

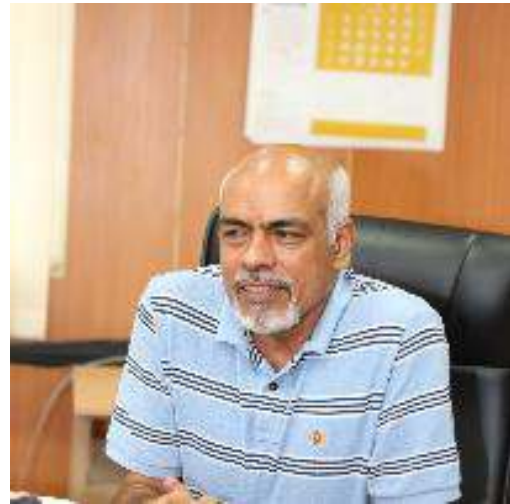
EPI HEALTH

DEPARTMENT OF EPIDEMIOLOGY AND
PUBLIC HEALTH
CENTRAL UNIVERSITY OF TAMIL NADU
THIRUVAVUR

MESSAGE FROM HEAD OF THE DEPARTMENT, EPH

It gives me immense pleasure to present the newsletter message of the Department of Epidemiology and Public Health after taking over as professor and the Head of the Department. The newsletter provides an insight into the department's activities, achievements of our students, scholars, alumni, and faculty. The newsletter also provides an opportunity for students to explore and discuss their topics of interest and share their ideas, thereby fostering innovation through the amalgamation of creativity along with the curriculum.

2021 has been amazing for our department with resumption of offline classes and both 2018-2020 and 2019-2021 batch students were awarded with their degrees through the 6th Convocation of the University which was held in virtual. Our department syllabus is strengthened with more practical oriented courses, faculties and scholars are publishing their manuscripts in good impact scientific journals and the department is busy preparing for the upcoming NAAC second cycle assessment.



PROF. NATARAJAN GOPALAN

The department is eagerly getting ready to welcome our 2022-2024 batches of students while our research scholars are working hard to complete their studies with at least two of them hoping to submit their PhD thesis shortly.

I also extend my heartfelt congratulations to students for their fruitful efforts and participation. I applaud the Editorial Board of this newsletter for successfully completing this daunting task of putting together the multifarious thoughts of our students and faculty into a visual feast. I welcome you all to explore the opus of our creative minds for improvement of Department in all activities.

**WELCOME TO
THE DEPARTMENT OF EPIDEMIOLOGY AND PUBLIC HEALTH
~~~MEET OUR FACULTIES~~~**



**PROF. NATARAJAN GOPALAN**  
Professor and Head of the  
Department

Area of Research: Medical  
Entomology Diseases Diagnosis  
and Management.



**DR. AJEET JAISWAL**

Associate Professor

Area of Research: Anthropology  
of Health.



**DR. LEKHA BHAT**

Assistant Professor EPH

Area of Research: Gender Health,  
Health Policy, and Qualitative  
Research.



## **DR. SUJIT KUMAR BEHERA**

Assistant professor

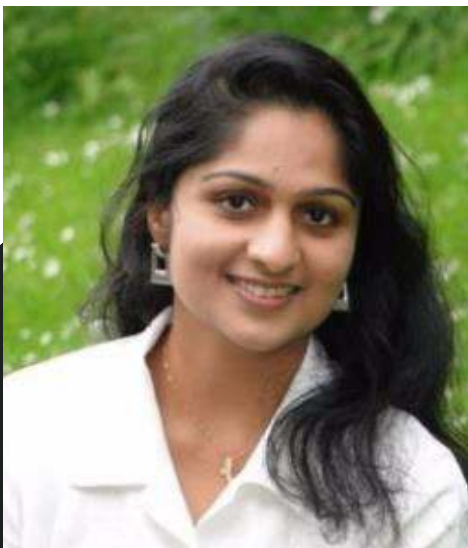
Area of research: Epidemiology of zoonotic diseases and development of novel diagnostics for diseases of public health importance.



## **DR. PRAVEEN BALABASKARAN NINA**

Assistant professor

Area of research: Molecular Biology of *Plasmodium falciparum*; Epidemiology of Malaria.



## **DR. NEENA ELEZEBETH PHILIP**

Assistant professor

Area of research: Healthcare economics, Health system, and health policy.

~~~MEET OUR RESEARCH SCHOLARS~~~



NAVEEN KUMAR K

Area of Research: Prevalence and associative risk factors of cardiovascular diseases.

Mentor: Dr. Lekha Bhatt



NEENUMOL BABU

Area of Research: The vicious cycle of extreme poverty, destitution and health.

Mentor: Dr. Lekha Bhat



AGILVARMAN

Area of Research: Mental Health.

Mentor: Dr. Natarajan Gopalan



INDUMATHI MOHAN

Area of Research: Spatial
Epidemiology of Malaria

Mentor: Dr. Praveen Balabaskaran
Nina



RASHI DIXIT

Area of Research: Molecular
Epidemiology of Malaria.

Mentor: Dr. Praveen Balabaskaran
Nina

ACHYUTAANDA DAS MOHAPATRA

Area of Research: Assessment of subclinical malaria and hemoglobinopathies among the people residing in the malaria-endemic region of Chhattisgarh

Mentor: Prof. Natarajan Gopalan & Dr. Praveen Balabaskaran Nina

GNANAMANI G

Area of Research: Targeted Screening for Diabetic Kidney Disease (DKD) among individuals with known diabetes in the selected area of Karaikal: A Community Based Cross-Sectional Study.

Mentor: Dr. Ajeet Jaiswal

SRIRAM SELVARAJU

Area of Research: Evaluation of the diagnostic accuracy of POCUS (Point of Care Ultra Sound) and Stool Sample diagnosis of Tuberculosis in Children.

Mentor: Prof. Natarajan Gopalan

VIKAS CHANDRA ROY

Area of Research: Covid-19 Vaccine Hesitancy among Low-income Migrants and native Population Groups. A Cross-Sectional study from Peri-Urban and Rural blocks in and around Bangalore.

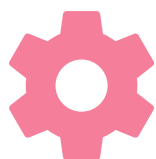
Mentor: Prof. Natarajan Gopalan & Dr. Sujit Kumar Behera

FIVE DAYS VIRTUAL LECTURE SERIES



The department organized a five day lecture series (virtual mode) in “Laboratory approach for disease investigation”. Dr. Vukanti Raja Venkata Narayana Rao who is an expert in the field of microbiology led the interesting session. The programme was designed to meet the curriculum requirements of MSc students.

FOUR DAYS WORKSHOP PROGRAM ON ‘R SOFTWARE’

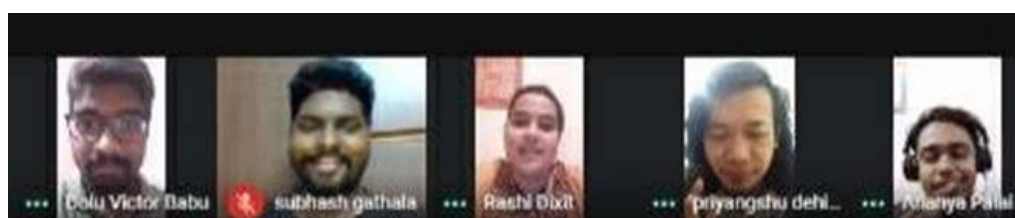
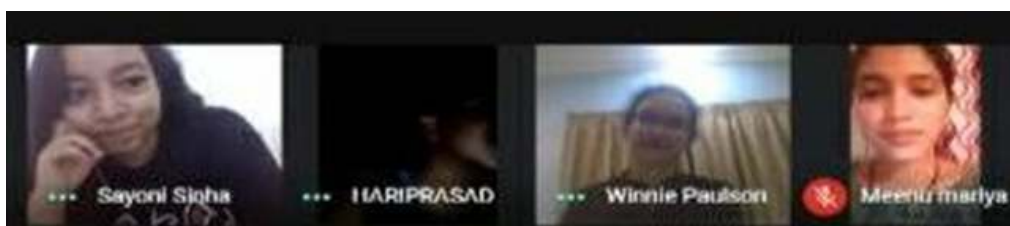


The department organized a four days workshop Programme on “R” software where in students were introduced to this very useful tool of data analysis with hands-on practical training. Dr. Dhaval Maheta was the resource person. The workshop was useful to both MSc students and PhD scholars.

EXTRA CURRICULAR ACTIVITY

Farewell to Our Seniors

Date: 1st October 2020



As it was COVID times and the campus remained out of bound for the students, we had to abide our seniors farewell in virtual mode. The online farewell party kicked off with a welcome song, followed by a welcome speech by Ms. Amrutha. Our ever-supportive HOD, Professor Gopalan, shared some words of wisdom with the students, along with all the faculty members. The experience about curricular activities and life at CUTN was shared by a post-graduate senior student, Ms. Anwasha, who also answered questions in the rapid fire round from the newly graduating batch. It was a very lovely and memorable session. This was then followed by some fun-filled activities and heartfelt speeches, given by the graduating outgoing batch students. The program ended with a video presentation by Mr. Meenaketan, followed by the vote of thanks by Mr. Ronald.

STUDENTS ACHIEVEMENT CORNER

~ ~ ~ PLACEMENT FEED ~ ~ ~

OUR ALUMNI, OUR PRIDE!

EPH BATCH 2018-2020



MEENU MARIYAJAMES

Institute of Placement: ICMR- National Institute for Research in Environmental Health, Bhopal

Designation: Junior Research Fellow

Tenure: Contract basis (3 years)



GATHALA SUBHASH

Institute of Placement: ICMR- National Institute for Research in Tuberculosis, Chennai

Designation: Technical Officer

Tenure: Joined January 2021- current

| Sl. No. | Name | Placement | Year |
|----------------|-------------------------|---|-------------|
| 1 | ANWESHA
MISHRA | Subject matter expert in medicine,
SPI Global, Puducherry | 2021 |
| 2 | HEERAA M | Subject matter expert in medicine,
SPI Global, Puducherry | 2021 |
| 3 | KOLAPAKA
SHIVANAGESH | Lab Technician, Medical and Health
Dept. Yadadri Bhuvanagiri, Govt, of
Telangana | 2021 |
| 4 | NIMMY THOMAS
A | Subject matter expert in medicine,
SPI Global, Puducherry | 2021 |
| 5 | NIMMY K SHAJU | Subject matter expert in medicine,
SPI Global, Puducherry | 2021 |
| 6 | SREEKUTTY U | Subject matter expert in medicine,
SPI Global, Puducherry | 2021 |
| 7 | GOWRI PRIYA | Field Investigator in NHRC funded
Research Project, Dept. of EPH,
Central University of Tamil Nadu,
Thiruvarur | 2021 |

~~~UGC NET HOLDERS~~~
2019-2021 BATCH
HEARTY CONGRATULATIONS!!!



MEENAKETAN DAS



AMRUTHANJALY K

FACULTY GRANTS AND PUBLICATIONS

TENURE: JUNE 2020-MAY 2021

GRANTS

| SI.NO. | NAME OF THE FACULTY | TITLE OF THE PROJECT | FUNDING AGENCY | AMOUNT OF GRANT | YEAR OF AWARD |
|--------|-------------------------------|-----------------------|----------------|-----------------|---------------|
| 1 | Dr. Praveen Balabaskaran Nina | Research Project (PI) | CRG-DST-SERB | Rs. 56,68,082 | 2020 |
| 2 | Dr. Lekha D Bhat | Research Project (PI) | ICSSR | Rs 510000/- | 2020 |
| 3 | Dr. Sujit Kumar Behera | Research Project (PI) | DST -SEED | Rs 2116530/- | 2020 |
| 4 | Prof. Natarajan gopalan | Research Project (PI) | DST-SEED | Rs.71,35,828/- | 2021 |

PUBLICATION

| SL.NO | TITLE OF PAPER | NAME OF THE AUTHOR/S | NAME OF THE JOURNAL | YEAR OF PUBLICATION |
|-------|---|--|--|---------------------|
| 1 | Occurrence of toxigenic <i>Fusarium</i> spp. In cereals and its significance. | Prof. Natarajan Gopalan | Indian Journal of Agricultural Sciences. 90(7): 1338-41 | 2021 |
| 2 | Socio-economic and household determinants of malaria in adults aged 45 and above: analysis of longitudinal ageing survey in india,2017-2018 | Prof. Natarajan Gopalan | Malar J 20:306:1-9office | 2021 |
| 3 | “Occupational Health and Safety of Workers in Municipal Solid Waste Management System” | Ajeet Jaiswal | International Journal of Clinical Studies and Medical Case Reports | 2020 |
| 4 | “Effect of Petrol Fumes on An Anthropometry And Ventilatory Function Among Petrol Pump Workers of Puducherry, India | Ajeet Jaiswal | Human Biology Review | 2020 |
| 5 | “Dynamic Concept of Tribes in India” | Ajeet Jaiswal | Indian Journal of Dalit and Tribal Studies | 2020 |
| 6 | The Canonical Correlation between Kinanthropometry Features and Biomotor Abilities of Male Children | Ajeet Jaiswal | Gis Science Journal | 2021 |
| 7 | “Women and Child Nutritional Status among the Irular Tribe in Villupuram District of Tamil Nadu.” | Ajeet Jaiswal | International Journal of Nursing Care | 2021 |
| 8 | Nutritional Status of Children under Five Years of Age among the Irular Tribe in Villupuram District of Tamil Nadu | Ajeet Jaiswal | Gradiva Review-Journal | 2021 |
| 9 | Textile Workers and Musculoskeletal Disorders: An Anthro-Medical Analysis | Ajeet Jaiswal | International Journal of Physiology | 2021 |
| 10 | Effects of Carbon Monoxide and Cyanide Poisoning On Human Health | Ajeet Jaiswal | Public Health Open Access | 2021 |
| 11 | Knowledge and attitudes about the use of emergency contraception among college students in Tamil Nadu, India | Lekha D Bhat | Journal of the Egyptian Public Health Association | 2020 |
| 12 | Impact of COVID 19 on Informal Sector: A Study of Women Domestic Workers in India. | Lekha D Bhat | The Indian Economic Journal. | 2020 |
| 13 | COVID 19 and Co-morbidities: Audit of 2000 COVID deaths in India. | Lekha D Bhat | Journal of Epidemiology and Global Health. | 2020 |
| 14 | Multistakeholder Participation in Disaster Management—The Case of the COVID-19 Pandemic | Lekha D Bhat | Healthcare | 2020 |
| 15 | Health Achieving Societies: Past Discourses, Present predilections and Possible Future Contradictions. | Lekha D Bhat | Public Health and Primary Care | 2020 |
| 16 | Debate: COVID-19 and Children in India | Lekha D Bhat | Child and Adolescent Mental Health | 2020 |
| 17 | Seroprevalence and risk factors of Brucellosis in livestock in the wildlife and livestock interface area of Similipal Biosphere Reserve, India | Sujit Kumar Behera | Veterinary World | 2020 |
| 18 | Epidemiology, Hot Spots, and Socio-demographic Risk Factors of Alcohol Consumption in Indian Men And Women: Analysis of National Family Health Survey-4 (2015-16), A Nationally Representative Cross-Sectional Study. | Sujit Kumar Behera & Praveen Balabaskaran Nina | Frontiers in Public Health | 2021 |
| 19 | Hydroxychloroquine as prophylaxis or treatment for COVID-19; What does the evidence say? | Praveen Balabaskaran Nina | Indian Journal of Public health | 2020 |
| 20 | Functional studies of <i>Plasmodium falciparum</i> prohibitin1 and prohibitin2 in Yeast | Praveen Balabaskaran Nina | Indian journal of Medical Microbiology | 2020 |
| 21 | Epidemiology of malaria and chloroquine resistance in Mizoram, northeastern India, a malaria-endemic region Bordering Myanmar | Praveen Balabaskaran Nina | Malaria Journal | 2020 |
| 22 | Effect of climate change and deforestation on vector-borne diseases in the North-Eastern Indian State of Mizoram bordering Myanmar | Praveen Balabaskaran Nina | The Journal of Climate Change and Health | 2021 |
| 23 | Revealing the socio-economic vulnerability and multi-hazard risks at micro-administrative units in the coastal plains of Tamil Nadu, India | Praveen Balabaskaran Nina | Geomatics, Natural Hazards and Risk | 2021 |
| 24 | Futuristic Non-antibiotic Therapies to Combat Antibiotic Resistance: A Review | Praveen Balabaskaran Nina | Frontiers in Microbiology | 2021 |
| 25 | Essay-Towards Universal Health Coverage | Neena Elezebeth Philip | The India Forum | 2020 |

BOOK CHAPTERS

| SI.NO | NAME OF THE AUTHOR | TITLE OF THE CHAPTER | TITLE OF THE BOOK | NAME OF THE PUBLISHER | YEAR OF PUBLICATION |
|-------|------------------------|---|---|-----------------------|---------------------|
| 1 | Ajeet Jaiswal | Preventing and Controlling of COVID-19 | Impact of COVID-19 on global society Challenges and way forward | Avon publishing house | 2020 |
| 2 | Ajeet Jaiswal | Occupational Health and safety of Health Workers in the Context of COVID-19 | Impact of covid-19 on global society challenges and way forward | Avon publishing house | 2020 |
| 3 | Ajeet Jaiswal | Gandhi and Globalization: A Holistic Mahatma Gandhi's Vision on Globalization | Mahatma Gandhi Vision: Sustainable And Human Development | Avon publishing house | 2020 |
| 4 | Ajeet Jaiswal | Mahatma Gandhi and His vision on Politics and Religion | Mahatma Gandhi Vision: Sustainable And Human Development | Avon publishing house | 2021 |
| 5 | Lekha D Bhat | A Woman's Right to Dignified Health Care during Child Birth: Rights-Based Approach. | Maternal and Child Health Care in India | Bloomsbury | 2021 |
| 6 | Lekha D Bhat | Re-examining Values and Principles of Social Work for Inclusiveness in Social Work Education. | Contemporary Areas of Social Work Practice in India. | Bloomsbury | 2021 |
| 7 | Neena Elezebeth Philip | Universal Health Coverage Through public funded health insurance for Eldrely | Rural Elderly and their Quest for Health | Authors upfront | 2020 |
| 8 | Neena Elezebeth Philip | Towards Universal Health Coverage? Taking Stock of Two Decades of Health Reforms in India | India's Economy and Society, Lateral Explorations | Springer Singapore | 2021 |

PATENTS

| SI. NO | NAME OF THE FACULTY | TITLE OF THE PATENT | PUBLISH YEAR |
|--------|-------------------------|---|--------------|
| 1 | Prof. Natarajan Gopalan | "A LOW CALORIE AND SLOW- MELTING ICE CREAM, AND A PROCESS OF PREPARATION THEREOF" | 2020 |

ARTICLES

HOW COVID-19 PANDEMIC PREPARED US FOR MITIGATING FUTURE PANDEMICS

"Those who fail to read history are destined to suffer the repetition of its mistakes."

The Covid-19 pandemic drastically affected almost every aspect of the people's livelihood, especially those who belong to lower social-economic groups globally. As a society, we are in a challenging situation wherein a "crisis of preparedness" is urgently required. This crisis made it worse for the whole world by a dearth of knowledge about COVID-19's prevalence and mortality rates. But eventually, as the crisis passes and the data become more reliable, all stakeholders need to rework priorities and carefully assess how to handle situations like these in the future.

Considering the certainty of the emergence of another global pandemic and the available health data and literature about the 2009–2010 H1N1 pandemic and the 2013–2016 Ebola outbreak, this lack of preparedness is of serious concern. Anyhow, we must consider all the factors, from basic livelihood to global vaccination strategies for tackling future pandemics and outbreaks.

Protecting front-line health workers should be our primary and most important priority. The unavailability of personal protective equipment (PPE) has put many front-line health workers at risk of being exposed to the pathogen and contracting the disease. Providing training to those health workers with guidance to handle such an outbreak as disaster management preparedness is essential. Ensuring the development of novel rapid diagnostic techniques to diagnose disease in a huge population within minimum duration with maximum sensitivity and specificity is an important aspect to control any epidemic.

The establishment of laboratory facilities to conduct research and for diagnostic purposes will strengthen preparedness. Making sure that the data regarding the outbreak and case history is recorded properly and uploaded digitally to be available for all to analyze the severity of the outbreak will help us to generate reliable data which can be used for the development of appropriate strategies. We should prepare for the very potential possibility of a new pandemic or another COVID-19 outbreak in the future. A broader viewpoint can involve re-evaluating the connection between a government and its citizens as well as the decisions and policies that are made on their behalf.

Creating awareness about vaccination through better means of communication, especially to the anti-vaxxers to reduce their vaccine hesitancy by breaking the conspiracies around vaccination and its effects. To educate them that their vaccine hesitancy puts their lives and the community at risk of spreading and is a huge obstacle to controlling the disease is very important and appropriate, and culture-sensitive health communication strategies to be developed for the same. Building awareness among the layperson without provoking any fear is essential. The government should be prepared to accommodate and provide health services to more people than it did in this outbreak and ensure the availability of life-saving equipment like ventilators and oxygen to all the patients play an important role. People belonging to lower socio-economic groups should be given subsidies as their livelihood depends on daily wages, which would be drastically affected if the lockdown is imposed. Inequity in access to health care and vaccination should be minimized. Discrimination against the people who have contracted the disease should be taken severe action because of which the people don't want to take tests for diagnosis for fear of being discriminated if it turns out to be positive.

The importance of public health workers and epidemiologists should be appreciated as they understand the deep-rooted effects of the outbreak on people.

We might not know what kind of outbreak is going to happen in the future, but if we are prepared to face it with the lessons, we learned from this covid-19 pandemics and all the other outbreaks ever happened in history can effectively avoid and overcome the drastic effects of the pandemic.



**G. JACKSON
JESINTH
MSc, EPH**

ARTICLES

INDIA'S FIRST EVER COVID 19 DIAGNOSTIC KIT- DEVELOPED BY A WOMAN DURING HER LAST WEEK OF PREGNANCY

Our country is witnessing a rapid increase in the number of COVID cases nowadays. The RT-PCR test was considered the gold standard for Covid-19 testing, taking 3-4 days to give results, delaying hospitalization and treatment.

Self-test kits will be a game-changer in Covid-19 management in India. These can provide rapid results by reducing demand in laboratories, and affordable costs, lowering the burden on existing manpower for sample collection from homes leading to prompt treatment and isolation.

A benchmark effort taken in India in fighting against the Covid-19 virus, a Pune-based diagnostic firm developed the country's first testing kit in June 2020. This home-based test kit could be the breakthrough the country needed to combat pandemics by rapid surveillance through self-diagnosis. All this was made possible because of the efforts of one virologist, who developed a test kit, hours before delivering her baby -Mylab's research and development chief, Minal Dakhave Bhosale.

The Rapid Antigen Self-Test Kit called Patho Detect was developed in just six weeks and approved by the Indian FDA/ Central Drugs Standard Control Organisation (CDSCO) and is named Mylab Patho Detect COVID-19 Qualitative PCR kit. Also, this kit has achieved 100% sensitivity and 100% specificity in the ICMR evaluation. It uses advanced protocols which can reduce testing time by 65%.

It will be a breakthrough for India as the testing kit by Mylab would cost nearly one-fourth of the current acquisition cost and deliver quick results comparatively with PCR tests that take 7 hours which would allow technicians to do the tests more than usual at the same time. This kit costs around Rs 250, whereas an RT-PCR test would cost around Rs 400 to Rs 1,500 and a rapid antigen test in the laboratory costs Rs 300-900. The kit contains a pre-filled extraction tube, a Test card, a Sterile nasal swab, a Disposable bag, and an Instruction Manual.

Before taking the test, one should sanitize your hands and clean the surface on which the kit is to be placed. Insert the swab deep into the nose and rub it to collect the sample. The swab is then dipped into the liquid and swirled inside the extraction tube; the tube is tightly closed few drops are spilled onto the testing card.

The result comes within 15 minutes. There are 2 lines. One marker 't' for the testing line and 'c' for the quality control line. A person is positive for Covid-19 if both lines appear. We should discard the tools in a bag given as it is a biomedical waste. This test is synced with a mobile app, CoviSelf, which will help directly feed the positive case's report on the ICMR portal. On the other side, the reliability of results remains a major concern. The likelihood of the sample has a high risk of contamination or incorrect sample collection procedure.

Also, there is a high chance of false negatives in rapid antigen tests though it's used as a mass surveillance tool and it is difficult to trace positive patients. A person can feed incorrect details on the mobile app, making it impossible for health workers to carry out contact tracing. Also, technical glitches in the mobile app can hinder the entire testing and reporting process.



SHURUTHI SJ
MSc, EPH

ARTICLES

TELEMEDICINE AND ITS ROLE IN COVID-19 PANDEMIC

Telemedicine is the delivery of health care services by the use of information and communication technology to people at distance, like people who are not able to reach the health care provider in person. Telemedicine can help and provide support to the healthcare systems, especially in the areas of public health, prevention, and clinical practices, just as it is doing in other sectors such as teleworking and support in training and education. The outbreak of coronavirus disease - 19 is a public health emergency of international concern, social distance is an important strategy to reduce and mitigate the disease. Telemedicine during this pandemic has been the first line of defense to slow the spread of the virus by providing services through phone calls, videoconferencing, and text (chat, messaging, email, fax, etc.).

There were no statutory regulations or official guidelines in India specific to telemedicine practice. For the first time, the government of India released telemedicine practice guidelines for registered medical practitioners on 25th March 2020, amid the COVID-19 outbreak. The scope of these guidelines is mainly to provide medical consultation to patients and continue education on health care. The guidelines have elaborated on the eligibility for practicing telemedicine in India, the modes and types of teleconsultations, delved into the doctor-patient relationship, consent, and management protocols, and touched upon the data security and privacy aspects of teleconsultation. The limitations of these guidelines are restricted scope, lack of training material on telemedicine principles, lack of a dedicated governance mechanism, and the haziness over the jurisdictional authority of state medical councils.

On 9th august 2020 the government of India introduced its telemedicine service, eSanjeevani, as a part of its Digital India initiative, During corona, pandemic practitioners have used video conferencing to diagnose and treat patients in geographically diverse locations, the platform provides 2 types of telemedicine services currently such as Doctor to Doctor and Patient to Doctor. India has relied on this model for providing non-COVID essential healthcare, with approximately 3 million consultations on the eSanjeevani platform as on 17 march 2021.

Telemedicine is a proven mode for delivering medicinal care to the most vulnerable people. During the COVID-19 pandemic, to protect people with serious illness and their families and for all health care professionals social distancing is required, here telemedicine played a major role. So to ensure effective implementation of telemedicine patience, preparation and practice are required. And to ensure the best telemedicine practices in the future it is important to reach individuals with poor social networks, poor technical knowledge, and people who don't have access to the technology; creating low-cost devices, etc will build the potential gap in access. At last, we must gain the advantage from this unprecedented time when telemedicine will become an important part of delivering health care services.



ALA SARITHA
MSc, EPH

ARTICLES

AYURVEDA-AN ALTERNATIVE CHOICE FOR COVID-19

The outbreak of Covid-19 has been spreading globally. The strength and duration of the immune response to SARS-CoV-2 are not completely understood. The coronavirus disease is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Anyone, especially older persons and people of any age with underlying problems, is susceptible to COVID-19.

Ayurveda is an ancient Indian medical system. The use of Traditional Chinese Medicine to treat COVID-19 cases in Wuhan serves as a model of how traditional healthcare can treat these patients successfully. The WHO has also suggested the inclusion of traditional medicines into the combat strategy after trials and standardizing.

"स्वस्तस्य स्वास्थ्य लक्षणं आतुरस्य विकार प्रशमनं च " | (CharakaSamhitasutra30/26)

Acharya Charaka suggests the goal of science is, to support maintaining the health of healthy people and treat the disease of a patient. This can be utilized as a framework for protecting the public here.

Before implementing anything, the system must go through and understand the potential of the existing clinical presentations of COVID-19. The danger of problems is still higher for people with compromised immune systems. The guidelines issued by the Ministry of AYUSH, Government of India in the Ayurvedic diagnostic and treatment sector tries to cover the public in a standardized and more effective manner.

Ayurveda primarily promotes the enhancement of immunity measures in the general population. According to the Ministry of Ayush;

General measures

- Drink warm water all day long.
- Do a daily practice of Yogasana, pranayama, and meditation for at least 30 minutes.
- Turmeric, Coriander, Cumin, and garlic are suggested for cooking.

Ayurvedic Immunity promoting measures

- Chyavanaprash- 10gm in the morning (only sugar-free Chyavanaprash for Diabetic patients).
- Drink herbal tea or decoction made from Basil, Cinnamon, Black pepper, Dry ginger, and raisins once or twice a day (add jaggery or lemon juice according to the taste).
- Golden milk- 150ml of milk + half teaspoon turmeric, once or twice a day.



AISWARYA RS
MSc, EPH

The proposed Ayurvedic treatments for the COVID-19 outbreak are based on the clinical presentations by the Ministry of Ayush

- Target group 1 - Quarantine and Home isolation subjects with or without Corona's positive test and health workers.
- Target group 2 - Subjects with Mild, Severe Symptoms, Comorbid & Immuno-compromised conditions.
- Target group 3 - Vulnerable group (Pregnant & Lactating women, Children & Geriatric subjects).
- Target group 4 - post-treatment restore relative healthcare.

One more stepping stone of Ayurveda is the successful outcome of administering "AYUSH- 64" in the field of Covid-19 treatment. Ayush-64 is a poly-herbal formulation developed by CCRAS, Ministry of AYUSH, Govt. of India.

Ingredients

1. Katuki (Picrorhiza kurroa)
2. Saptaparna (Alstonia scholaris)
3. Kiratatikta (Swertia chirata)
4. Kuberaaksha (Caesalpinia crista)

Mode of action

1. Antipyretic activity
2. Immunomodulatory
3. Antioxidant
4. Anti-inflammatory, and
5. Anti-viral activity

It is suggested that, For symptomatic Covid-19 patients, the tablet should be taken twice (500 mg each) daily with lukewarm water after food for 7 days along with other measures.

For symptomatic Covid-19 patients, thrice daily with lukewarm water after food for 7 days along with other measures.

The effective approach and treatment of Ayurveda including the AYUSH system has contributed an Integrative method for preventive and curative support to the Indian HealthCare System and continues to serve the public as a pragmatic solution.

ARTICLES

CHILDREN'S MENTAL HEALTH IN THE MIDST OF THE COVID-19 PANDEMIC.

The COVID-19 pandemic fetched a complex array of challenges that had mental health consequences for everyone, including children and adolescents. Anxiety, uncertainty, social isolation, increased screen time, and parental fatigue have negatively affected the mental health of children. Friendships and family support are strong stabilizing forces for children, but the COVID-19 pandemic has also disrupted them.

Around the world, the mental health of millions of children has been put at risk, with at least one in seven forced to stay home under national public health orders or recommendations during the COVID-19 pandemic. The COVID-19 pandemic has led to short-term as well as long-term psychosocial and mental health implications for children. Compared to adolescents, younger children demand more attention from their parents. They need the physical presence of their parents to engage in more indoor play-related activities with them. Parents should spend time providing the child with undivided well-being and positive attention and calm. Because of the COVID-19 pandemic, most of the children have had no physical access to friends, schoolmates, and relatives for the past one and half years, and most of the school curricular activities were being done online on virtual platforms.

For many children, a school is a place for interaction with other children and their mentors. It is a great mental support and, in some schools, they can also access support services such as counseling. Because of the pandemic, the physical activity of the children decreased and screen-based education was increased. Parents and guardians have to work remotely if at all while caring for their children for what could be an indefinite period. For many, especially low-income families living in crowded homes, keeping their children occupied and safe is a challenge. Parents and children experience stressful situations characterized by panic and insecurity. The economic impact of the pandemic is also increasing parental stress, abuse, and violence against children.

In this COVID-19 pandemic situation, psychological problems such as nervousness, depression, irritability, mood swings, inattention, and sleep disorders are common among children in quarantine. Students feel isolated mainly due to the prolonged and widespread closure of schools, parks, theaters, and other public places and the lack of opportunities to play outdoors. Compared to the pre-pandemic period the children's physical activity was more striking. It affects the mental health of the children also.

They are intolerant of ambiguity, and their symptoms worsen as a result of the constraints placed on them and the hostile setting that differs from their typical milieu. Additionally, they struggle to work independently, comprehend the complexity of the pandemic scenario, and follow directions. Therefore, the country's mental health system may face significant difficulties as a result of the danger of PTSD (Post Traumatic Stress Disorder) in the wake of the epidemic. Since the healthcare system prioritizes emergency care, people with addiction and dependency disorders may experience a decline in their mental health as a result of this pandemic.

The young Indian generation should receive the most attention from our country's authorities, despite the seriousness of the COVID-19 pandemic scenario.



**INDUMATHI
MOHAN**
PhD Scholar

PHOTO GALLERY

STUDENTS OF MSc. EPIDEMIOLOGY AND PUBLIC HEALTH 2019-2021



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