



## **Assessment of Knowledge, Awareness and Perception of Students regarding COVID-19 and its related activities: A Questionnaire based Survey**

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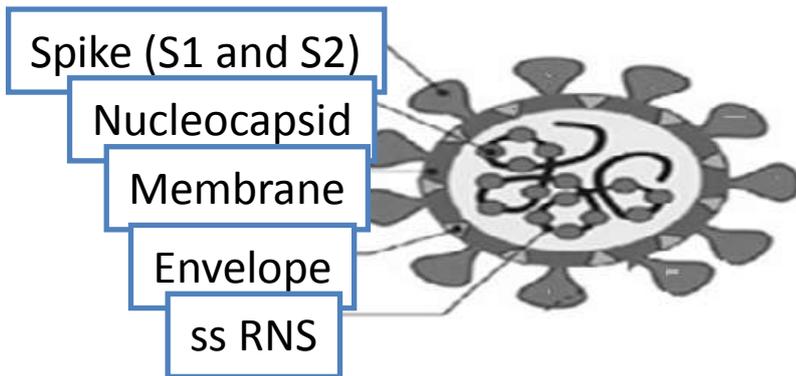
**Abstract :** The rapid and extensive spread of the COVID-19 pandemic has become a major cause of concern in society. The aim of this study is to assess the Knowledge, awareness and perceptions of COVID-19 disease and related practices among students through a questionnaire based survey. It has been seen that students are more active and comfortable online therefore an e-survey was conducted among COVID-19. Study outcomes with some interesting facts about student's knowledge, awareness and their perceptions for the same.

**Keywords :** COVID-19, Knowledge, awareness, Perception and students.

### **Introduction:**

Corona viruses (CoVs) are chief group of virus which belongs to the class of Nidovirales. They are enveloped in positive sense single stranded RNA viruses. They are generally referred as zoonotic, means they are transmitted between animal and human. Common symptoms of infection are respiratory problems, fever & cough, shortness of breath with breathing difficulties. [1]. They characterized by club-like spikes that emerge from their surface which is a large RNA genome and a unique replication strategy (Fig.1).

Corona viruses (CoVs) shows a diversity of diseases in mammals and birds like enteritis in cows and pigs, upper respiratory diseases in chickens and potentially lethal human respiratory infections. [2]. In 1968, term 'coronavirus' was first found. It shows crownlike morphological structure when observed under electron microscope that's why it is called corona. [3]



**Fig.1: structure of SARS-CoV2**

The human corona viruses are of four types: alpha, beta, gamma and delta. Out of which, the two forms- alpha and beta are most common to cause infections in humans [4,5]:

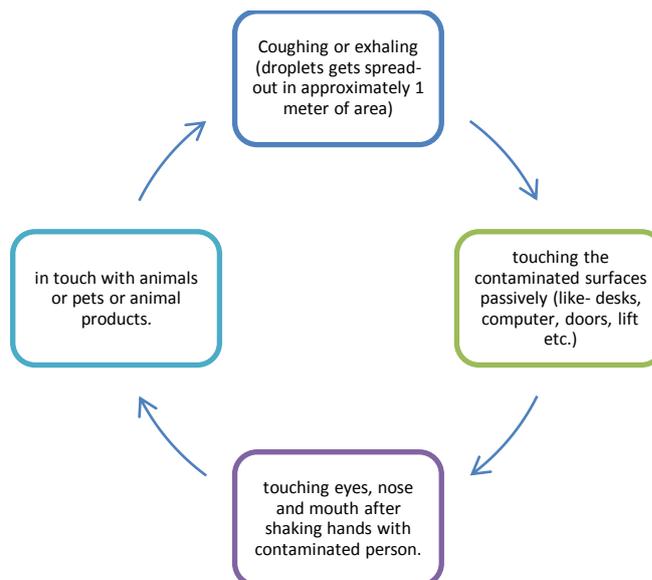
- 229E alpha coronavirus
- NL63 alpha coronavirus
- OC43 beta coronavirus
- HKU1 beta coronavirus.

These forms of corona viruses cause mild symptoms like cold and cough. Whereas other corona viruses: [5]

- SARS CoV beta coronavirus (SARS)
- MERS CoV beta corona virus (MERS)
- SARS Cov 2 beta corona virus (Severe acute respiratory syndrome 2 novel corona virus- COVID 19).

**Mode of transmission [6]**

It transmits form one body to another through following means (Fig. 2):



**Fig.2: Mode of transmission of novel corona virus- COVID 19.**

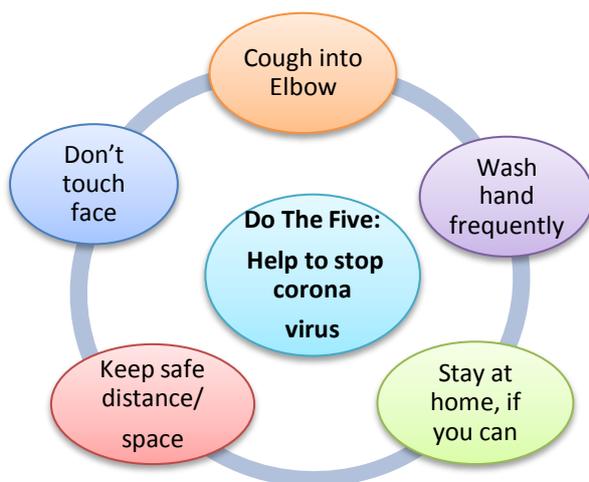
## Epidemiology

It was originated from Wuhan City, China but had become pandemic in worldwide and infecting a large population. Chinese researchers named novel virus as Wuhan corona virus or 2019 novel coronavirus (2019-nCov). The International Committee on Taxonomy of Viruses (ICTV) named the virus as SARS-CoV-2 and the disease as COVID-19 [7–9].

Globally found 45, 25,497 totals confirmed cases whereas in India 96,169 confirmed cases were found, with approx. 60 cases per lakh population confirmed by W.H.O. on May 18, 2020.[1]

## Preventive measures

Ministry of Health and Family Welfare of India (GoI) aware citizens with ‘Do The Five’: Help stop coronavirus (and W.H.O.) includes as follows (Fig.3):



**Fig.3: Preventive measures for spread of novel corona virus- COVID 19.**

As the disease is pandemic, students play an important role in society for spreading awareness related to the disease. For that they themselves should be aware. Thus for knowing the awareness and perception of students a quantitative questioner based survey was conducted. The objective of this study is to assess the awareness of COVID-19 disease and its related control practices among students / professionals in the society.

## Methodology:

The survey was prepared in the form of an online form and was sent to 200 students at various states of India. The period of the survey was May 13-20, 2020, and a total of 193 responders completed the survey. Self-modified questionnaire was designed to obtain the demographic information of patients along with a total of 15 questions to assess knowledge, awareness and perception regarding COVID-19 disease and related practices among students. Questionnaire contains 3 questions to assess knowledge, 5 questions for awareness and 4 questions for perception regarding COVID-19 disease and related practices. Consent was obtained by all participants in this study. Convenient method was used for data collection, and the distribution of responses was presented as frequency and percentages. Sub-groups were classified on the basis of gender, age (16-25 years, 26-35 years, 36-45 and 46-55 years) and Educational qualification (High school or 12<sup>th</sup> Class, Bachelors or Equivalent or Pursuing, Master Degree or Equivalent or Pursuing and PhD Degree or Pursuing. Data were tabulated in excel and graphs were prepared.

## Results and Discussion:

Demographic analysis as per Table 1 showed that out of 193 students, 60.10% were males and 39.89% were females. Out of these most of students were found to be the age of 16-25 (69.43%) where as others found to be 18.13%, 7.25% and 5.18% of age 26-35, 36-45 and 46-55 respectively. Most of the students were found to be doing Bachelors or Equivalent or Pursuing (62.17%).

Assessment of knowledge, awareness and perception regarding COVID-19 and related practices were analyzed using different questions as shown in Tables.

For assessment of knowledge among students total 3 questions were asked shown in Table 2. Out of 193 students, 24.87% had good knowledge about etiology of corona virus and 48.18% students have only superficial knowledge about it. It was also found that 20.72% thinks it's a influenza virus whereas 6.23% students thinks it's a Micobacterium. Knowledge of students were further checked by asking why it named corona, it was found that 74.61 % students rightly known the answer where as 20.17% students were not aware about the fact.87.04% students have the correct knowledge about risk of developing sever COVID-19 whom among, where as 21.95% students have only superficial knowledge about it.

The Assessment of awareness on COVID-19 and related practices was analyzed using 5 different questions and the respective assessment was shown from table 3. When students were asked from where they get COVID-19 related news, then only 52.33% students were found to rely on official website/Apps of Govt.of India where as 29.01% get COVID-19 related news from TV media. Some around 14.50% students get news from social media and only 4.14% student get news from print media.76.66% students daily get such information related to COVID-19 whereas 22.27% said they get these type of information at each hour. Only 64.76% students always relay on such information and 34.19% sometimes relay on it whereas 1.03% students never relay on such information.72.53% students found to be confirm such information first where as 13.47% directly forward it where as 11.91% students talk about it. Out of 193 students only 58.03% students think Govt. Arogya Setu App provides reliable source of information about COVID-19, whereas 18.65% thinks news media is a reliable source of information. 14.50% thinks socialmedia is a good source of information.

Assessments about perception of students related to COVID-19 were conducted using 4 different questions showing in Table 4. Out of 193 responded students 46.33% really feel panic after hearing COVID-19 related news, whereas 26.42% found to be comfortable. 26.94% students were not sure about their reaction. 51.81% students feel that their perception changes about COVID-19 after receiving related news, whereas 19.68% says they found no change. It was analyzed that 90.15% students say COVID-19 has changed their life style. 41.45% students feel that the COVID-19 situation will be better soon, whereas 33.67% says we have to live with same situation. But 24.87% students think there will be worse condition.

**Table 1: Demographic data analysis of students**

S.No	Demographic factors	Number of subjects (%) (n=193)
1.	<b>Gender</b>	
	Male	116 (60.10)
	Female	77(39.89)
2.	<b>Age (Years)</b>	
	16-25	134(69.43)
	26-35	35(18.13)
	36-45	14(7.25)
	46-55	10(5.18)
3.	<b>Education</b>	
	High school or 12 <sup>th</sup> Class	14(7.25)
	Bachelors or Equivalent or Pursuing	120(62.17)
	Master Degree or Equivalent or Pursuing	37(19.17)
	Pursuing and PhD Degree or Pursuing	22(11.39)

**Table 2: Knowledge based questions regarding COVID-19**

Questions with their possible options provided		Number of subjects (%) (n=193)
<b>Q.1 What is Coronavirus?</b>		
A.	It is a large family of viruses.	92(48.18%)
B.	It belonging to Nidovirus family	48(24.87%)
C.	It is influenza Virus	40(20.72%)
D.	Its a Micobacterium	12(6.23%)
<b>Q.2 Why it is called "Corona"</b>		
A.	Due to its leaf like projections	0 (0.00%)
B.	Due to its crown like Projections	144 (74.61)
C.	Due to its bricks like surface structure	12 (01.03%)
D.	None of the above	37 (19.17%)
<b>Q3. Risk of developing sever Covid-19 disease</b>		
A.	Children	0 (0.00%)
B.	People over 60 years of age	21 (19.88%)
C.	Those with previous medical condition	4 (02.07%)
D.	All of the above	168 (87.04%)

**Table 3: Awareness based questions regarding COVID-19**

Questions with their possible options provided		Number of subjects (%) (n=193)
<b>Q.1 From where do you get COVID-19 related news</b>		
A.	website/Apps of Govt. of INDIA	101(52.33%)
B.	Print media ( Newspaper/ Journals/ Magazines )	8(4.14%)
C.	TV Media ( News channels/ Advertisement)	56(29.01%)
D.	Social Media (FB/Tweeter/ Wats app etc)	28(14.50%)
<b>Q.2 How often do you get such information related to COVID-19</b>		
A.	Daily	148 (76.66%)
B.	each hour	43(22.27%)
C.	in a week	0
D.	Never	2 (1.03%)
<b>Q3. how often do you relay on such information</b>		
A.	Always	125 (64.76)
B.	Sometimes	66 (34.19)
C.	Never	2(1.03%)
<b>Q4. What you really do with that information</b>		
A.	Forward	26 (13.47%)
B.	ignore	4 (2.07%)
C.	talk about	23 (11.91%)
D.	Conform first	140 ((72.53%)
<b>Q5. Which source of information about COVID-19 you relay upon</b>		
A.	Social Media	28 (14.50%)
B.	Print Media ( News paper/ Magazines)	9 (4.66%)
C.	Govt. ArogyaSetu App	112 (58.03%)
D.	Mouth to Mouth Spread	8 (4.14%)
E.	News Media	36 (18.65%)

**Conclusion:**

Coronavirus has become pandemic due to its worldwide reach and virulence. Being highly infectious, it's essential to be familiar with every insight regarding origin, mode of transmission and most critical and must be taken into consideration about its news and other related information spread psychology. As students are the most active and young part of society, thus they must have knowledge and awareness about the COVID-19 pandemic. Now days students are more active and comfortable online therefore an e-survey was conducted among them and tried to know the perception regarding COVID-19 and related practices. As still, no vaccine or full proof method for the same is developed meanwhile prevention among students and society is solely act before problem and problem. Thus study concludes that till date most of the students are aware about COVID-19 and related practices but more awareness must be given to make a healthy society free from COVID-19.

**Acknowledgement:**

Author(s) are thankful to all the friends, students and colleagues who spent their precious time to fill the data on survey.

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