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Awareness, knowledge & attitude about Covid-19 second wave among general population of either gender

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Abstract

This cross-sectional interview-based study was conducted by using a pre-tested & pre-validated online questionnaire to determine the awareness, knowledge & attitude of COVID-19 second wave among adult general population of either gender. The total number of respondents was 255 (111 females 43.53% & 144 males 56.47%). Their age varied from 18 yrs to 76 yrs & above. 98.04% of respondents believe that compared to last year the second wave of COVID-19 is more severe & deadlier. 60.39% of them get information & updates about COVID-19 from news. 21.96% were tested positive. 44.31% had taken COVID-19 vaccine of both doses during the present survey, 33.33% first dose & 22.35% did not take vaccine till the time of survey. Those who tested positive, 33.93% experienced fever, 32.14% experienced dry & persistent cough, muscle ache 14.29%, no symptoms 0%.

Keywords: knowledge, awareness, COVID-19 second wave, COVID-19 vaccine

Introduction

The infection caused by the novel coronavirus COVID-19, which started in mainland China [1], has widely spread all over the world. Social distancing is being used as the main prevention & control strategy to break the chain of transmission due to the non-availability of a vaccine. Coronavirus disease 2019, known as COVID-19 is an extremely expanding pandemic caused by a novel human coronavirus: Severe acute respiratory syndrome- coronavirus (SARS- COV 2) an enveloped single stranded RNA virus, previously known as 2019-nCoV [3, 4, 5, 6]. It was first announced in December 2019, among patients with viral pneumonia in Wuhan city. There were two previous out breaks of coronaviruses, SARS-COV & Middle East respiratory syndrome- Corona Virus (MERS- COV) in 2003 & 2012 which resemble the novel coronavirus. Due to the rapid spread of this highly transmitted virus to many countries, WHO declared it as a public health emergency of international concern on January 30, 2020. Later due to the continual rise in the number of affected countries, cases & fatalities, WHO declared COVID-19 as a global pandemic on 11 March 2020 [7]. SARS- COV 2 is transmitted from person-to-person by close contact (within out 6 feet) via the respiratory secretions in coughs or sneezes or by touching virus- contaminated surfaces or objects. Old age & pre-existence of chronic illness have been identified as potential risk factors [8]. Since the middle of March 2021, the second wave has started & on April 09, the highest number of cases has been identified in India [9, 10].

Materials & Methods

This cross-sectional study was conducted using the chain sampling technique. A pre-tested & pre-validated questionnaire was administered via Google forms to the population of urban & rural of either gender in the state of Maharashtra, India. Informed consent was taken on Google forms. The data were adapted to Microsoft Excel spreadsheet.

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Results & Discussion**Table 1:** Demographic details of respondents (N=255)

	No. of Responses	Percentage (%)
Gender		
Male	144	56.47%
Female	111	43.53%
Age		
18-30 years	173	67.84%
31-45 years	41	16.08%
46-60 years	28	10.98%
61-75 years	12	4.71%
76 years onwards	1	0.39%
Level of- Education		
10 th pass	1	0.39%
12 th pass	30	11.76%
Undergraduate	125	49.02%
Graduate	63	24.72%
Postgraduate	34	13.33%
Other	2	0.78%
Occupation		
Student	157	61.57%
Homemaker	17	6.67%
Service	56	21.96%
Business	5	1.96%
Other	20	7.84%
Place of Residence		
Rural	31	12.16%
Urban	224	87.84%
Annual family income		
Less than 50,000	11	4.31%
50,000 to 2 lakh	28	10.98%
2 lakh to 4 lakh	28	10.98%
4 lakh to 6 lakh	42	16.47%
6 lakh to 8 lakh	51	20.01%
8 lakh and above	95	37.25%
No. of members in family		
1	74	29.02%
2	41	16.08%
3	58	22.74%
4 or more	82	32.16%
Compared to last year, do you feel the second wave of Covid-19 is more severe and deadlier?		
Yes	250	98.04%
No	5	1.96%
According to you what do you think is the major cause of spike in cases in India?		
Lack of preparedness by government for second wave	12	4.71%
Violation of Covid-19 protocols by people	6	2.35%
Slowing down of vaccination drive	85	33.33%
Shortage of healthcare facilities	137	53.73%
Other	15	5.88%
Where do you get information and updates about Covid 19?		
News	154	60.39%
Healthcare worker in family	17	6.67%
Social media	74	29.02%
Others	10	3.92%

Table 2: Changes in lifestyle compared to last year (N=255)

Changes in lifestyle compared to before pandemic	Increased (%)	Decreased (%)	Same as before (%)
Yoga and Meditation	40.78%	7.85%	51.37%
Diet rich in fruits and vegetables	60.78%	3.14%	36.08%
Consumption of junk food and outdoor food	3.53%	83.53%	12.94%
Consumption of non vegetarian food	19.61%	31.37%	49.02%
Physical Exercise	42.35%	25.49%	32.16%
Screen Time	78.04%	5.88%	16.08%
Sleep hours	55.29%	18.04%	26.67%
Smoking and alcohol consumption	2.75%	40.78%	56.47%
Time spent with family	40.8%	25.51%	33.69%

Age, gender & place of residence distribution

Among the 255 participants who participated in the study, male 144 (56.47%) & female 111 (43.53%). 18- 30 yrs

(67.84%), 31-45 yrs (16.08%), 46- 60 yrs (10.98%), 61-75 yrs (4.71%), 76 yrs & above (0.39%). (Fig.1, Fig.2, Fig.3, Table 1.)

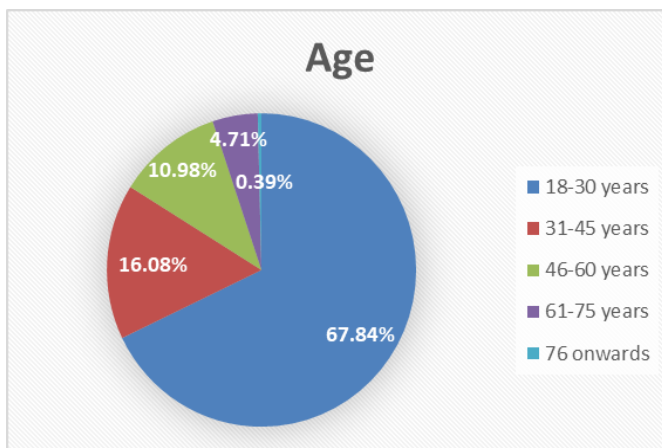


Fig 1: Age distribution of respondents

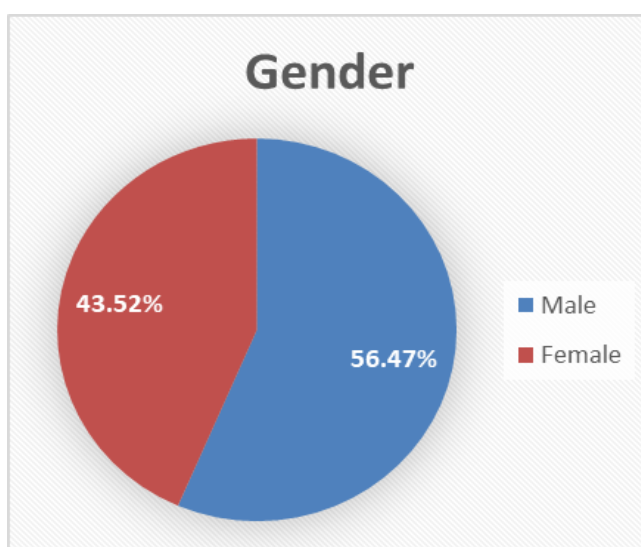


Fig 2: Gender distribution of respondents

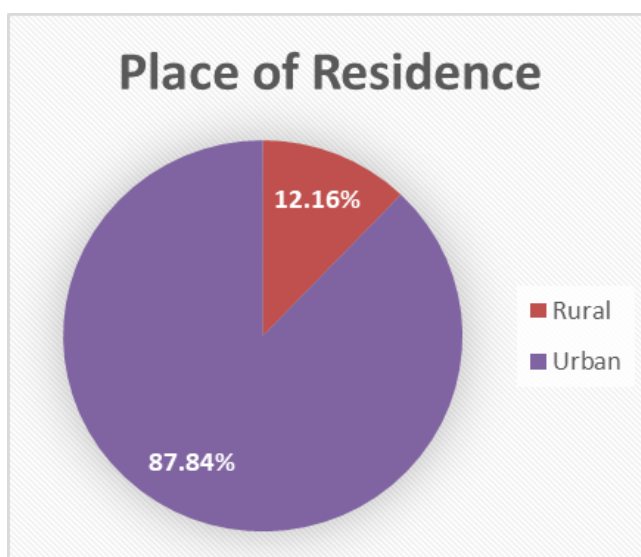


Fig 3: Place of residence of respondents

Level of education & occupation

0.39% 10th pass, 11.76% 12th pass, undergraduate 49.02%, graduate 24.72%, post- graduate 13.33% & other 0.78%. Among the respondents students (61.57%), home maker

(6.67%), service (21.96%), business (1.96%), other (7.84%). Regarding their place of residence rural= 12.16%, urban= 87.84%. (Fig. 4, Fig. 5, Table 1.)

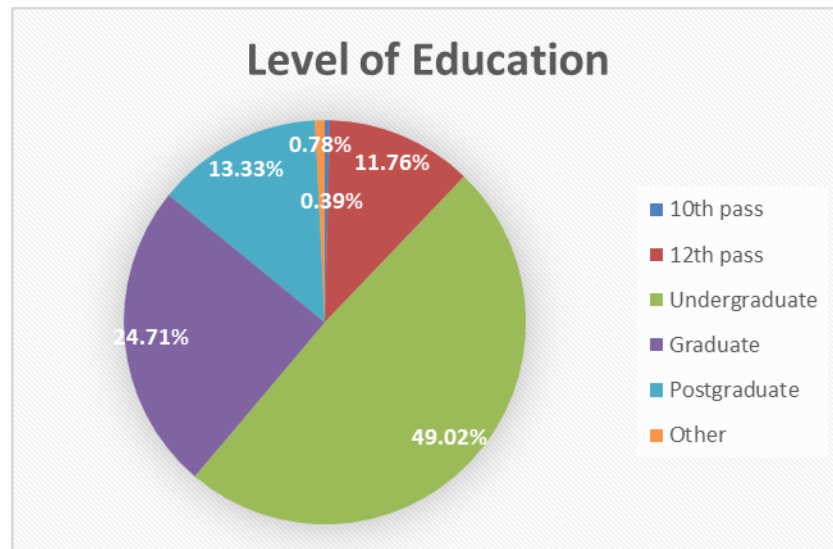


Fig 4: Level of education of respondents

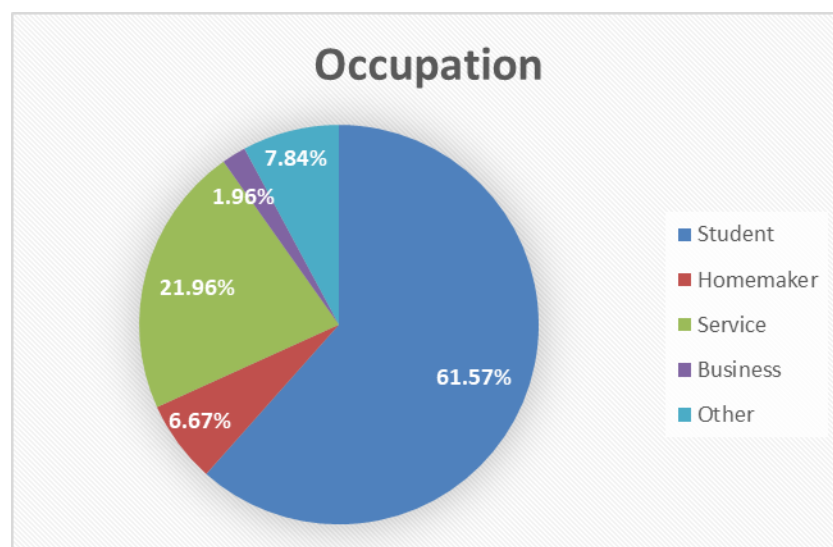


Fig 5: Occupation of respondents

Major cause of spike in India

As per the respondents, lack of preparedness by government for second wave (4.71%), violation of COVID-19 protocols by people (2.35%), slowing down of vaccination drive (33.33%), shortage of healthcare facilities (53.73%) & other (5.88%). As per M.K. Nar & other [11] the second wave of COVID-19 in India is a result of peoples’ soft nature & ignorance about corona virus. People did not take basic precaution such as mask, maintain social distance & avoid gathering & also government soft & lazy nature about

preventions of coronavirus. (Table1.)

Experienced the following symptoms during the second wave

The participants reported that they experienced panic 27.84%, stress 56.47%, anxiety 51.76%, depression 30.98%, disturbed sleep 36.08%, loss of appetite 16.47%. Jan C & others [12] reported that 40% of the respondents of their study had mental disorders. Matthew HEM & others [13] reported that rates of student psychological distress were as high as 90%. (Table3.)

Table 3: Symptoms experienced during second wave & cause of panic or anxiety

Experienced the following during the second wave	No. of responses	Percentage (%)
Panic	71	27.84%
Stress	144	56.47%
Anxiety	132	51.76%
Depression	79	30.98%
Disturbed sleep	92	36.08%
Loss of appetite	42	16.47%
None	13	5.10%
Cause of panic or anxiety		
Increasing number of cases	135	52.94%
Fearful of getting infection	98	38.43%
Lack of social relations	90	35.29%
Financial constraints	40	15.69%

Active cases or death of near ones in family	109	42.75%
Work load (in case of health worker)	19	7.45%
None	21	8.24%
Others	15	5.88%
Were you tested Covid Positive?		
No	199	78.04%
Yes	56	21.96%

Causes of panic or anxiety

The respondents reported that increasing number of cases 52.94%, fearful of getting infection 38.43%, lack of social relations 35.29%, financial constrains 15.69%, active cases or death of near ones in family 42.75%, workload (health workers) 7.45%. (Table3.)

Covid-19 vaccine taken

Till the date the study completed among the respondents 48.74%, only first done 21.11% & not yet 30.15% (Fig. 6, Table 4.)

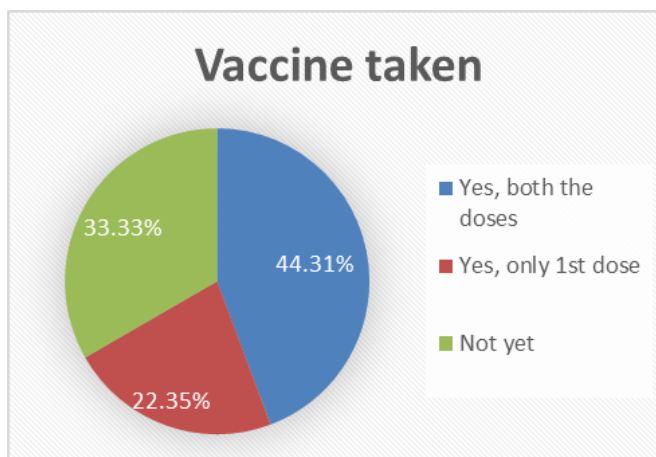


Fig 6: Status of vaccination among respondents

Frequency of stepping out of the house

Those who are in essential services 9.55%, 3-4 times a week 17.59%, once a week 17.08% & rarely 55.78%. (Table 4)

were positive. N M Agarwal & others [13] reported that the population having completed two doses of vaccine are at low risk of development of infection by COVID-19 as against those having received either one or none dose of the vaccine. (Fig.7, Table3)

Tested Covid Positive

Among the participants 78.04% were not positive & 21.96%

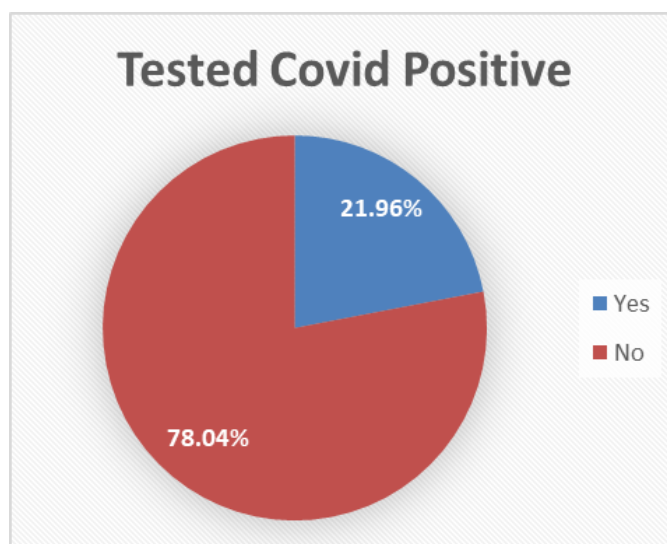


Fig 7: Covid testing status of respondents

Precautions at home & in public places

Wash hands 83.92%, cleaning & disinfecting frequently used articles & surfaces 77.39%, hot water gargling 43.22%, monitoring health daily for any symptoms 69.35%, taking vitamin supplements 33.17%, social distancing more than 1m 69.85%, avoid crowded places & gathering 84.42%, wearing

mask 86.93%, hand sanitization after touching any surface 83.92%, avoid touching eyes and other exposed parts of face 74.37%, wash hands with soap & water after coming home 87.94%. The respondents experienced symptoms like fever, headache, breathlessness, dry and persistent cough, sore throat, muscle ache. As per Mohammed K *et al* health

education interventions should be directed to the vulnerable population who may be at increased risk of contracting COVID-19. Neisha S & others [15] revealed that the preventive

measures distancing, sitting hand sanitizers & one-way system in corridors, regular handwashing. (Table 4)

Table 4: Comparison of lifestyle among Covid +ve & Covid -ve respondents (N= 255)

	Covid +ve (N= 56)	Covid -ve (N=199)	P value
Vaccine taken			
Yes, both the doses	28.57%	48.74%	0.006964*
Yes, only 1st dose	26.78%	21.11%	
Not yet	44.65%	30.15%	
Frequency of stepping outside the house			
Daily as I am in essential service.	7.14%	9.55%	0.490460
3-4 times a week	16.07%	17.59%	
Once a week	28.57%	17.08%	
Rarely	48.21%	55.78%	
Manner of purchasing groceries			
By phone call to nearby grocery shop for home delivery.	16.07%	23.62%	0.811513
Online shopping through apps.	17.86%	15.58%	
Visiting grocery shop.	66.07%	60.80%	
Travel to office/educational institute/shopping mall			
Yes	21.43%	19.60%	0.768893
No	78.57%	80.40%	
If yes, mode of travel to office/educational institute/shopping mall			
Local train	8.33%	35.90%	0.025876*
Bus	8.33%	7.70%	
Taxi through app	16.67%	2.56%	
Personal vehicle	41.67%	46.15%	
Other	25%	7.69%	
Co-morbidities			
None	69.64%	79.90%	0.264115
Diabetes	12.5%	5.53%	
Hypertension	17.85%	7.04%	
Obesity	0%	4.52%	
Liver/ lung/ kidney disease	1.78%	0.50%	
Other	1.78%	2.51%	
Home precautions take to prevent infection			
Washing hands frequently	85.71%	83.92%	0.740037
Cleaning and disinfecting frequently used articles and surfaces.	73.21%	77.39%	0.484634
Practicing Steaming or hot water gargling	41.07%	43.22%	0.725387
Monitoring health daily for any Covid 19 symptoms	73.21%	69.35%	0.019197*
Taking vitamin supplements	35.71%	33.17%	0.726994
Safety precautions are when outside in public places			
Social distancing of more than a 1m	73.21%	69.85%	0.622098
Avoid crowded places and gatherings	73.21%	84.42%	0.104517
Wear N95/ surgical/ cloth mask	94.64%	86.93%	0.048318*
Hand sanitization after touching any surface	89.29%	83.92%	0.237333
Avoid touching eyes and other exposed parts of face with contaminated hands	58.93%	74.37%	0.038068*
Wash hands with soap and water after coming home	82.14%	87.94%	0.308830

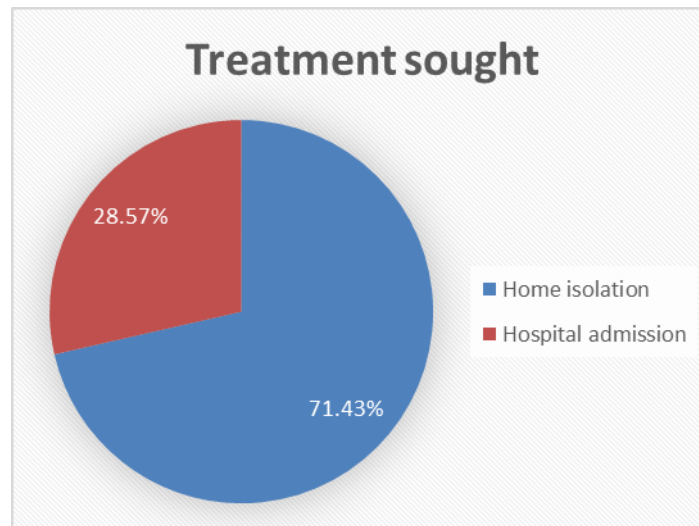
*Significant

Table 5: Comparison of Covid-19 disease among vaccinated & non- vaccinated respondents (N=56)

	Vaccinated (N=31)	Not vaccinated (N=25)	P value
CT CORAD score			
<7	80.64%	28%	0.065774
7-18	19.36%	56%	
18 or more	0	16%	
Severity of your Covid-19 infection			
It was a mild infection (very less severe)	70.97%	44%	0.429454
It was mild to moderate infection (had some problems, but not severe)	29.03%	36%	0.177901
Severe infection	0	12%	0.042985*
There were no symptoms at all.	0	8%	0.033787*
Symptoms Experienced			
Fever	48.21%	33.93%	0.303108
Headache	14.28%	23.21%	0.618726
Breathlessness	3.57%	10.71%	0.041799*
Dry and persistent cough	17.86%	32.14%	0.005675*
Sore throat	14.28	19.64%	0.164954
Conjunctivitis	1.78%	0	0.325309

Muscle ache	23.21%	14.29%	0.451872
Body Rashes	0	0	-
Discoloration of fingers and toes	0	0	-
Diarrhea	0	0	-
Loss of sensation of taste or smell	28.57%	10.71%	0.033024*
Weakness	0	1.79%	0.325309
No Symptoms	1.78%	0	0.325309
Treatment sought			
Home isolation	80.64%	36%	0.010417*
Hospital admission	19.36%	64%	0.010417*
Reason for home isolation (N= 41)			
Advised by doctor as symptoms were mild	93.56%	72%	0.556995
Lack of trust in healthcare system	3.22%	20%	0.880864
Non-availability of beds	3.22%	8%	0.325309
Measures taken in home isolation(N=41)			
Regular monitoring of SpO2 levels using pulse oximeter	28.57%	21.95%	0.061512
Follow up with family physician	21.4%	43.90%	0.592195
Use of pain killer and paracetamol	21.42%	31.71%	0.103400
Drink Plenty of water	21.42%	31.71%	0.977541
Treatment required			
Oxygen concentrator/ cylinder	6.44%	20%	0.065193
Remdesivir/ Tocilizumab	3.22%	20%	0.015408*
Convalescent Plasma	0	3.22%	0.460723
None	93.56%	80%	0.169961

*Significant

**Fig 8:** Treatment sought by respondents**Conclusion**

We must remain vigilant in the study of the characteristics of the disease, be able to modify treatments quickly. The clinical severity of SARS-COV-2 infections declined significantly in the second wave compared with the first wave as a result of social distancing, increased use of face masks & restrictions on gathering.

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