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Research Article

Knowledge, Attitude, Anxiety, and Perceived Mental Healthcare Need in Indian Population during 2nd Wave of the Coronavirus Disease-19 Pandemic

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ABSTRACT

Background: The Coronavirus disease (COVID-19) pandemic has caused freakish disruption to way of most people live, their work, study, social life, and access of healthcare during the second wave also. Lack of knowledge or spread of the misinformation regarding disease condition through social media heightened the anxiety. **Aim:** The aim of this study was to assess the knowledge, attitude, anxiety experience, and perceived mental healthcare need among adult Indian population during the second wave of COVID-19 pandemic. **Materials and Methods:** This was a web based cross-sectional, observational study. To recruit the participants, a Snowball sampling technique was used. A total number of 1005 from general population responded to an online semi-structured questionnaire, developed on Google form to assess the knowledge, attitude, anxiety experience, and perceived mental healthcare needs. The data have taken from April 28, 2021, to May 30, 2021. **Results:** Nearly two-third participants were aware about the mode of the virus transmission. About 92% acknowledged that washing hands frequently could stop the spread of the infection. About 78% participants thought social distancing is essential to stop the virus from spreading. Approximately 82% participants avoided social contact in the past 1 week. About 85.3% participants think it is beneficial to take help from mental health professionals in dealing with COVID-19 pandemic. **Discussion:** As people have gone through COVID-19 first wave, most of the participants were aware of the COVID-19 infection, the importance of social distancing, possible preventive measures, and government initiatives to limit the spread of infection. More than 3/4th of the participants acknowledged the need of the mental health consultation.

Keywords: Anxiety, Attitude, Knowledge, Mental healthcare needs, Coronavirus disease-19

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Introduction

The first case of the Novel Coronavirus (Coronavirus disease [COVID-19]) was reported in Wuhan, China, in December 2019.[1-4] COVID-19 rapidly spread around the globe and it has led to healthcare crisis with economic crisis in many countries and regions across the world.[5] The COVID-19 pandemic has caused freakish disruption to way of most people live, their work, studies, social life, and access of healthcare. This results in ban in travelling, closure of border, and nation lockdowns. Social distancing, isolation, and quarantine measures were taken to prevent the spread of disease. These changes and their consequences along with fears of COVID-19 are likely to have significant and long-term impacts on the mental health of the community.

Outbreaks of infectious disease are known to have the psychological impact on the general population, including health-care providers. One of its example is psychological sequelae observed during the severe acute respiratory

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syndrome outbreak in 2003, the H1N1 influenza in 2009 and the Middle East Respiratory Syndrome Coronavirus in 2012.[6] The risk of pandemic-related stress and emotional exhaustion in health-care providers is recognized by the World health Organization (WHO) and has insisted them to prepare and release guidelines related to the psychosocial considerations during COVID-19.[7]

Background

In India, the first wave of the COVID-19 pandemic was detrimental to the psychological status of general population. Various studies across the country reported varying degrees of acute stress reactions, depression, anxiety, and burnout in general population.[8,9] In April 2021, India found the largest surge of COVID-19 in the world. COVID-19 was characterized with mild to moderate respiratory symptoms including fever, chills, cough, sore throat, difficulty breathing, myalgia, nausea, vomiting, and diarrhea.[10] The WHO declared the mortality rate for COVID-19 cases 3–4%.[11]

Social media diffuse a lot of information about COVID 19 spread, its prevention and treatment but such information lacks assurance of quality. As with previous epidemics such as Ebola or Zika virus disease, the social media used to spread misinformation regarding the COVID-19 pandemic.[12] Misinformation increase the anxiety of people and guide them to follow wrong practices.[13] Therefore, it required to disseminate accurate information and aware people about COVID-19 to avoid unnecessary increase in the stress and anxiety level. Studies have described the effects of COVID-19 on various age groups, such as medical workers,[14] children and teenagers,[15] older adults,[16] and students.[17] In China, a study conducted by Lin *et al*. determined the knowledge, attitudes, and anxiety levels of the general population in relation to the COVID-19 outbreak, as well as its impact on them.[18]

Various measures are taken by the WHO and the government to increase awareness regarding COVID 19. To strengthen weak health systems, along with strategic preparedness the WHO raises funds globally. The goals were set to limit transmission of COVID-19, providing self-care, dissemination of right information, development of diagnostics that are easy to implement, preparation of vaccines, prevention of infection, and minimization of the economic and social impact.[11]

Implementation of the lockdown policies in country resulted in a decrease in the economic system and the outage of services.[19] Transport business even at national levels has ceased due to lockdown in different countries. Work from home during nation lockdown, shutting down of education institutes and postponement of exams become a stressor for young minds.[20] As COVID19 is a new disease and is having the most devastating effects globally, its emergence and spread, causes confusion, anxiety, and fear among the general public.[21]

In India, a second wave of COVID 19 begin in March 2021 which spreads faster than first one. The second wave came along with shortages of hospital beds, oxygen cylinders, vaccines, and other medicines. This also resulted in the nation curfew. Again transportation with in country limited, work from home promoted and all school and colleges were shut down. Various studies have shown the anxiety in general population during COVID -19 first wave. Recent study concluded that individuals who are kept in isolation and quarantine experience significant distress in the form of anxiety, anger, confusion, and post-traumatic stress symptoms.[22] Knowledge and attitude of people influence the degree of adherence to the personal protective measures. This also influences their clinical outcome. Hence, this is very important to study this part in general population. There is a paucity of research that evaluated the mental health concerns during 2nd wave of COVID 19. Considering all the above factors, researchers decided to do a study aimed to evaluate knowledge, attitude, anxiety, and perceived mental healthcare needs in the general population during the 2nd wave of COVID-19 pandemic in India.

Materials and Methods

Study design

This was a web-based cross-sectional, observational study. To recruit the participants a Snowball sampling technique was used. It is required to calculate the sample size but this was a web based observational study, so we want to take the response from the participants as much as possible.

Data collection

An online structured questionnaire was used using Google forms, with a consent form attached to it. The link of the questionnaire was sent through WhatsApp and social media to the contact of the researcher. The participants were encouraged to share the survey to as many people as possible. On receiving and clicking the link, the participants got auto directed to the information about the study followed by informed consent. After signing the consent form, participants were auto directed to fill demographic information followed by questionnaire to assess knowledge, attitude, anxiety, and perceived mental health care needs respectively. Hence, it was an online study, so participants need to have knowledge to operate phone and access to the internet to participate in the study. Participants with age more than 18 years, able to understand English and Hindi and willing to give informed consent were included. The data collection was initiated on April 28, 2021, at 9 AM India Standard Time (IST)–May 30, 2021, 10 PM IST. As this was an online survey, response of participants was welcomed till last day of the data collection. Total 1005

participants filled the questionnaire. We collected data from across various states of India.

Material

The instrument to measure socio-demographic variables included age, gender, occupation, education, domicile, area of residence, and religion was developed by the researcher and the online self-reported questionnaire developed by the Roy *et al.* was used after their permission.[20] The instrument contained the following six sections related to awareness (knowledge), attitude, anxiety, and perceived mental healthcare needs during the pandemic of the novel coronavirus. There were six multiple choice questions in the awareness section. The attitude section contained seven items that were to be rated in the 5-point Likert scale format. Anxiety related to novel coronavirus infection had 18 items that were supposed to be rated on a 5-point Likert scale ranging from never, occasionally, sometimes, often, and always. The perceived mental healthcare need was assessed by four items on a 3-point Likert scale. Descriptive statistics have been used in the study to analyze the findings. Mean and standard deviation and proportions have been used to estimate the results of the study.

Results

Study sample characteristics

The socio-demographic and clinical characteristics of patients and their caregivers are summarized in Tables 1. The mean age of the participants was 27.75 ± 10.25 years. Majority of participants, 67.2% were male. The lowest educational level in this study was observed to be standard 10th. The highest qualification of approximately 64% of the population was graduation and above. One-third of the participants were health-care professionals. Nearly two-third 64.7% of participants were from urban areas. Approximately 89.1% of the participants were Hindus.

Awareness about COVID-19 pandemic

Figure 1 depicts the awareness regarding COVID-19 among participants. About 84% participants answered that the virus spreads through multiple modes such as touching, kissing, sneezing, and food. About 43% participants believe pets transmit the virus. Most participants 68% believe COVID-19 as a highly contagious disease. Approximate all (92%) acknowledged that washing hands frequently could stop the spread of infection. About 68% participants regarded fever as which is known to be a major symptom of the COVID-19.

Attitude toward COVID-19 pandemic

As shown in Table 2, approximately 63% of the participants agreed to definitely quarantine/isolate themselves if they had a fever and cough. Most (82%) of the participants thought social distancing is definitely essential to stop the virus from spreading. About 76% of them considered traveling within/across the country never be safe during the pandemic. Approximately 68% of participants believed that patients

Table 1: Demographic characteristics of the participants

Variables	Numbers %
Age (years) Mean	27.75±10.25
Gender	
Female	330 (32.8)
Male	675 (67.2)
Occupation	
Agricultural	10 (1.0)
Asha worker, Anganwadi workers	5 (0.5)
Business	20 (2.0)
Health care (Doctors, Nurses, and para medical staff)	335 (33.3)
Others	85 (8.5)
Professional	210 (20.9)
Students (Nursing students)	320 (31.8)
Un-employed	20 (2.0)
Education	
Graduation	645 (64.2)
High school	50 (5.0)
Postgraduation	300 (30)
Vocational education	10 (1.0)
Area of residence	
Rural	355 (35.5)
Urban	650 (64.7)
Religion	
Christian	30 (3.0)
Hindu	895 (89.1)
Muslim	50 (5.0)
Sikh	5 (0.5)
Others	25 (0.5)

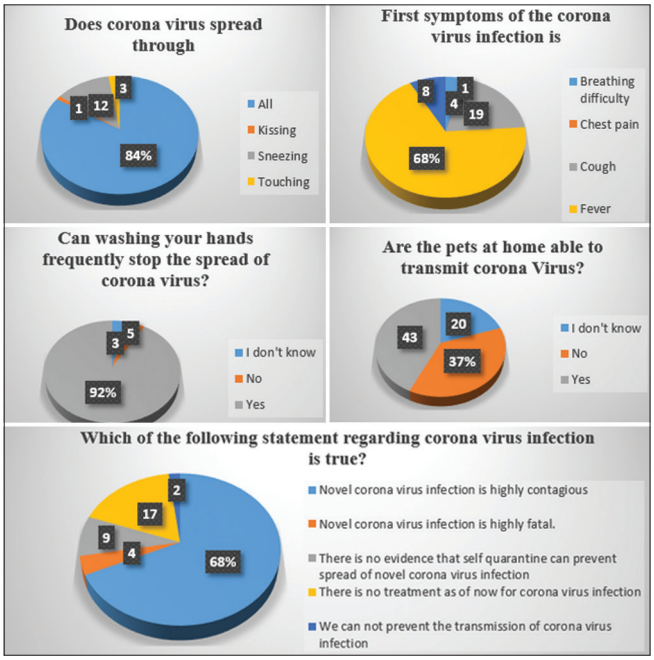

Figure 1: Awareness among participants regarding COVID 19

recovered from COVID-19 infection, should not be allowed to stay within the community at this time. About 38% participants believe that patient with coronavirus infection who is declared cured should be allowed to stay in community and 34% believes they should not while 28% were not sure about this.

Anxiety toward the COVID-19 pandemic

Table 3 shows the anxiety of participants toward COVID-19. More than 70% of the participants were preoccupied with the COVID-19 though over the past week. More than one-third (35%) of the participants were paranoid with the thought of contacting the Coronavirus infection over the past week. About 79.1% participants avoided partying last 1 week. Approximately 82% participants avoided social contact in the past 1 week. About 62.7% of participants reported being worried for themselves and their close ones during the ongoing pandemic. Only 18.4% of the participants had sleeping difficulty due to being worried about the pandemic in the last week. Around 69.7% of the participants

Table 2: Awareness among participants regarding COVID-19 (*n*=1005)

Items	Unlikely (%)	Never (%)	Most likely (%)	May be (%)	Definitely (%)
Do you feel you can be affected by the novel coronavirus?	6	16	14	45	19
Would you agree to the government guidelines regarding the corona virus pandemic?	5	5	31	11	48
Washing hands frequently can lower the risk of coronavirus infection?	1	1	30	11	57
How likely are you going to quarantine/isolate yourself if you have fever and cough?	3	3	24	7	63
Do you think social distancing is essential to stop the virus spread?	1	1	14	2	82
Do you think travelling across/within the country is safe during these times?	13	76	2	5	4

Table 3: Anxiety related to COVID-19 pandemic

SI No.	Items	% of responses who feel anxious (often and always) (*n*=1005)
1.	From the last 1 week, how often do you think about novel coronavirus pandemic?	71.1
2.	From the past 1 week, how often you feel paranoid about contacting the novel coronavirus infection?	34.3
3.	From the past 1 week, how often you avoid partying?	79.1
4.	From the past week, how often you avoid social contact?	82.1
5.	From the past 1 week, how often you avoid large meeting and gatherings?	84
6.	From the past 1 week, how often you avoid ordering food online?	69.7
7.	From the past 1 week, how often you have talked to your friends about corona Pandemic?	64.1
8.	From the past 1 week, how often you have had difficulty in sleeping by being worried about Corona pandemic?	18.4
9.	From the last week, how often you feel affected by the posts on social media about corona virus infection?	30.8
10.	From the last week, how often do you feel affected by the talks of novel coronavirus pandemic on the newspaper and news channels?	43.8
11.	From the last week, how often do you feel the need to buy and stock all essentials at home?	34.8
12.	From the last week, how often do you get afraid if anyone in your social circle reports of being sick?	41.3
13.	From the last week, how often do you feel the need to use the sanitizer/ gloves?	82.1
14.	From the last week, how often do feel the need to constantly wash your hands?	86.1
15.	From the past 1 week, how often do you feel worried about yourself, and close ones regarding the spread of Novel COVID19 Viral Infection?	62.7
16.	From the last week, how often do you use a mask without any apparent signs and symptoms of the infection?	75.6
17.	From the last week, how often does the Idea of novel coronaviral infection freak you out leading to inappropriate behaviors with anyone?	24.3
18.	From the last week, how often does the Idea of novel corona viral infection freak you out post on social media?	29.3

avoided ordering food online last week. A total of 64.1% of participants repeatedly discussed the pandemic with their friends during this period. About 41.3% of the participants felt scared when someone in their social circle became sick. About 24.3% participants reported having inappropriate social behavior due to the fear of contacting the virus. About 75.6% of participants admitted using a mask without the apparent signs and symptoms of the infection and more than 82.1% felt the need to use sanitizers and gloves.

Perceived mental healthcare needs

Table 4 depicts the perceived mental healthcare needs of the participants. More than half (58.1%) of participants think being involved in the discussion regarding worries aroused from COVID-19 with someone is nice for them. Approximately two-third of the participants were agreed on the necessity of mental healthcare for individuals who panic amid the pandemic situation. About 85.3% participants think it is beneficial to take help from mental health professionals in dealing with COVID-19 pandemic. Approximately 80% of participants acknowledge that they will refer needed people affected by the COVID 19 to mental health professionals.

Discussion

In our study, majority (67.2%) of the respondents were male. About 33.3% participants were health-care provider. About 64.7% belongs to urban area. In our study, 75.6% of the respondents were of the opinion that wearing a mask could prevent acquiring the infection; while this was similar to an online study where 32% had this view[23] and this was similar to another online study where 37.8% had this view.[20] In our study, 64% participants answered that the virus spreads through multiple modes such as touching, kissing, sneezing, and food. This is agree with another similar study in which 70.1% study participants reported that touching the infected individuals result in the spread of infection.[24,25] In another similar study, 95.3% thinksCOVID-19 virus transmission occurs through coughing/sneezing into another person.[26]

Table 4: Perceived mental health need in dealing the issues with COVID19 Pandemic

Sl. No	Items	Percentage of people who perceive there is a mental health need (n = 100)
1.	Do you think it would be nice to talk to someone about your worries for the COVID 19 viral epidemic?	58.1
2.	Do you think it is necessary to get mental health help if one panics in lieu of the pandemic situation?	66.9
3.	Do you think it would be beneficial if mental health professionals help people in dealing with the current COVID19 pandemic situation?	85.3
4.	Will you suggest people for obtaining mental health help to people who are highly affected by the COVID19 pandemic?	80.3

Anxiety affects the mental health of the people and insists people to adopt various unwanted lifestyle, dietary modifications, and self-medication under the influence of rumors. In our study, almost 34.8% of the people accepted that they felt obliged to buy and stock essentials at home during the pandemic. Similarly other study reported 33% of the people accepted that they felt obliged to buy and stock essentials at home.[20] In our study, approximately 43.8% participants had heard about COVID-19 through social media, and news channel. In similar study, approximately 39.78% participants had heard about COVID-19 through social media, 26.30% from TV and radio.[27] In other study, Muhammad Salman reported that 65% participants heard about COVID-19 through social media.[28] This difference in studies may be due to populations' educational and socioeconomic status.

In our study, the majority of participants were aware of COVID-19 signs and symptoms, including fever (68%), cough (19%), and dyspnea (8%), were answered of participants. In other similar study, they found that the majority of participants were aware of signs and symptoms, including fever (99.32%), cough (97.07%), dyspnea (99.02%), and fatigue (89.35%), were answered of participants. Another similar study reported 98.6% participants considered respiratory problem as major symptoms of COVID-19.[26] In our study, the majority of participants 82% and 84% believed that close social contact and large meeting, respectively, must be avoided to prevent disease spread and 86.1% agreed that hand sanitizers could limit spread of infection. In other similar study, the majority of participants (96.58%) strongly believed that close contact must be avoided to prevent disease spread.[27] The majority, 95.7% believe washing hands with soap and water frequently prevent the spread of COVID-19.[29]

In our study, we found approximately 18.4% of people reported sleep difficulties. More than two-thirds of participants reported themselves worried after seeing posts about COVID-19 pandemic in various social media platforms and approximately 43.8% of participants reported their worries related to the discussion of COVID-19 pandemic in news channels and print media. This indicates that despite having adequate knowledge about COVID-19 infection, people are largely influenced by media information. The swine flu pandemic of 2009–2010, also evoked anxiety among the public significantly.[30]

In our study, frequent inappropriate behaviors (anger, restlessness, and worry) and pre-occupation about COVID-19 infection leading to posting on social media, were seen in

24.3% and 29.3% of the participants, respectively. Similarly, in other study, two-thirds (66.9) of the participants felt the need to talk about their worries related to COVID-19 with someone.[31]

About 85.3% participants think it would be beneficial if mental health professionals help people in dealing with the current COVID19 pandemic situation. In another similar study, 83.5% participants think it would be beneficial if mental health professionals help people in dealing with the current COVID19 pandemic situation.[20] In such situations consideration of the online mental health consultation might be more beneficial.[32]

Conclusion

Outbreak of COVID-19 2nd wave increased Indian public need to seek mental health due to the associated anxiety and apprehension to deal with COVID-19 infection. There is a need to render right information through social media and intensify the awareness program to address the mental health issues which may arise during the pandemic outbreak.

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Declaration of Competing Interest

None.

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