



**RESEARCH ARTICLE: HEALTH CRITERIA AND SURVEY IN SOUTH INDIA DURING
THE COVID-19 PANDEMIC**

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ABSTRACT

Background: Participating and learning from health measures taken during the outbreak of pandemics are a critical issue that affects the right and timely opinions in health heads. Nowadays there have many attempts to have to review the health programs taken up against COVID-19 excerpt critical points for resolving the pandemic extremities. **Methods:** In this research article the aim was to discuss about the pandemic crisis happened/happening in the South Indian States which are Andhra Pradesh, Tamil Nadu, Telangana and Kerala. The following data collections related to COVID-19 is collected from journals and websites.

KEYWORDS: Knowledge, Covid-19, Pandemic South-India Research Vaccinations Quarantine.

INTRODUCTION

The first detection of COVID-19 Was done in December 2019 in Wuhan, China. These viruses cause viral pneumonia with the ability to spread rapidly from person to person due to the properties of their genome structure. It has been classified as SARS-2002 and MERS-2012.

According to WHO updates, five types of genomes have been identified since the start of the pandemic:

Alpha: The First case worrisome variant was described in the United Kingdom (UK) in late December 2020

Beta: The first case reported in South Africa in December 2020

Gamma: The first case reported in Brazil in early January 2021.

Delta: The first case reported in India in December 2020

Omicron: The first case was reported in South Africa in November 2021.

Coronaviruses are positive-stranded RNA viruses that have a crown-like appearance under an electron microscope this is due to the presence of a spike glycoprotein on the envelope. Coronavirus have the family-*Coronaviridae* and Subfamily *orthocoronvirinae*.

Gender-based Differences, Age, and the Impact of Medical complications on COVID-19 Individuals are the main risk factors for the severity of the disease. However, patients who are aged more than 55-60 years and patients who are having other medical complications like cardiovascular diseases, diabetes, cancer, chronic kidney disease, obesity, smoking, and stem cell

transplant patients are facing a high risk of developing severe COVID-19 infection.

The % of COVID-19 patients requiring hospitalization was 5-6 times higher in those with already having medical conditions than those without medical conditions. This was confirmed by cases reported to the CDC from Jan 22 to May 30, 2020. Studies also reported that the percentage of patients who have died from this illness was 10-12 times higher in those with already existing medical conditions than in those without medical conditions. Previous data collections show that male patients have increased mortality due to COVID-19 compared to female patients.

Results from a study from March 1 to November 21, 2020, evaluating the mortality rate in the US, reported a higher mortality rate in male patients compared to female patients. which made Male Patients with less cure for the infection. The mortality rate was 12.5% for males among 42 606 reported patients.

COVID-19 Pathophysiology

Studies say that SARS may have 3-phases:

1. Viral replication
2. Immune hyperactivity
3. Pulmonary destruction

The clinical Phases of COVID-19 are

1. Viremia phase
2. Acute phase
3. Recovery phase

The virus enters the host cells, and from there it replicates and is then released to the target cells this leads to the destruction of parenchymal cells such as alveolar epithelial cells. this may alter the functions of organs and cause infection Which slowly starts to show mild symptoms and later becomes fatal.

Symptoms of COVID-19

Symptoms can range from mild to severe according to the severity. Some people can be recovered fast, but some others get sick very fast. When we test for detection of COVID-19 we may see these symptoms, fever, sore throat, coughing, SOB, ageusia, anosmia, and other symptoms may include, ARI, runny nose or congestion, headache or fatigue, muscle or joint pains, nausea or loss of appetite, diarrhea or vomiting, altered sense of taste and smell. COVID-19 symptoms are similar to some common colds, flu, common illness, and allergies.

COVID-19 Transmission

Usually by a person to a person close contact, when an infected person contact, with fine respiratory droplets, aerosol particles from an infected person's cough or sneeze, touching objects or surfaces that have droplets can infect a person, and then touching your mouth or face also infects the host.

COVID-19 Diagnosis

COVID-19 symptoms are closely related to other RTD, for the confirmation of COVID-19 lab tests is necessary, like RT-PCR, Chest X-Ray, Saturation, and Ea CG.

If someone thinks they have similar symptoms of COVID-19 or have been in direct contact with someone with COVID-19, they should consult their doctor in PHC. They can arrange the testing for you. PHC has COVID-19 testing centers throughout India. And among the states, Kerala has higher treatment measurements also.

COVID-19 Risk Factors

Risk Factors are mostly seen in

- People with underlying health conditions (heart disease, cardiovascular disease, diabetes, lung disease, COPD, etc.)
- People who are immunocompromised.
- Older people (> 60 years)
- Recently pregnant women and pregnant ladies

COVID-19 Treatment

- Oral Antivirals like *Ritonavir*, *Remdesivir*, *Molnupiravir*
- Convalescent plasma for immune-compromised or immune-suppressive people
- Nebulisation for breathlessness
- Supportive therapy
- Paracetamol for fever
- Steroids

COVID-19 Prevention

To prevent COVID-19 Infection we can consider some preventive care and methods.

- Get Vaccinated at the correct time
- Keep distance from people who are infected with COVID-19
- Use sanitizers to sanitize your hands and commonly used belongings
- Wash your face and hands thoroughly with soap and water for a minimum of 30 seconds
- Where masks when going out
- And also wear PPE kits when entering any PHCs

METHODOLOGY

Study Design

A cross-sectional study was conducted in Feb2023 among the South Indian Population mainly focusing on Kerala the survey was conducted through a google form link shared via social media. Due to lockdowns at that time, we used this method as a major path. After sharing the link via social media. Several participants (193) enrolled for the data collection. And these participants were told to fill up a certain survey form submitted using Google Forms (via docs.google.com/forms) and also questionnaire was sent to the enrolled participants via e-mail and social networking sites.

RESULTS AND DISCUSSION

In this survey, we enrolled 193 participants.

	Health Workers	Students	Others	Total
STATES				
Kerala	13	34	3	50
Tamil Nadu	18	32	7	57
Andhra Pradesh	7	23	12	42
Telangana	4	13	2	19
Karnataka	7	17	1	25
AGE				
17-31	3	119	10	132
31-51	37	0	7	44
51-71	9	0	8	17
GENDER				
Female	27	61	16	104

Male	22	58	9	89
PRE-EXISTING DISEASES				
Diabetes	8	1	8	17
Cardiac Illness	4	0	1	5
Hypertension	15	0	12	27
Hormonal Disorder	1	1	2	4
Normal	21	117	2	140
VACCINATION - (BOOSTER DOSE)				
Yes	24	61	53	138
No	3	12	40	55

Given below are responses given by the enrolled participants.

	Health workers	Students	Others	Total
1. Do you think quarantine can protect you from COVID-19?				
No Response	5	17	7	29
Yes	39	94	6	139
No	5	8	12	25
2. Which is more protective for sanitizing?				
Sanitizers	27	91	16	134
Soap Bar	8	7	3	18
Hand Gloves	14	12	4	30
No Response	0	9	2	11
3. Do you feel uncomfortable during lockdown time?				
No Response	2	13	4	19
Yes	42	89	20	151
No	5	17	1	23
4. Did you feel any stress during this pandemic?				
No Response	0	6	3	9
Yes	49	111	19	179
No	0	2	3	5
5. Did you get enough food products during the lockdown?				
No Response	2	12	1	15
Yes	21	93	8	122
No	26	14	16	56
6. Do you believe home remedies can prevent COVID-19?				
No Response	5	27	7	39
Yes	7	56	9	72
No	37	36	9	82
7. Do you share preventive measures with your friends and family?				
No Response	6	14	8	28
Yes	29	67	8	104
No	14	38	9	61

From the survey we conducted and from the questions, we asked via google forms a total of 193 responses came from the south Indian states like Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, and Telangana. Among them, about 49 of them are Health workers, 119 of them are students and 25 of them are in other categories.

We divided the participants according to which States they are from, their age, their gender, whether they have any pre-existing disease, and their vaccination data for a booster dose. by this survey, we could conclude that among the participants, State Tamil Nadu has a majority response with several 57 participants. According to age from the total of 193, 119 of them are students who are with an age around 17-31 years of age and among them

61 of them are females and 58 of them are males. we also found out that the majority of the participants are normal without having any pre-existing disease, whereas some of them are having diabetes and also heart-related diseases and also we found out that 138 participants have been vaccinated with the booster dose which is a relief, but 55 of them still have to be vaccinated.

From the questionnaire we shared through google docs, we got a much good response from the enrolled participants. We asked a total of 7 questions and all the questions were answered. in the first question majority of them answered "Yes" and in the second question majority of them gave responded that Sanitizers are better for sanitizing themselves, in the third question we

asked about the lockdown measures, and whether they are comfortable during the lockdown or not from the 193 responses 151 of them were “Yes” this gives us a perfect picture how people suffered during the lockdown times. From the next question, we came to know that the majority of people were facing very stressful days during the pandemic times. but from the next question, it was clear that the government of India never made people suffer from a lack of food or food products.

CONCLUSION

In conclusion, the COVID-19 pandemic has had a significant impact on the health criteria of South India, with many people struggling to maintain their health and access medical care. Governments, health organizations, and other key stakeholders must take the necessary steps to ensure that people in South India have access to the health services they need and can reduce the spread of the virus. Only through collective action and utilizing the best practices and strategies can we ensure that South India can successfully manage and eventually overcome the COVID-19 pandemic.

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Abbreviations

Severe Acute Respiratory Syndrome	SARS
Middle East Respiratory Syndrome	MERS
Primary Health Centre	PHC
Shortness Of Breath	SOB
Chronic Obstructive Pulmonary Disease	COPD
Acute Respiratory Infection	ARI
Respiratory Tract Disease	RTD
Reverse Transcription Polymerase Chain Reaction	RT-PCR
Electrocardiography	ECG

REFERENCES

1. Nguyen Thi Hai, Ha Lai Thi, Huyen Trang Tran Cong, Van Tran Thi, Thanh Thu Vo Le, November 2022, Investigating Effects of COVID-19 Pandemic, Dong-A University, Vietnam, SAGE journals.
2. The Lancet, April 25, 2020; 395(10233): 1315, India Under COVID-19 Lockdown.
3. David J Cennimo, Scott J Bergman, Keith M Olsen, Mary L Windle, Coronavirus Disease 2019, February 2023, Medscape.
4. Situation Report – 144, WHO 2020, Corona Virus 2019.
5. Centers for Disease Control and Prevention, How to Protect Yourself & Others, January 2023.
6. Unbound Medicine, Relief Central, 2019 Novel Corona Virus Sep 2022.
7. Smithsonian Magazine, ‘Most Transmissible COVID-19 Variant’, Will Sullivan, Jan 2023.
8. The Lancet, 2022; 400(10359): 1224-1280, Lessons for the future from the COVID-19 Pandemic, Prof Jeffrey D Sachs, Prof Salim S Abdool Karim, Prof Lara Akinin.
9. Razi Journal of Medical Sciences, 2020; 27(5): 98-107, A review on Corona Virus 2019, Golahdooz M, Tabibzadeh A, Taherizadeh M, Laali A, Khoonsari M Ajdarkosh H.
10. Psychological effects of the COVID-19 outbreak, Psychiatry Research, Aug, 2020; 290: 113108, Planchelo-Gomez A, Irutia MJ, Odriozola-Gonzalez P.
11. Emotional Well-being during COVID-19, Psychiatry Research, Jul, 2020; 289: 113045, Yang H, Ma J.
12. Social Science & Medicine (1982) Elsevier, The effects of India’s COVID-19 lockdown, Radhika Jain, Pascaline Dupas.