



## Gender Disparity in Awareness and Perception towards Novel Corona Virus (COVID-19)

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### ARTICLE INFO

Keywords: COVID-19, Awareness, Perception, India, Gender Disparity

<http://doi.org/10.48165/IJEE.2021.57320>

### ABSTRACT

Cross sectional study was conducted to analyze the awareness and perception of male and female members of different sections of the society towards COVID-19 and the pandemic. The data complete in all respect of 339 respondents from twelve states was collected through online questionnaire which consisted of items to study awareness and perception was developed. Majority of the respondents were young and large majority were fully aware about the purpose of lockdown and the required response in terms of social isolation, quarantine and reporting of persons with travel history. They were also aware of the methods to check the spread of the virus, however, wearing face mask to avoid COVID-19 infection and check its spread was known to only half of the respondents. Highest per cent of the respondents, including both male and female strongly felt that government should invest more money into health care facilities to prevent future pandemics. It was concluded that highest percentage of the selected respondents had medium level of awareness but majority lacked awareness regarding some important aspects of COVID-19, like its proneness of all age groups and days to show symptoms. Awareness regarding important aspects need to be created so as to correctly and scientifically perceive the issues pertaining to the virus and the pandemic.

### INTRODUCTION

COVID-19 pandemic, first reported in Wuhan, China in December, 2019 covered the entire world by March 2020. All the countries, saw increasing number of patients with acute respiratory syndrome caused by corona virus 2 (SARS-CoV-2). More than 188 counties and territories had been affected globally resulting into millions of death. The figures in India had crossed lakh per day with thousand deaths a day. The virus being contagious in nature, spreads through close contact among people and carried from person to person through droplets resulting from talking, sneezing and coughing by the infected persons. Vaccine to treat COVID-19 was still to be invented and only symptomatic treatment was provided to the patients. In absence of a vaccine, preventive measures had been recommended to minimize the spread of the virus during 2020.

India was initially locked down on March 24, 2020. All, the services, organizations, institutions and travel were closed except for the essential services. COVID-19 and its related containment measures namely lockdown, social distancing, and self-isolation were leading to increased loneliness and reduced social interactions having detrimental impact on psychosocial and mental health of general population (Singh et al., 2021). Frequent hand washing, maintaining distance from other people, wearing a face mask in public settings, covering one's mouth when coughing was widely publicized as the means to prevent getting infected and also its spread further. However, lack of awareness about the COVID-19 transmission was reported by a survey conducted by TRA Research and this information gap was seen across cities, barring Mumbai (Economic Times, 2020). People having low health literacy were more likely to be less worried about COVID-19 and thereby denied the fact

that they would get infected and be less prepared for the outbreak (Wolf et al., 2020).

Several studies have shown that the KAP level in individuals is associated with effective prevention and management of illness and promotion of one's own health (Fan, 2018). The ignorance regarding the disease transmission and perception towards its effects seems to be one important reason behind increase in number of COVID-19 patients. Geldsetzer (2021) concluded in his study that the general public in the United States and United Kingdom appears to have important misconceptions about COVID-19. Van (2020) shared that at the time when the whole world is fighting against the brisk irrepressible corona virus disease 2019 (COVID-19), assessing the perception of a relevant population regarding necessary safety measures and their way of dealing with such a situation can help in better understanding of people's psychology. It will assist in better understanding of methodologies to counsel them in a way that leads to general public safety besides restraining the spread of the disease. Therefore, the present study is conceived with the aim to study the awareness and perception of people about COVID-19 so as to further plan strategies to create awareness to check the spread of the pandemic.

### METHODOLOGY

The study was conducted in across the state borders. Respondents who were the citizen of India having smart phones and internet access, age above 18 years, educated at least up to matriculation level and who were forced to stay at their homes due to COVID-19 lockdown were selected for the present study. A self - structured questionnaire was prepared to record the responses of the participants. Being a cross - sectional study, participants across the country were invited to participate in the survey. A web- based link was generated on Google forms and sent via whatsapp application. The data collection through the online mode was initiated on April 14, 2020 and closed after 15 days' interval on April 28, 2020. To avoid duplication, responses were restricted to one response from each individual. In overall 339 (107 male and 232 female) responded correctly and fully which were analysed.

### RESULTS AND DISCUSSION

The data in Table 1 shows the awareness of the respondents about COVID-19 and the resulting pandemic. It was found that

nearly all the respondents were aware about the purpose of the lockdown (98.53%). Similarly, clinical symptoms of COVID-19 infection (93.51%) and its spread through respiratory droplets of the infected person (97.64%) were known to most of the respondents. However, awareness regarding number of days patient takes to show the symptoms (37.76%) and the age group who were prone to COVID-19 was known to few (11.50%). Singh et al., (2021) also revealed that 64 per cent of respondents had moderate knowledge about the characteristics of COVID19. The knowledge on preventive measures also revealed that 49 per cent of respondents had good knowledge and around 45 per cent respondents reported having moderate knowledge.

Requirement of informing police regarding foreign travel (96.76%) and importance of social isolation to prevent infection (97.64%) was known to almost all the respondents. Majority was aware of the need to frequently wash hands (98.82%), using sanitizer in case of non availability of soap and water (99.12%), staying at home (97.94%) and not allowing visitors at home (96.96%) to prevent the spread of infection. However, the importance of wearing a mask was known to comparatively much lesser percentage of respondents (54.57%). Bhati et al., (2020) in their study reported that majority of the respondents felt necessity of wearing mask and sanitizing hands. Awareness of male and female respondents was similar for almost all the aspects except awareness regarding the age groups who are more prone to the infection was lesser in female (9.91%) than male respondents (14.95%). The results are in line with the findings of Tomar et al., (2020) as they revealed that most of the respondents agreed with the idea of lockdown to prevent the spread of COVID-19. Roy et al., (2020) also revealed that 97 per cent of their research sample acknowledged that washing hands frequently could stop the spread of infection.

It can be concluded that most of the respondents were aware of the purpose of lockdown. The cause of concern was that lesser percentage of respondents were aware of proneness of the infection to different age group that made people more casual to deal the infection as majority of Indians are young so they were least cautious of catching the spread. Awareness regarding use of mask was also lesser which was actually one of the most importance requirements to prevent the spread of infection. This ignorance may be one major reason of increasing cases of infection in our country particularly in public places.

**Table 1.** Distribution of respondents according to their awareness about different aspects related to COVID-19

Aspects	Male (n <sub>1</sub> =107) f (%)	Female (n <sub>2</sub> =232) f (%)	Total (N=339) f (%)
Purpose of nationwide lockdown	105 (98.13)	229 (98.71)	334 (98.53)
Clinical symptoms of COVID-19	100 (93.46)	217 (93.54)	317 (93.51)
Days to show symptoms	37 (34.58)	91 (39.22)	128 (37.76)
Age group prone to be affected by COVID-19	16 (14.95)	23 (9.91)	39 (11.50)
Checking spread and recovery through early symptoms and supportive treatment	65 (60.75)	142 (61.21)	205 (60.47)
Spread of infection through respiratory droplets of the infected person	104 (97.20)	227 (97.84)	331 (97.64)
Reporting of foreign travel to concerned authorities	105 (98.13)	223 (96.12)	328 (96.76)
Period of quarantine	98 (91.59)	218 (93.97)	316 (93.22)
Social isolation as means to check spread of COVID-19	105 (98.13)	226 (97.41)	331 (97.64)
Wearing face mask to avoid COVID-19 infection and check its spread	58 (54.21)	127 (54.74)	185 (54.57)
Washing hands at least for 20 seconds with water and soap	105 (98.13)	230 (99.14)	335 (98.82)
Use of alcohol-based sanitizer in case water and soap is not available	105 (98.13)	231 (99.57)	336 (99.12)
Importance of staying at home	103 (96.26)	229 (98.71)	332 (97.94)
Not allowing visitors at home	101 (94.39)	227 (97.84)	328 (96.76)

**Table 2.** Distribution of respondents according to level of awareness regarding COVID-19

Awareness Level	Male (n <sub>1</sub> =107) (%)	Female (n <sub>2</sub> =232) (%)	Total (N= 339) (%)	t-test
Low (7-9)	3.74	3.45	3.54	0.94 <sup>NS</sup>
Medium (10-12)	54.21	55.17	54.87	
High (13-15)	42.06	41.38	41.59	

Mean Score range (0-1)

The data in Table 2 reveals the overall distribution of respondents according to their awareness level about the COVID-19 and the resulting pandemic. On the basis of the scores obtained, the level of awareness of the respondents was divided into three categories. Data shows that more than fifty per cent of the respondents (54.87%) had medium level of the awareness about COVID-19, related aspects such as symptoms, precautions and the pandemic. Results are in line with the findings of Narayana et al., (2020) which concluded that majority of the respondents shown a good knowledge and right practices towards COVID-19 pandemic, still there was a gap in right perception towards underlying myths and facts about COVID-19. Large percentage (41.59%) of respondents had high and remaining 3.54 per cent had low level of awareness. There was no significant difference among distribution of male and female respondents in different awareness categories as indicated by t-value. Zhonga et al., (2020) also reviewed several studies conducted in other Asian countries and indicated high levels of COVID-19 awareness among the general population.

Data in Table 3 shows the gender wise perception of respondents towards situation arisen due to COVID-19 pandemic. Data reveal that majority of the respondents strongly felt that the government should invest more in health care facilities to prevent such situations in future (MWS=4.69). Majority of the respondents strongly agreed that people circulating misleading information should be punished (MWS=4.59) as this made the situation worse. They were strongly agreed that the battle against COVID-19 can be won if we all come together as a society (MWS=4.57). Females

(MWS=4.33) as compared to males (MWS=4.18) were more of the opinion that the persons violating the curfew rules should be punished. As reported by First Post (2020) the respondents were of the view that financial punishment should be imposed for violation of lockdown rules or other risky behaviors. Similarly more of female (MWS=3.82) respondents were agreed that news channels and newspaper provide reliable information but more of the male respondents (MWS=3.4) had neutral agreement to this statement. This shows lack of trust in males regarding information provided by news agencies. Significant gender difference was also observed in opinion about donations to PM cares fund that it will help country fight against COVID-19. Female respondents showed their agreement with mean weighted score of 3.66 but male respondents had showed neutral agreement (MWS=3.38) towards this. Majority of the respondents were not satisfied with the role of government in providing essential commodities at door steps with their neutral agreement (MWS=3.44). The statement that digital transaction/online payments should be preferred were also perceived neutral by male (MWS=3.27) and female (MWS=3.49) respondents. This may be due to the fact that people were not much sure of safe online transactions. Lockdown as a means to break the chain was also not supported by large percentage of both male (MWS=3.06) and female (MWS=3.43) respondents. Both female and male respondents had neutral opinion that action of police on curfew violators was human rights violation (MWS=3.03). The table concludes that respondents had mix response towards situation arisen due to COVID-19 pandemic. They were positive that situation will be improved if people cooperate with the government but at the same time their perception regarding role of government in tackling the situation was not satisfactory. Perception regarding lockdown towards breaking the chain was not supported by all. There were respondents who were against imposing of lockdown by government.

The data in Table 4 reveals that majority of the respondents; both male (62.62%) and female (71.98%) were neutral in their overall response to the pandemic related aspects. This may be due

**Table 3.** Perception towards situation arisen due to COVID-19 pandemic

Items	Male (n <sub>1</sub> =107)		Female (n <sub>2</sub> =232)		Total (n=339)		t value	p value
	Mean	SD	Mean	SD	Mean	SD		
Government should invest more money into health care facilities to prevent future pandemics	4.75	0.53	4.66	0.52	4.69	0.52	1.37	0.17
Persons who circulates misleading information on COVID-19 during the lockdown should be punished	4.63	0.62	4.57	0.63	4.59	0.63	0.78	0.43
United India can win the battle against COVID-19 virus?	4.56	0.72	4.58	0.56	4.57	0.61	0.23	0.81
People violating the curfew should be punished	4.18	0.88	4.33	0.71	4.28	0.77	1.71	0.08
News channels and newspapers are the reliable sources of information regarding COVID-19	3.40	1.20	3.82	0.95	3.69	1.05	3.45*	0.00*
Donations to PM cares fund will help country fight against COVID-19	3.38	1.13	3.66	1.01	3.57	1.06	2.21*	0.02*
Government officials are providing essential commodities at door step as promised.	3.40	1.14	3.45	1.03	3.44	1.06	0.40	0.68
Digital transaction/ online payment should be preferred.	3.27	1.69	3.49	1.51	3.42	1.57	1.17	0.24
Everyone should support lockdown in India to breakdown the chain of COVID-19 virus.	3.06	1.87	3.43	1.82	3.31	1.84	1.74	0.08
Actions by the policemen (like threatening, order to do squats and beating etc.) are human rights violations of persons violating the curfew	2.96	1.33	3.06	1.20	3.03	1.24	0.64	0.51

Mean score range (1-5)

**Table 4.** Distribution of respondents according to the type of perception towards situation arisen due to COVID-19 pandemic

Perception	Male (n <sub>1</sub> =107) (%)	Female (n <sub>2</sub> =232) (%)	Total (N= 339) (%)
Positive (< 38)	24.30	9.91	14.45
Neutral (38-45)	62.62	71.98	69.03
Negative (> 45)	13.08	18.10	16.52

to some positively and some negatively perceived aspects. The in-depth analysis of data in Table 4 shows that there were certain aspects which were not perceived positively such as health care facilities but at the same time majority perceived that unitedly we can fight COVID-19. Hence, it shows uncertainty which may be due to lack of awareness or initial response to difficult aspects of the pandemic about which there had been no previous experience. Similarly, a large proportion (72%) of female respondents and 63 per cent of male respondents had neutral perception. However, more of female (18.10%) had negative perception as compared to male respondents (13.08%). Data indicates that the respondents in general were not much affected by the situation arouse due to COVID-19 and were hopeful that government and people collectively will fight against the infection.

### CONCLUSION

It was concluded that large percentage of the respondents had medium level of awareness regarding situation arisen due to COVID-19 and pandemic, hence there is a need to create awareness regarding different aspects, particularly those required to maintain health. More awareness is required towards use of mask use of mask and the misconception that only certain age groups are prone to the virus. It was felt that increased investment in health facilities can go a long way in avoiding such situation to arise in future. Regarding perception, it can be concluded that majority were having neutral perception revealing that people were still not very sure of the response to pandemic and its adequacy. Systematic efforts to create awareness and educate people can go a long way in dealing with the virus and the pandemic.

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