

Assessment of Knowledge Attitude and Practice on Covid 19 Awareness among Indian Population

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ABSTRACT

The quiz based questionnaire was framed and circulated among the public to create, spread or measure awareness, acceptability & perception of current situation on COVID 19 which serves as one of the public health measure to fight against the deadly virus which as now ended as a pandemic. This document outlines what we have learned so far about the virus and translates the knowledge into strategic action. The purpose of the questionnaire based survey provides as a practical guide on the basic knowledge among the public in the outbreak of communicable disease which is now continuing to be global health challenge. The variables determine the outcome of the survey are Age, gender, profession (medicos and non-medicos), causative factor and its nature, stages of disease progression, diagnosis, preventive measures, current tools, social factors. The data, statistics & analysis underlines the importance of the awareness & the knowledge of COVID 19. At a time when all our lives are disrupted and many face increased loneliness and anxiety, as a responsible pharmacist it is our duty to recommend the people to stay updated and safe. The survey questions were sent to 12000 people approx. and the survey rendered 11163 responses. The period of the survey was 30 days and a total of 11163 responders completed the survey with the response rate of 93.025%. At the time of any outbreak, more than prevention and curative measures, awareness plays a foremost role in educating people and prevents false beliefs. With our study, we reached many people and we believe that awareness is created.

INTRODUCTION

From December 2019, in Wuhan City, Hubei Province, China, several cases of pneumonia of unprecedented aetiology was reported (1, 2). These patients were presented with most common clinical manifestations of fever, cough, fatigue, dyspnoea and bilateral lung infiltrates on imaging

(1).then the causative agent was identified by throat swab by the Chinese Centre for Disease control and prevention (CCDC) on 7th January 2020 and named as Severe Acute Respiratory Syndrome Corona virus 2 (SARS-CoV-2), later the SARS-CoV-2 was designated as Covid 19 by World Health Organisation. Covid-19 was thought to be first originated from the Wuhan, Huanan Seafood market (2). On 11 March 2020, WHO recognised corona virus as a pandemic (a disease prevalent over a whole country or the world (1).

Coronavirus belongs to the family coronaviridae of order nidovirales and genus betacoronavirus that causes infection in vertebrates most commonly birds and mammals (3,6). Coronavirus are named because of the crown like structure on their surface due to the presence of spike glycoprotein (6).

Biology of SARS-CoV-2

SARS-CoV-2 are spherical or pleomorphic virus comprised of non-segmented, positive sense, single stranded ribonucleic acid (RNA) of 60 to 140nm in size (1,3,4,5) with 29891 nucleotides, encoding for 9860 amino acids. The exact origin is yet not understood but the genomic analysis of SARS-CoV-2 suggests that, it may evolve from a strain found in bats (6). It is composed of structural proteins such as spike (S) glycoprotein, nucleocapsid (N) phosphoprotein, membrane (M) glycoprotein, small envelope (E) glycoprotein and accessory proteins, which are encoded by ten open reading frames (ORFs) (10). S proteins are of two types, subunits S1 AND S2, binds to the ACE2 receptor of the host cell. M proteins are responsible for the transmembrane transport of nutrients release of bud and envelope formation. N, E and several accessory proteins interfere with host immune response or unknown response (8).

Clinical presentation

Symptoms of coronavirus vary from person to person. The incubation period of 2019-nCoV is approximately 3-14 days. Covid -19 ranges from asymptomatic to fatal disease (1). Most the ratio of clinical features were given by Huang et al. the study report comprised of clinical symptoms of 41 patients with laboratory confirmed covid-19 admitted in hospital situated in Wuhan by 2 January 2020 (3,17). In which among 41 patients, 27 patients (66%) were exposed to the Wuhan sea food market. This includes most common symptoms such as Fever (98%), cough (76%), Fatigue or myalgia (44%) and less common symptoms includes Sputum production (28%), Headache (8%), Haemoptysis (5%), Diarrhoea (3%), Dyspnoea (55%), lymphopenia. The study also conveys that all the 41 patients had pneumonia with abnormal chest CT (17,5,9,and 18).

Complications of covid-19 comprises of acute respiratory distress syndrome (29%), RNAmia (15%), acute cardiac injury (12%), and secondary infection (10%) respectively (17).

Epidemiological History includes:

- Within 14 days before the disease onset, there is a living or travel history in Wuhan or other places with local cases.
- Within 14 days before the disease onset, there is contact with patient with symptoms such as fever or respiratory symptoms from Wuhan or other places with local cases.
- A gathering of patients or a contact with SARS-CoV -2 infected patient

Clinical symptoms includes

- Fever and/or other respiratory symptoms
- Characteristics of pneumonia
- Total leukocytes count in the early stage of the disease is normal or decreased, or decreased lymphocyte count.

Diagnostic criteria for confirmed cases: any suspected case with one of this pathogenic report is reclassified as a confirmed case:

- RT-PCR of blood or respiratory specimens shows a positive result for SARS-CoV -2 nuclei acids.
- In blood or respiratory specimens, DNA highly homologous to SARS-CoV-2 by genetic sequencing of viral genes (3,19).

Prevention

Currently there is no vaccine for SARS-CoV-2, as the vaccines are in clinical trial. Some of the preventive measures given by WHO to protect or fight against Covid-19, they are:

- Washing hands regularly with alcohol based hand rub or soap and water for at least 20 seconds –it may kill the viruses that are present in your hands.
- Maintain at least 3 feet (1 metre) distance from others- it may prevent transmission of virus from one person to other though droplet when the infected individual cough, sneezes and speaks.
- Avoid public gatherings or crowded places – to prevent contact with infected individual.
- Avoid touching to the T zone area of the face (i.e. eyes, nose and mouth)-to prevent entry of virus via a contaminated hands.
- Covering mouth and nose when coughing or sneezing with flexed elbow or tissue- to prevent transmission of virus through droplet or aerosols.
- Throw tissue into closed bin immediately after use- it may contain virus, which can transmit.
- If you were experiencing any symptoms such as fever, cough, difficulty breathing, seek medical attention, if possible call by telephone in advance and follow the instructions given by local health authority- as the national and local health care authorities will have the updated information regarding the present situation.
- Keep update about the current situation from trusted or authorized sources such as WHO, or National and local health authorities.

Awareness about the SARS-CoV-2 plays a major role in the prevention and the control of this disease. Covid 19 knowledge among the people is an important intervention in detecting the disease in earlier stage, reducing the transmission and treating the patient with better patient compliances. Instead lack of awareness leads to delay in diagnosis, increase in transmission, difficulty in treating the patient and poor patient compliances.

OBJECTIVE OF THE STUDY

The primary objective of this study was to evaluate the knowledge on SARS-CoV-2, their mode of transmission and prevention, diagnostic technique among people.

The secondary objective of the study is to create awareness among people about Covid-19.

MATERIALS AND METHOD

A cross sectional study was carried out using a set of questionnaire. The study was designed to assess the knowledge of people on Covid-19. The Questions were prepared and disseminated through social media and electronic- mail. There are totally 20 questions with proper choices. All participating responders has to complete six self administred questionnaire including the demographic details. The survey questions were sent to 12000 people approx. and the survey rendered 11163 responses. The period of the survey was 30 days and a total of 11163 responders completed the survey with the response rate of 93.025%.

Table 1: survey questionnaire

S.No	Entity	Options
1.	What is the full form of covid-19	Corona virus disease 2019
		Corona virus disorder 2019
		Coronary artery disease 2019
		None of the above
2.	Corona virus was first identified in	Xiaogan , Hubei
		Hunan
		Jinan,Shandong
		Wuhan, Hubei
3.	Why the virus is named as corona?	Due to their crown-like projections
		Due to their surface structure of bricks
		Both a and b
		Due to their leaf like projection
4.	A person may get infected by coronavirus through	Touching a contaminated surface
		Small droplets produced during coughing and sneezing or talking
		Both a and b
		None of the above
5.	The disease which is related to the coronavirus are	SARS
		MERS
		Both a and b
		None of the above
6.	Covid -19 is same as SARS	Yes
		No
7.	Pandemic means	A disease related to respiratory tract

		Virus generated disease
		Bio war
		A disease prevalent over a whole country or the world
8.	On which date recognised corona virus has a pandemic	11 March 2020
		12 March 2020
		12 February 2020
		11 February 2020
9.	Who is at risk of developing severe illness	Older people
		Person with pre-existing medical conditions (such as high blood pressure , heart disease)
		Person close contact with the infected individual
		All of the above
10.	How long is the incubation period of corona virus	2 to 4 days
		1 to 14 days
		1 to 5 days
		2 to 28 days
11.	What shall you do if you feel unwell these days?	Will inform you family and friends to seek their help
		Consult a doctor, share recent medical and travel history
		Will ignore and continue the work normally
		None of the above
12.	What is the Diagnostic test for covid-19	RT-PCR
		Chest X Ray
		ELISA
		GFR test
13.	Antibiotics are effective in preventing or treating covid-19	Yes
		No
14.	What are the measures given by WHO for help preventing coronavirus covid-19 ?	Wash your hands regularly for 20 seconds with soap and water or alcohol based hand rub
		Cover your nose and mouth with a disposable tissue or left elbow when you cough or sneeze
		Stay home and self-isolate from others in the household if you feel unwell
		All of the above
15.	An effective way to clean your hand is	Washing with hot water
		Washing with cold water

		Following a minimum of 20 second in washing with soap water or alcohol based sanitizer.
		Cleaning with wet tissue
16.	Do you think lockdown help prevent coronavirus spread	Yes
		No
17.	Recommended source to get information about covid-19	Google
		WHO
		Whatsapp group
		All of the above
18.	Which is the coronavirus tracker app launched by the government?	Healthy India
		ArogyaRaksha
		ArogyaSetu
		ArogyaSeva
19.	Myths about corona virus are	Eating garlic help prevent infection with noble coronavirus
		I will die if I am diagnosed with coronavirus
		Both a and b
		None of the above
20.	It is necessary to use mask when	A person is sick
		People taking care of sick person
		Contact with Healthcare workers
		All of the above

RESULT AND DISCUSSION

The survey rendered 11,163 responses. The responders were from the age group 16-28 have participated. The following figure 1.1-1.2 shows the demographic details.

The study includes the respondents of age above 15.

Out of 11163 people, that we approached, nearly 30.6% (n=) respondents were males and 69.4% (n=) were females

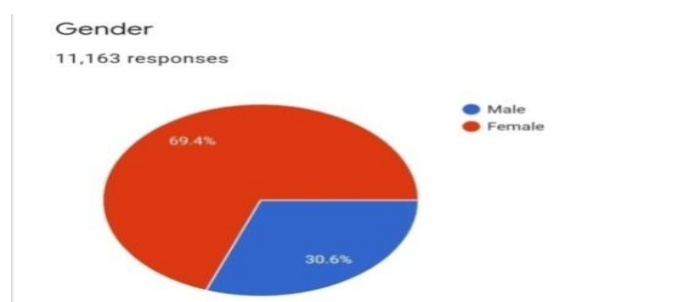


Fig 1.1: Demographic characteristics of all responders (gender)

Out of 11,163 responders, 33.5% (n=3,741) responses were from medicos and 66.5% (n=7,422) responses were from non-medicos.

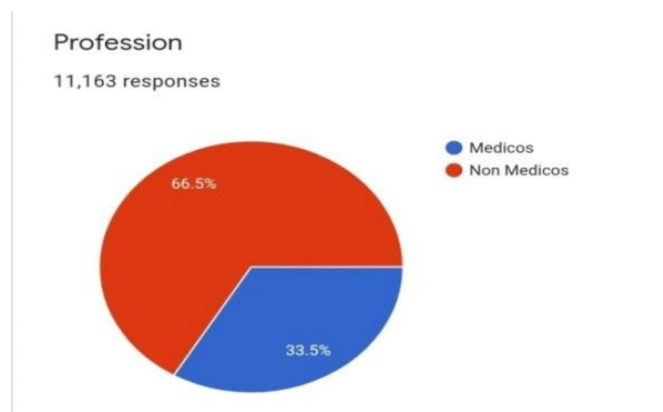


Fig 1.2: Demographic characteristics of all responders (Profession).

Table 2: % of Response for survey questionnaire

CONCLUSION

The world has seen many disease outbreaks and each outbreak made the human society to discover many techniques and ways to prevent new diseases. Discovery of vaccines for different diseases have been the major achievement and still many illnesses remain a challenging one to be cured. Many diseases in the past were emerged & reemerged and it affects the humans and animals, thus knowledge on these different infectious viruses and other microbes is essential. Awareness is essential in this case to prevent further complications. Lack of awareness often leads to an unconcerned attitude, which may adversely affect the measures taken to meet these challenges. At

RESPONSES	% OF AWARENESS/ CORRECT ANSWER	% FOR OPTION A	% FOR OPTION B	% FOR OPTION C	% FOR OPTION D
Q.No.1.	96.3	96.3	1.3	0.6	1.8
Q.No.2.	89.7	2.3	5.9	2.1	89.7
Q.No.3.	71	71	4	22	3
Q.No.4.	86.7	1.6	10.3	86.7	1.4
Q.No.5.	70.6	21.3	2.4	70.6	5.7
Q.No.6.	61.5	38.5	61.5	-	-
Q.No.7.	83.4	6.9	6.1	3.6	83.4
Q.No.8.	67.2	67.2	8.3	11.7	12.7
Q.No.9.	84.9	4.9	4.4	5.8	84.9
Q.No.10.	89.8	1.3	89.8	0.7	8.2
Q.No.11.	92.4	3	92.4	1	3.6
Q.No.12.	85.7	85.7	4.8	4.2	5.3
Q.No.13.	68.1	31.9	68.1	-	-
Q.No.14.	92.9	4.1	1.5	1.5	92.9
Q.No.15.	97.8	1.1	0.5	97.8	0.6
Q.No.16.	84.2	84.2	4.9	9.7	1.2
Q.No.17.	77.6	2.8	77.6	1	18.6
Q.No.18.	81.6	9.3	4.3	81.6	4.8
Q.No.19.	65	14	3.5	65	17.4
Q.No.20.	93.1	2.6	3.2	1.1	93.1

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