%).Those that used private means of transportations were highest in number 146 (48.67%) and majority of the participants work in Rivers State 173 (57.67%). Most of the participants were married 203 (67.67%) and larger number frequently come in contact with patients with infection 176 (58.67%) **(Table 1)**.

With regards to participants' knowledge of COVID-19 pandemic, the majority 168 (56%) were highly aware of the pandemic and the most common source of their information was through colleagues 143 (47.67%), followed by social media 78 (26%) and the least was town crier, which is 1 (0.33%). Over 89% of the participants knew the isolation of the index case and majority 185 (61.67%) knew the number of confirmed cases by NCDC as at 24th April 2020. Out of the total participants, 266 (88.67%) knew the age group commonly affected by COVID-19 in Nigeria. All the participants 300 (100%) knew that the disease is caused by virus

and it started in China. Most of the participants 281 (93.67%) knew that the incubation period for the disease is up to 14 days.

Table 1 Socio-Demographic data of participants.

	Variables	Frequency	Percentage
a	Age group (Years)		
	≤ 20	16	5.33
	21-30	43	14.33
	31-40	126	42
	41-50	47	15.67
	51yrs and above	68	22.67
	Total	**300**	**100**
b	Gender		
	Male	128	42.67
	Female	172	57.33
	Total	**300**	**100**
c	Occupation		
	House Officer	17	5.67
	Resident Doctor	102	34
	Consultant	20	6.67
	General Practitioner	5	1.67
	Nurse/Midwife	26	8.67
	Radiographer	16	5.33
	Physiotherapist	14	4.67
	Optometrist	18	6
	Pharmacy	10	0.33
	Lab Scientist	38	12.67
	Primary Healthcare Worker	12	4
	Technician	18	6
	Admin and Classical Stuff	–	–
	Cleaner	–	–
	Driver	2	0.67
	Ancillary Staff	2	0.67
	Total	**300**	**100**
d	Means of Transportation to work		
	Walk	20	6.67
	Public Transport	124	41.33
	Private Transport	146	48.67
	Live in the Facility	10	3.33
	Total	**300**	**100**
e	Place of Work (State)		
	Akwa Ibom State	26	8.67
	Rivers State	173	57.67
	Cross River State	32	10.67
	Bayelsa State	41	13.67
	Delta State	13	4.33
	Edo State	15	5.00
	Total	**300**	**100**
f	Contact with Patients with Infection		
	Always	89	29.67
	Frequent	176	58.67
	Infrequent	24	8
	Never	4	1.33
	Unknown	7	2.33
	Total	**300**	**100**

g	Marital Status		
	Married	203	67.67
	Single	97	32.33
	Divorce	–	–
	Total	**300**	**100**

Two hundred and ninety three (293) knew that the disease is an air droplet infection. Almost all the participants 296 (98.67%) knew that the disease can be transmitted from one person to person. Greater proportion of the participants said once infected by COVID-19, death is not imminent. Ninety three percent of the

Table 2 Knowledge about the COVID-19 Pandemic.

	Variables	Frequency	Percentage
a	Following the inception of the Covid-19 pandemic, how would you rate your awareness of the virus and the disease		
	Highly aware	168	56
	Aware	118	39.33
	Somewhat aware	14	4.67
	Not Aware	–	–
	Total	**300**	**100**
b	What are the sources of your information on the virus and the pandemic?:(Tick all that apply)		
	Colleagues	143	47.67
	Radio	29	9.67
	Internet	10	3.33
	Social Media	78	26
	Television	14	4.67
	Newspapers	7	2.33
	Town Crier	1	0.33
	Notice board / Pamphlets	18	6
	Total	**300**	**100**
c	The first case in Nigeria was confirmed in Lagos State in the month of March, 2020?		
	Yes	269	89.67
	No	20	6.67
	Not sure	11	3.67
	Total	**300**	**100**
d	Do you know the total number of confirmed cases of COVID-19 as at 24th April, 2020 according to National Center for Disease Control (NCDC)?		
	Yes	185	61.67
	No	87	29
	Not sure	28	9.33
	Total	**300**	**100**
e	Do you know the age group mostly affected by COVID-19 in Nigeria?		
	Yes	266	88.67
	No	10	3.33
	Not sure	14	4.67
	Total	**300**	**100**
f	Corona Virus Disease infection/Transmission		
	Is caused by virus		
	Yes	300	100
	No	–	–
	Not sure	–	–
	Total	**300**	**100**
	Started in China		
	Yes	300	100
	No	–	–
	Not sure	–	–
	Total	**300**	**100**
	Incubation period is up to 14 days		
	Yes	281	93.67
	No	–	–
	Not sure	19	6.33
	Total	**300**	**100**

Is an air droplet infection		
Yes	293	97.67
No	–	–
Not sure	7	2.33
Total	**300**	**100**
Can be transmitted from person to person		
Yes	296	98.67
No	–	–
Not sure	4	1.33
Total	**300**	**100**
Once infected death is imminent		
Yes	35	11.67
No	262	87.33
Not sure	3	1
Total	**300**	**100**
Can be confirmed without laboratory test		
Yes	21	7
No	279	93
Not sure	–	–
Total	**300**	**100**
Can be treated		
Yes	118	39.33
No	69	23
Not sure	43	14.33
Total	**300**	**100**

participants (279, 93%) said that the disease cannot be confirmed without laboratory investigations. Those that said COVID-19 can be treated were highest 118 (39.33%), followed by those that said it cannot be treated 69 (23%) and those that were not sure, were the least, which is 43 (14.33%) **(Table 2)**.

The knowledge of clinical presentations, mode of prevention of spread and the treatment outcome of COVID-19 were evaluated and the result revealed that 204 (68%) of the participants strongly agreed that COVID-19 clinically presents with fever greater than 38°C, dry cough, difficulty in breathing, fatigue, nasal congestion, nausea, diarrhea and sneezing. Greater proportion of the participants 202 (67.33%), strongly agreed that the spread of the disease can be prevented, 146 (48.67%) believe that the spread of COVID-19 can be reduced by restriction of crowding through social distancing, followed by restriction of movement through lockdown/stay at home 96 (32%) and the least via environmental sanitation, which is 5 (1.67%). Out of the total participants, 282 (94%) said that COVID-19 was treatable although mainly by supportive therapy **(Table 3)**.

The risk perception and attitude of healthcare workers towards COVID-19 was assessed. Majority of the participants 183 (61%) perceived themselves at risk of being infected by the virus going to work these days, and most of the participants 192 (64%) strongly agreed that they are prone to having the infection. Majority 201 (67%) strongly disagreed that there is no known risk in coming in contact with a COVID-19 patient. Over 65% of the participants strongly agreed that their willingness to go to work these days has been affected by COVID-19 pandemic. Majority of the participants 162 (54%) went to work four days in a week during this pandemic in comparism with 226 (75.33%) who went to work five days in pre-Covid-19 period. A greater number of the participants 110 (36.67%) shared unwillingness to attend to COVID-19 patients even if they were adequately compensated, while 80 participants agreed that they will be willing to attend to COVID-19 patients if they are adequately compensated **(Table 4)**.

The fears of healthcare workers as regards COVID-19 was assessed and the results were; 186 (62%) persisted that work place safety is inadequate while only 5 (1.67%) agreed that the work place safety was adequate. Most of the participants 237(78%) strongly agreed that lack of social insurance policy for healthcare workers was an obstacle to effective service delivery especially in this period of the pandemic. Out of 300 participants, 267 (89%) strongly disagreed that hospital infection control policy was adequate. Almost all the participants 283 (94.33%) strongly agreed that there was the possibility of getting the infection in the hospital. Large numbers of the participants 151 (50.33%) disagreed that adequate surveillance policy has been put in place by the government. Those that strongly disagreed that there was adequate testing and contact tracing were highest in number 232 (77.33%). Most of the participants 174 (58%) disagreed that testing temperature with infrared thermometer at the entrance of the hospital was adequate screening exercise **(Table 5)**.

With regards to allaying the fears of healthcare workers, all the participants 300 (100%) said that there should be the provision of personal protective equipment (PPE) to all healthcare workers, especially the front liners as well as provision of good stimulus packages, formidable social insurance policy, strengthening disease surveillance, and training and retraining of healthcare personnel **(Table 6)**.

Table 3 Knowledge of Clinical Presentation of COVID-19, Mode of Prevention of Spread of the Disease and Treatment Outcome.

	Variables	Frequency	Percentage
a	Clinical presentation: COVID-19 presents with: Fever > 38⁰C, Dry cough, Difficulty in breathing, Fatigue, Nasal congestion, Nausea, Diarrhea, Sneezing.		
	Strongly Agree	204	68
	Agree	92	30.67
	Not Sure	4	1.33
	Total	**300**	**100**
b	Prevention of spread of the disease		
	The spread of this disease can be prevented?		
	Strongly Agree	202	67.33
	Agree	83	27.67
	Not Sure	15	5
	Total	**300**	**100**
	In your opinion, the following can reduce the spread of COVID-19. (Tick all that apply).		
	The use of face masks	53	17.67
	Restriction of movement through lock down/stay at home	96	32
	Restriction of crowding through social distancing	146	48.67
	Environmental sanitation	5	1.67
	Total	**300**	**100**
c	Treatment/outcome		
	Treatable although mainly supportive?		
	Yes	282	94
	No	12	4
	Not sure	6	2
	Total	**300**	**100**
	Death is imminent once infected		
	Yes	56	18.67
	No	199	66.33
	Not sure	45	15
	Total	**300**	**100**

Table 4 Risk Perception and Attitude.

	Variables	Frequency	Percentage
a	Do you see yourself at risk of infection from going to work these days?.		
	Strongly Agree	183	61
	Agree	112	37.33
	Not sure	5	1.67
	Disagree	–	–
	Strongly disagree	–	–
	Total	**300**	**100**
b	Health workers are prone to having the infection?		
	Strongly Agree	192	64
	Agree	89	29.67
	Not sure	9	3
	Disagree	10	3.33
	Strongly disagree	–	–
	Total	**300**	**100**
c	There is no known risk in coming in contact with a COVID-19 patient?		
	Strongly Agree	–	–
	Agree	–	–
	Not sure	15	5
	Disagree	84	28
	Strongly disagree	201	67
	Total	**300**	**100**

d	Is your willingness to go to work these days affected by COVID-19 pandemic?		
	Strongly Agree	196	65.33
	Agree	89	29.67
	Not sure	12	4
	Disagree	3	1
	Strongly disagree	–	–
	Total	300	100
e	How many days in a week do you go to work since the beginning of the pandemic?		
	One	–	–
	Two	3	1
	Three	46	15.33
	Four	162	54
	Five	89	29.67
	Total	300	100
f	How many days in a week do you normally go to work before this time		
	One	–	–
	Two	–	–
	Three	20	0.67
	Four	54	18
	Five	226	75.33
	Total	300	100
g	If you are adequately compensated, will you be willing to attend to COVID -19 patients		
	Strongly Agree	20	6.67
	Agree	80	26.67
	Not sure	72	24
	Disagree	110	36.67
	Strongly disagree	18	6
	Total	300	100

Table 5 Fear of Healthcare Workers as regards Covid-19.

	Variables	Frequency	Percentage
a	Work place Safety is adequate:		
	Strongly disagree	–	–
	Disagree	–	–
	Somewhat agree	14	4.67
	Agree	52	17.33
	Strongly agree	234	78
	Total	300	100
b	Lack of social insurance policy for health care workers is an obstacle to effective service delivery especially in this period of the pandemic		
	Strongly disagree	98	32.67
	Disagree	186	62
	Somewhat agree	11	3.67
	Agree	5	1.67
	Strongly agree	–	–
	Total	300	100
c	Hospital infection control policy is adequate		
	Strongly disagree	267	89
	Disagree	32	10.67
	Somewhat agree	1	0.33
	Agree	–	–
	Strongly agree	–	–
	Total	300	100

d	There is the possibility of getting the infection in the hospital		
	Strongly disagree	–	–
	Disagree	–	–
	Somewhat agree	–	–
	Agree	17	5.67
	Strongly agree	283	94.33
	Total	**300**	**100**
e	Adequate surveillance policy has been put in place by the Government		
	Strongly disagree	52	17.33
	Disagree	151	50.33
	Somewhat agree	34	11.33
	Agree	42	14
	Strongly agree	21	7
	Total	**300**	**100**
f	Adequate testing centers and contact tracing		
	Strongly disagree	232	77.33
	Disagree	51	17
	Somewhat agree	8	2.67
	Agree	9	3
	Strongly agree	–	–
	Total	**300**	**100**
g	Testing of temperature with infrared thermometer at the entrance to the hospital is adequate screening exercise		
	Strongly disagree	96	32
	Disagree	174	58
	Somewhat agree	10	3.33
	Agree	20	6.67
	Strongly agree	–	–
	Total	**300**	**100**

Table 6 How to encourage HealthCare Workers Allay their fears.

	Variables	Frequency	Percentage
a	Provision of Personal Protective Equipment(PPE) to all staff who have direct contact with all patients		
	Yes	300	100
	No	–	–
	Total	**300**	**100**
b	Good stimulus package		
	Yes	300	100
	No	–	–
	Total	**300**	**100**
c	Formidable social insurance policy		
	Yes	300	100
	No	–	–
	Total	**300**	**100**
d	Strengthening disease surveillance		
	Yes	300	100
	No	–	–
	Total	**300**	**100**
e	Train and retrain of heath care personnel		
	Yes	300	100
	No	–	–
	Total	**300**	**100**

Discussion

Corona virus disease (COVID-19) pandemic is a global public health concern and the most current topic of discussion across every facet of life, especially among the healthcare workers and patients. This study assessed the knowledge, attitudes and fears of healthcare workers towards the COVID-19 pandemic in the South-South geopolitical zone of Nigeria. Our participants include medical doctors, nurses, radiographers, medical laboratory scientists, pharmacists, optometrists, primary healthcare workers and technicians. These categories of healthcare workers directly or indirectly come in contact with patients or their body fluids while performing their official duties. Majority of the participants were young adults, were females, were married, who commute to work with private means of transportation and frequently come in contact with infected patients. This finding is consistent with the finding of a related study conducted by Olowookere et al. [26]. In Olowookere et al. [26] study, which was conducted to evaluate knowledge, attitude and practice of healthcare workers in a tertiary hospital in Ile-Ife Nigeria towards Ebola viral disease, reported that 30-39 years age group was highest 164 (41%), females were highest 241 (65.8%), majority of the participants in their study were married people, 263 (65.8%). Although, in our study, medical doctors were highest in number, while nurses were highest in their study, which accounted for 209 (52.2%). The identified discrepancies in our findings could be attributed to the different sample size, nature of the studies and geographical variations of the two studies. Our finding revealed that majority of the healthcare workers in our locality are young and still have more active years in service and therefore, need to remain healthy to effectively carry out their duties.

Majority of the participants in our study were highly aware and knowledgeable about the COVID-19 pandemic. This finding is inconsistent with the finding of similar study conducted in India by Bhagavathula et al. [27]. According to Bhagvathula et al. [27], healthcare workers had insufficient knowledge about COVID-19 pandemic. Both sample size and geographical variations of our studies could be responsible for the noted discrepancies in our findings.

Most of the participants identified colleagues and social media as the major sources of information about COVID-19 pandemic. Almost all the participants knew that the disease can be transmitted from one person to another and that once infected, death is not imminent. Most of the participants agreed that COVID-19 cannot be confirmed without a laboratory test. The greater number of the participants strongly agreed that COVID-19 clinically presents with fever greater than 38°C, dry cough, difficulty in breathing, fatigue, nasal congestion, nausea, diarrhea and sneezing and that the disease can be prevented. We found that the spread of COVID-19 can be greatly reduced by restriction of crowding through social distancing and that the disease is treatable although mainly by supportive therapy. Although, other measures such as lockdown/stay at home, regular washing of hands with running water, soap and the use of alcohol based-hand sanitizers as well as the use of face mask were indentified [28].

With regards to risk perception of healthcare workers and attitude towards COVID-19 pandemic, we found that majority of the participants perceived themselves to be at risk of being infected by the virus while work and that the risk level is higher than for any member of the general public, since they are likely to be in contact with infected patients. Healthcare workers could be a major source of spread of this life sinister infection to co-workers, their families and the general public [26]. This implies that healthcare delivery has suffered a setback during this COVID-19 pandemic as most of the healthcare workers reduce the number of work days because of fear of being infected by the virus.

Our study further revealed that the fear of healthcare workers towards COVID-19 pandemic is reinforced by inadequate work place safety and inadequate hospital infection prevention and control policy. Consequently, majority of the participants strongly agreed that there was high possibility of getting the infection in the hospitals. These findings are in agreement with finding in a similar study conducted by Zegarra-Valdivia et al. [29]. There was inadequate disease surveillance policy put in place by the government. Majority of the participants strongly disagreed that there was adequate testing centers and contact tracing as at the time of this study. Although, most hospitals entrance used infrared thermometer as screening tool, and our participants agreed that it was not enough for detecting an infected person without adequate laboratory investigations.

All our participants strongly agreed that to allay the fears of healthcare workers there should be the provision of personal protective equipment (PPE), availability of good stimulus package as well as formidable social insurance policy. All participants recommended strengthening of disease surveillance and training and retraining of healthcare workers as a way of ensuring adequate healthcare service delivery especially at this time of COVID-19 pandemic and beyond.

Conclusion

Covid-19 pandemic is a challenge to humanity. The health care workers in this study are well aware of the aetiology of Coronavirus disease, mode of transmission and symptoms. Fear of infection and lack of indemnity are factors militating against effective dispensation of statutory obligations. Improvement in workplace safety with adequate infection control policy as well as provision of personal insurance policy will boost health workers willingness to effectively carry out their duties in the face of COVID-19 pandemic.

Conflict of interest:

None declared.

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