



# ECO FOCUS



## News letter

### Bankura Christian College

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## Editorial

Humanity is under serious threat due to Covid-19 Pandemic. In India, the first case of COVID-19 was reported on 30th January, 2020 in Kerala and on 24th March, 2020, the world's largest nationwide lockdown was declared by the Government of India with a notice of less than 4 hours and limited the public transport and many other economic activities (Government of India, 24th March, 2020). On the day of the declaration of lockdown, 37 new confirmed cases were reported in the last 24 hours. During the first wave it took six months to reach the peak and another six months to decline and maintain a low steady daily cases. In the European countries (France, UK, Italy and Spain) the second wave started 40 days after maintaining low daily reported cases. Following this, when the Government of India observed that the country was maintaining a low steady number of daily cases for 75 days (data shows that from December 2020 to 11th March, 2021 the average number of new cases per day in the country was around 20000) it thought that there are less chances of second wave in our country and the pandemic is under control. The country began her vaccination program on 16th January, 2021, but the planning was incomplete. With a huge population of this country and minimum availability of data, the country is facing a great problem to prepare a road map for the vaccination program. Vaccine is very important for keeping the mind away from away from the mutation of a virus. The existence of the mutant during the second wave has killed more people compared to the first wave. Another impediment of the vaccination program is man-made myths. There is much news in the social media about the adverse impact of the vaccine, due to which some segments of the population are unwilling to take the vaccine. Casualties after taking the vaccines are reported by different news media

Now let us focus on the role of international bodies like WHO to guide countries to control COVID-19 pandemic. WHO declared COVID-19 as a pandemic very late, only after a huge death in European countries and America? No standard treatment protocol was advised by them. I think people should follow the Government orders and guidelines, and they should not act very selfishly; their actions should not hamper other's welfare. For examples, spreading of wrong information in social media regarding Covid-19 treatment, vaccine, and unscientific treatment measures may reduce our combined effort to fight against the disease.

The present issue of Ecofocus is the result of contribution received mostly from our

college teachers. I am especially thankful to the Chairman of the Governing Body of our College, The Rt. Rev. Sameer Issac Khimla, Bishop, Durgapur Diocese, for contributing an article in response to my invitation. I wish to express my thanks to the teachers of our college who have contributed to this issue of Ecofocus.

Fatik Baran Mandal  
Chief Editor

## Will power to Combat Uncertainty in relation to Covid-19

**The Rt. Rev. Sameer Issac Khimla  
Bishop, Diocese of Durgapur  
Chairman, Governing Body, Bankura Christian College, Bankura**

Life is filled with uncertainty and worries about the future. It is very obvious that our brain hates uncertainty and especially more so when we are facing the global pandemic, Covid-19. Numerous things remain peripheral to our control like our finances, well-being, relationships, jobs, etc., more or less much of what lies ahead in life remains uncertain. This has been a year tarnished by deep and all-encompassing uncertainty.

Fear and uncertainty can leave lasting and negative impressions on us making us susceptible to acute stress, anxiety thus making us feel powerless towards the situation. It can drain us emotionally creating more psychological pressure in our psyche. It is obvious when we watch news telecast or hear cases increasing, people dying everywhere, shortage in resources and public amenities; it makes a chill run down our nerves. It is difficult to keep a sane mind and yet hope for a positive effect in the end. But our mind-set is our key to cope up with such difficult times by keeping our willpower strong. As human beings we crave security and that makes us strong to fight and win over any challenging situation.

**We are wired to worry:** The most obvious impacts of uncertainty are mental. We all feel a loss of control over the given situation. The virus had made changes in our lives, be it good or bad, but we all feel uncomfortable to sudden changes. But we all are together in this. We can get better at facing this situation by following few basic do's and don'ts to deal with uncertainty.

- **Self-Care:** It is very essential to start with our own self. When everyone around us are on the edge and anxious, we must try to build a calm mind and stay positive that bad phases do pass away. We must take care of ourselves by taking proper rest, eating the right nutrition. We must practice activities that will keep us calm and balanced.
- **Communication is Key:** It is true that the virus has impacted our social life to a large extent but it also made ways for virtual communications. We need each

other more in times like this and thus it is very important to stay connected through social media, online platforms etc. Phone calls, video conferencing are great tools to bridge the gap of communication.

- **Avoid too much information:** We all have heard the saying that too much of everything ruins us. This is true even when it comes to information and knowledge. It is good to stay informed but we must not hover about the pandemic all day through. Constant news consumption will only make us more stressed and not help us. It is very important to get the right facts equally. There are lot of misguided information in the social media platform. Thus, it is better to stick with authentic sources of information and tune to them when needed.
  - **Have fun:** Rabindranath Tagore, the noble laureate once said that a kid within a person should never die. It is very important to have fun in life. We must take time to laugh and do things that make us happy despite the situation. It makes our will power positive to fight any situation. Everyone's idea of fun is different and thus we must make it a point to enjoy as much as we can by staying indoors.
  - **Learn to accept uncertainty:** No matter how much we strive to eliminate doubt and instability from our life, the truth is we already accept a lot of uncertainty every day. Each time we cross a street, get behind the wheel of a car, we are accepting a level of uncertainty in that. But we don't think more about them as the risks involved are very minimal. Likewise, we must try not to be so pessimistic about the pandemic situation and be grateful for what we have. We must express our gratitude towards the things we have in our lives. Sharing and expressing our gratitude to our family, friends and even to the least person will definitely make us feel good at the end of the day.

We are living in perilous times filled with uncertain situation. But the Bible guides us through such difficult situation instilling a strong sense of willpower in our hearts. Fear and uncertainty have increased in our new reality. There is fear of mishaps, germs, gunfire, blasting, etc. But the Bible reminds us that God is in control of everything. When our strength is drained from us, it is then that God strengthens us. When we look into the scripture, every plague, every economic downturn, every disease, the people of God were sustained. When our trust in the Lord is not altered, we will triumph over our troubles. God will bring order out of disorder. There will be many uncertain and

difficult time ahead of us, but we must be assured that God is in the midst of everything who will make us strong to overcome any difficulties.

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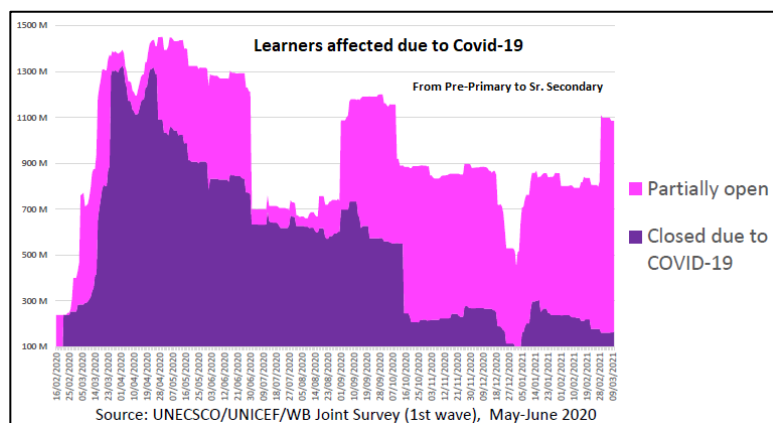
## One Year into COVID: The Lessons Learnt in Academia

Dr Subrata Pan

Assistant Professor, Dept. of Geography, Bankura Christian College, Bankura

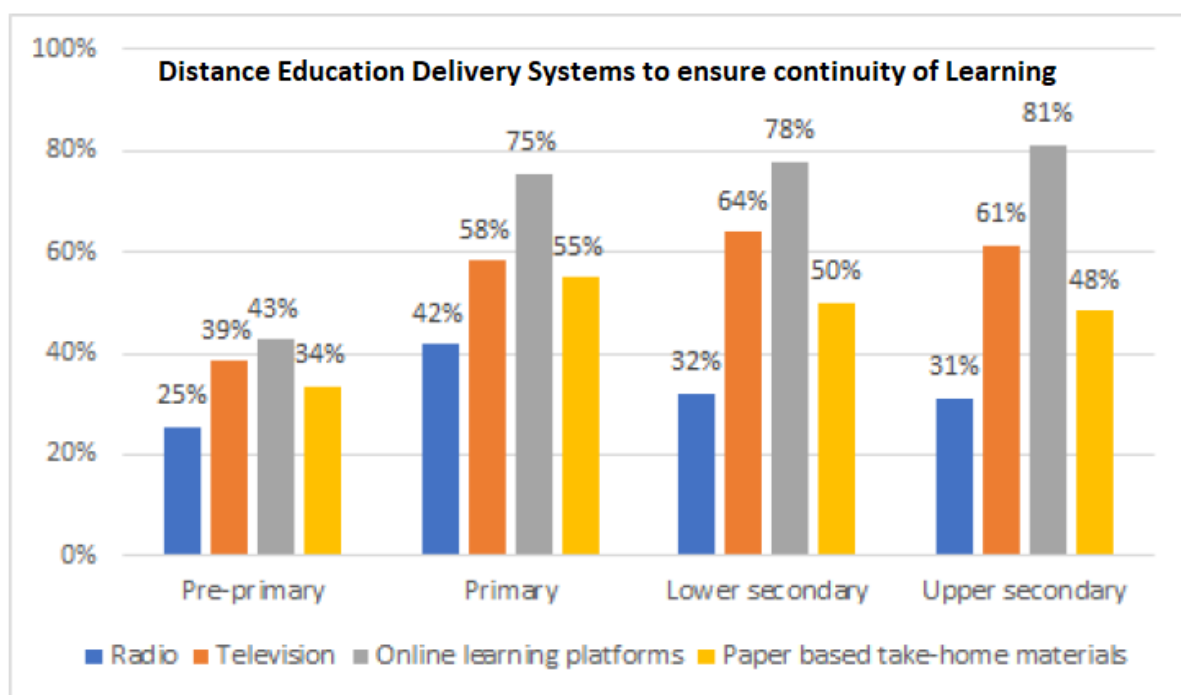
COVID-19 happens to be the most deadly disaster, the world has ever seen in terms of its geographical coverage and its impact in almost all spheres of life worldwide. Comparisons with Spanish flu of 1918 started drawing attention of the media persons, but after one year, we have found that this natural-biological catastrophe has surpassed all previous records. As of June 25, 2021, it had spread to almost 222 countries (Worldmeters, 2021), out of total 232 countries and independent territories with nearly 180 million confirmed cases and 3.9 million deaths. At this point of time, India's figure of confirmed cases rose to 30 million with a death toll of 3.93 lakhs (Worldmeters, 2021). In West Bengal, these are 14.91 cases of confirmed infections with 17,551 deaths (MHFW-WB, 2021) after a peak of second wave in April-May, 2021. Indians are now passing through traumatized mindset amidst the fear of the onset of third wave with completely new and more infectious mutant which will target the youngsters who are now out of the Universal Vaccination Programme of Govt. of India. The present falling trend of daily new cases from the peak of second wave in April-May must not be viewed as everything is over. It can be said that we are now a bit empowered with a number of vaccines and the social awareness among the citizens to get a handle on the problem. Pandemic preparedness has always been recognized as an integral part of disaster mitigation system at local, regional, national and international levels.

It all started on 31<sup>st</sup> December, 2019 when China first reported cases of pneumonia of an unknown origin in their Wuhan city of Hubei province. Just one month after on 30<sup>th</sup> January, 2020 it was declared an epidemic of international concern- the same day, Kerala emerged as the first state in India to have Covid-19 infection. Since then, it spread rapidly across Asia, through Thailand, Japan and Korea, then Europe through Italy, Germany, Spain, UK and USA by February, 2020. On March 11, 2020, it was declared as 'controllable pandemic' by WHO which



lead to closure of nearly 90% of all academic institutions around the world by the end of March, 2020, affecting more than 2 billion students (1,500 million up to senior secondary level and 542 million higher education) in over 200 countries (UNESCO, 2021 and IAU, 2020). The academic fraternity has been the most affected of all. During last one year, students and teachers are coping with the pandemic staying at home mutating themselves with relatively new breed of learning resources and technologies. During this one year, there have been a number of platforms emerged as alternative learning methods. UNESCO in its joint survey with World Bank, published in June, 2020 revealed the followings with relative weights in parentheses:

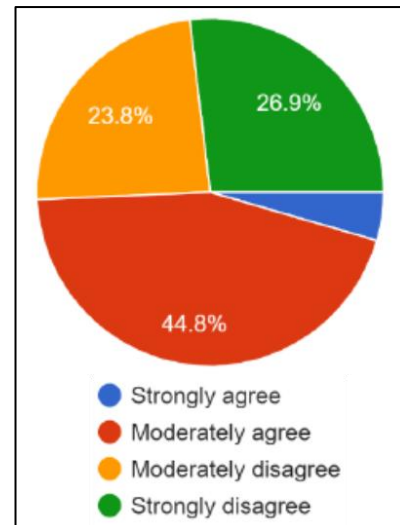
- A. Online Platforms (69.25%) which includes:
  1. Audio/video sharing in You Tube, WhatsApp groups
  2. Video lectures on Facebook Live
  3. Online video conferencing such as Google Meet, Zoom, Go To Meeting etc.
  4. Audio conferencing
  5. WhatsApp conferencing
  6. Note sharing through online platforms
- B. Broadcasting of various academic programmes in radio channels (32.5%)
- C. Suitable Classroom programmes in Television channels (55.5%)
- D. Paper based take home materials (46.75%)



Source: UNECSO/UNICEF/WB Joint Survey (1st wave), May-June 2020



The above data published by UNESCO shows increasing dependency on online learning resources with higher age groups. Whereas only 43% primary students depend on online learning materials, the figure gets almost doubled in case of higher education. Different radio and television channels are also broadcasting classroom programmes in various subjects, bringing experts in the field. 'Junior Classroom Programme' of a popular Bengali news channel has been a great success during this one year into the pandemic to build resilience and to minimize the digital divide between the rich and poor, rural and urban students. The world has seen a boom in the online learning resources market during this pandemic. Byju's –



the leader in Indian market outperformed with its revenue growth of 471% during this time. Topper Learning, on the other hand, has claimed that it witnessed 100% growth in the number of paid subscribers in the last quarter of 2020. While these two platforms along with many others are for English medium students, a Bengali online learning platform, 'Tutopia', has emerged to fill the gap for Bengali medium students. Another praiseworthy attempt by the government is the distribution of paper based take home materials distributed in almost all schools from primary to senior secondary level, particularly for those who are beyond the reach of digital mass media. In spite of all these efforts, India is still lacking in equity of digital communication system. Still now, only 25.3% of India's total population uses smartphone as of Newzoo's Global Mobile Market of 2019 (Wikipedia, 2021). This clearly reflects the strong digital gap in expanding online learning resources in the country. The number of internet users in the country is more gloomy where only 20% of the total population in the country have access to internet which is concentrated more in urban areas (ITU, 2018). Therefore, the digital divide becomes more pronounced when most of the students left college/university campus due to closure and way back home where efficient connectivity is not ensured. A survey among Indian university students on whether online classes replace traditional classes shows a clear digital divide among them-between those who can afford and who can't. Fifty percent supported the question while the rest fifty percent did not agree with this decision (Sinha & Basu, 2020). The West Bengal government decision of providing tabs/smartphones to 8.76 lakh class-12 students (Anandabazar Patrika, dated:

01.07.2021) of nearly 15,000 government/government aided schools/madrasas is definitely a praiseworthy attempt in developing resilience against the pandemic and bringing down this prevailing digital divide. However, their board exam had to be cancelled in view of the alarming Covid situation in the state.

Despite digital divide, online learning has been the most successful learning method in which millions of students have now attached to it psychologically and the teachers are also engaging themselves in such a new brand of teaching-learning process effectively. But there is also a definite distinction between face to face learning and online system. In online mode of instruction, there is always a gap of direct interaction where body language of a student, eye to eye contact between students and teachers tell the effectiveness of the teaching-learning process. Students on the other hand, lacks the company of their classmates in institution which is important in the process of socialization, which in turn may make them more self-centric and introvert. The teachers have now rechristened as ‘facilitators’ capable of handling digital gadgets to facilitate learning to what has UNESCO termed as Emergency Remote Teachers or ‘Coronateachers’. This corona teaching paradigm is particularly based on traditional curriculum with modern synchronous and collaborative learning. The present teaching-learning crisis would definitely bring a revolution in this field and a long lasting paradigm of ‘blended learning’ will take place which was practiced and patronized by the governments long before the pandemic. Here is a distinction between two different teaching-learning paradigms in pre and post covid period:

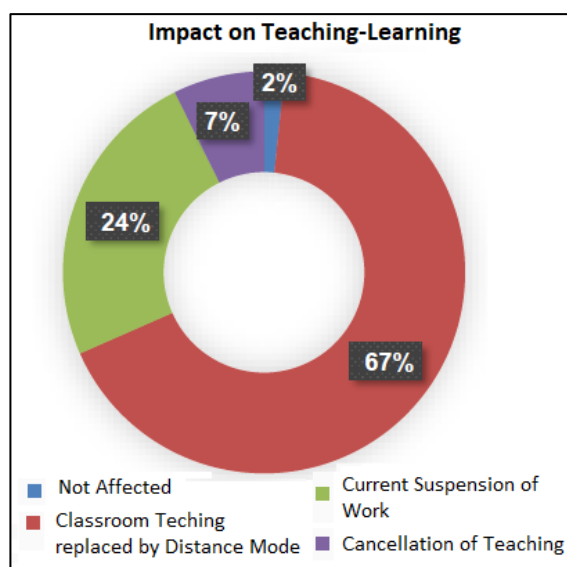
<b>Pre Covid-19</b>	<b>Post Covid-19</b>
‘Second parents’ in the school, nurturing the students for better human being.	‘Home taskers’, nurturing the students for better exam results.
Teachers are viewed as disciplined monk in the school/college.	Teachers are viewed as ‘digital specialists’ being able to handle many electronic gadgets at a time.
Punishers in the classroom for disobedient students.	Fun loving teachers to grab more attention to online classes.

Not so equipped with latest learning technology, modern electronic gadgets, not so internet savvy.	Fully equipped with latest learning technology, tech savvy, internet savvy, capable of presenting in social media.
Persons with great affection for students.	Persons with great digital skill and great creative zeal.
Knowledge provider, mentor and guide in all spheres of student life	Only knowledge provider. Does'nt have scope for mentoring

### Impact on Higher Education

Since 1<sup>st</sup> April, 2020 according to UNESCO about 90% of the higher education institutions have been fully or partly closed in almost 185 countries affecting 542 million students.

We have passed more than one year since then arranging online mode of instructions and semester exams. At almost all institutions Covid-19 affected teaching-learning. Only 2% reported that teaching-learning were not affected at all; 67% of the universities around the world reported that the normal classroom teaching has been replaced by distance teaching and learning in online mode; 24% reported current suspension of work when the survey was



undertaken and 7% reported cancellation of teaching during the period because they could not arrange to shift their traditional face to face learning into online system (UNESCO, 2020). If we look into the regional data, then it is found that African higher education is least affected whereas Europe and Americas have been affected the most because of high order covid impact in these regions. If we look into the data of India, 38 million students of 1,000 universities and 47,000 colleges (IAU, 2020) are suffering from the lack of availability of technical infrastructure over the length and breadth of this vast country, creating digital divide and sense of inequity in their minds. A considerable number of students lack access to devices, networks, and sufficient bandwidth for

uninterrupted learning. The survey revealed that most of the institutions around the world have been confronted with a sudden and unprepared shift to online teaching to cater to the needs of home bound students during this time of misery. Slowly they started engaging their students in more and more online assignments including their semester exams. To empower the students during this tough time different MOOCs (Massive Online Open Courses) are now available online, the completion of which not only enriches their CVs but also helps in attaining knowledge in related but up to date fields. These are online open courses that provide platform for college/university students with no binding limits of attendance and can be taken in addition to the normal degree courses. Many national and international MOOC platforms such as Moodle, Coursera, Edx, Udacity, MIT Open Courseware of USA, Futurelearn, Open Learn of UK, Iversity of Germany, SWAYAM-NPTEL of India are of major importance. Completing these courses, students will get certificates with IIT, IISC, MIT, Stanford, Harvard, Oxford tag which will definitely empower and enrich their resumes. A comprehensive list of institutions offering Open Educational Resources (OERs) is available on OER World Map. This is the place where anyone involved in open education can share information, experiences and ideas related to their work. The Government of India has also announced a National Educational Alliance for Technology (NEAT) in association with All India Council of Technical Education (AICTE) as a Public-Private partnership model to bring the best technological products in education sector on a single platform for the convenience of learners (AICTE, 2020). Through NEAT 1.0, 60,000 plus free seats were provided to the students during lockdown across the country. In February, 2021, NEAT 2.0 has been launched where 48 Edtech companies signed MoU with AICTE. These companies offer many online skill development programmes related to degree/diploma of engineering and management students. The NEAT is going to revolutionize the future of online learning in India. The Enhancement in Learning with Improvement in Skills (ELIS) portal is another venture of AICTE which was created to provide all students with content to enhance learning for regular subjects and increase valuable skillsets required for the actual work environment (NSN, 2021).

Finally, it can be said that closure of academic institutions does not mean learning-loss to the students, because most of the teachers have conditioned themselves to 'coronateaching syndrome' during this one year of covid. But learning inequalities have certainly developed and widened due to the prevailing digital divide around the country.

It is optimized that most students will return to their respective institutions when the pandemic is over. But what about the most fragile, disadvantaged, economically vulnerable students of remote corners of country? Will they or can they get back? Future will tell us what is going to happen. But it is sure that there will be a drop in gross enrolment ratio particularly at the higher education sector which ultimately will bring down our human development score in near future. The economically vulnerable students after staying at home for almost one and half year might have engaged in various economic activities to earn bread for their families. There is a very little chance of returning back to study. This is going to be a big issue which should be properly addressed by the appropriate authorities. Although online teaching-learning process is going on at full swing after the applications of different measures around the country, there are questions still rumouring in the society- 'is the coronateaching really effective'? This type of teaching process may prepare students for their semester examination, or it might train the students to fit for the job market. But doubt still persists, will they be good socialized human being or responsible citizens?

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## **COVID-19 Pandemic and Digital Learning**

**Dr Sheeladitya Paul**

**Associate Professor, Dept. of Economics, Bankura Christian College, Bankura**

Considering the severity and the deadliness of the Corona virus across the globe, World Health Organization (WHO) in March 2020 declared Covid-19 as a pandemic. To curb its spread, adhering to a strict social distancing norm was the main prescription of doctors. Any lackluster approach led to a spike that often necessitated forced global physical closure of all activities barring the essential services. It also led to the largest disruption of the entire education system that had an impact on 95 percent of the world student population spread across 200 countries. The pandemic taught us to innovate and assess the implementation of alternatives in teaching and assessment strategies.

While the world battled to eradicate the pandemic, the ever popular OFFLINE educational platform that encouraged learning amongst peers amidst a familiar environment swiftly migrated to embrace the ONLINE platform. This sudden compulsion to adopt the digital transformation in higher education have brought to fore several issues concerning the various stakeholders in this sector. Most studies published brought to fore that an otherwise active learner in an offline platform who always participated actively often went down while studying online, due to lack of one-to-one interaction with his teachers and that also left more doubts in his learning process. It was observed that certain categories of students lacked motivation and often struggled to finish their assignments and often took refuge amidst issues of connectivity. Moreover the presence of conducive environment for online learning at home also varies across varied socio-economic strata. Learners belonging to economically disadvantaged strata need special policy level interventions to address their accessibility and affordability issues.

The following lessons seem to have been learnt and identified since the evolvement of COVID-19 pandemic:

- Lack of comprehensive knowledge amongst educators and institutions about the benefits and limitations associated with imparting ONLINE learning.
- Lacunae that persists in effective monitoring of the incremental use of ICT in every spheres of life and policy level intervention thereon.
- Lack of unanimity in the process of amalgamation of available novel technologies in the process of delivery of ONLINE pedagogy.
- Lack of effective design of students' assessment process to judge the level of authenticity of actual learning so as to factor out the degree and extent of home support received.

There is no doubt in admitting that Covid-19 pandemic has been successful in initiating a digital push that has enabled many novelties in higher education that would otherwise would have taken

many years to be put into practice. In the absence of the customary face to face OFFLINE mode of teaching, the ONLINE learning has been greeted favourably and accorded a “messiah status”. However the efficacy and effectiveness of this thrust upon ONLINE learning in a developing country like India lacks clarity. While the flexibility and convenience of online classes makes it an attractive option but simultaneously the hindrance poised by poor connectivity issues, non-availability of smart phones, laptops/computers etc poses a severe challenge before the students.

Mahatma Gandhi once said that the soul of India lives in its villages. This famous observation made by the ‘Father of our nation’ many years ago, still holds true. Villages comprise the core of Indian society and are also the representation of the real India. And it is for these villagers that we need to ensure that the fruits of India's progress are shared by all sections of the society. Let us consider a few statistics that are considered as the basic infrastructure extremely essential towards carrying forward this digital learning drive. The rural tele-density in India stood at only 59.28 percent (as on February, 2021) while the All India Tele density stood at 87.26 percent. The share of urban subscribers to Total Telephone subscribers stood at 55.37 percent while the rural subscribers to Total Telephone subscribers stood 44.63 percent respectively (TRAI, 2021).

In comparison the average India's internet penetration stood at around 55 percent. While urban India had a broadband penetration of 98 percent, rural India had an internet penetration of only 33 subscribers per 100 population in the country. The state of Punjab had the highest internet penetration of 84 percent followed by Himachal Pradesh (83 percent) and Kerala (77 percent). For West Bengal the overall penetration figure stands at 52 percent while the rural internet penetration is a mere 29 percent. In this context it is pertinent to highlight that the penetration of internet in USA stands at 88 percent while it is 61 percent for China. This highlights that all is not well on the new frontier.

However, on the brighter side of this pandemic we can consider the biggest achievement for the education sector was the ability in breaking the geographical barriers and overcoming the infrastructural challenges to ensure that the students' learning is not hampered, if they were eager about it. Accordingly as we move ahead , ONLINE education will continue to be more integrated within our educational model as educational institutes will look forward at including digital learning in their teaching-learning process due to its inherent logistical opportunities.

At the end, for the larger sustainability of ONLINE education one would need to adhere to the “ Maslow before Bloom” theory so that we are able to clearly identify the Hierarchy of needs prior to the objectives of learning process so that we are able to integrate effectively the social, emotional and cognitive development of a student towards accelerating their learning process.

## **Impact of covid and its recent scenario in education**

**Dr Arijit Sinhababu**

**Assistant Professor, Department of Botany, Bankura Christian College, Bankura**

In India, the COVID-19 outbreak has been declared an epidemic in all its states and union territories. To combat COVID-19, lockdown was imposed on March 25, 2020 which has adversely affected the education system in our country. The initial period of rapid adaption during 2020 contained three primary responses to COVID-19: minimal legal response, delayed commencement of study periods, and rapid digitalization of curriculum. It has changed the traditional education system to the educational technologies (EdTechs) model, where teaching and assessments are conducted online. The switch to online education has been ensuring that students suffer no loss of studies and their progress is being tracked simultaneously with timely evaluation. It is probably the first for India to experiment with the education system and make a paradigm shift to the virtual world, blending classrooms with online learning.

Online education in India has witnessed an enhanced acceptance over a few years. It is becoming an integral part of the school, colleges and Universities across India. The total student population in India is about 32 crore; it is the largest student body in the world, and almost touches the entire US population. Due to this pandemic situation schools, colleges and other educational institutions are witnessing a shift towards online learning. There is a general agreement that Covid-induced online education emerged as necessity and at best can be a stop-gap arrangement. Online education model is easily scalable which is one of the important advantage during this crucial movement. The Indian government is also allowing the different colleges and universities to offer fully online degree courses that could reshape the education industry in our country. According to a report of the Ministry of Human Resource Development, Government of India conducted a survey on higher education and observed that there are 993 Universities, 39931 Colleges and 10725 other institutions listed on their portal, which contribute to normal education.

During this pandemic situation, different Universities and colleges are losing vast amounts of income from students section. Due to loss of normal education, students have lost vast amounts of imperative education and made learning harder to manage. Several schools, colleges and universities discontinued face to face teaching and therefore many students at home have undergone different psychological and emotional distress. Before

the COVID-19 pandemic, college students had in-person classes as well as in-person extracurricular activities. However, the pandemic has created an atmosphere where students, having an idea about their future plan, are learning all the essential information through a screen. This has created a barrier between the continuous interactions among teachers and students. As a result, the students have lost their passion for specific subjects as well as the ability to focus on crucial information.

### **Some advantages of COVID-19 on education**

Although the outbreak of COVID-19 has created many negative impacts on education, educational institutions of India have accepted the challenges and are trying their best to provide seamless support services to the students during the pandemic. Indian education system got the opportunity for transformation from traditional system to a new era. The following points may be considered to play crucial role in new education system:

1. Improvement in internet connectivity due to the low cost of 4G data and also growth in smart-phone penetration in India. Easy availability of the internet is the primary reason for the growth of online education in India. Between 2019 and 2020 the number of internet users in India increased by 128 million. For the first time, rural India has more number of internet users compared to urban India.
2. Online education cost is comparatively small compared to traditional programmes.
3. Favourable e-learning government policies are e-Basta, SWAYAM and Digital India. e-Basta is a Digital Indian Initiative launched by Government of India with an aim to inculcate online learning among the school students. SWAYAM is the national online education platform hosting about 1900 courses covering both school (classes 9 to 12) and higher education (under graduate, post graduate programs) in all subjects including engineering, humanities and social sciences, law and management courses. Swayam Prabha has 32 DTH TV channels transmitting educational contents on 24 x 7 basis. e-PG Pathshala is for postgraduate students. Postgraduate students can access this platform for ebooks, online courses and study materials during this lockdown period.
4. Students are able to manage their time and location more efficiently in online education during pandemic.



5. Online skill enhancement courses are far cheaper than offline alternatives, because of the availability of several free courses. MOOCs (Massive Online Open Courses) provide free online courses in different universities, such as Harvard University, Berkeley University of California, Boston University and so on. Key subjects such as computer science, data science, business and management, are available for anyone to enroll themselves for better study.
6. There is a new opportunity where collaborative teaching and learning can take new forms. Collaborations among faculty/students/teachers across the world have opened new vistas in education system to benefit all.
7. Educators and learners are getting opportunities to interact with peers from all over the world. Learners have adapted themselves to an international community. Due to the COVID-19 pandemic, many educational institutions across the world are conducting their classes via different digital software such as Zoom, Google classroom and Google Meet.

Apart from the interactive and virtual learning, the universities are teaching much more than their actual syllabus. Online support groups along with emotional help by lecturers are strengthening the system. Educating the students simultaneously about their anxiety, the current state of chaos, fears and emotions is not only preserving their sanity but also making them aware of how to overcome such crisis. Now, virtual classrooms are not only dependent on e-lectures but also require one to have access to the e-content and online study material, practice sheets etc. Universities and the government of India are trying relentlessly to come up with a solution to resolve this problem. UGC and MHRD have created numerous virtual stages with online vaults, digital books and other web-based educating/learning materials.

Covid has become an unannounced guest and has stayed longer than we had expected. The impact of it has become cataclysmic. Covid has necessitated several innovations in education sector. Many of which would have a long-lasting impact. The digital education market has a bright future ahead as even when the schools and colleges will reopen. They will have to work with reduced classroom strength, to ensure social distancing.

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## **Covid and “New Normal”**

**Dr Bikash Chakraborty**  
**Assistant Professor, Dept. of Physics, Bankura Christian College, Bankura**

“Hello.. hello... can you hear me?” Actually, this is a virtual classroom, getting no response from anyone. From childhood I used to hear that a good doctor treats their patients by observing the symptoms. Many renowned doctors like Dr Bidhan Chandra Roy were famous for this type of extraordinary skill. We the teachers try to read the facial expression of students and can understand what two innocent and curious eyes are saying. The teachers used to take classes in a hot, humid, crowded classroom and always shouted to increase the temperature (energy level) further of the class. Now we are shouting in an empty room without students in front of a screen with some irrelevant pictures. It is “New Normal”.

We the teachers and our students are always in a hurry before class to attend it timely. Some of the students are coming a long way without proper food or proper dress but they are used to concentrating on their study for that one or two hours. During class they are actually isolated from the world. Now what is going on, the students are doing class lying in a bed, or a beautiful song playing in his or her next room on TV or his or her mom making a delicious dish that he or she is smelling. It is “New Normal”.

Some of my student’s are saying that they are completing their MSc, they even don’t know their teacher’s, they are only familiar with their voices. They didn’t know their own department, benches in the classroom, corridors, canteen. There is no debate, no emotions, no new hero, no new villain, no new friends, nothing to be nostalgic about in future. All are hard reality, we lost our near and dear ones in this “New Normal”.

“Hello Sir, I am Akash from Poradi.” “ Where is this?” ‘Oh! Near Ranibandh,; I loved that place, beautiful jungles, lovely people. There is no AKASH, no new horizon, all are [abcd@gmail.com](mailto:abcd@gmail.com) and we are within our four walls, same environment, same people, all are “New Normal”.

There is someone topper, someone 2nd, few are excellent, few are obedient, in our conventional grading system. Afterall “Survival of the fittest”. Now there is no topper, no mediocre, no good, all are very good. It is “New Normal”.

There is no practical class, no student teacher bonding, no argument, no rejection, no acceptance, no new fondness on any subject, no motivation for higher studies. All are in the virtual world. It is “New Normal”.

Stop..stop we believe in progress, we believe in thinking, we must move on. There is always something good, we must think about that. We are now taking classes from some renowned teachers of a world famous university from 'Bongan', my sweet home. We are participating in a webinar of IIT's and listening to lectures of some Noble laureate and believe me I can understand his words. It's also "New Normal".

We are trying to help unknown people, some of mine are volunteers, some of us are active in collecting relief and fetching them to the needy. It's a different kind of pleasure. We are going to be a member of a big virtual family, sharing their sorrows and joys equally. It is "New Normal".

We are trying to do or say forced to do some online courses from reputed universities, learning some good skills online. Starting some new venture, "Start-up" , from my home, no space, no staff, only some gadget's. I am going to be a future entrepreneur, not an employee. It is "New Normal".

We are spending some valuable time at our home. Our grandfather, grandmother are playing with their grandsons who didn't even know them. We are listening to our elders after a long time from our busy office schedule. Our sons or daughters are doing their official work from my room, 'work from home'. This is "New Normal".

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# **Impact of COVID-19 on Indian Economy**

**Dr Atanu Ghosh**

**Assistant Professor, Dept. of Economics, Bankura Christian College**

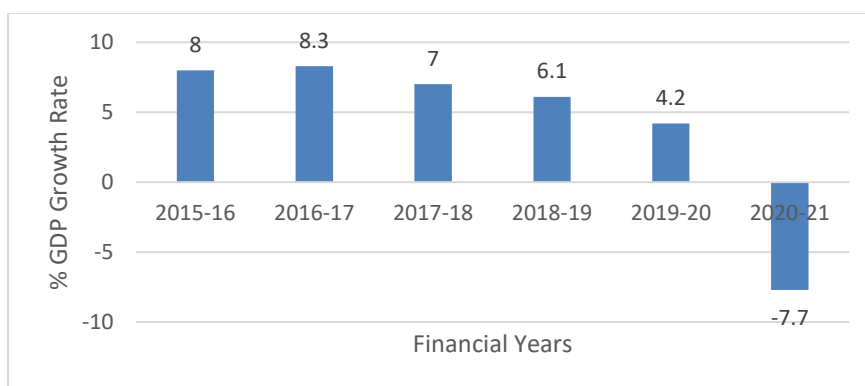
The spread of COVID-19 pandemic has affected the Globe and our country is the second-worst affected country after the United States of America by this pandemic in terms of confirmed COVID positive cases (10.8 million) and accounting for more than 10 percent of the world's confirmed cases and having suffered more than 155,000 deaths (Johns Hopkins University, 2021). The pandemic has affected the different sectors of the economy of the country. The pandemic has pushed the Indian economy into a severe recession which the economy did not face after the mid-1990s, the year when India began its economic reforms programme. Since the financial year 2015-16 the economy is facing a downward trajectory of the GDP growth rate, which has further contracted due to nationwide lockdown which was declared on March 24<sup>th</sup>, 2020 and imposed from 25<sup>th</sup> March, 2020. The first phase of lockdown was for 21 days which has extended till the end of May. The early phase of the lockdown was very strict which restricted peoples movement and suspension of public transportation services (except for delivery of essential goods and services and for police, fire, and emergency services); and shuttered all educational institutions and manufacturing facilities.

The lockdown has accounted a huge physical and economic costs to the nation. Millions of low-income migrant workers could not return to their home due to transportation ban, It is estimated that nearly 200 million migrant workers in India are severely affected by the pandemic as they have fully or partially lost their employment (India Today, January 11, 2021). With the fragile rural health care infrastructure to mitigate with the Coronavirus, returned migrants had put additional pressure on the existing infrastructure. Not only the migrant workers, due to strict lockdown and transportation ban many labours in the unorganised sectors and employees of MSME sectors have also lost their livelihoods. A survey by the All India Manufacturers on June, 2020 revealed that within the first eight months after the pandemic began, SMEs had to reduce 78% of their workforce due to supply chain disruptions, lockdowns and economic losses (Times of India, October 20, 2020). People working in unorganised sectors and SMEs constituting more than half of India's labour force who remained ultra-vulnerable to hunger and

hidden hunger. India ranks low at 102 in the [2019 Global Hunger Index](#), below its neighbours, Nepal, Bangladesh, Pakistan and Sri Lanka, with documented poorer malnutrition level among the [rural poor](#), agriculture labourers and [migrant workers](#), pregnant and lactating mothers and [children](#). The pandemic has deteriorated the hunger situation of the nation.

The estimates provided by the Ministry of Statistics and Program Implementation (MoSPI) shows a negative growth (7.7 percent growth rate) in GDP for the current financial year.

**Figure 1: India's GDP growth rate (in %) over the years**



Source: Ministry of Statistics and Program implementation (MoSPI)

Anticipating the impact of lockdown on common mass the Government of India had announced a package of ₹1.70 lakh crore under the Pradhan Mantri Garib Kalyan Yojana (PMGKY) on March 26<sup>th</sup>, 2020. This package mainly focused to feed over 80 crore beneficiaries under the National Food Security Act (NFSA). Under this program a provision of 5 kgs of wheat or rice per person and one kg of pulses per household every month for free of cost provided till the end of November, 2020. This package had successfully reduced the hunger related vulnerability due to COVID-19 from April to November 2020. To boost the economic activities in the economy “*Aatmanirbhar Bharat Abhiyan*” package of ₹20.97 lakh crore was announced in May, 2020, focusing on revival of industries. In the month of June, 2020, the Government of India declared “unlock-1” which issued a fresh guideline for COVID-19 management and unlocking economic activities and we can apparently see better livelihood situation in the neo-normal than lockdown. More empirical data on food security, employment, health service utilisation, education etc. are required to know how these financial packages could repair the wound



in the economy due to the COVID-19 pandemic.

The pandemic will have a long lasting impact on livelihood and on the economy of our country. Though the food support under PMGKY has made positive impact on people in the short run, but the long term impact of withdrawal of food support after November, 2020 is still unknown. It will also take time to re-establish the supply chain which was broken during the lockdown. The country is still not out of the danger of unemployment and starvation. The data of the Centre for Monitoring Indian Economy (CMIE) shows that unemployment condition is little better from the last year's situation as during February, 2020, it was 7.8% and in the February, 2021, it was recorded at 6.9 %. Economists suggest that the rate of labour participation and employment rate continued to be low, because many of the industries are suffering from lack of demand and they are reducing their economic production size. This situation has put the economy in a spiral problem of stagflation. More planning is needed on how to recover this unemployment situation and bring back the economy in the normal mode.

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## **Role of sustainable watershed management for boosting up the post covid rural livelihood, with special reference to migrant labour issues**

**Dr Druheen Chakraborty**

**Assistant Professor of Geography, Bankura Christian College, Bankura**

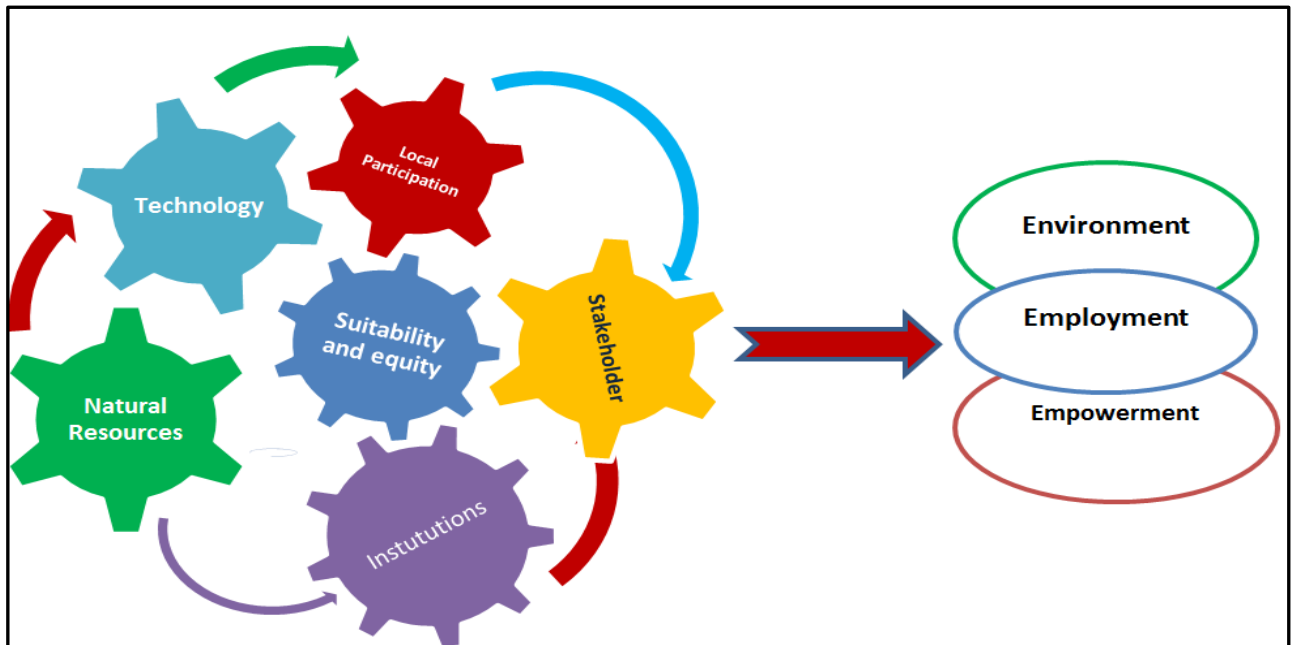
Watershed is a geo-hydrological unit with distinct land and water region divided by a drainage divide, within which, surface runoff accumulate at a common point and drains into a larger hydrological system through a single outlet. Sustainable Watershed management has emerged as an innovative strategy with plethora of regionalized, integrated, and effective programmes that enhances quality of natural resources, as well as aims to provide decent means of livelihood to marginalized sections of rural areas, without hampering the natural geo-ecological settings of the watershed unit. The Draught Prone Area Programmes (DPAP), National Watershed Development Programme for Rain-fed Agriculture (NWDPR) and Desert Development Programme (DDP) are three such sustainable watershed management programmes that run in India.

The outbreak of COVID 19 has disrupted the socio-economic condition of the country. Migrant labours are 'Footloose workers', who are the worst sufferers amid this changed scenario. Indian workforce consists of 37% migrant labours (2011 Census). 2001-2011 accounted for Six Crore migrant labours and between 2011 and 2016, each year about 90 lakh labours migrated within India. (The Economic Survey, 2016-17). The migrant labours are mostly residents of rural areas, who had to move out of their places due to lack of employment opportunities in their area. But the COVID induced lock down compelled them to return to their homeland. Labor regulations being repealed under the guise of economic crisis and giving competitiveness to business is not helping workers, particularly migrant workers to improve their lives. This has created a large void in their employment

India is a country of rivers, so almost every place in India is a hinterland of a watershed system in a way or the other. Physical reciprocity, social indulgence, and behaviours form the foundation of a watershed management system, which is a complex, dynamic, and natural functioning unit. As a result, the watershed as a unit allows planners and implementing agencies to methodically evaluate all inputs, processes, and projected results, which is critical for building a holistic development strategy. So sustainable watershed management can be effective to cope up with this changed scenario. Sustainable Watershed Management has four steps, i) Problem recognition ii) Geo-

ecological restoration iii) Prospect area determination iv) Improvement programme implementation. All these phases involve human power, efficiency and expertise. So it can be an excellent way to generate employment for large mass of rural poor.

### **SUSTAINABLE WATERSHED MANAGEMENT FRAMEWORK**



The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) is a rural sustainable employment generator which solely fuels the watershed development programs in the country. From April, 2020, its demand has skyrocketed only because of the joblessness of the migrant workers in COVID situation. The calendar for watershed activities starts during the pre-monsoon, but we are already running late. So watershed management strategies that could be followed, following the COVID protocols, are needed to be discussed by planners and implementers. The COVID pandemic started around earlier part of 2020, still running and there is no hint about when will it stop. So keeping the COVID 19 guidelines in mind and scanning the present scenario of economic breakdown of the unorganized sector, some ways where integrated watershed management's beneficial role can be involved to lift up the rural economy are suggested:

1. The asset generation programmes like pond digging, bore welling, can be carried out by limited number of people maintaining social distancing.
2. Higher agricultural output and greater feed for animals are facilitated by increased soil quality and water availability, which increases the income received by those

involved in such occupations. Sustainable Watershed Management Plans (SWMP) can ensure that surety.

3. Immunity boosting has been considered as the best way to fight with the Corona Virus. So growing of fresh high quality vegetables and fruits (horticulture and pomiculture) with HYV and disease resistant seeds needs proper natural resource allocation, like availability of good quality land and ample amount of water. The supply of these resources comes under SWMP. Moreover a farmer can single handedly, or with the help of only his family members can participate in these kinds of projects, without having any need to step out.
4. Value added production schemes (Jam, sauce, *Bori*, *Papad* making etc.) can be a great way to deal with the situation with high rate of engagement of reversely migrated labours of an area. Value added products generally can be made with easily available farm based products and do not require high end infrastructural facilities. It does not involve much intellectual base also. So this can be tagged with the farm based objectives of the sustainable watershed management plans.
5. Rural people own ponds with single or multi-ownerships. These ponds can be renovated and aquaculture could be carried out by providing spawns to the farmers. The side of the ponds contains fertile humic land, which can be used for growth of seasonal vegetables. The fast growing vegetables would generate revenue by making a semi-sustainable system which can feed the extra run-back population and can serve the community through business without having any need to go out to far places to buy/sell these commodities. This can be a great step towards giving 'food security' to every people.
6. SWM goals emphasize on symbiotic use of resources and end product of one sector can be recycled as the ingredient of another product. Mushroom cultivation is such a beneficial and economy generating sector, which uses hey (dry paddy) as its base. The local people can easily produce mushrooms in left over hey with little bit of knowledge and availability of spawns, which could be supplied to them under the income generation schemes of Sustainable Watershed Management.
7. Now a days dearth of land has encouraged vertical expansion of some income based sectors. The poultries are built in caged structure over the ponds. These meets the proper use of the land and water resources and the excretory products from poultry has enhanced growth of fish varieties underlying them. This combination of fisheries

and poultries in the same space can help up with shift based works for the rural poor. To solve the social distancing issue and to maintain the COVID protocols, the fisheries workers and the poultry workers can make shift of their working hours.

COVID 19 has torn the shreds of sustained economic growth and globalization, thus by lowering the level of global economy and throwing SDGs as far reached goals. This situation demands clear prioritized schemes, not bubble of hovering ideas. Sustainable Watershed Management Plans are based on participatory bottom up approaches which are hinged on three 'E's- i) Environmental resource protection ii) Employment generation iii) Empowering rural poor. The community based participatory Programmes are run and executed by villagers themselves. Villagers build and manage assets in a community-based participatory watershed development project, giving them a strong feeling of ownership over the resources, which is critical to the project's long-term viability. This also ensures the protection and sustainable use of the natural resources. So strengthening micro level sustainable watershed management plans would be the best way to cope up with the persisting rattled up livelihood and misbalanced economy of the rural marginalized unorganized sector, especially the reversed migrated labours.

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# IMPACT OF COVID ON OUR HEALTH

*Uday Sankar Banerjee*

*SACT, Dept. of Physical Education, Bankura Christian College,  
Bankura*

The 2019 novel corona virus pandemic (COVID-19) is an international public health emergency and unprecedented in modern history. Coronavirus disease (COVID-19) caused by respiratory syndrome corona virus 2 (SARS-CoV-2) is an infectious disease. After its outbreak in Wuhan, China (December 2019), the rapid spread of the virus sparked alarm worldwide. The World Health Organization declared this outbreak a pandemic, and countries around the world are grappling with a surge in confirmed cases. As of May 4, 2020, over 3.3 million confirmed cases of COVID-19 have been reported, resulting in more than 238,730 deaths in 215 countries. As the virus spreads through close contact and by small droplets produced during cough, sneeze or talk, most of the countries have responded with preventive measures through health advocacy campaigns, lockdowns and restricting public gatherings. The hospitals are ramping up their capabilities to care for increasing numbers of infected patients. Meanwhile, scientists are exploring potential treatments, testing new therapies and vaccines to control the virus.

Besides the biological context and due to the wide and long-lasting changes in daily life covid represents a challenge to psychological resilience. Studies have shown that epidemics and outbreaks of diseases have been followed by drastic individual and social psychosocial impacts, which eventually become more pervasive than the epidemic itself. Currently, due to this pandemic, high levels of anxiety, stress and depression have already been observed in the general population.

Considering this scenario, it is essential that health authorities identify groups with high risk of developing emotional issues - in addition to the biological peril, already well established and publicized - to monitor their mental health and carry out early psychological and psychiatric interventions. Amongst these are the healthcare workers assisting patients with known or suspected COVID-19. Primary care workers, such as nurses, nursing technicians and medical doctors who are in direct contact with patients and their body fluids, are those most vulnerable to infection.

During pandemics, as the world faces a shutdown or slowdown in daily activities and individuals are encouraged to implement social distancing to reduce interactions between people, consequently to reduce the possibility of new infections. Due to the exponential increase in the demand for healthcare, they face long work shifts, often with few resources and precarious

infrastructure, and with the need of wearing Personal Protective Equipment (PPE) that may cause physical discomfort and difficulty in breathing. In addition, many professionals may feel unprepared to carry out the clinical intervention of patients infected with a new virus, about which little is known, and for which there are no well-established clinical protocols or treatments. Also, there is the fear of autoinoculation, as well as the concern about the possibility of spreading the virus to their families, friends or colleagues.

The most important open question to be answered is as follows: “Once recovered from COVID-19 what happens to patients, and how has the virus impacted their body?” To answer this question, the Fondazione Policlinico Universitario A. Gemelli IRCSS (Rome, Italy) has set up a multidisciplinary healthcare service called “Post-COVID-19 Day Hospital.” The specialist assessments offered to patients are outlined in the following sections.

#### Pneumological assessment

Common findings in COVID-19 hospitalized patients are respiratory failure, dry cough, dyspnoea, and CT scan lung abnormalities appearing as ground glass opacities and/or consolidations. During the acute phase, exercise tolerance cannot be assessed using standard tests like the 6-min walking test. Moreover, some patients still need oxygen therapy or have respiratory symptoms at discharge. A respiratory follow-up is of pivotal importance to evaluate lung function, alveolar-arterial gas exchange, and exercise tolerance in recovered non-infective COVID-19 patients. Nothing is known about long-term respiratory sequelae in COVID-19 patients.

The pneumological evaluation is also important to decide for whom and when to order a high-resolution lung CT scan to evaluate radiological resolution of pneumonia or the possible fibrotic evolution.

#### Ophthalmologic assessment

SARS-CoV-2 infection affects the vasculature likely through immune-mediated reaction. Occlusive phenomena of intravascular coagulation are expected to be more evident in smaller vascular districts. In this scenario, ophthalmological assessment is particularly important to evaluate the degree of impairment of retinal vascularization in COVID-19 survivors. Indeed, the ophthalmologist will evaluate possible damages that COVID-19 infection may have inflicted to the retina. It will be important to correlate the degree of retinal impairment with cerebrovascular and/or cognitive impairment. All patients should be offered complete ophthalmology evaluation including visual acuity assessment, anterior segment and ocular fundus photograph, 3D optical coherence tomography (OCT), and OCT angiography (OCTA). OCTA provides vascular analysis in

vivo without dye injection. Macula and optic nerve analyses are also performed to assess the degree of macula/optic nerve vascular impairment. The analysis of the fundus and the study of vascular detail with the OCTA technique may help evaluate the involvement of retinal layers from the most superficial to the deepest.

#### Neurologic assessment

SARS-CoV-2 may infect nervous system and skeletal muscles. Neurologic features have been grouped into three categories: central nervous system (CNS) manifestations (dizziness, headache, impaired consciousness, acute cerebrovascular disease, ataxia, and seizure), peripheral nervous system (PNS) manifestations (taste impairment, smell impairment, vision impairment, and nerve pain), and skeletal muscular injury manifestations .

During the post-acute care assessment, neurologic signs and symptoms occurred during the acute phase of SARS-CoV-2 infection are retrospectively investigated to evaluate their persistence in the post-COVID-19 phase. The follow-up of COVID-19 patients also includes a specific neuropsychological assessment in order to evaluate cognitive functions (especially attention, memory, and language) and the interaction with psycho-behavioral aspects.

#### Cardiovascular assessment

SARS-CoV-2 impacts the cardiovascular system in multiple ways, although it is presently unclear whether the virus exacerbates pre-existing cardiovascular disease (CVD) or causes new cardiovascular abnormalities. Many cardiac conditions have been described in COVID-19 patients, including heart failure and cardiomyopathy. Heart failure is especially highly prevalent in hospitalized patients. Cardiomyopathy was also reported and is thought to develop direct effects of the virus and/or toxic effects of the cytokines that are released during the infection. In many patients, a prothrombotic state develops during the acute phase, which may lead to pulmonary embolism, intracardiac thrombus, and exacerbation of coronary artery disease. Moreover, patients with cardiovascular risk factors, including diabetes, hypertension, and obesity, are at highest risk of negative outcomes. Echocardiography has an important role in managing critically ill patients, but the prolonged and close contact with patients makes it difficult to perform a detailed examination during the acute phase of disease. For these reasons, a complete trans-thoracic echocardiography is performed during the post-acute phase to explore the effects of SARS-CoV-2 infection on the heart.



## Nutritional assessment

Nutrition is a major determinant of health. In COVID-19, nutritional status is a crucial factor across all disease stages, especially in people at risk for negative outcomes, such as older adults and those with multimorbidity. It is widely acknowledged that malnutrition is both a cause and a consequence of immune dysfunction. In addition, in COVID-19 patients, low levels of circulating markers of nutritional status (e.g., albumin, pre-albumin, and lymphocyte counts) are associated with worse outcomes. Prolonged intensive care unit stays are a well-established risk factor for malnutrition and lead to striking decline in muscle mass and strength and overall physical function.

## Gut assessment

Gastrointestinal involvement is common in COVID-19, as reflected by a prevalence of anorexia, diarrhoea, vomiting, nausea, abdominal pain, and/or gastrointestinal bleeding as high as 50% (varying from 3 to 79% according to different reports), even in the absence of respiratory manifestations. Viral infections may cause post-infectious gastrointestinal disorders as well. The role of the gastroenterologist is to recognize COVID-19 related digestive problems, and to manage the infection-related complications and adverse drug events.

## Rheumatologic assessment

SARS-CoV-2 infection may also induce the development of autoimmune phenomena, as with other viral infections, which may contribute to the thrombo-inflammation cascade.

We must rethink the future of our environment and tackle climate change and environmental degradation with ambition and urgency. Only then can we protect the health, livelihoods, food security and nutrition of all people, and ensure that our 'new normal' is a better one.

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