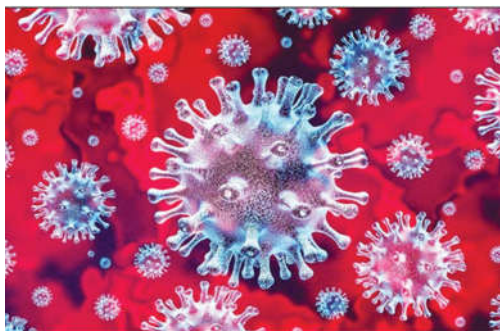


Experience of Covid-19 Patients - A Qualitative Case Study from Different Regions of India

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Abstract

Introduction: Covid -19 is the infectious disease caused by the most recently discovered coronavirus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in december 2019. In the latest wave of the pandemic, India has been the world's worst-hit country since April 2, forcing the States to impose new curbs to control the virus spread. As per Union Health Ministry figures, India reported 2,00,739 new Covid-19 cases in the last 24 hours, the biggest single-day spike so far, taking its overall tally to 1,40,74,564 cases. India's daily deaths due to Covid are also rising with 1,038 new deaths getting reported on Thursday, the second consecutive day the country reported over a thousand deaths. This took the overall death toll in the country to 1,73,123 till date. The country has so far reported a total of 1,45,21,654 cases and 1,75,673 deaths.



Method: Employed method was semi structured face to face and through telephonic/digital interviews with people living in different zones of India of 22 - 44 years of age. An interview guideline was developed and used by trained students in order to record the verbal consent of the patients. This article is a summarized experience of the patients afflicted to covid 19 from different regions of India focusing especially over the latest symptoms and the new therapeutic measures in order to control and treat the patients suffering from this disease. The data from the patients have been collected in accordance

to different zones of India for ex. South zone includes data of patients from indian states like Tami Nadu, AndhraPradesh , Karnataka & Kerala whereas central regions include states like Madhya Pradesh, Chhattisgarh, parts of Maharashtra , Rajasthan , Bihar and Uttar Pradesh respectively. Eastern Zone included West Bengal. Oertehrn zone included data from Punjab and Jammu and Kashmir.

Results and Conclusion: Forty four eligible COVID -19 recovered people or deceased (relatives gave data and consent) (x male/y female) agreed to be interviewed and their verbal informed content was recorded. Mean interview time was of a week. Thematic analysis generated in a tabular form under various sub headings. Their life during covid 19 illness, what were the new common signs and symptoms, which geographical area they belong to and what were the precautionary measures and interventions that helped in their recovery. The experience of these people holds an importance as they were the prime patients afflicted by the infection and have a knowledge of factors that facilitated their recovery in a way as their lives were and has been affected especially during the COVID -19 second wave.of tests done during the previous day 15,66,394.

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Introduction

Coronavirus disease 2019 (COVID19) pandemic, caused by SARS-COV2, is of huge global public health and socio-economic crisis.¹ It is one of the greatest global crises since World War II, as pointed out by the United Nations.² One of the 1st cases of COVID-19 was reported on 17 November, 2019 in Wuhan, China.³ On 31 December, 2019 the Chinese authorities reported the outbreak to the World Health Organization (WHO) for which an investigation was launched in January, 2020. On 30th January, the WHO declared the outbreak a Public Health Emergency of International Concern (PHEIC). It was declared a pandemic in March 2020. The coronavirus disease 2019 (COVID-19) pandemic is essentially a global health crisis, which has caused significant health-related morbidity and mortality around the world.⁴

The disease is highly contagious and leads to fatal outcomes in specific populations, especially those with comorbidities as well as the elderly. According to the World Health Organization (WHO), the current evidence suggests that the disease spreads between people by two main methods, directly (through close contact with an infected person via the mouth or nasal secretions) or indirectly (through contaminated objects or surfaces).⁵ The WHO has put forward several recommendations to prevent the spread directly or indirectly. One of these recommendations is to maintain social distancing which is currently defined as keeping a distance of at least one meter from others in open public places such as parks and walking areas as well as in the confined places such as shops, restaurants, etc.⁶

The implementation of social distancing is undoubtedly challenging in densely populated or crowded areas where people live in close proximity. People living in such areas are at increased risk of contracting the infection due to the rapid transmission of the disease.

India is a thickly populated country, the living conditions in the country pose a high health risk to the residents. The country had been declared an upcoming global hotspot in the current COVID-19 pandemic due to the rapid and uncontrolled transmission of the infection both within the local community as well as the spread of the disease to the other regions of the country.⁷ Of late, an alarming number of young Indians, including children are falling victim to the new strains of Novel Coronavirus while the second wave is

sweeping the country. Some doctors say the reason for under-45 age group being now vulnerable is that they go to work and eat out more, but there is no definitive proof.⁸ They are also more prone to the double mutant.⁸ It is hence very important to explore the experiences of COVID-infected patients from the time of their diagnosis or the emergence of their symptoms through to their recovery, especially the patients from hotspots. This can not only help the healthcare organizations to adopt new care models and streamline the workflows but also help improve the quality of life of infected patients in high risk communities, during the current and future outbreak of pandemic diseases. Also strain variation and mutants are there, making symptoms variable and the virus difficult to detect.⁹

Methods

Study design & Sampling: In this study, we adopted qualitative methodology and employed semi-structured telephonic/digital interviews with the eligible participants who agreed for the interview.

Participants Settings: Forty four (44) participants living in different regions of the country were interviewed. The participants living in different zones of India, were of 22-44 years of age, and having suffered and recovered during 1st or 2nd wave of COVID-19 (either hospitalized or not during their illness), were deemed eligible for the recruitment.

Semi-structured Interviews: To facilitate the interviews, the interview guide was developed in the English language and then translated into the different local languages depending on the zones by the interviewer. The interview guide comprised open-ended questions like what were the new common signs and symptoms, which geographical area they belong to and what were the precautionary measures and interventions that helped in their recovery. The interview guide was checked by two experienced academic staff members. The interviews were expected to take 15-20 minutes each.

Three research students conducted the semi-structured interviews. The interviews were conducted with the recommended health precautionary measures in place. Informed consent was taken from each participant prior to the interview. Social media like email and Whatsapp were used sometimes. Sometimes for admitted

patients or deceased patients, their relatives were questioned.

Data Analysis: Qualitative data in the transcriptions were analyzed using the inductive method of analysis and is represented by a tabular form. The initial step of the analysis involved familiarizing with the data through reading the transcripts

and recording what were the common signs and symptoms shared by patients along with what were the interventions that facilitate their recovery in different zones of the country.

Result

Zones of India			Representing features	Treatment taken	Remarks	
Central	South	Eastern			Alive	Dead
	↗		Fever, Sore throat, dry cough, tastelessness	Azithromycin, Paracetamol, Cetirizine, Vitamin supplements	yes	
	↗		Wheezing	same	yes	
	↗		Fever, Cough	same	yes	
	↗		Fever, sore throat, dry cough, rashes in the pubic area and face	Same	Yes	
	↗		Sore throat, fever, myalgia, rigor, chills, vomiting, Diarrhoea, menstrual bleeding	Augmentin, Paracetamol, Dexamethasone, Deriphyllin, Enasiparin, Zincovit, Limcee	Yes	
	↗		Severe cold, chills, head ache, fever, Dyspnea	Levocetirizine, Paracetamol, Pantoprazole, Ivermectin, Amoxicillin + clavulunate, vitamin supplements	Yes	
	↗		Fever, myalgia, cough, cold, head ache	Paracetamol, Azithromycin, Zincovit, Evion 400	Yes	
	↗		Fever, myalgia, head ache, dyspnea	Paracetamol, Taxim 400, vizylac, Zincovit, Limcee	Yes	
	↗		Myalgia, Cough, Head ache	Remdesivir, Paracetamol, Zincovit, Limcee	Yes	
	↗		Head ache, Myalgia	Azithromycin, Ranitidine, Vitamin, Limcee	Yes	
	↗		Fever, cold, myalgia, tonsil pain, difficulty in swallowing	Azithromycin, Paracetamol, Zinc and Vitamin c	Yes	
	↗		Sore throat, Back pain, Headache, fever	Ivermectin, Vitamin supplements	Yes	
	↗		No signs, CT Scan - Co- rads 5 (elevated)	Ivermectin, NSAIDs, remdesivir, vita. c + zinc	Yes	
	South		Fever, dry cough, Weakness, Shortness of breath	Ventilation, Hydroxychloroquine, Immune boosters, nutritious diet	Yes	
	South		Severe respiratory distress, chest pain, Bodyache, fever.	Ventilation, Paracetamol, Nutritive food, Immune boosters	Yes	
	South		Joint pain, fever, diarrhea, weakness, sore throat	Home isolation, Paracetamol, Antihistaminics, Nutritious diet	Yes	
	South		Severe respiratory distress, Fever, weakness, cough, patient known Diabetic	Ventilation, Hydroxychloroquine, Immune boosters, Paracetamol		Yes (dead)
	South		Severe respiratory distress, Fever, weakness, Diarrhoea, bodyache, Headache, known Hypertensive.	I.V. Vitamin C, Hydroxychloroquine, Ventilation, Immune boosters.		Yes (dead)

Table 2: Data from Central Zone.

Zone	Presenting features	Treatment	Alive	Dead
Central Zone	Persistent fever, headache, bodyache, cold and cough, CT scan - 2-5% lung damage.	azithromycin, doxycycline, Pantoprazole, Montelukast, pulmoclear, ivermectin, paracetamol.	Yes	
	Diarrhoea, fever, cold and cough, CT- scan- pneumonia.	Antihistaminic syrup , Vitamin D3 , Ivermectin, medroc, fabitfun, doco, doxycycline.	Yes	
↗	Difficulty in swallowing and breathing, headache & bodyache, fever.	paracetamol, cetirizine, amoxicillin, vitamin supplements.	Yes	
↗	Mild covid infection, fever.	rest, hydration, diet , azithromycin, lecopeM, gargle with warm water.	Yes	
↗	Shortness of breath, fever, cough, SaO ₂ /O ₂ level below 90-92 %.	azithromycin, doxycycline, solpure C, sypphensedyl, dolo.	Yes	
↗	Fever, cold & cough body ache, weakness.	Paracetamol, Azithromycin, ivermectin, livicee, calorol sachet.	Yes	
↗	Persistent fever, headache, sore throat, myalgia.	ivermectin, azithromycin, doxycycline, zincola, livocitrizine, crocin.	Yes	

Table 3: Findings in Northern Zone.

Zone	Presenting Feature	Treatment Taken	Alive	Dead
North (Punjab)	Fever, cough, respiratory distress, known Hypertensive and Hyperlipidemic	I.V. Vitamin C, Hydroxychloroquine		yes
North (Punjab)	Cough, shortness of breath, fever, diarrhea, gastritis	Ventilation, Paracetamol, Ranitidine	Yes	
North (Punjab)	Severe respiratory distress, Fever, bodyache	Remdesivir, Ventilation, Paracetamol		Yes
North (Punjab)	Running nose, fever, sore throat, mild difficulty in breathing	Home isolation, immune boosters, Vitamin C, Nutritive diet, Antihistaminics	Yes	
North (Punjab)	Fever, Headache, Sore throat, Weakness, lack of taste and smell	Multivitamin tablets, Hydroxychloroquine, Dexamethasone.	yes	
North (Jammu and Kashmir)	Running nose, Fever, severe respiratory distress, cough	Ventilator, Paracetamol, Hydroxychloroquine, fluid therapy		Yes
North (Jammu and Kashmir)	Fever, shortness of breath, vomiting, sore throat	Paracetamol, Remdesivir, Zinc tablet	Yes	
North (Jammu and Kashmir)	Fever, diarrhea, acute dyspnoea	Paracetamol. Fluid therapy, immune boosters.	Yes	
North (Jammu and Kashmir)	Acute dyspnea, fever, headache	Hydroxychloroquine, nutritious food, Multivitamins	Yes	
North (Jammu and Kashmir)	Loss of smell and taste, Shortness of breath, cough, fever.	Home isolation, Fluid therapy, Immune boosters, Vitamin C, Paracetamol	Yes	

Hence findings were variable region to region. There were completely asymptomatic people and some with only anosmia and running nose. Rhinitis and nasal discharge were most common early findings in Eastern zone, while fever and cough

were commonest initial features in Central Zone. In Southern zone patients had more commonly fever and myalgia or bodyache as initial symptoms. All the participants got tested by PCR except one who was diagnosed by CBNAAT.

Table 4: Findings in Eastern Zone.

Zone	Representing feature	Treatment taken	Alive	Dead
Eastern	Asymptomatic, tested before operative procedure. Tested positive twice and took 1 dose of vaccine in between two episodes.	Vitamins and antipyretic	yes	--
Eastern	Fever and dry cough.	Vitamins, Ivermectin, Doxycycline and antipyretic.	yes	--
Eastern	Fever , dry cough and shortness of breath.	Favipiravir, Vitamins, Ivermectin, Doxycycline and antipyretic.	yes	---
Eastern	Anosmia only	Doxycycline, Zinc tablet, Vitamin C tablet.	Yes	
Eastern		Antibiotics and Vitamins	Yes	
Eastern	Diarrhoea and vomiting		yes	
Eastern (patient originally hails from Western Zone but staying here since last 2 years)	Rhinitis, nasal congestion, slight dry cough.	Doxycycline, Ivermectin, Zinc with Vitamins, Pantoprazole, Betadine oral gargle, Nebulization.	yes	
Eastern	Loss of taste and smell	Taken but not specified	yes	
Eastern	Dry cough, fever, weakness (tested due to contact with positive case).	Vitamin C, Zinc, Ivermectin, Doxycycline , antipyretic and antiemetic when needed.	yes	

Discussion

COVID-19 disease pandemic is essentially a global crisis. However, the individuals and especially those who suffer from COVID-19 continue with their life with its basic needs. Exploring their experiences provides an insight into how their lives are affected and measures that can be taken, on individual and social levels, to ease their lives and make them valuable members of society again. This study indicates that the participants who were social media users were well-aware of the COVID-19 and the related issues. The participants highlighted that after the lifting of the lockdown, the precautionary measures were not being observed by the people in the same way as they were being observed during the lockdown period. The initial symptoms reported by our study participants were in line with the initial symptoms reported by the patients in other studies . However diarrhoea and headache are among the new most common symptoms of COVID-19.¹⁰ Other rare manifestations like hair loss can also be seen.¹¹ The COVID-19 pandemic has had a direct impact on the medication supply worldwide especially in India since a large number of cases coming everyday there has been a deficiency in supply of medications, and this could have also contributed to the worsening of conditions, as highlighted study participants. The majority of the participants reported using the medicines to control their symptoms. Some of them mentioned the use

of antibiotics, which seems inappropriate to use in the COVID19 infection as it is a viral infection but can be needed to prevent or treat secondary infections. This can even be disadvantageous by increasing the bacterial resistance in the long run. However, in some cases, the use of antibiotics may be beneficial since COVID-19 sometimes co-exists with bacterial infections according to data of WHO. Others reported that the home remedies helped in their recovery from COVID-19. Since these complementary medicines like Garlic and Turmeric have an anti-inflammatory effect, these might have played a role by increasing their immunity against COVID-19.¹² Many treatment options are now there like Chloroquine, monoclonal antibodies, Interferon alpha and antibiotics.¹³ People need to be aware of which medicine to take and when. Support from family and friends are also the key to the survival for individuals in these circumstances and it has been particularly highlighted in this pandemic by the participants. Regional variation in symptoms could be due to environmental factors or could be due to strain and variant variation from region to region. One should remember that there can be a lot of variation in clinical presentations of COVID-19 infection and rare features like vomiting and diarrhea can be the only finding. Also joint pain can be the presenting feature. There was some regional variation in that shortness of breath was found more in Northern region. Also, interestingly

most deaths were seen in patients who were Diabetic, hypertensive or Hyperlipidemic. These seem to be the most dangerous predisposing factors for severe outcome in these patients. There are not much studies from India in this regard and more such studies are needed.

Conclusion

This study presents the experiences of COVID-19 recovered patients from different regions of india especially during the 2nd wave of the infection. Social media can be used widely to raise and sustain awareness before, during and after lockdowns, regarding COVID-19, mechanisms by which it is transmitted and the precautionary measures which should be observed to minimize the disease transmission. Appropriate precautionary measures, including isolation, must always be observed during the COVID-19 illness to prevent the transmission to others. Mental health support should be considered for vulnerable patients. The authorities must ensure adequate food and medicines supply during the 2nd wave of infection. Our findings will help in implications of better care models and streamline the workflows for improving patient's quality of life during and after their illness in high-risk countries like India , during this pandemic, and in future disease outbreaks.

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