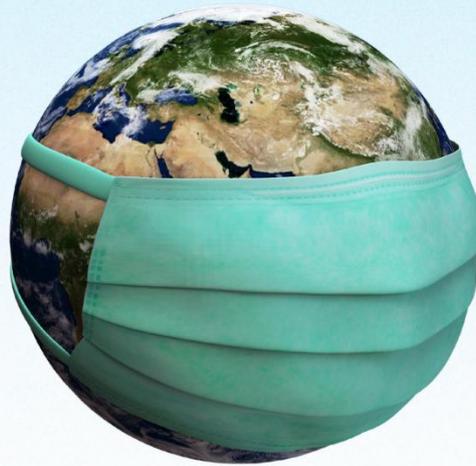


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COVID 19: Impact and Response

Volume VIII



Editors

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PREFACE

The new respiratory pandemic disease i.e. COVID-19 has caused disruptions in the lives and customs of people with significant impact on the economies of nations. The outbreak of the disease is a global health emergency and of international interest. This global health challenge leads to the infection, morbidity and mortality of many people.

In the weeks since the World Health Organization manifest the corona virus (COVID – 19) episode a worldwide unstipulated wellbeing crisis, the COVID-19 pandemic has influenced 212 nations and forfeit increasingly than 400,000 lives. Still today there is no successful remedy to lockup the spreading of this infection. The pandemic is developing prior disparities, uncovering vulnerabilities in social, political and financial frameworks which are thusly intensifying the effects of the pandemic.

Governments of various nations adopted restrictive measures involving both within the countries and at international borders as effective response to the corona virus pandemic. These measures includes confinements of workers and order to work from home, banning of social and religious gatherings, closure of market places, closure of workplaces including airports, building or creation of testing and isolation centers, quarantining/isolation of suspected persons, self-imposed isolations, and the use of face masks whether surgical or cloth type in situations where there is a cogent reason to defy the restriction.

Academic communities were not left out as institutions of learning were requested to close in many countries since it is very easy to spread the virus among students and youths in tertiary institutions where socialization is an essential part of their lives.

To address the various issues related with the COVID – 19 we have published the present book. The interdisciplinary approach of the book will make the book useful and informative to the students, teachers, researchers, scientists and policy makers in India and abroad.

We thank all contributors, publishers and all our well-wishers for their blessings, without which this book would not have come into existence.

- **Editors**

COVID 19: Impact and Response Volume VIII

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IMPACT OF COVID 19 ON STUDENTS' LIFE

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Introduction:

Covid-19 Pandemic Spreading worldwide. It affected and still affects everywhere the planet in several factors like social, political, economic, etc. It affected badly in Indian instructional system. Novel coronavirus (covid-19) has affected all the sectors of all the countries, and also the education sector was one amongst them. However, everything has been shifted mostly digital within the sort of virtual school rooms as another. However different the choice would perpetually be a mere alternative and not the answer to the matter. This has not simply solely left some negative impact that might be neglected; however, it's taken the rights from most people. And the one UN agency that has had somehow managed to beat the barrier of the expense isn't affected by the technical barrier, as most of them don't shrewdness to work it. Online education has solely potential to entertain the scholarly face of education whereas it leaves behind the crucial aspects of education, for example, a report from CBSE mentions that education envisages the excellent and holistic development of youngsters and thus extra-curricular activities square measure essential which has sports, music, dance, and yoga, etc. These square measures the factors that make our education system a lot distinctive and riveting. All the aspects of education square measure not possible to mount an internet mode. Online education fails to inject ethics and morals into students. Also, completely sensible education is primarily based likewise, the medical field, and one cannot learn surgeries online. Online education fails at this parameter. Further, psychologists have confirmed that over-sitting on formation is leading folks towards eye strain, irregular sleep, anxiety, and even depression. The coronavirus irruption has created mayhem within the lives of scholars as college closure thanks to the COVID-19 pandemic has shifted the full education system online. Alline with UNESCO, in 2020 186 countries have enforced nationwide closures, poignant regarding seventy-three.8% of the full-listed learners. Social distancing is that the most essential cautions in curb community transmission and flattening the curve and thus practical-physical schooling has, as a result, been shut. All students are affected. Online learning cannot substitute the immersive expertise of

faculty education. united understands and believes, a student's overall psycho-social development takes place within the college. the development consists of social and difficult environments, engagement, communication, group work, worth education, and play and time constant with peers. They learn and grow through the cycle of fun, play, art, music, sports, and information. Whereas college closures could be necessary, it's vital to require a stock of its impact on students. There's a distinction between knowing what we will do and what we tend to should do; these days we will produce a colossal chance for education if we tend to do substantial work for strengthening public education in the Asian country. Student's square measure currently feeling demotivated and insecure and a few square measures are oblivious of what they're losing on. We tend to square measure witnessing the largest wave of disappointment, confusion, and anxiety amongst our youth and as many square measures battling their moods and fears, the foremost don't shrewdness to work a wise phone! The negative effects of COVID-19 will be seen in many ways the pandemic has had its impact on student life.

The loss of institutional support:

All faculties and universities have created an online and webstructure for day-after-day teaching and have additionally shifted online, deferred, or of several regular examinations, as well as entrance exams. This has inflated the necessity for college kids to become adept at exploitation gadgets and online platforms nightlong. Faculties wherever phones weren't allowed currently have categories entirely transacted online. in operation websites and showing for examinations online has been a tricky state of affairs for several. Everybody features a different pace in adapting and lots of student's square measure taking time obtaining want to screen life. This transition has additionally caused a range of mental state issues among students as well as signs of depression, PTSD, anxiety, and stress. Kids also are deprived by the dearth of physical activity and also the exposure was given by a social setting just like the college. The balance in their lives has gone for a toss and sequent alone time has resulted in depression and even loneliness in some kids. The absence of faculty functions and group action is being paid by online cluster conferences and webinars and has recorded a decline in interest by students and academics. However, fascinating ways that square measure being generated to take care of the importance of co-curricular activities and friendly relationships. This is often the time to regain the leaky hope in our students.

Digital unpreparedness of academics and students:

Those who weren't conversant in technological tools visaged nice difficulties in teaching and took longer to attach with students. The unpreparedness caused disturbed room sessions,

interrupted lectures, technical errors, and glitches, and thus students took time to regulate to the new created additionally. This needed them to develop an additional ability set of technological usage and online learning. Numerous devices most well-liked by the respondents of a recent study for attending online categories were smartphone (57.98%), laptop (35.83%), tablet (4.89%), and desktop (0.65%). The mobile information pack was the supply of net for eighty-two of the respondents. Majority of the respondents (62%) aforesaid that WhatsApp was the simplest thanks to communicating category updates. this means that those that have access to technology and gadgets performed higher than those that couldn't prepare for identical. it's proper for each kid to possess equitable access to education and our perforated schooling system will be created higher with real groundwork. Action Aid Association has expedited the incoming of 30,000 kids in faculties, four-hundredth of them being women, and monitors quite 1500 faculties for basic amenities and faculty management.

Impact of Covid-19 on education:

In impoverishment for a rustic Asian country, online schooling may be a close to not possible step for most of the population that lives in rural areas and solely has access to the net. The availability of electricity may be an important challenge to taking advantage of education online. The changes brought on by COVID-19 created an apparent distinction between the wealthy and also the poor and whereas the scholar's UN agency square measure privileged to possess access to raised facilities will still have the chance to avail of study material, online lectures, and knowledge, that happiness to more durable luck square measure still troubled to realize the blank minimum. In geographical regions students have restricted or no net access and various students might not be ready to afford pc, portable computers, or good mobile phones in their homes. Online schooling has created a digital split among students. The imprisonment has semiconductor diode to extreme distress for college kids in an Asian country that return from associate degree economically disadvantaged background. Majority square measure unable to explore online learning in line with numerous reports. an on-the-spot answer for creating instructional offers easier for them is needed.

1. Impact on Pre-Primary Students:

Pre-primary education is usually called nursery and homework classes; these people is the one WHO is attacked by this pandemic Worsley than the other people. These are the categories wherever face-to-face learning and physical interaction with the scholars play vital half. In most, the case the admission fees are given by the oldsters, and also the students didn't

receive any learning reciprocally thereto, and also the cash further as 2 years of learning simply got wasted. There is some proportion of educated oldsters WHO have started creating their youngsters learn things during this amount, however, those WHO don't seem to be educated enough to show their kid, suffered once more. Also, in some cases the categories are being offered to the pre-primary students, most of the burden has been placed on the shoulders of the oldsters once more, the uneducated ones here fail once more to assist their kids albeit they need resources. These people have incomprehensible their major learning days as what we tend to teach a baby at his/her young age. He/she develops his/her temperament therein approach and represents oneself in future like that solely.

2. Impact on Primary Education:

This person comes as second within the queue then it involves being hit by this pandemic. These are the scholars WHO would like correct steering, direction, and support for everything as they're ineffective enough to make your mind up on their own concerning what's right and what's wrong for them at this age. They have a correct guardian WHO will guide them in the very right direction by showing the correct path. These people are essentially schooled with the basics of each subject, making ready them for the future, as a rational person, WHO ought to be know the fundamentals and would attain a capability to right, communicate and perceive everything. This pandemic has little doubt has provided them with another however this basic foundation with all the extra-curricular activities for his or her overall development and facilitate them to understand their field of interest has been snatched by them. All this foundation can't be mounted through on-line medium additionally, the most important half they might be missing basic manners and rule, reacting in numerous eventualities they might ne'er be able to learn the concept of brotherhood and "sharing is caring" as a result of they might ne'er have interacted with their batch mates, ne'er have shared their lunches. They would ne'er be able to fathom other's culture and also the fantastic thing about their culture. all of them are going to be in their shell. Even during these people, the burden falls are the shoulders of guardians and fogeys.

3. Impact on Secondary Education:

They are third within the queue and are relatively least plagued by this pandemic. during this people, loss of motivation, disposition, and sense of discipline, are the most important areas these students are battling. These students are not obtaining and utilizing the particular purpose of online education. They're turning into least discomposed concerning what's being schooled within the category and rather wasting their energy on social media platforms or by being indulged into wrong practices. This is all happening as a result of, this unexpected imposition of online learning platforms is being obligatory with no analysis, we predict that we tend to do have

the online infrastructure for education however; really, we tend to don't have it. There's no approach of keeping track of several whatpercentage and what number of students are trying the paper on their own and the way many of them are simply repeating it from the google. they're being promoted to higher categories while not actual and correct analyzation that isn't solely weakening their mind and them, however additionally actuation them down to have expertise a way to face issues and react consequently, to become a stronger skilled for the long run, additionally thanks to psychological feature barriers, oldsters don't seem to be able to monitor their kids properly insurance if they're extremely finding out or not and additionally failing to supply them with an applicable setting. Also, lecturers are failing to observe the scholars and keep a track of fine or weak students, and don't seem to be able to facilitate them with their wants consequently.

4. Impact on Higher Education:

Majorly lacking with the expertise, in offline learning one prepares a list for him/herself and will the work consequently. Each day one encounters completely different issues and learns to react to numerous issues and things that prepare them for the future and create them higher people further as stronger skilled. They learn skills like time management through this additionally; those WHO are concerned into additional of sensible fields are being hit arduous by this pandemic as sensible stuff can't be delivered through on-line mode. Hit and trial methodology with the physical presence of a guardian is should within the field like sports particularly. Talking concerning sensible expertise, however, will we tend to miss our medical field? additionally, if we tend to ignore this for a minute and say that a minimum of, they're obtaining enough theoretical information even then, they're ineffectual to urge an inexpensive job in line with their skills.

Conclusion:

The Covid-19 impact was all over, which resulted in the closure of colleges and alternative academic establishments. Initially, most governments have set to briefly shut the colleges to cut back the impact of Covid-19. Later it had been reopened for a couple of grades, which enlarged the number of infection rates and so closed once more. Though faculties are closed, students are attending their categories through varied education initiatives like online lecture rooms, radio programs. Though' it's an honest factor happening on the opposite facet, there are uncountable students WHO didn't own the resources to attend the web categories suffer a great deal. Several students are troubled to get the gadgets needed for onlinecategories.

Teachers WHO are all specialists in sheet, Chalk, books, and room teaching are extremely unaccustomed to this digital teaching; however, they're adopting the new strategies and handling it sort of professional to help the scholars within the current position. But on the negative facet, several lecturers are trying to find another job to support their families. Educated oldsters are supporting their kids throughout the pandemic; however, we tend to need to know that there are some illiterate oldsters and their feeling of helplessness to assist their kids in their education. There are students in the Republic of India WHO came to high school simply because they will get food. The good noontide meal theme has helped several kids WHO couldn't bring their food from the house to urge their nutrition. Because of the closure of the colleges, several students were plagued by not having enough food for their survival. There is continually a delay or cancellation of exams, which results in confusion for several students and there's no area for the course of study. Most of the school-going kids are concerned about kid labour to support their families. There is a great deal of likelihood that the education of feminine kids and transgender kids can affect, as their oldsters may even see, the monetary and chance prices of doing, therefore. This pandemic has not solely affected the scholars but additionally the cheap establishments and faculties, leading to a close-down constant. There are each positive and negative matters happening around America amid the Covid-19. Technology paves the approach for education, so serving to the scholars and lecturers to attach nearly through online lecture rooms, webinars, digital exams, and so on. But the unhappy truth is that it's not out there to several students everywhere in the state. Everything is going on for the well-being of the scholars so they will keep safe reception while not obtaining plagued by the severe virus. We don't seem to be prepared for this; however, it came, therefore we've got to travel through this along, however, we've got to update the infrastructure and will think about ways in which to undertake the case and provide education to each kid amid the pandemic if we tend to face one thing exactly like this within the future to help the forthcoming generation.

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IMPACT OF USE OF ONLINE TECHNOLOGY ON LEARNERS DURING COVID 19

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Abstract:

The purpose of this paper is to discuss the online education system and its impact on students it cares for. Since the epidemic hit the world, all classes have been switched to online mode overnight. Although, online classes save the loss of lessons for many students and have your positive aspects but also the negative effects of online classes have an impact on students. There are a small percentage of teachers who have the ability to use technology effectively and create a barrier to student education. There are also various other things such as poor communication, lack of personal space in the home, inability to interact well etc. Switching to an online education system during the COVID-19 era has not only impacted the learning program but also the mental and physical health of students and teachers. This paper will say the same.

Keywords: Online Education, virtual environment, learning values

Introduction:

An online education mode is where classes or education are held online. It does not cover face to face. In online learning traditional classes are sold through visual classes. The learning process of teaching takes place online with the distribution of learning materials. The online education system is very common in various countries and nations. Many people choose to study online because of your many benefits and you get to use them and engage in many interesting and useful programs. There is no specific definition of online learning that describes all online learning sites and conditions. Learning online is an umbrella term. There are a variety of courses available online that anyone can pursue, in fact, for a few weeks. There is also the option of pursuing degrees or diploma courses by distance learning. Eg. Delhi University has the option of SOL i.e. open school study. There is Indira Gandhi National Open University where one does not have to go to regular classes by going to university to get a degree. When COVID 19 entered the

world, as a warning all classes were changed online. Some institutions were able to set up online classes earlier than other centers. The latest case has led to the loss of education for many students. It was also easy for urban centers to switch to online classes but it was very difficult for students from remote and rural areas to keep up with their classes and go to online classes due to lack of resources needed. Forums used to conduct online classes included Zoom, Google Meet, MS Teams, Skype, WhatsApp, Youtube live etc. All of these forums have their own limitations and shortcomings that can be as detrimental to students' education as they may be. and is very comfortable using social media but learning online requires a lot of adjustment and time to be comfortable with it for students and teachers.

Review of Literature:

According to Arkorful and Abaidoo (2015), despite the fact that online education has its advantages; it also places the reader in a position of confusion and reflection. There is no scope for physical activity or relationships in long-distance learning. Students therefore need a lot of encouragement and are willing to continue with their classes. It also contributes to the definition; doubting clarity may not work well compared to traditional classes. The paper also discusses how a student's communication skills can have a negative impact while communicating with others or with excellent experience. The paper also discusses problems while testing and evaluating online classes. There is a wide range of cheating, cheating on a large scale. In addition to the problems of education there is also the lack of social cohesion much needed to develop cooperative skills and create a healthy and rich environment that promotes learning. Online classes also create a barrier to the realization and development of practical skills as there is no such institution to do this.

Mohiuddin and Iqbal (2020) discuss technological issues and non-technical issues students face during online classes. The biggest problem that students faced while studying classes was the poor network connection that disrupted the flow of classes which is why they prefer recorded sessions over live classes. But this leads to a gap in communication between teacher and students, if students have doubts they will not be able to erase it due to poor communication which is always a problem. Speaking of .it is said that the implementation and use of information communication technology recognizes the acceptance and rejection of students due to different social, physical, psychological and technical barriers.

It is also considered that there are three types of teachers where the first type opposes online classes, the second is those who are willing to try to learn tools and applications that can

help during online classes and the last tech savvy themselves and talk about using technology for educational purposes.

“Prior to the epidemic, online education was regarded as an education offered by open universities in India. But during the COVID-19 era, online learning became a major challenge, and participants were not prepared to face the rapid changes in education as they could not technically accept the current situation” (Mishra, *et al.*, 2020).

Sudden change as mentioned above leads to a problem as not many students and teachers have the technical knowledge to be used during online classes and how to make these classes as effective as possible. Students also revealed that they experience attention span during study due to distractions and are also less enthusiastic because they are not used to using smartphones and laptops which is a major setback for them.

Students believed they should learn and develop their soft skills and listening skills quickly to continue their studies. They also point out that once their data runs out, they will feel powerless as they no longer have internet after that. They also could not keep up with the pace of their teachers and felt that they had difficulty handling information and content properly. The biggest problem cited was unstable network connectivity, students and teachers had to keep their videos and audios locked most of the time to get good communication but leading to a dull and empty classroom without communication, new inventions, and wisdom.

Online classes have not only affected students' education but also their health as sitting for hours in front of a device is dangerous to the eyes and physically exhausting. And students who have returned to their homes and villages find it very difficult to stay connected to their studies as they do not have the necessary resources such as laptops and network connections which have led to the loss of studies. Female students are also made to do homework that does not leave a comfortable learning environment in their homes.

Kim *et al.* (2005) in their paper talked about the various barriers that students face while taking online courses that were as follows: -

1. Difficulty communicating with your classmates online
2. Lack of real-time response
3. Technical problems

According to Wadhwa *et al.* (2020) as a result of the epidemic the government supported the use of online education without the basic plan needed to close the syllabus. "The most common complaint about online learning is that there is no face-to-face contact and automatic exchange of ideas one can catch up with classmates and teachers in real time." In traditional

classrooms there is a sense of commitment and morality instilled in students who are not in online classes. The pen and paper tests that students try for physical presence are also seen as the best way to test as online classes have the potential to cheat, cheat and other wrong methods. Online classes are completely technology-dependent and in offline classes students get to learn how to behave in society. If students do not have the proper network connection they may also lose their time-bound activities.

The paper also discusses a variety of physical ailments including eye pain, redness of the eyes, spinal problems, motion sickness and blue light emitted by screens disrupting students' sleep cycles. Sitting in front of the devices all day damages the posture that leads to headaches, joint and back problems. There is also an increasing dependence on online sites to complete assignments as they are easily accessible and do not require much effort but over time it can become a bad habit. Humans are designed to interact with other people and cannot be alone for long. Offline classes build students' confidence and communication skills and are found to be the best way to convey information. Online classes also lack the co-curricular, physical, participatory activities required for a full and complete child development. Morning prayers also inculcate moral values in students who are not in online classes.

Muthuprasad *et al.* (2021) discussed in their paper the challenges of online classes. “Delays in responses, doubts about technology considered by their peers, lack of social feeling and / or feelings of isolation, problems with classmates, technical problems, and issues related to high levels of professional teaching, the need for greater discipline, writing skills, and self-motivation; and the need for online users to commit to learning is considered a barrier to learning online.”

Students need a strong sense of self-control and inner motivation to manage their studies and assignments. Some students also have technophobia that leads to confusion and lack of help. The shortage of teachers with no technical background is also a factor. Students also report problems with having a quiet environment in their homes.

“The E-learning program has highlighted the economic differences between students. Weak economically ill students cannot afford the cost of electronic gadgets, internet, and other resources. Moreover, such students may be unaware of technological advances. There may be a fear of falling behind and it may eventually lead to depression and mental illness among the students” (Gaur *et al.*, 2020).

What worries students the most is that teachers lack online reading training, flawless teaching, eye pain and headaches.

Kapasia *et al.* (2020) in their paper addressing the unique challenges students face in the financial crisis they face at home that had a negative impact on their education. Some students even think that they have to stop studying because of financial problems and some of them do not have a separate classroom and there are interruptions that also disrupt their studies. They also revealed that they had experienced increased levels of stress, anxiety and depression due to switching to online classrooms during the closure. Poverty exacerbates the negative aspects of digital literacy. Students even had to borrow tools to attend online classes and if selected could skip class that lead to academic loss.

It is very important to connect with the community and community work to improve the learning environment and to make students active. There is a weak point in communicating in online classes. Not only educational knowledge is important but social and emotional learning are equally important for holistic development. Students also feel less motivated in online classes and tend to lag behind, procrastinate and not put effort into any assignment or project. Therefore, students should have a high level of self-control.

Another common challenge for online classes is low maintenance. Students are often easily distracted and unable to concentrate that well in their classrooms leading to poor performance and results. No teacher can keep you tested in online classrooms that provide a way to lack attention, retention and concentration..

Parents have also expressed concern about the change in their children's behavior. They were concerned about the development of their physical and mental abilities, and they also found that children were very upset and wanted to go to school. They also saw a decline in cleanliness in their wards and were dissatisfied and comfortable with online classes.

Recommendations:

We have seen that there are various problems of online classes that students and teachers face. There are many things that can be done to reduce these challenges to as little as possible. Switching to online classes has been very difficult for students in rural and remote areas because they do not have the basic requirement of online education which is network communication with smart devices. Cyber cables and internet towers in cities can be installed or set up so that students can access the network connection again and if necessary, a few smart devices can also be distributed. The second most troubling is the devastating effects on students' mental and physical health. To overcome this, there may be a reduction in class hours and a split between classes, mental health programs and online yoga sessions and other physical activities. Students

also complain of eye pain and watery eyes, and blue light filters can be installed on machines. Students also face a serious lack of social interaction that leads to the concept of segregation, so there is a need for the inclusion of additional participatory activities. Sudden change in online classrooms does not leave much time for technical training for students and teachers, which can lead to poor teaching practice, so workshops can be created. Reducing internet costs can be initiated by the government as almost all students use data packs to use the internet.

Conclusion:

In unprecedented times, online education has been a blessing for students to prevent many educational losses but online education comes with many challenges and challenges that cannot be ignored or ignored. If online education is to continue there is a need to use it in a better and more informed way. Some challenges are insurmountable so we can say that online classes are not and cannot replace the traditional classes. Online education has been a requirement for an hour but its continuation can lead to a space for education. Great progress and development are needed to improve the world of online education.

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IMPACT OF COVID-19 ON RURAL EDUCATION

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Abstract:

The impact of pandemic Covid-19 is found in every sector mostly the education Sector is badly affected by the pandemic, due to this world enforced lockdown. The Corona Virus pandemic has affects education system as well as Socio- economic condition of the world people. The UGC Instructed through its advisory to all the institutes ti take classes on Online mode Many institutions have been using different platform for the giving of knowledge.

Teaching is taking place from offline to online, due to this offline to onlinein teaching method, this transformation in teaching methodology rural area Students, teachers and Parents also facing many Problems. In rural areapeoples are economically poor. They do not provide android cell phones to Students. If they were provide next problem was that to recharge the mobile in pandemic no any work to hand of Parents, they do not earn money, so parents face many problems. In rural area peoples are economically poor they do not provide android cell phone to students, it they were provide next problem was that to recharge the mobile. In pandemic no any work to hand of parents, they do not earn money, so parents face many problems.

The present paper addresses the various consequences of the Covid-19 in the education system

Introduction:

Wuhan, China in December 2019 reported Covid-19 infection and suddenly spread throughout the India and was declared a pandemic on 11th March 2020 by the WHO the Covid-19 pandemic quickly led to the closure of universities and colleges, schools, around the India with instructions of government to follow social distancing, mask on face, washing hands

These people who residing in a rural areas are still very much depended of the technologies and there for hampering the cause of online education. The Covid-19 pandemic thought. The entire educational body on how necessities, is the mother of inanition by allowing

educational in situations to adopt online learning and introduce a virtual learning culture. This was the first time in history of India that online education was declared by the UGC As the all education bodies tried to promote the online education system in the Covid Situation but the conduction to take the online education was not a simple task for teachers and students don't have a proper internal connection and smart devices are student don't have a proper internet connection and smart devices are facing huge difficulty in the lockdown, many students are from a very poor background they are not taken food properly for a two time

As on the other side, many students are not able to handle this online system due to their practical knowledge required in the subjects previously before Covid-19 pandemic many course were offline after Covid-19 pandemic new admissions has increased as the course has on online (Gomez *et al.*, 2020)

In the rural area totally students depends upon their schools, and colleges, parents don't have sufficient time to take care their child so parents also depends totally upon schools and colleges and the most important pandemic precaution called 'social distancing' or 'physical distancing' has attempted to reduce interpersonal contact and there by minimize the kind of community transmission that could develop quickly in dense social networks like the school and colleges campus (Weeden and Corn Well, 2020).

Even though in the rural area the education sector is suffering from various disparities like inefficient educational infrastructure imbalanced teachers – student's ratio, lack of modern technologies of teaching lack of interest in education among the rural people, apathy and lethargy that the schooling etc. after 68 years of independence our India is not able to provide minimum level of education to its all rural area also all citizen (Miliszewska, 2004; Rashid and Yadav, 2020) with these difficulties, now a days our country is facing the worst problem of the novel corona virus (Covid-19) pandemic.

Closures of educational institutions and lockdown will not only have a short term impact on the continuity of education for the young as well as small but also stimulate mentality, young learners have so much time they do not use time properly, and they become lazy, wrong utilization of mobile. The instant solution of Corona Virus is necessary or if like these days pass them closure of schools and colleges does not even have short term impact in the rural area of India, but can even cause far reaching economic and education consequences. In India about 600 million learners affect due to the close down of educational institation (Miliszewska, 2004; ET, 2020). Affordability is another factor to limit the access to learning with students from

economically weaker most of the students in rural area are weaker sections facing a greater burden.

The impact of accessibility and affordability can have serious implications on students in college education system unless student friendly government policies are in place which can ensure affordability and accessibility of the internet to student.

The students face major hurdles with remote learning as face to face communication is more conducive to the learning process, presenting a better opportunity to sharing knowledge and asking for help, easier and more interactive (Miliszewska, 2007)

Findings and Analysis:

During the data collection, Gove declared an emergency lockdown protocol that prevents people from leaving a given area. Not any one go outside and come in side especially in the rural area they come on taluka place and took every essentials, all non-essential activities remain shut for the entire period (ET online, 2020)

The isolation and fear in this lockdown era. Are driving an escalating nervousness among many people, college student those with preexisting conditions like anxiety, depression and nervousness some elder person in rural area are struggling with new levels of loneliness and helplessness student who were interviewed have been suffering from excessive stress, depression and anxiety even before the lockdown started students who are in hostels leaved their hostels suddenly and go back to their homes, In homemany problems are there, parents go to farm every day they do not solve problem of student properly, many students didn't purchase the books they take books from college library even 90% students didn't have laptops they didn't have android mobile especially women's student didn't have android mobile mentality of parents about women's student is very different why we give mobile, laptops to the women student, what is the need, shat is the use of women education to our family so women's student are apart from these faculties

The teachers who were literally challenged using ICT foreducatations also became experts in providing on line teaching or using different social media platform to engage their students academically and mentally. The basic limitation is the poor internet connectivity and mobile data. After the online classes are over, there is no internet data remaining for completing other assignments.

Teacher used different social media applications to student for enhancing the academic knowledge, media i.e. Facebook, Twitter and Instagram are used but few students are know this sites, many students i.e. suffering from rural and school students and do not have the knowledge

about Twitter, Instagram, Facebook mostly they use only WhatsApp to share information, texts, Videos etc. for video become highly used by student YouTube also one of the most significant tools for self-learning.

Mostly in the rural area there is no internet connection to whole day, when there is internet connection then suddenly teacher started lecture, student who are in touch of teacher they attend the lecture while another students miss the lecture so students also need to be supported with better access to internet and technology as most. Students are unable to attend the facilities.

Conclusion:

Due to lockdown and closure of schools and colleges, student with parents faced lack of offline classes. The impact of lockdown is more severe for rural students and where the poverty is below, there are many issues like charging network, timetable of light office and problems of load shading. Government is not fully prepared to make education reach all corners of the area via digital platforms.

To become effective education the government policies must include various individuals from diverse backgrounds and includes rural area. In the remote area the online education system fighting with pandemic, every single stratum whose are students, parents, faculties, schools, colleges and government also take efforts in the betterment of online education system.

The study shows that the impact of pandemic on the educational schedule of the students who are belongs from especially rural area.

The service provides need to be mobilized to provide proper access to the educational service platforms to the disadvantaged groups of remote area.

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NEW BABY CHILD OF CORONA VIRUS: THE OMICRON

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Abstract:

Since the Dec, 2019 when first case of corona virus surfaced in China, the virus has undergone numerous mutation and new variants are appearing faster than expected. Recent in the series is the “*Omicron*”. As this variant has number of mutation so WHO has called it as a variant of concern. It is spreading at much faster rate than the earlier corona variant Delta. In the present paper a stock of this corona variant “*Omicron*” has been taken into consideration.

Keywords: Corona, variant, Omicron, WHO, antigens etc.

Introduction:

Corona virus is mutating at very fast rate and till now it has numerous variants. As the events are unfolding in Nov, 2021 rapid rise in corona cases was seen in South Africa due to new SARS-CoV-2 variant technically known as B.1.1.529. The first case of this COVID Variant was found on 9th November 2021 and in 26th Nov, 2021 the variant B.1.1.529 was renamed as “*OMICRON*”. Omicron has now been detected world widely, after the variant was its first detection in November 2021. The COVID Variant “*Omicron*” has been also called as a variant of concern due to large number mutation.

Omicron symptoms are almost similar to other variants. The symptoms of omicron are broadly grouped into three categories i.e., most visible (fever, cough, tiredness, loss of taste or smell), less visible (sore throat, headache, aches, pains, diarrhoea, a rash on skin, discolouration of fingers or red toes or irritated eyes) and serious (difficulty breathing or shortness of breath, loss of speech or mobility, or confusion or chest pain). There are solid evidences that Omicron is spreading faster than the Delta variant as the doubling time is 3.2-3.6 days.

As the corona virus is now spread widely and is responsible for numerous infections so mutation rate will also go on higher side thereby multiplying the risk factor also. The more chances a virus gets to multiply the more space it has for mutation. New variants like *Omicron*

are a reminder that the COVID-19 pandemic is not over. It is therefore pertinent that people get vaccinated on the first availability and continue to follow SOP as recommended for Corona like physical distancing, wearing masks, regular hand washing and keeping homes areas well ventilated. It is also of paramount importance that vaccines and other public health measures are accessible in every nook and corner of the globe especially in poor countries on equal footing. Vaccine inequity in poor countries leaves people at high risk and thereby even poses a potential threat to those who are considering themselves safe at present. So it is very important that have countries should come forward in helping have not in this fight against one of the biggest humanitarian crisis of century.

Preliminary findings suggest that rate of hospitalization is very less as compared to the Delta variant. WHO has cautioned not to take *omicron* lightly as it can take any turn in coming days as not much is known about this variant's behaviour? If the situation worsens it will result undue pressure on hospitals and healthcare system. It is also important to remember that all corona variants can cause severe disease or even deaths. That is why preventing the spread of the virus and reducing public risk of exposure to the virus is paramount important. The Omicron variant is more contagious than other already reported variants.

The already followed measures like vaccination, avoiding crowded places, social distance and wearing a mask are also equally effective against this variant. As this is a new variant corona vaccine effectiveness and efficacy is monitored and watched very carefully. Data is very limited at present but there seems to be a small reduction in the effectiveness of vaccines against severe illness and death and a decline in preventing mild disease and infection. However, currently available vaccines offer significant protection against severe disease and death.

It is also important to be vaccinated as soon as possible for two doses to have the maximum protection. Information is still limited though WHO reports that early infection offers less protection against *Omicron* in comparison to Delta. One should get vaccinated even if one has previously COVID-19 infection.

The people who recover from COVID-19 may develop some natural immunity to the virus, but how long it lasts or how well it will protect is not very much clear. But one thing is certain and that is vaccines offer more reliable protection.

The same PCR and antigen-based rapid diagnostic tests are used for detecting Omicron. The data on the Omicron's transmissibility is still not very much clear; however people who are in crowded places more often and those who are unvaccinated are more susceptible to infection.

Some of the Important Do and Don'ts are:

- Reduce your risk of exposure to the virus by avoiding unwanted movements from homes
- Wear a mask that covers your nose and mouth properly
- Wash your hands more frequently
- Keep a physical distance of at least 1 metre from others
- Avoid poorly ventilated or crowded spaces
- Open windows to improve ventilation indoors
- Wash your hands regularly for 20 seconds with soap, hand sanitizer or with 60% alcohol
- When it's your turn, get vaccinated
- WHO-approved COVID-19 vaccines are safe and effective so no need to be with rumours
- Take medication as per the advice of your doctor as soon as you are detected positive
- Do not touch your eyes, nose and mouth with your hand
- Do not wear mask when you are alone
- Old people should avoid undue crowded places
- Everybody is at risk of virus as it does not discriminate between age, sex etc.
- Do prioritize your health
- Do cough or sneeze into the crook of your elbow or a tissue
- Do make sure someone in your home knows how to clean with a bleach solution of 5 table spoons per gallon/4 teaspoons per quart of water and solutions with at least 70% alcohol
- Do use separate towel, dishes and glasses in your homes for each member of family
- Keep your home well ventilated to maintain good air flow
- Pay special attention towards the health of Children and old people in your homes.
- Do not panic.

This is tight time for the human society and we need to overcome it with our collective wisdom. So cooperate to the Govt. efforts and follow the instruction as directed by health and family welfare department from time to time.

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ROLE OF MEDICINAL PLANTS TO COMBAT COVID 19

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Abstract:

COVID-19, caused by a new corona virus (SARSCoV-2), is currently the greatest threat to civilization. Colds, coughs, fevers, and breathing difficulties are all common symptoms. According to a WHO report, about 80% of people rely on traditional plants for their primary health care. To increase immunity, this system of medicine believes in employing certain herbs, decoctions, and plant-based preparations. Increased immunity allows our bodies to combat infections more effectively. There are around 1.5 million practitioners in India who practice traditional medicine, and over 1500 herbal formulations are distributed as nutritional supplements. The principal components present in Pepper, garlic, ginger, tulsi, aswagandha, cinnamon, cloves, neem, black cumin and turmeric help to relieve the symptoms and severity of COVID 19 and also builds stronger immunity to fight several other infections.

Keywords: COVID 19, Immunity, Herbal, anti-viral, anti-inflammatory, Virus

Introduction:

COVID-19, caused by a new corona virus (SARSCoV-2), is currently the greatest threat to civilization. Colds, coughs, fevers, and breathing difficulties are all common symptoms. Infected people transfer the disease through salivary droplets, sneezing, or coughing fluid. Direct physical touch and indirect contact with the surface on which the infected droplets land are the two ways in which this virus spreads.

In the fight to stem the spread of the new Coronavirus, a variety of approaches and processes are being used, ranging from social distance to medical and vaccine development. Traditional herbal remedies are being studied alongside modern medicine, as there is still a great dependence on medicinal herbs as a supplement to modern therapy (Pandey *et al.*, 2020). According to a WHO report, about 80% of people rely on traditional plants for their primary health care. Our ethnobotanical or traditional knowledge may be able to assist us in developing a new strategy to finding antiviral medication compounds. Plants offer a number of chemicals and

secondary metabolites that are valuable for therapeutic formulations, according to Ayurveda, the traditional Indian system of medicine. To increase immunity, this system of medicine believes in employing certain herbs, decoctions, and plant-based preparations. Increased immunity allows our bodies to combat infections more effectively (Gangal *et al.*, 2020). There are around 1.5 million practitioners in India who practice traditional medicine, and over 1500 herbal formulations are distributed as nutritional supplements (Pandey *et al.*, 2013). The hereunder are among the herbal remedies for COVID 19:

1. Black Pepper

Piper nigrum L. is renowned as the "King of Spices" due to the widespread use of its dried unripe fruit in almost all cuisines around the world (Joshi *et al.*, 2018). Additionally, this plant contains about 600 different phytochemicals, such as lignans, alkaloids/amides, terpenes, and neolignans, all of which have diverse biological and therapeutic effects. Antiviral, antibacterial, anti-inflammatory, anti-pyretic, anti-oxidative, anti-thyroid, anti-tumor, immunological, and vaccine bioavailability increasing qualities are just a few of the many positive biological effects of peppercorn and its secondary metabolites (Ahmad *et al.*, 2012). Its primary alkaloid components piperine and 10 piperamides may be possible phytochemicals that can help in the fight against COVID-19, which is also a respiratory tract illness, due to their antiviral effects (Mair *et al.*, 2016). According to Davella *et al.* the phenolic compounds Kadsurenin L and methysticin discovered in *Piper nigrum* block COVID-19 primary protease.

2. Ginger

Ginger is a common food ingredient with a variety of pharmacological activities. It is a natural root plant with a variety of pharmacological properties. Gingerols and shogaols are two physiologically active components found in ginger. One of ginger's active ingredients gingerol has anti-inflammatory properties (Wang *et al.*, 2017). Although COVID-19 is not predominantly an inflammatory illness, the hyperinflammatory response of macrophages in some patients contributes to the severity of the disease. As a result, ginger's anti-inflammatory properties may be beneficial in reducing symptoms and illness severity in these situations (Rathinavel *et al.*, 2020). Additionally, ginger has been found to have therapeutic effects against metabolic illnesses such as diabetes and cardiovascular disease. This is significant in respect to COVID-19 since people with comorbidities such as diabetes and cardiovascular disease have a higher mortality risk than COVID-19 positive patients. Ginger's antiviral properties come from its antioxidant, immunomodulatory, and anti-inflammatory properties. Ginger's main ingredient, allicin, is said to have anti-influenza cytokines properties (Sanghvi *et al.*, 2020).

3. Garlic

Garlic has been used to treat a variety of ailments for thousands of years. This plant is a bulb that grows to a height of 25–70 cm and produces blooms that are used as a spice and flavouring agent in meals. Garlic is high in nutrients, enhances the flavour of food, and relieves indigestion. Garlic has a wide spectrum of low-toxicity pharmacological properties, including anthelmintics, anti-inflammatory, antioxidant, antifungal, and so on (Alam *et al.*, 2016). The antifungal and antiviral properties of allicin (diallyl-dithiosulfinate), which is generated by the garlic enzyme alliinase from alliin (Gebreyohannes, 2013). Colds, flu and COVID-19 infection may be less severe as a result of the antiviral property. Garlic, as a result, strengthens the immune system and aids in the battle against viruses and other disorders. It contains Allicin, a broad-spectrum antibiotic. It is said to boost immunological health by stimulating immunity-boosting white blood cells including NK cells and macrophages (Gunathilake *et al.*, 2015).

4. Holy Basil

Tulsi, often known as holy basil, is an Indian native plant noted for its medicinal benefits in the Ayurvedic and Siddha systems of medicine. Many *in vitro* and *in vivo* studies on animals and humans have demonstrated its therapeutic promise as an antibacterial, antidiabetic, anti-carcinogenic, anti-viral, anti-inflammatory, cardio-protective, immune system booster, and other compounds (Jamshidi and Cohen, 2017). Tulsi is known as the "Elixir of Life" in Ayurveda for its healing properties and potential in treating a variety of maladies such as bronchitis, pyrexia, rheumatism, asthma, skin diseases, parasite and microbial infections, stomach and hepatic disorders, and more. In terms of COVID-19 control, Tulsi is already used to treat pain, diarrhoea, cough, and fever, which are all frequent COVID-19 symptoms (Goothy *et al.*, 2020). The active antiviral components in Tulsi extract are determined to be apigenin and ursolic acid. Tulsi has been shown to enhance respiratory parameters and aid in asthma recovery. Tulsi plays an important function in enhancing the immune system, which helps the human body fight off undesirable microbial visitors such as germs and viruses (Mondal *et al.*, 2011). An interesting docking study abstract reported at Social Science Research Network studied the binding affinity of 7 photophilic compounds from Tulsii. i.e., tulsinol A, B, C, D, E, F, G, and dihydrodieuginol B, with SARS CoV receptors. This simulation study further confirms the use of Tulsi extract against our fight against COVID-19 due to its recognized role in inhibiting replication of SAR-CoV with ACE II blocking properties (Khaerunnisa *et al.*, 2020).

5. Neem

Margosa neem, scientific name *Azadirachta indica*, is widely distributed throughout India. Almost every component of the neem plant, including the leaves, root, fruit, bark, oil, and seed, is effective for curing or controlling diseases caused by parasitic, bacterial, viral, or other causes. Limonoids and terpenes are two of the most important compounds found in neem (Bhowmik *et al.*, 2010). It has anti-inflammatory, antimalarial, antibacterial, antifungal, immunomodulatory, wound healing, hepatoprotective, antidiabetic, anti-nephrotoxicity, neuroprotective, and anti-cancerous characteristics, as well as the ability to filter the air. It is efficient against roughly 200 bacteria due to its great qualities. Fever is the most common clinical sign of COVID-19, and these plants can help alleviate it. The leaves of neem are traditionally boiled and consumed to treat fevers caused by COVID-19, and have been shown to have anti-inflammatory properties (Paterson *et al.*, 2020).

6. Black Cumin

Black Cumin (*Nigella sativa*) has a wide range of medicinal properties and has been reported to treat a variety of ailments such as jaundice, conjunctivitis, rheumatism, diabetes, anorexia, gastrointestinal difficulties, intrinsic haemorrhage, asthma, cough, bronchitis, fever, bronchitis, influenza, and more. The principal active phytochemical in black cumin is thymoquinone, which is responsible for the majority of its medicinal benefits (Forouzanfar *et al.*, 2014). *N. sativa* extracts exhibit therapeutic effects related to the relief of common symptoms associated with the new COVID-19. The aqueous extracts of *N. sativa* have anodyne characteristics. *Nigella sativa* possesses antiviral, antioxidant, anti-inflammatory, anticoagulant, immunomodulatory, antihistaminic, antitussive, antipyretic, and analgesic activities suggesting that it could be a potential medicinal drug to treat COVID-19 patients. In addition, the active ingredients of *Nigella sativa* including nigellidine and hederin have been identified as potential inhibitors of SARS CoV-2 (Salim and Noureddine, 2020).

7. Clove

Clove (*Syzygium aromaticum*), a member of the Myrtaceae family, is utilised as an antiseptic against communicable diseases all over the world due to its antibacterial properties against oral germs (Vijayasteltar *et al.*, 2016). It contains phenolic components such as eugenol, thymol, eugenol acetate, and gallic acid, as well as carophyllene, and has a lot of promise for cosmetic, medicinal, food, and agricultural uses. It contains anti-inflammatory, antioxidant, anticancer, antiviral, antifungal, antibacterial, and antiviral properties (Gulcin *et al.*, 2012). Eugenol has antiviral characteristics because it inhibits the virus DNA polymerase enzyme,

which prevents DNA synthesis. The antioxidant capabilities of clove were attributed to the scent compounds extracted from the plant (Srivastava *et al.*, 2020).

8. Ashwagandha

Ashwagandha, also known as Rasayana (Tonic) or *Withania somniferous*, has been one of India's most valued and important plants since 6000 BC. The basic chemical constituents of Ashwagandha include triterpenelactones-withanolides, withaferin A and D, steroidal lactones, alkaloids, tropine, and cuscohygrine. Because of their potential to inhibit cyclo-oxygenase-2, these bioactive compounds contain anolides, which have anti-inflammatory and analgesic activities (Ryu *et al.*, 2010). Withaferin A and withanolide D are primarily responsible for *Withania somnifera's* pharmacological action. Withanone, according to Ayurveda specialists, decreases the electrostatic component of binding free energies of the ACE2-RBD complex, blocking or weakening COVID-19 entrance and subsequent infectivity. Natural phytochemicals, on the other hand, have the capacity to counteract COVID-19 and its pathogenicity. It essentially prevents the host protein from interacting with itself. Indirectly, the triple combination aids in the enhancement of COVID-19 infection immunity (Mi-Sun *et al.*, 2008).

9. Turmeric

Turmeric is a spicy Asian spice with an interesting history. Curcumin is one of the most well-known chemicals in turmeric, and it has antibacterial and antiviral properties. Turmeric is well-known for its anti-inflammatory properties. Curcumin is a powerful immunomodulatory drug with a long history of use as a therapy. Curcumin has been proven to decrease the replication of viruses such as dengue fever, hepatitis B, and Zika virus. The chemical has also been discovered to have a number of biological effects, including antitumor, anti-inflammatory, and antibacterial actions (Giordano *et al.*, 2019). Pneumonia caused by a severe COVID-19 infection can lead to hypoxemia, which disrupts cell metabolism, lowers energy supply, and increases anaerobic fermentation. The cell membrane's phospholipid layer is then destroyed by oxygen free radicals, resulting in acidosis. As a result, these patients will benefit from treatment with a medicine that possesses antioxidant characteristics, which curcumin has. Curcumin has been found to be a powerful antioxidant in several investigations (Li *et al.*, 2020).

10. Cinnamon

For thousands of years, cinnamon has been used for its therapeutic benefits. Its use dates back to ancient Egypt and is made from the inner bark of the Cinnamomum tree. Cinnamon acts as an immunological stimulator, defending the body against bacterial and viral infections. It aids in the fight against infections and the restoration of tissue damage. When it comes to anti-

inflammatory qualities, all antioxidants are extremely strong. Cinnamon also has anti-inflammatory properties and aids in the prevention of infections and the healing of wounds. Cinnamon has antibacterial, antiviral, antifungal, antioxidant, anticancer, antihypertensive, antilipemic, antidiabetic, gastroprotective, and immunomodulatory properties, according to numerous researches (Hajimonfarednejad *et al.*, 2019).

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IMPACT OF YOGA PRACTICES ON EMOTIONAL INTELLIGENCE OF ADOLESCENTS

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Abstract:

The whole world is affected by the Pandemic Covid-19 situations and every person is living a disturbed and fearful life. This turmoil is very much affecting daily routine with special emphasis to performance of the individuals. More or less Yogic practices specially Dhyaan, Pranayams and Asanas have been contributing too much to maintain a healthy and balanced life since ancient times. It is further assumed that “adolescence is the stage ridden with storm and stress” (Hall, 1904) whose needs of balanced growth must be taken care of as well, especially during these disturbing times. For such purpose development and training of emotional intelligence among adolescents is one of the key areas for their efficient performance at the workplace and to cater to the requisites of career growth. This study is a humble attempt to explore the impact of Yogic practices on the development of emotional intelligence among adolescents based on previous studies conducted in the field concerned. It can be summed up that, yoga helps in enhancement of emotional intelligence but still there is a need to further explore the relationship between yoga and emotional intelligence with special reference to college students for making strong interpretations. But, it is pertinent to note that during this crisis situation of COVID-19 pandemic, adolescents need training of yoga to cope-up with their surroundings as yoga has the potential to improve emotional intelligence of an individual while emotional intelligence plays very important role for proper adjustment with one's own surroundings paving the way for a calm, balanced and successful life.

Keywords: Yoga practice, emotional intelligence, adolescents.

Background:

The whole world is affected by the Pandemic Covid-19 situations and every person is living a disturbed and fearful life. This turmoil is very much affecting daily routine with special

emphasis to performance of the individuals. More or less Yogic practices specially Dhyaan, Pranayams and Asanas have been contributing too much to maintain a healthy and balanced life since ancient times. It is further assumed that “adolescence is the stage ridden with storm and stress” (Hall, 1904) whose needs of balanced growth must be taken care of as well, especially during these disturbing times. During the period of adolescence an individual has immense energy which needs be channelized in a proper direction so as to take right decisions for life. Sustained efforts need to be made by parents and teachers to motivate these energetic young minds and for such purpose development and training of emotional intelligence among adolescents is one of the key areas for their efficient performance at the workplace and to cater to the requisites of career growth, especially during this crisis time of COVID 19 as most of the learners are feeling very apprehensive about their educational achievement, career settlement, etc. This article is a humble attempt to explore the impact of Yogic practices on the development of emotional intelligence among adolescents based on previous studies conducted in the field concerned, so that on the basis of such findings, educational institutions can suggest or manage or adapt the same practices for the betterment of their adolescent learners during this adverse atmosphere created out of COVID 19 pandemic.

Yoga:

In a broader way Yoga literally means 'union' in Sanskrit which is the union of mind (i.e. psyche), body (i.e. soma) and energy (i.e. prana). According to Basavaraddi (2015) Yoga is essentially a discipline based on spirituality which is an extremely delicate and elusive science, which aims at bringing the harmony between human mind and body. Yoga is an art as well as a science of living a healthy and balanced life. Actually this word 'Yoga' was derived out of the Sanskrit root-word 'Yuj' which means 'to join' or 'to yoke' or 'to unite'. It is depicted from the study of various yogic and related scriptures that, with the practice of yoga, we can lead ourselves towards the union of our individual consciousness with that of the universal or supreme consciousness and resultantly, it can demonstrate a perfect harmony or unison between the human mind and the body, man and his nature. Modern scientists opine that, each and everything existing in this universe is mainly a manifestation of the same *quantum firmament or the vault or arch of the sky*. The individual who owns this experience of oneness of existence is treated to be in yoga and can be called as a yogi, who have attained to a state of freedom, also referred to as *mukti, nirvaana or moksha*. Therefore, the main aim to be achieved with the practice of yoga is self-realization, which means to overcome all kinds of 'worldly sufferings' in turn paving the way towards 'the state of liberation' i.e. *moksha* or 'the state of freedom' i.e. *kaivalya*.

The foremost objective(s) of all yogic practices shall be living and leading with true freedom in all walks of life, including health and harmony as well. 'Yoga' also depicts an abstract science which is comprised up a plenty of variety of methods by which the all human beings may realize their union with the supreme power or god or nature, and achieve mastery over their destiny. Yoga, being widely treated as an immortal cultural-outcome of Indus (Saraswati) Valley civilization (corresponding to the era dated back approximately to 2700 B.C.), has proved itself as a means to catering to both, the material as well as the spiritual upliftment of humanity. The fundamental human values are the very identity of *yoga-sadhana* (Basavaraddi, 2015).

Emotional Intelligence:

According to Mayer and Salovey (1997) "Emotional intelligence usually involves: i) the ability to perceive accurately, appraise and express the emotion; ii) the ability to access and/or generate feelings when they facilitate thought; iii) the ability to understand emotion(s) and emotional knowledge; & iv) the ability to regulate emotions to promote or facilitate emotional and intellectual growth" (p.-10). Emotional intelligence (EI) is also considered as the area of cognitive ability that facilitates inter-personal behavior in an individual. The term *emotional intelligence* was popularized in the year 1995 by a psychologist and behavioral science journalist Daniel Goleman in his book, titled *Emotional Intelligence* (Cole, 2019). He described emotional intelligence as an ability of a person to manage his feelings so that, those feelings can be expressed appropriately and effectively (Goleman, 1995). Goleman opined and emphasized that, emotional intelligence is the single largest predictor of success of an individual in the workplace (Goleman, 1998). In his book, Goleman presents five components of emotional intelligence namely: self-awareness, self-regulation, motivation, empathy and social-skills (Cole, 2019). Saarni (1999) also emphasized that the development of emotional skills is very important for an adolescent's development although it is different from the concept of emotional intelligence construct (Saarni, 1999).

Review of related studies:

The adolescents who practiced yoga have been found to be significantly better on emotional regulation, self-esteem, and feeling components of emotional intelligence in comparison to the non-yoga practicing group (Janjhua *et al.*, 2020).

To study emotional intelligence (EI) and its effect on academic performance among university students Ganpat (2020) measured emotional intelligence with the help of Emotional Quotient (i.e. EQ) test, which was comprised of three main psychological dimensions viz.- *emotional sensitivity, emotional maturity, and emotional competency*. The results showed an increase in emotional quotient among adolescent boys and girls due to Yoga-nidra practice and all the above mentioned psychological variables have been found to be improved due to the same.

Yoga-Nidra was strongly associated with the improvement in emotional sensitivity, emotional maturity, and emotional competency, alongwith emotional quotient among adolescents. Thus, it may be an effective practice to enhance emotional intelligence among university students, which may have a resultant positive impact on their academic performance as well (Ganpat, 2020).

A study revealed that practitioners who were involved in regular yoga practices have high emotional intelligence than their counterparts who were not practicing yoga regularly (Joseph *et al.*, 2019).

Teller (2019) in a blog expressed his own views that “Yoga will increase one’s patience, self-compassion, and one’s overall processing power. It is not necessary that one should have to be a yoga teacher to tap into his or her emotional strength. The very art of practicing yoga on regular basis provides us an opportunity and insight for exploring ourselves in novel ways. The art of self-exploration enhances the ability to practice self-acceptance and through self-acceptance, managing emotions and in turn finally emotional intelligence becomes a value.”

A great starting point for all of us can be a contemplative yoga practice. The proper education of yoga develops concentration power, focussed attention, disciplined behaviour and self-awareness among its learners and these qualities can be all the foundational skills one needs to develop one’s emotional intelligence. Learning yoga takes considerable amount of time and requires a great deal of commitment, like all other finely acquired skills. With the development of these core attributes they become strengthened, and now with this status-quo, one can more easily begin to heighten his or her awareness of others' emotions as well (Teller, 2019).

A simplified Kundalini Yoga was also found to be an effective method to improve emotional intelligence (Prasath *et al.*, 2018).

It is true that, there are very few studies which have evaluated the effect of yoga practices or meditation on emotional intelligence as most of the studies have discussed about evaluation of the effect of yoga or meditation on different dimensions/aspects of emotional intelligence namely; academic performance, emotional well-being, and emotional sensitivity. The studies

done in the past have reported beneficial effects of yoga on the above mentioned dimensions of emotional intelligence. However, study investigating the effect of yoga on emotional intelligence of college students is lacking at present (Kumari and Sahu, 2018).

According to Philbin (2017) Yoga does offer a variety of skill-developing practices that can include *breathing* techniques or pranayamas where we learn to manipulate the inflow-outflow of the breath to attain specific or desired states of the human mind and body. *Meditation* is another practice that is offered by yoga. Yoga can teach a complete range of meditation approaches to improve the power of concentration, ability to focus and enhanced self-discipline while cultivating the strength of compassion. *Physical postures* or asanas can serve to create and work out appropriate and gross tensions in human body by bringing out a great deal of elasticity in the muscles, tendons and ligaments. “A stage will come when we learn to practice coordinating breath and physical movements along with mental concentration and focus during yoga, which will help to integrate our body and mind more fully and deeply. A dedicated yoga practice offers to the practitioner the present of tranquility and equanimity in place of unruly mind tossing about with the usual stressors of life, and all of these learned and cultivated qualities through practice have a deepening, strengthening, reinforcing and far reaching impact on our emotional intelligence” (Philbin, 2017).

Seenaa, Suresh, and Ravindranadan (2017) tried to assess emotional intelligence and well-being of yoga practitioners and also attempted to understand the relationship between them, it was discovered in the study that, emotional intelligence of regular yoga practitioners (having a practice of three or more years) was positively related with their well-being and yoga practitioners have been found to be more emotionally intelligent than their non-yoga practitioner counterparts.

In a report from The Hindu dated May 19, 2016 it was opined that “those who practice yoga over a long period of time, yoga helps them understand the concept of emotional intelligence in broader terms”.

In a study conducted by Tiwari and Mishra (2016) it was found that practitioners who were involved in regular yoga practices have high emotional intelligence than their counterparts who were rarely involved in practicing yoga.

Ganpat, Dash, and Ramarao (2014) emphasized on the need of emotional intelligence for students' excellent academic career and the three important psychological dimensions of emotional intelligence were- *emotional sensitivity, emotional maturity and emotional competency*. All the above mentioned psychological dimensions motivate learners to recognize

the emotions truthfully, interpret emotions honestly as well as handle the situation tactfully in synchronization with the dynamics of their behavioural pattern.

The above study was designed to assess emotional sensitivity among the students undergoing regular yoga therapy program in the form of Yoga Instructor's Course Module, suggested that such module can help in improvement of emotional sensitivity among university students, thus, and paving the way for their academic success and growth potential. There is the need of such additional well-designed and focused studies before making any strong recommendations in this field (Ganpat *et al.*, 2014).

Yoga practice improved the intra-personal factors namely- emotional self-awareness, assertiveness, self-regard, self-actualization and independence (Mallya and Anand, 2012). The effect of Yoga (as an ancient Indian form of exercise) on the intra-personal factors of emotional intelligence was discovered by dividing the sample into experimental and control groups respectively. The results revealed that “regular practice of yoga improved the intra-personal factor(s) of emotional intelligence as yoga increases the ability to express feelings, beliefs and thoughts, the ability to accurately appraise oneself, aids in better emotional management, the ability to realize one's potential capacities, etc. among adolescent girls” (Mallya and Anand; 2012).

Khemka, Ramarao, and Hankey (2011) studied some psychological variables in relation to yoga practice and found that yoga improves emotional quotient and correlated with emotional intelligence. Emotional Quotient can positively predict health also. This was further suggested by them that, a long-term yoga practice may stabilize Emotional Quotient.

Another study conducted by Singh, Mohan, and Kumar (2011) indicated that “practice of Sahaj Marg Raj Yoga meditation can enhance the emotional intelligence of the individuals which were undergoing some chronic physical ailments and crisis life situation during the span of last five years aged between 35-45 years”.

Adhia, Nagendra, and Mahadevan (2010) studied the role of yoga way of life on emotional intelligence and the results of this study indicated that, yoga is very important, as yogic practice on a sustained basis can be beneficial for its practitioners and may be used as an integral element for improving managerial performance in respective organizations.

In a study conducted on managers of a business enterprise it was found that emotional intelligence was enhanced as a result of the practice of yoga, but there is still the need to further explore this construct in a greater detail (Adhia, Nagendra, and Mahadevan, 2010).

A study conducted by Mulla and Krishnan (2007) for construct validation using emotional intelligence was done and result showed that Karma-Yoga was highly correlated with emotional intelligence.

Conclusion:

On the basis of analysis of above mentioned studies conducted to study the relationship between yogic practices and emotional intelligence (or dimensions of emotional intelligence) we can infer that, in most of the cases yogic practices and physical exercising helped a lot to its practitioners in the maintenance of emotional wellbeing along with improvement in emotional intelligence. Yoga helps to increase emotional sensitivity, emotional maturity, and emotional competency among adolescents which can manage their erratic behavioural pattern, even during this novel crisis situation of COVID 19. Meditation improves concentration which is pertinent for academic excellence of both male and female learners. Last but not the least, yogic practices sharpen and enhance one's managerial skills to perform diligently at workplace. So, each and every school and college must have their own arrangements for adolescents regarding their proper exposure to yogic practices to make yoga as an integral part of scholastic curriculum to make-up the loss caused due to this pandemic condition. Now, it can be summed up that, yoga helps in enhancement of emotional intelligence but still there is a need to further explore the relationship between yoga and emotional intelligence with special reference to college students for making strong interpretations. But, it is pertinent to note that during this crisis situation of COVID-19 pandemic, adolescents need training of yoga to cope-up with their surroundings as yoga has the potential to improve emotional intelligence of an individual while emotional intelligence plays a very important role for proper adjustment with one's own surroundings paving the way for a calm, balanced and successful life.

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COVID 19 PANDEMIC: EMERGING CONCEPT OF DIGITAL MATURITY IN DIGITAL TRANSFORMATION OF BUSINESS ORGANIZATIONS

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Abstract:

Covid- 19 pandemic showed us the rapid transition of business world. It is no longer considered an option, but a necessity to digitally transform each and every business organisations. Awareness regarding the digital change and its adaptation in addition to technology and operations in all aspects of business comprising leadership, culture and customer experience can now only be attained through understanding how digitally matured an organisation is. This research paper aims to study the emerging concept of digital maturity in digital transformation of business organisation including its key features. The focus is also on understanding the title ‘Digital maturity Index’ supported by theoretical approaches to measure digital maturity and analysing the scope or significance of assessing the same in the business organisations.

Keywords: Business organisation, Digital change, Digital transformation, Digital maturity, Digital maturity index.

Introduction:

The global covid-19 pandemic has forced the business industry to re-evaluate their digital posture to support the business continuity through the crisis and beyond. From the initial stage of developing digital tools to digital technologies, the rapid developments of (Information and Communication technology) ICTs and digitalisation persuasively are changing business landscapes to be digitally matured, thereby visualising a digital transformation in the industry. While digital transformation is the act of physically changing workflows and processes through digital technologies, digital maturity measures the organisations readiness to understand and adapt consistently to this ongoing digital changes. Consequently, the attempt to lead the digital transformation journey in absence of understanding digital maturity level of the same firm would only create unexpected hindrances throughout, which can deflect business operations along with

wastage of time and money. This indicates that companies need to realize how digital affects transfigure all perspectives of business including leadership, culture and customer experience along with technology and operations. Since pandemic, shifts of enormous proportions in global economy, customer expectation regarding business and the need to implement digital solutions to sustain organisations have been followed. As a result, digital transformation and resulting business opportunities will only continue to evolve making digital maturity predominant than ever.

Digital transformation in business organisations:

Success of digitalisation framework across the world not only enhanced digital business opportunities but also provided with the urgency to restructure organisational priorities and growth strategies. In order to keep up with the pace of this transformation, companies went through different approaches like modification of their existing services and business models, configuration of digital technologies for arranging their product and services and establishing a competitive advantage in their targeted market. There has been a progressive shift in the use of digital technologies to improve the business performance which initiated the digital transformation era. Reviewing various literatures have shown that there is no established definition for digital transformation clearly but the frequent research and analysis of different authors regarding the importance of the topic widely, have found suitable brief definitions for the same in context of business and related digital technology.

One of the definitions of digital transformation is from (Westerman *et al.*, 2011); digital transformation is the use of technology to radically improve the performance or reach of enterprises. Another definition is (Liu *et al.*, 2011), Digital transformation is an organizational transformation that integrates digital technologies and business processes in a digital economy. Compared to that (Fitzgerald *et al.*, 2014), Digital transformation is the use of new digital technologies such as social media, mobile technology, analytics, or embedded devices to enable major business improvements including enhanced customer experiences, streamlined operations, or new business models. Furthermore, (Hinings *et al.*, 2018) Digital transformation is the combined effects of several digital innovations bringing about novel actors (and actor constellations), structures, practices, values and beliefs that change, threaten, replace, or complement existing rules of the game within organizations, ecosystems, industries, or fields. However, development of rigidity and lack of required competencies has always been the key factor for reshaping the digital technologies in terms of necessary form, function and purpose.

Unfolding online applications to accelerate the business growth and customer enhancement have undoubtedly removed the dilemma of sales and logistics. Gradually the possibility of cost reduction, strengthening digital command and expertise through proper medium and commercial database facilities like virtual wallets generated the need of being digitally matured enough to expand business transformation strategies throughout the organisation. Exceptional four-spot interrelated strategies are mentioned below-

- Technology Usage
- Value Creation
- Adequate Structural Changes
- Financial Capability

Technological advancements were always the boosting factor for conventional businesses to enter in to the digital world. Business connections and collaborations evolved according to the identification of digital technologies in the business industry. Digital revolution or digitalisation as we call it made each and every business leader to understand the importance of a business network in their organisation. Launching from wireless networks to business applications, technology has never failed to enhance business transformation delivering flawless communication and innovative game plans. However, global pandemic imposed the demand for a separate digital agenda for companies as lockdown ease with a high devastation in the industry. Modern workspace encompassed digital purpose, skill and talent initiating digital mind sets across the firm .This technological drive determined the organisations opinions to transform new IT factors and empowering a value driven digital environment in the business organisation. Value creation through digital transformation comes with focus on relatedness driven by social media and other mobile technologies, service innovations and adequate governance. Customer centric designs together with co-establishment of new products, attributes of tracking investment in marketing through digital marketing campaigns, coherent automated processes of virtual servicing and embedded risk profiling enabled the value generation through digital transformation of core business functions composed of product innovation and customer experience, distribution, marketing and sales, enhanced corporate control and risk optimisation and digital fulfilment. Moreover it showed us how the impact of changes in value creation determines the level at which digitised processes are varying from existing traditional methods.

Implied factors of organisational structure and financial capacity also contribute throughout the transformation affairs as structural changes act as an foundation to generate value formation in the organisation whereas financial capability deals with the requirement of funding and capital for the business transformation procedures.

Applying concrete changes in digital presence and integration of flexibility to keep on transforming the business is impacted from analysing the importance of digital maturity factor in the organisational transformation. Assessing digital maturity level of a firm is the beginning of a digital transformation journey.

Digital maturity in digital transformation of business organisations:

Business organisations are reengineering future by understanding the digital maturity level of the companies through analysing their current state of business for a successful value driven and profitable business transformation. Even though terms like digital maturity and digital transformation are often used interchangeably, digital maturity is not a goal to be achieved rather it is the means to achieve the overall digital transformation. These transformation decisions are not possible without realising whether the adoption of new technology is providing specific goals and practical solutions. While there is a strong emphasis on technology, maturity level of an organisation is also impacted by other two main factors like speed and adaptability primarily due to resources in human capital and automated processes.

Digital maturity is the ability of an organisation to respond and take advantage of technological developments that change how the market functions. Furthermore it is the organisations ability to take on digital transformation not only from the standpoint of digital technology, but organisation wide, including people, processes, and culture to achieve business outcomes. A website creation could be taken as a basic example in order to clarify what it meant to be digitally matured for different persons as per their vision.

Suppose two companies A and B engaged in furniture business initially adopted the idea of a website creation as a part of their digital strategy in the flourishing online market. Both companies created the webpage using basic tools and design was elementary. They each hired a developer, underwent a transformation and both their businesses were able to continue competing with each other, while also reaching a much larger pool of customers. For the company A, digital maturity meant simply having a website that was bringing in business. For the company B, digital maturity meant understanding why a website was needed, and being able to act on that understanding. If you would have asked them both at the time whether they were digitally mature, they would have both answered ‘Yes’. But their ideas of what this term meant were different. As a few years passed, customers began wanting to be able to customize their furniture, to be able to pay for same-day delivery, and to be able to design their own material preferences and unique models. Company B was able to understand this, because they would

regularly send out surveys to their customers, and would always ask for feedback, evaluated the changes in the market, and was able to continually upgrade their website. But company A, who thought merely having a website, could create a digitally matured business suffered as a result. The rest of the story is predictable, and while it is a theoretical example, it has happened countless of times across the world.

Definition of digital maturity by different authors:

No.	Definition	Author and source
1.	Digital maturity-integration of organizational operations and human capital into digital processes and Vice versa-digital processes into organizational operations and human capital.	George Westerman, Didier Bonnet, and Andrew McAfee “The Nine Elements of Digital Transformation” MIT Sloan Management Review January 07, 2014
2.	Digital maturity is about integrating your organization’s operations and human capital in digital processes and vice versa.	WalkMe pioneered the Digital Adoption Platform (DAP) for organizations to utilize the full potential of their digital assets.
3.	The term “digital maturity” is closely related to digital transformation. We can say that digital maturity is the final stage of digital transformation, which companies aspire to achieve, those companies that have achieved such digital maturity, have now witnessed important improvements in the operation of the company, and have also increased customer satisfaction.	Has your company achieved digital maturity? by Alberto Dominguez Dec 25, 2017
4.	Digital maturity -how organizations systematically prepare to adapt consistently to ongoing digital change. Digital maturity draws on a psychological definition of “maturity” that is based upon a learned ability to respond to the environment in an appropriate manner	G.C. Kane, “Digital Maturity, Not Digital Transformation,” MIT Sloan Management Review, April 4, 2017, https://sloanreview.mit.edu . The general background of this concept of maturity is based on L. Hyatt, B. Hyatt, & J. Hyatt, “Effective Leadership Through Emotional Maturity,” Academic Leadership Journal 5, no. 2 (summer 2007): article 4.

Digital maturity is not simply about having the most advanced technology out there, which employees or customers might not want or need, instead a digitally mature company will continuously be doing market research, welcoming responses, have a thorough understanding of the competition by analyzing its own potential and limitations. Doing so, it will choose the right people to implement technological systems and develop products that work for its business and its own organization. Signs of digital maturity involve a collection of key features that build on one another in an organization. Five **key features** of a digitally maturing enterprise are discussed below-

- **Digital practices:** Adopting digital practices into your organizational strategy is the first step to digital maturity and be a leader in the market. The digital revolution is powered by technology – the internet, mobile technology, computer processing, artificial intelligence, machine learning, nanotechnology, robotics and information processors are all tools that we can use to perform tasks in various ways. An organization that adopts today’s digital technologies will enable decision makers to have access to all the information they need all the time, from anywhere, and from any device they choose. About half of digitally mature organizations report high net profit margins and increased revenue compared to the industry average. This shows that there are advantages to nailing a tech-first approach.
- **Digitally Empowered workforce:** Procurement of technology encouraged the brainstorming of ideas regarding effective reorganization of works by using new tools. As a result to access of digital tools to organizational culture, workers are now well equipped with resolving a crisis with immediate effect ensuring real time exchange of information than manual dependence. Consequently, digitally mature organizations were defined by a fundamental shift in workforce composition. For example, digital leaders leading strategic changes underpinned by digital technologies, digital mentors as guides in digital disruption, and technology-competent digital employees to enhance workplace productivity.
- **Innovative Culture:** For companies that have already scaled an initial wave of transformation initiatives, the emphasis is clearly shifting from digital reengineering to innovation. Autonomous as well as systemic innovations take place in internal and external business environment. Organizations on the right track to digital maturity promote thought leadership, innovation, and functional collaboration. A clearly articulated innovation strategy, alignment and the associated transformation usually

separates the successful companies from the rest of the pack to remain relevant in today's high velocity markets.

- **Strategic data acquisition:** Data collection creates insights that will measurably improve customer experience along with increasing sales, loyalty and brand advocacy. Strategic methods enable and unlock intelligence through data acquisition with technology enablement plan in hand. Digitally matured organizations uses sophisticated technology which collects and organizes data and uses that data intelligently to inform the organization who collects it thereby combining technology and data insight to deliver superior, data-driven customer brand experiences. This doesn't mean that digitally mature enterprises collect all possible data, but they do collect lots of useful data.
- **Disruption responses:** Ability to respond to disruptions quickly is possible for an organization which is following a digital mindset at all levels. The digital technology that supports the organization essentially acts as a shield that helps them act and adapt to changes as quickly as possible, as a compatible, dynamic, and self-sufficient unit. In context of digital transformation, disruptions are normal business changes leading to a better place than we were before. This includes establishing something new for the betterment of customers, employees and stakeholders etc. It is necessary for an organization to embrace digital disruptions to gain competitive advantage in the industry. It typically signals that customer needs are shifting. Without disruption, innovation doesn't exist.

Digital Maturity Index (DMI):

Digital Maturity Index (DMI) outlines the critical organization, individual and group digital capabilities and their maturity levels to provide a roadmap for successful digital change and transformation. It is a maturity reference model to understand the digital effectiveness of an organization by understanding the immediate willingness of digital transformation process, planning the advancement of vital capabilities, enabling digital strategy, digital offerings and digital workplace finally ensuring a continuous technology driven experience in the environment. In short it recognizes the digital capability and need to put efforts on the necessary dimensions of the business organization. After a review on several approaches to digital maturity measurement, most well known and reliable approach were included in the study as below-

- Google and Boston Consultancy Group (BCG) Digital Maturity model.
- Deloitte Digital maturity index.
- Dynamic Systems Maturity Theory (DSMT)

BCG maturity model consists of four different stages dividing companies to determine digital marketing maturity as –nascent, emerging, connected and multi moment to understand where do the company stand on their way to achieving the digital transformation. First stage – Nascent is where companies uses digital technologies and monitors only one or two data sources at once. They are organizational centric and data is managed separately to focus on data integrity and access. Emerging stage which is the second comes up with enabling stronger digitalization supporting the need of cooperation between different departments’ .It measures how desirable the company is with their potential customers through engagement rate calculation thereby organizing a channel centric and tracking criteria. Third stage of connection recognized data as the backbone of business linking efforts to outcomes through data driven business processes and connection of online and offline data sets. Personalization, technology centric and data integration are the common features of this stage. Multimoment which is the final stage is embedded with digital intelligence. It is possible due to frequent data monitoring and analysis to identify opportunities in data driven marketing and custom attributions and cross function insights to increase organizational effectiveness. In contrast to that, Deloitte model focus on company archetypes which measures the approach to shift in digitalization through six digital archetypes.-Champions, Potentials, Innovators, Operators, Followers and Laggards .This is formed as a result of strategic and operational indices considering new products and business models along with improving the core value chain. According to Deloitte, only 5% companies today are champions, combining a consistent digital strategy with operational excellence to achieve flexibility advantage. Potentials focus on cost advantage through developing their digital strategy hand in hand with operational excellence and (40%) companies are doing same. Innovators (8%) show an average operational success but distinct advances in digital business through an innovative portfolio. Operators (8%) focus on digitalizing their core value chain, founding their success upon flexibility through innovative solutions. (33%) Followers seek to consistently advance digital skills in both index dimensions. (7%) Laggards lack digital skills in both index dimensions using digitalization to improve overall efficiency. This model describes a path towards an inherently data-driven business model. It includes more connectivity, integration, and automation that result in maximum efficiency, profitability, and flexibility. Finally, Dynamic system maturity theory outlines different areas of the organization and the value they provide. It examines how variety of internal and external forces affects an organizations system and internal processes. The main aim is to make sure that the organization is performing at a specific level and tracking function that correlates to specific value. It is a

roadmap for successful digital business change, improvement and transformation. Each model that includes Digital maturity index consists of **dynamics** and **constructs**. Forces that influence digital functional levels are called dynamics which are the macro capabilities while constructs are the capability building blocks for dynamics also called micro capabilities. Macro capabilities under the DSMT are- Digital strategy, digital workplace, digital offering, customer intimacy, operating model and technology.

Dynamics	Constructs
Digital strategy (Value Planning)	<ul style="list-style-type: none"> ➤ Innovation and experimentation ➤ Performance and benefit management ➤ Governance and risk management
Digital Workplace (Value Creation)	<ul style="list-style-type: none"> ➤ Digital literacy and competence ➤ User engagement and experience ➤ Remote and Virtual working
Digital Offering (Value Proposition)	<ul style="list-style-type: none"> ➤ Digital product management ➤ Digital business decisions and personalization ability ➤ Market awareness and scanning
Customer Intimacy (Value Experience)	<ul style="list-style-type: none"> ➤ Customer data management ➤ Ownership and management of relationships ➤ Customer influence, building trust and care.
Operating Model (Value Structure)	<ul style="list-style-type: none"> ➤ Automation ➤ Supply chain management ➤ Value chain management
Technology (Value Enabler)	<ul style="list-style-type: none"> ➤ Technology selection and supplier management ➤ Business and user value ➤ Cyber security and safety ➤ Delivery management

Significance/scope of assessing digital maturity in business enterprise:

Organizations can use different digital maturity indicators in order to assess the digital strength and weakness of the existing enterprise for the betterment of various dimensions of business like strategy, culture, processes, technology, customers etc. Digital maturity assessment would give the organization the following insights-

- Identification of the area which require digital transformation thereby ensuring the alignment of organization.
- Comparison of digital performance of the organization with those of others in the same industry to identify the potential digital competitive benefits.
- Measuring the effect of specific digital training and activities across various dimensions by analyzing the before and after performance of the firm using digital maturity assessment tools
- Enabling a cross organizational understanding of the organizations digital maturity by inviting key stakeholders to take the assessment for ensuring the overall alignment of organization.

Conclusion:

Digital businesses represent the most dynamic and a crucial segment of the new economy. As lockdowns ease, businesses are eagerly looking forward into the New Reality: what will the world look like post-COVID-19? Digital transformation being the key strategy of business leaders initiated the importance of digital maturity across the enterprise for the ideal identification of the digital opportunities and threats which the existing business is facing. The proper analysis of the digital ability of the organization with the help of digital maturity index has possibly created a long term vision for the firms. The emerging need to understand the requirement of such assessment criteria helped in evaluating the overall business performance in terms of different dimension in business like the strategy and culture, customer enhancements and technological advancements and it further provided a scope for research in the area of digital maturity and digital transformation not only in business world but also across all the industries where the same is not an option but a necessity. Thus the notion of digital maturity is not merely exhibiting a new reality, but the deep rooted opportunities ahead.

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**THE COVID-19 PANDEMIC AND GLOBAL UNITY:
A MACRO PERSPECTIVE**

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Introduction:

The Great Wall of China is one of the Seven Wonders of the World. It is a living example of human unity against enemy's invasions. This wall was built for protecting Chinese empire from its external threats especially from the Mongols. In reality, the great wall was a group of separate walls built by different states of the then China in various time periods during different regimes. Finally during the ruling period of the Qin dynasty, Emperor Qin Shi Hung had joined all these separate walls by uniting the states into one great empire. Thus the great wall was emerged as a story of unity against enemies. This story is now a glorious part of human history, and history repeats itself. After hundreds of years from this, people have again witnessed this kind of unity against enemy's invasion at present time. But this time the enemy is not human, it's a microorganism in the form of a pathogen. This pathogen has created a grave threat to human lives by causing a disease, which is known as the COVID-19. The COVID-19 has already got the status of a global pandemic and has forced the government of different nations, its affiliated organizations, different non-governmental organizations and international organizations, the corporate professionals, the medical community, academicians to join the war front against it.

Global pandemics:

On March 11, 2020 due to the widespread occurrence of COVID-19, the World Health Organization (WHO) made the assessment that it can be classified as a pandemic and alerted the global community. Subsequently, the Republic of India went into a nationwide 'Lockdown' on March 25, 2020 changing the life-style of 1.3 billion people overnight, as a preventive measure to stop the spread of this pandemic. For proper understanding of the meaning of the term 'Pandemic', one must know about infectious diseases and epidemics first.

Infectious diseases, epidemics and pandemics – the linkage:

The WHO defines infectious diseases as the diseases that are caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; those can spread directly or indirectly from one person to another (Infectious diseases, 2016).

The lexicographers define the term epidemic as the widespread occurrence of an infectious disease in a community at a particular time, and as per the 4th edition of 'A dictionary of epidemiology' (Oxford University Press, 2001) a pandemic can be defined as "an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people" (Kelly, 2011). Literally, pandemic is defined as the worst case scenario pertaining to human health and life which arises on the convergence of three particular events: first, emergence of an infectious disease. Second, it's wide spread occurrences within a community (i.e. the situation of an epidemic) and third, spreading of the disease from that community to the world community by crossing international boundaries.

The human history has been witnessing many horrific episodes of pandemics since time immemorial. The earliest known pandemic outbreak occurred in 430 B.C during the Peloponnesian War (History.com, 2020). The portrayal of the devastating effects of pandemics in the modern human history can be made through four main pandemic cases since the beginning of the twentieth century i.e. the Spanish flu, the HIV/AIDS, SARS and finally the COVID-19.

The Spanish Flu (1918-1919):

It was the most devastating pandemic in the history that probably killed 50 million or more people in about a year. But unfortunately it took twelve years from 1918 to early 1930, only for the identification of the virus causing this flu. Ultimately this delay affected the whole process of developing an effective cure resulting in continued human suffering for the whole period (Mamelund, 2017).

The HIV/AIDS:

The Acquired Immune Deficiency Syndrome (the AIDS) emerged in the early 1980s. This disease is caused by a virus known as the 'Human Immunodeficiency Virus (HIV). First cases of this disease were reported in 1981. Later this disease has converted itself into a pandemic which infected 65 million of people and 25 million deaths. From the early years of emergence of the AIDS, many scientists have tried to develop a vaccine but till date there is no effective vaccine (Esparza, 2013).

The SARS:

The SARS acronym stands for severe acute respiratory syndrome. It is the first severe and readily transmissible new disease that has emerged in the early 21st century. This disease has

shown a clear capacity for spread along the routes of international air travel. The first cases of SARS appeared in the middle of November 2002 in Guangdong Province, China. The disease produced 8442 cumulative cases worldwide with 916 deaths within a period from 1st November to 7th of August 2003. The SARS disease also has no vaccine and no treatment till date (Cherry and Krogstad, 2004).

The COVID-19:

The coronavirus disease (COVID-19) is the ongoing pandemic of the world. The virus that causes this disease is known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It is closely related to SARS, and is thought to have a zoonotic origin (Perlman, 2020). It was first reported in Dec 2019 in Wuhan, Hubei Province, China as a cluster of cases of pneumonia. This virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, which makes it an easily communicable disease. Within a very short period of time it has become one of the most devastating pandemic affecting 217 countries, areas or territories, with 5,556,679 numbers of confirmed cases and 351,866 numbers of confirmed deaths as of May 28, 2020 (Coronavirus, 2020). Many scholars believe that the advanced communication and transportation is responsible for the rapid spread of this disease. It reminds the Joseph Byrne's statement of the book 'Encyclopedia of Pestilence, Pandemics and Plagues', that through a jet travel, a minor local outbreak of an infectious disease can find its way into dozens or hundreds of human communities within days. In true sense, pandemics do not follow any international boundaries.

This novel coronavirus has forced the health authorities to resort to the control tools of the earliest days of empirical microbiology i.e. isolation and quarantine as preventive measures. At the same time since its emergence scientists and doctors have been trying to develop vaccines and other methods of treatments for assured cure, for which global cooperation is most needed.

Global fight to handle Pandemics:

We, the people can't foresee the future, but on the basis of past experiences we can anticipate the future. The human history of recent time has witnessed many deadly diseases but unfortunately till date there is no assured treatment against most of these. Making a cure against a deadly pathogen or virus which has never occurred before is really a difficult task, which requires substantial amount of time, knowledge and resources. But this doesn't mean that we are helpless before these incurable diseases. Early detection of disease outbreaks and preventive measures can help the people to escape from their catastrophic effects.

In the year 1998 the then U.S. Secretary of Health and Human Services, Donna Shalala had stated that people have the power to prevent the next pandemic and defeat emerging infectious diseases, but only if all the nations step up to fight together. Because diseases recognize no borders, so in the fight against these diseases people too have to follow this no border assumption. She further mentioned that in the fight against the pandemics people need a world-wide 'surveillance and response network' which can quickly identify and stop an outbreak of infectious diseases. In this regard the WHO must work to globalize their approach of surveillance and response (Shalala, 1998).

Accordingly in April 2000, WHO has launched the Global Outbreak Alert and Response Network (GOARN) as a mechanism to link together 112 existing networks which together possess much of the data, expertise, and skills needed to keep the international community alert to outbreaks of diseases and to be ready to respond (Sondorp *et al.*, 2011). In this context WHO has been using a computer application known as the Global Public Health Intelligence Network (GPHIN) which scans world internet communications for rumors and reports of suspicious disease events. This GPHIN provided some of the earliest alerts regarding the SARS outbreak in China (WHO, 2010). Similarly, according to Dr. Theresa Tam (Chief Public Health Officer, Canada) the GPHIN has successfully detected the outbreak of the COVID-19 in Wuhan right at the end of December (Brewster, 2020).

Apart from the surveillance and response network, the WHO also has developed a laboratory network to strengthen the performance of laboratories worldwide. Laboratory networks are essential for disease surveillance systems to provide accurate and timely confirmation of infection. The WHO coordinates global laboratory surveillance of vaccine preventable diseases (WHO, 2018). But these laboratory networks cannot function properly without the coordination at the global, regional, and national levels (Mulders *et al.*, 2017).

On the parallel footstep of WHO, the Global Health Security Agenda (GHSA) was launched by the US in the year 2014 with a view to develop a joint effort worldwide (Gao, 2019). At present 69 nations of the world are members of the GHSA. The GHSA success stories include tackling the Lassa fever in the African continent, detecting the Nipah virus in India, detecting Antimicrobial resistance (AMR) in Indonesia, managing Measles in Mali etc. (Tappero *et al.*, 2017). The failure of early detection and effective response can cost enormous loss to health and wealth.

Scenario of GDP growth and unemployment rate after and before COVID-19:

The prevailing pandemic has jeopardized all the aspects of human life ranging from social to economic. "The COVID-19 pandemic is inflicting high and rising human costs

worldwide, and the necessary protection measures are severely impacting economic activity. As a result of the pandemic, the global economy is projected to contract sharply by –3 percent in 2020” as mentioned in World Economic Outlook; The Great Lockdown report (World Economic Outlook, April, 2020). The table 1.1 shows a very low or negative growth rate and rising unemployment rate of some important economies of the world and some of them are also worst affected by the COVID-19. Effective policies are crucial to mitigate the worst outcomes. Strong multilateral cooperation is essential to overcome the effects of this pandemic both in the field of economy and health.

Country	GDP growth (%) in 2019	GDP growth (%) in 2020 (Projections)	Unemployment rate (%)	
			2019	2020 (Projections)
India	4.2	1.9	7.6*(Dec)	23.52*(May)
United States	2.3	-5.9	3.7	10.4
China	6.1	1.2	3.6	4.3
Japan	-0.7	-5.2	2.4	3.0
Germany	0.6	-7.0	3.2	3.9
United Kingdom	1.4	-6.5	3.8	4.8
France	1.3	-7.2	8.5	10.4
Italy	0.3	-9.1	10.0	12.7
Brazil	1.1	-5.3	11.9	14.7
Canada	1.6	-6.2	5.7	7.5
Russia	1.3	-5.5	4.6	4.9

Table 1.1:- Comparison of GDP growth and Unemployment rate before and after COVID-19. (Source: IMF, World Economic Outlook, April 2020: The Great Lockdown). *Data are collected from CMIE Unemployment Rate in India as data are not available in WEO.

Vaccine development regarding the COVID-19:

In earlier examples of pandemics’ invasions of human health, the vaccine development part of the counterstrategies has been observed as the last resort to defeat these invasions. The task of vaccine development is in the hands of both public and private sector organizations. In the context of the present day coronavirus pandemic numbers of pharmaceutical establishments, academic institutions and non-profit organizations from different parts of the world have joined hands to develop effective vaccines.

The World Health Organization has framed a research and development blueprint through which it has brought together a group of scientists, physicians, funders and manufacturers from different parts of the world with a view to develop a potential vaccine for

coronavirus. The members of this group are from USA, France, Spain, Canada, Austria, Germany, UK, Australia, Argentina, Japan, Republic of Korea, Switzerland, China, South Africa and Netherland (WHO, 2020).

Till May, 2020 a total of 100 projects have been started globally to develop the effective vaccine against the coronavirus. 8 of these have already entered in the clinical trials phase. 72% of these projects have led by the pharmaceutical companies and 28% by the academic institutions, non-governmental organizations like NGOs and other public sector organizations concerned with human health (ABPI, 2020).

Impact on international relations:

The term 'International Relations' from a general perspective, denotes the study of relations that exists among different nations and relations of nations with different international organizations of the world.

Lots of theories are there in the realm of international relations like realism, liberalism, radicalism, and constructivism. With time, a few of these theories have lost their significance due to the changes in real context. Still there remain a few branches of these theories but a common and universally accepted theory regarding 'International Relations' is not in the discourse yet. Although many academics have admitted that the perspectives of realist theorist are the most compelling framework for perceiving 'International Relations'. The realists have viewed 'International Relations' as the struggle for power among the self-interested nations. But discord exists there. The classical version of realist theories believed that states, like human beings, have an innate desire to dominate others and this leads to wars. Opposing to this, the neorealist version believes that the international system consists of a number of great powers and each of these seeks to survive (Walt, 1998). This self-centered tendency (of being an influential nation in the world politics) of the nations is clearly evident even during this world pandemic. Though at the time of world health emergency we mostly need to focus on health issues, it is also a necessity to study international relations in the pursuit of peace as a part of this.

The emergence of COVID-19 may be the most consequential event of 21st century, which may change different aspects of life ranging from our daily life to relations between countries. This is apparent in the growing tensions between world's two giant powers, the US and China. For instance, the president and some elected members of the US called the SARS CoV-2 as 'Chinese Virus' and accused Chinese authority of covering up its initial outbreak. In response, Chinese authority retaliated and blamed the US military as the probable spreaders of the virus in Wuhan (The New York Times, 2020). The conflict of these two nations is visible in many folds. Similarly, Australia's demand for an independent investigation into the origin of the novel

corona virus developed tensions between Australia and China. Subsequently, following the Australia's proposal, the European Union prepared a draft resolution for World Health Assembly, to initiate an inquiry into the global response to the novel corona virus crisis without explicitly mentioning the name of China (Mohan, 2020). Here, The US and its strategic ally Australia are trying to influence the world community to curb the overwhelming influence of China, while China is using its economic relationship to threaten Australia. It is worth mentioning that China is Australia's the largest two-way trading partner in goods and services, accounting for 26 percent of its total trade with the world (Tang, 2020).

During this pandemic India's support to the world community can be considered as 'medical diplomacy', as suggested by media reports. India has provided humanitarian aid in the form of pharmaceutical and other items to nearly 85 nations such as US, Spain, Germany, Nepal, Bhutan, Seychelles, Mauritius, Brazil, Bahrain etc. (Goyal, 2020). India is apparently maintaining its neutral stand point during this COVID-19 crisis.

The COVID-19 outbreak also has brought the World Health Organization under question. The US President, Donald Trump accused the WHO of mismanaging and covering up the facts of the virus origin. Subsequently the US halted its fund for 60 days, which is the largest single source funding of the WHO comprising 15.18% of total financial flow (PTI, 2020). With these tactics the US has tried to continue its hegemony. In another case, Taiwan has also accused WHO for not taking prompt action even after their warning about the outbreak of the virus during the initial period. Though, WHO has rebut those accusations later, but Taiwan gained a renewed support from the US, Japan, Australia, New Zealand and some of Latin American, Caribbean and African states to get 'Observer Status' in the World Health Assembly (India Today, 2020). But, finally Taiwan did not get the opportunity to attend the assembly due to strong opposition from China. The US has condemned the exclusion of Taiwan. The struggle among different countries to influence the international organizations has become more apparent during this health calamity.

How the international community should behave?

While attempting to explain how countries should behave with each other as a part of the international community there is the need of complete understanding of the term 'Norms' in the 'International society or community'. Norms can be defined as the rights and obligations that shape the standards of nations' behaviors. In broader sense, norms are viewed as patterns of expected behavior of states appropriate in the international community. These norms provide the required grounds necessary for developing nations or states' foreign policies (Walt, 1998). Thus,

to know how a nation behaves with other nations of the international community one has to go through the characteristics/features of foreign policies of that particular nation. For example: The foreign policies of the United States have always been aimed towards creating a more secure, democratic and prosperous world for the benefit of the American people(The U.S. Department of State, 2019).

The fundamental goals of Chinese foreign policy are to preserve China's independence, sovereignty and territorial integrity, create a favorable international environment for China's reform and opening up and modernization construction, maintain world peace and propel common development (China's Foreign Policy, n.d.).

Main objective of India's foreign policy is to secure national interests and ensure inclusive development. Our foreign policy also tries to ensure that India's voice is heard on global forums and that India is able to influence world opinion on issues of global dimensions (Malhotra, 2019).

Thus if we look at the objectives of foreign policies of other different countries it is visible that almost every nation supports the idea of peaceful cooperation for development. Following this idea, in a world health crisis like the present COVID-19 pandemic, all nations must work in a harmonious way to achieve their own individual goals.

To combat this type world health crisis, the WHO initiated International Health Regulations in 2005. The IHR is an agreement between 196 countries including all its member states to work together for global health security. These countries have agreed to build their capacities to detect, assess and report public health events and WHO plays the coordinating role (WHO, 2017).

The existence of agreements like IHR has somehow aided the WHO in maintaining coordination among the countries on health related issues. Only due to the presence of coordination, the WHO successfully published the guidance and advices to tackle COVID-19 within a short period of about 2 weeks from the first reported case in China. On January 10, 2020 the WHO has fitted out a comprehensive package of online technical guidance with advices to all the countries for detecting, testing and managing potential cases of this new disease. In the same way, China publicly shared the genetic sequence of SARS CoV-2 on January 12, 2020. This information is important for vaccine development, scientific researches and experiments (WHO Timeline, 2020).

In the context of global cooperation, the Indian PM Narendra Modi has also said that nations can respond a pandemic best by coming together in collaborative way, focusing on preparation not being panic. Following this principle, he has led the initiative to set up a COVID-

19 emergency fund and a rapid response team of doctors and specialists for SAARC (South Asian Association for Regional Cooperation) nations (Chaudhury, 2020). Apart from this, India also evacuated the stranded citizens of different countries such as Bangladesh, Myanmar, the Maldives, South Africa and Madagascar, along with its own citizen from Wuhan, China, the epicenter of COVID-19 (Marjani, 2020). Similarly, most of the other nations also have extended help to each other during this health crisis. For example, China has announced assistance to 82 countries to provide testing reagents, masks and protective suits. US provided financial support to 64 the most vulnerable countries and UNCHR, and Cuba sent doctors to Italy.

The director of the WHO, Tedros Adhanom has also urged the nations instead of politicizing the virus (which has been seen in some part of the world), every country should work together to eradicate a fatal virus like SARS CoV-2 which is responsible for the death of millions of people. Global solidarity is needed in this struggle against the virus as suggested by the UN Secretary General, António Guterres (TOI, 2020)

Countries like South Korea, Singapore and Taiwan have performed better in containing the spread of virus (Asquith, 2020). The countries through their effective testing, tracing and isolation procedures have succeeded to escape from the severity of this disease. The other countries should also follow their models to combat the COVID-19 pandemic.

Conclusion:

The previous pandemics have taught us how to survive and resist catastrophic and devastating encounters of deadly pathogens or viruses. Once again the emergence of COVID-19 incited the need of a more robust and effective global surveillance and prompt response system where every country must participate avoiding their geo-political strategies. The process of vaccine development is not an easy task in relation to every infectious disease and even in some cases the presence of specific antibodies can be beneficial to the virus. As prevention is always better than cure, all nations should work together to defeat next invasion of a novel virus. But from the present situation it is visible that most of them are still following their self-interested foreign policies. Instead of this every nations should try to improve the international relations by information, resource sharing and exchange of technology and in this type of situation, the color of the globe should be only one.

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THE ROLE OF ETHICS DURING PANDEMIC

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Introduction:

Ethics is the branch of philosophy which discusses about the standard of rightness and wrongness of an action or human conduct. Ethics has a very crucial role in our personal and social lives. It regulate our actions, show us the better and right way to lead in our lives. It guides our conduct or behavior towards other persons, animals and environment also. Ethics establish some rules, principles or values according to which we can operate our conducts. By following ethics we can maintain justice, peace and harmony in our society, nation or world. In our daily life we can notice various ethical issues. At present time ethics is associated with every aspect such as social, political, economic, and religious. It provides some rules and values so that we can live together without any conflict or injustice to anyone.

Pandemic is such a situation when there is a global threat to our health and lives due to some disease. In such kind of situation ethics has its very important role to play. During pandemic ethics has its vital role to play in medical ethics. Doctors and other health workers have to play key roles in such time. Doctors have ethical roles for their patients according to their severity of disease. During pandemic doctors should look after the patients who are at high risk and old in age. They need to take care of the patients even after the risks to their own lives. Doctors and the health workers are the highest service providers in our society or world. They save our lives or in a sense give us a new life, for which we regard doctors to be God within the world. They have achieved the status of God who gives us life.

Pandemic is such an unfortunate situation which we never ever want in our life. But human civilization has witnessed many pandemics, so, we need to be ready for such a situation. In such situations ethics has some vital roles to play.

Importance of Ethics in our lives:

Ethics has very much importance in our lives. It makes the standard for determining the rightness and wrongness of an action and consequently guides us throughout our life. In our lives we make various and different choices which determines or affects the standard of our lives. The

actions which we perform according to our choices have some consequences for which we are responsible. So, ethics depends on our choices. And again, choice depends on our character i.e., the qualities that defines a person.

There are various forms of ethics such as Deontological ethics and Consequentialism which comes under normative ethics. Deontological ethics is the approach to answer moral questions that emphasizes duty or rules. Again, consequentialism emphasizes the consequences of actions. But there is Virtue ethics which does not come under normative ethics and stresses on virtue or moral character of a person. Other than normative ethics virtue ethics gives us a guide for living life without giving us specific rules for resolving ethical dilemmas. This character based approach to morality assumes that we acquire virtue through practice. We need to do right thing in the right time and in the right way.

Ethics is important for an individual and also for the society. An individual should not think only about his self-interest but also for the interest of the society. Though it is not wrong to work according to one's own interest but if everyone starts thinking in this way then there will be chaos in the society. The individuals will perform any action which may cause harm to others, just to fulfill their self-interests. So, we have some moral responsibility towards our society to maintain peace and harmony. So, in this way we need to be moral in our civil society.

To remain far from any pandemic we need a holistic and integrated health approach. And this approach is obtained by maintaining coexistence among man, animal and environment. Imbalance always causes trouble and therefore we need to care for maintaining the balance. Man, animal and environment is interdependent on each other and cannot exist properly without the other. Whenever one tries to break this interdependent relationship, it faces the harmful consequences. "Both the animals and environment have a significant role in the emergence of infections with zoonotic origin in human population. Several factors like climate crises, increased travelling, population explosion, urbanization, deforestation, animal trade and rapidly evolving pathogens have further amplified the threat of emerging zoonosis" (Tanveer *et al.*, 2020).

Human civilization in the name of industrialization or modernization has been exploiting environment. And exploitation of environment will make us poor in health and the earth uninhabitable for us. Viorica Torii Caciuc refers to J. B. Callicott, "He states that each time humans get involved in a project, be it personal or public, they must evaluate the impact on the environment, then they must choose the actions that will increase the diversity, integrity, beauty, stability, health, and wellbeing of the biotic community or of the whole ecosystem" (Caciuc, 2014). Again, environmental ethicist J. J. Kassiola says, "The fate of our planet and all of its

living inhabitants lies in the balance” (Kassiola, 2003, p. 491). Therefore, we need to balance between human and our environment. And for this we must have respect for others (whether it is any animal, plant or any element of our environment). We are morally obligated to maintain balance, peace and harmony in the earth. We are the most superior species in this earth; but this does not mean to use everything as we want. Superiority does not mean to become a taker (of everything in the earth) rather it implies to become the care-taker or care-giver.

Role of Ethics during Pandemic:

In the time of pandemic the situation of a country or of the whole world becomes horrible and unfortunate. Even if one country is affected but there is a chance of severely affected the world. So, in such a situation no country should think of its own matter or problem. It is a global matter and it is the responsibility of each and every country to come together to solve the problem effectively. It is the ethical responsibility of the developed countries to help the developing and underdeveloped countries if possible. The countries with surplus vaccinations or treatment facilities should provide to the other needy countries. Global problem should be solved globally. Though we are separated by countries and nationalities but we all are the same human species. Therefore, to live and survive in this world we have to work together.

The World Health Organization in the time of Influenza H1N1 pandemic appealed to the developed countries and pharmaceutical companies to donate part of their vaccine supply to the developing countries. Merce Verweij says, “This call appeals to the moral responsibilities of affluent states to offer aid to populations with grave health needs, and inadequate means of addressing those needs themselves” (Verweij, 2009). As the developed countries have more money power they can easily avail the vaccines or other health protection measures. And, consequently, the developing or undeveloped countries are undermined for the basic protection of public health, they cannot avail these. “Making available for developing countries might then not just be an issue of benevolence, or even of distributive justice, but of correcting previous wrongs, such as, current or historical government policies in the developed countries that have harmful effects on other populations” (Verweij, 2009). Again, Marcel Verweij says, “If our primary obligation is to protect health capabilities, arguably pandemic vaccination is much more important in countries that have little or no vaccine supplies, than in countries that could afford to purchase sufficient vaccine for their whole population” (Verweij, 2009). During the COVID-19 pandemic India provided large number of vaccines to the other needy countries. This is clearly a very good example of a moral responsibility during the time of pandemic towards the

needy. In the same way some other countries also helped the developing and undeveloped countries during the COVID-19 pandemic.

There is another moral responsibility of the developed countries that they should not buy vaccination for all the citizens; they should buy it for the people who are at high risk so that other developing or undeveloped countries also could buy vaccines for their people who highly need this. To live a proper life or a happy life it is also very important that our neighbor is also happy, because our surroundings in some way affect our lives.

Again within a country, every people or citizen should get the best available treatment, as the life of every human is equally important. There should not be any discrimination in respect of race, ethnicity, sex, religion, political alliance etc. World Health Organization in a report says about equal moral respect of patients, “Every person is equally valuable. Treatment and care decisions should be based on medical need and not on irrelevant or discriminatory features such as ethnicity, religion, sex, age, disability or political affiliation. Patients with similar health problems or symptoms must receive equal treatment and care. Showing moral respect means involving patients and their caregivers in decision-making to the greatest extent possible, explaining options and limitations in treatment” (WHO, 2021).

In the time of pandemic it becomes very crucial to make decisions which are evidence based and have carefully analyzed the core ethical values. During the time of pandemic various groups of workers, service providers and organizations have moral responsibility towards the affected people. “The decision making process for outbreak preparedness planning involves a number of stakeholders including governments, NGOs, the military, commercial businesses, research funders, academic institutes, public health officials, researchers, ethicists, health care workers, volunteers, communities and families. All of them have different moral or legal obligations to fulfill” (Tanveer *et al.* 2020).

Conclusion:

Ethics is very important for an individual and also for the society as a whole. It determines what is moral to do and what is not. Ethics works for maintaining peace and harmony in the society. And its role during the time of pandemic becomes more crucial. A sound ethics is required to sort out the pandemic dilemma. Pandemic is always a threat to human civilization. So, we need to work together, help each other irrespective of race, religion, ethnicity, sex and even nationality. We all are morally equal and therefore we should work for others as well as for ourselves. This is a moral responsibility of everyone to make the world peaceful and its inhabitants to live or survive with proper dignity. Lastly, we have to keep this in mind that like

influenza, COVID-19 there may other new pandemics arise in future. So, at that time we have to show and practice our moral responsibility or obligation towards the needy. We can live in this world only when we are together. And this togetherness is possible only through the sense of ethics.

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AN ANALYSIS OF COVID'19 AND THE RESULTING GENDER STRUCTURES ALTERATION

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Abstract:

Ever since the beginning of human civilization, Epidemics have frequently impacted the lives and altered various social structure. There is a history of many epidemics such as Plague, Black Death, Cholera, Smallpox, Spanish Flu, Swine Flu, Bird Flu, Ebola and HIV/AIDS etc. Some kill a few hundred while some kill in millions. They disrupt the smooth working of humans and reshape their modern environment, hamper their progress and cause a negative growth in economy. The ongoing pandemic – Covid'19 – is no exception to the destructive nature of pandemics. It has brought the entire world to a standstill and the lockdown has caused restructuring of domestic relationships by redefining do-genders. This research paper is titled “An Analysis of Covid'19 and the Resulting Gender Structures Alteration” and it intends to study a) the destruction caused by the novel virus and b) how has it challenged and reshaped the working of social micro units – a family.

Keywords: Pandemic, Covid'19, Corona virus, Feminism, Domestic chores.

Introduction:

Pandemic appearance is not new for the world. Ever since the beginning of civilizations their occurrences have impacted the human societies in hazardous manner. Modern era of human civilization is based on persistent harassment of Nature, which creates a favorable condition for the spread of pandemic. As we know in history, during the time of Athens war (430 B.C.) first time an epidemic affected Libya, Ethiopia and Egypt. In the 14th century black plague spread in European countries and for 350 years it killed thousands of peoples in the world in Britain, Germany and Italy (Cambridge Economic History of Europe, sec-4). In 1655, in London one fifth of its population was wiped out by the plague. In year 1817 outbreak of Cholera Epidemic killed thousands of people in Russia, Spain, Africa, Indonesia, China, Japan, Italy etc. In the end of 18th century, another plague spread in Bengal and Bombay presidency (India) when a plague manifesto was regulated by the Swami Vivekanand with the help of Sister Nivedita and by the

British Government for cleanliness and hygiene. In the year 1918 according to Sanitary Commission Report, lakhs of peoples reported dead due to Spanish Flu in India when all the rivers of India were flooded with dead bodies, rituals and cremation problems faced, same as seems in Corona period when some newspaper report the dead bodies of corona patient threw in India Rivers. During the year 1974, thousands of people reported dead due to Chechak in India.

So it is observed that Epidemics has a drastic history not only in India but on entire Earth also. Time by time they occurs and try to destroy the human civilization because of some natural as well as man-made reasons. Some time it controls on early stages when remedy or vaccine is available because of medical science and improvement in health infrastructure while sometimes, it takes much time to control when virus mutant themselves in different forms as Covid-19 mutant itself in many variants.

Objectives:

This study aims to find out the actual situations during Covid-19 spread and analysis their impacts on socio-economic conditions. The paper shall also study the effects covid'19 has on the doing-gender structure of our society – how it has restructured the domestic chores.

Methodology:

This study based upon the information collected during the different newspapers during covid-19 months and the data published on the different website by government and institutional officials. Graph & tables made in excel or word sheets with help of data released by the different institutions and calculation or tabulation done numerically.

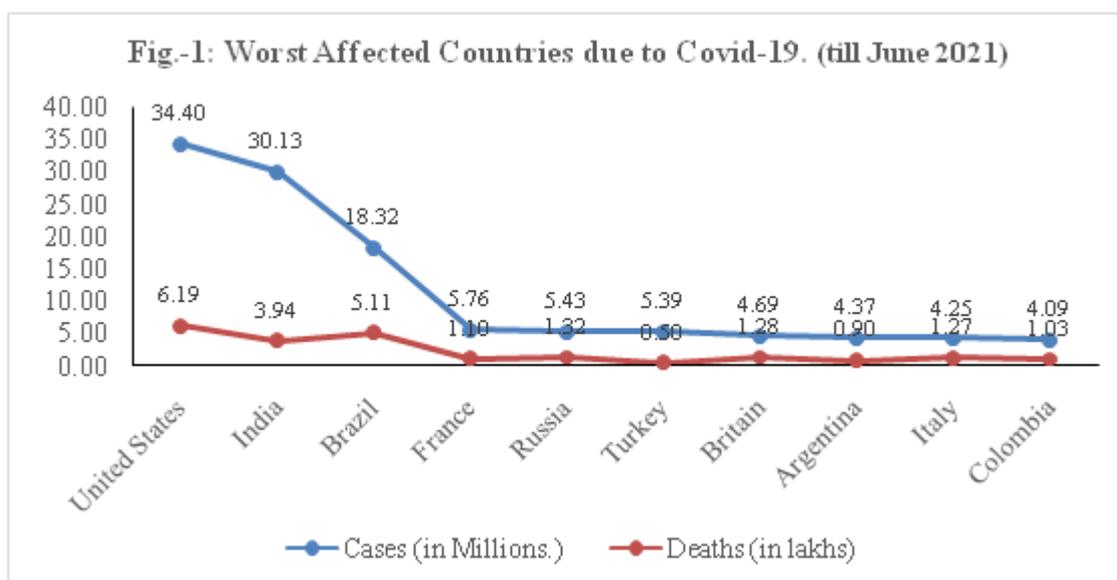
Introduction to Novel Corona Virus (Covid-19):

As we know in January 2020 Chinese state media reported a mysterious pneumonia outbreak Identified as novel coronavirus in Wuhan city (China) and which spread around the world. In a very short time period because of globalization world, all the developed, undeveloped or developing economies found under the black shadow of Covid-19 (Novel Corona Virus) spread. On 30th January, 2020 World Health Organization (WHO) declared it as a public health emergency and on 11th March, 2020, WHO declared Covid-19 as a global pandemic. At present approximate 160 countries reported Covid-19 cases, some of them have alarming figures and many of those faces its second wave which is more critical than first waves because it mutant itself in many variants. Around the world, more than 170 million of persons affected due Covid-

19 and more than 3.8 million persons reported dead due to Corona virus spread. While in India more than 30 millions of people get affected and more than 3.9 lakhs of people reported dead due to Corona virus spread. Indian Council of Medical Research (ICMR), conducted three Sero survey in India to find out the infection rate among the Indian society during September 2020, and during 17 December, 2020 to 08 January, 2021. Second Sero survey represents every 15th persons got infection among India, while third sero survey represents every 5th person found infected by Corona Virus disease in India.

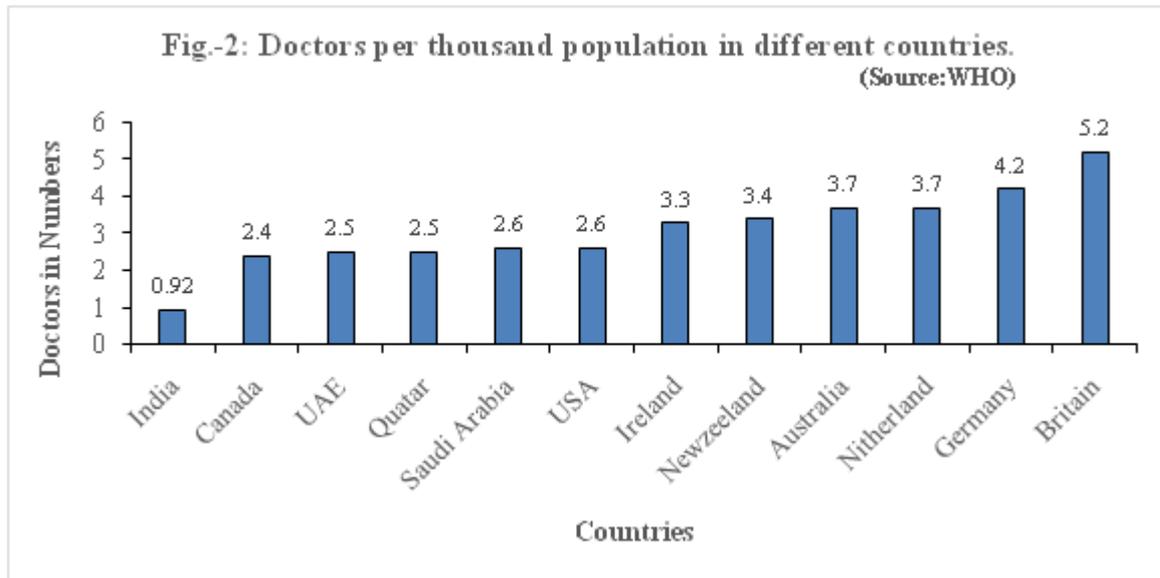
Discussion:

All around the world more than dozens of corona variants found. Wherever, P.1 strain (Amazon, variant) hit in Brazil during the second wave, while B.1.617.2 strain (delta variant) affected brutally in India and mutant itself in delta plus variant (K417N strain). In spite of this British variant B.1.1.7 and South African variant B.1.351 are also found in India, which makes the situation more critical.



USA, India, Brazil, Turkey, Russia, U.K., Italy, Argentina etc. are the major affected countries due to Covid-19 spread (Fig.-1) while all these regions have different socio-cultural and different eco-political environment. Some of these affected drastically in second waves while some in first waves but all suffered a lot of casualties during pandemic. In India, many states such as Maharashtra, Karnataka, Kerala, Tamilnadu, Andhra Pradesh, Uttar Pradesh, West-Bengal, Delhi, Chhattisgarh, Rajasthan, Orissa, Gujarat, Haryana, Telangana and Punjab reported Corona cases in lakhs of infected people, Maharashtra state has the alarming figure more than 50 lakhs corona patients, especially in economic capital Mumbai. State Governments and health infrastructure in Indian were not ready and not in proper manner to face epidemic

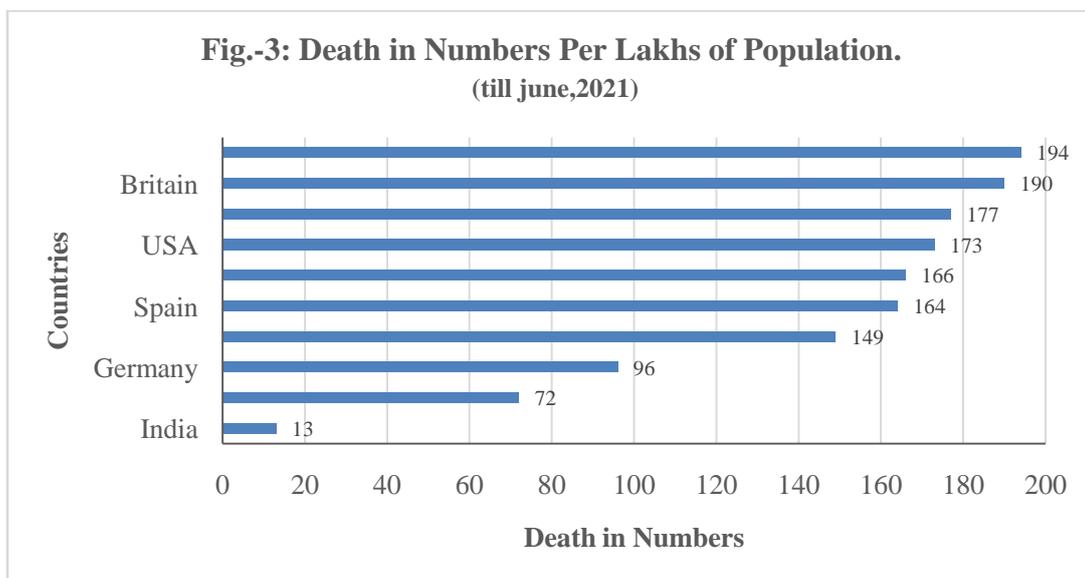
especially during the second waves. Miserable condition of health infrastructure and poor medical facilities got failed during the second waves, lacks of oxygen cylinder in hospitals causes more casualties, remedies injection were not available, beds in hospital were inaccessible, shortages of ambulance were seen, shortages of doctors (Fig.-2) and other medical staff were seen, price of medicine gone high, black marketing made situation critical which causes several deaths, while many people died due to lack of awareness also.



Unavailability of oxygen was the prime cause of critical situation, it was noted, during the second wave on 17th April 2020, when 2 lakhs of patient were coming daily the demand of oxygen was 3800 metric tons per day, while after 15 days it crossed the demands of 6600 metric tons per day when highest figure of corona patient (on 6th May 2020, more than 4 lakhs infected persons) came to know. While only 15% to 20% of patients need for the oxygen, but situation was so tense that oxygen uses in steel plants were also sent to the hospitals. As we know during the first wave in year 2020, Indian Government has decided to establish 160 oxygen plant around the country.

However, India represents a better position in comparison of many other countries during the outbreak, where only 13 death reported on 1 lakh of population while it is 72 in Russia, 149 in France, 173 in America and 194 in Italy (Fig.-3). Our health infrastructure and medical facilities platform looks feeble in front of European and American countries health infrastructure. There is a possibility that our life style basically our dietary habits and use of Ayurveda's make our immunity strong to fight against this Corona virus. Indian Central Government Ministry of Ayush suggested to intake ayush-kadha as an immunity booster during corona and practices Yoga in daily life. Some other Ayurveda immunity booster also launched in

country to cure the covid-19. They can be helpful but seems to be more research and practices in this field.



As the World Health organization (WHO) declared Corona Virus spread as a global pandemic on 11 March, 2020, all around the world medical scientist tried to find out the vaccine which control the Covid-19 spread and break down its chain. In India, 37 laboratories with 4000 working scientists the Council of Scientific and Industrial Research (CSIR) has started their research and prepare two vaccines during the month of January 2021 named Covishield with the help of Britain and Covaxin on its own basis, while USA made Pfizer vaccine and Russia Made Sputnik-V, which was the first vaccine of Covid-19 in the world. Besides of this WHO and other regional health agencies suggested to follow some guidelines to prevent the Corona spread such as maintain the physical distancing to each other, wearing masks, use sanitizers, cleanliness and isolate or quarantine the patients. For example the General Council of Ragusa (modern Dubrovnik) across the Adriatic Sea enacted a law in the year 1377 (during Plague) to prevent the epidemic from spreading, according to that law, every ship and merchant convoy arriving in Ragusa was to remain in isolation for 30 days which saves not only their lives but their economy also while Venice allowed ship to enter without isolation process and lost their economy and many lives due to that epidemic. In another example of USA, during the study of Spanish flu in year 1918 the Loyola University scientists found approximate 1/3rd population of the world affected by flu and in that period wearing masks, isolation, cleanliness were the major steps adopted to prevent from Spanish flu. In the cities like San-Francisco, SaintLouis, Milwaukee or Kansas where these steps adopted with self-awareness, a sharp decline of 30% to 50% in death rate was noted.

As the Spread of Corona virus causing intense surprise to everybody in first wave as it was more accidental in second waves, when our disgusting health structure become helpless and it seems a failure of modernize medical system and institutional administration all around the world. Before the vaccination process was adopted on a large scale it's mutate variant especially delta infected the population on a large scales and thousands of people got infected in a day. So many governments in different countries around the world forced to put lockdown and night curfew in their regions to control the Covid-19 spread. India was also among them. Guideline regarding health protection issued by the health organizations in which wearing mask, physical distancing, sanitization, cleanliness and quarantine system implemented. Isolation ward and Cantonment zone made on a large scale. Testing, tracking, treatment and vaccination called 3T+V system implemented. Transportation, Market (Non-essentials), Hotels, Restaurants, Parks, Industrial sectors, Educational Institutes etc. were closed for almost two months during first waves while in second waves odd-even formulas were used to open markets and other economic activities. No industries can run with full strength, rotation system implemented, even working time was also gone limited while education institute and cinema were fully closed. Marriages, Cultural Activities, other functions banned for many days in both the waves and open after a month with permission of a few peoples. Places where people may gathered around, strict legal action (Fine/Jail) applied by the administration.

Affected countries implement some necessary action with much restriction, in practices to control the corona pandemic, causes the civilization has been put in a Lockdown. The magnitude and speed of collapse in activity that has followed is unlike anything experienced in our lifetimes. These restrictions resulting in economic losses. The world has changed dramatically. All the economic sectors including industries, markets, service sectors, import-exports etc.threw in global economic recession during Covid-19. Rapid increase of unemployment has seen in many countries. The migration of workers, especially in India has seen because of lockdown in Industries. It pressurize those states which they belongs and create a haphazard situation for their native land, where much of the resources wasted to control them which can be used in the management of pandemic. Food and shelter shortages emerge. Railways and roadways opened to transport them which resulting in corona out break during the first wave. While in second wave transportation system isrunning but less in numbers so the problems to workers seems less. In India many people travelledby foot for hundreds of kilometers for their native land when transport facilities unavailable during first wave because of

economic activities lockdown. Many of them being collapse during travelling while some others got accident.

Another impact of Covid'19 can be seen in the way domestic dynamics have changed. Women have been overburdened with domestic and professional work like never before. Sandrine Lungumbu and Amelia Butterly in their article "Coronavirus and Gender" (2020) says:

women are doing significantly more domestic chores and family care, because of the impact of the pandemic, [...] the pandemic has shone a spotlight on the fact that unpaid work has really been the social safety net for the world and has made it possible for others to go out and earn a productive income, while actually hampering the growth opportunities and the employment opportunities of those women who are carrying the care burden. (Butterly)

Impacts:

All these situations resulting in socio-economic instability in the country, on the behalf of SBI reports some newspaper claims that due to lockdown in 10 major states of India during the second waves have lost their 1,49,970/- crore Rs.of economy in present financial year. Which is equal to 0.7% of India's Gross Domestic Products (GDP). Maharashtra, Madhya Pradesh and Rajasthan covers the 80% of the total economic loss.In MSME industrial sector Improvident, mismanagement and defensive point of view damages more in comparison of other sector causes unemployment and investment failure. Due to lockdown purchasing power of middle class or lower middle class affected which causes decline in consumption of goods. Most of service sector and service provider industries gone to decline which stands as a base of present economic trend. According to Dr. Vikash Singh (Financial and Development experts),approximate 60 % of the corporates has financial problems due to pandemicand because of this launching of new products either delayed or postponed especially in automobile sectors. When we talk about Indian economy, we can say it depends on agricultural sectors which cover 46% of total national income. Almost 69% of Indian population lives in villages and 31% lives in cities (Census, 2011). Villages and towns depends on each-others and fulfill their needs. Towns runs because of villages goods production goods (for basic needs) while villages runs due to towns market system. Lock down and economic depression broke this interrelation and damages Indian villageeconomy too.In year 2018-19 agriculture export of India was 685 billion of Indian Rupees, while it decreased during the corona spread because all the ports were closed. Every year almost 5 crores migrated workers send one lakh crore rupees to the villages in the form of their income and four crore families survive their livelihood by those income (Daink Jagran 26 April, 2021, Vikas Singh), which helps to run the economyand work as an oxygen cylinder to

India's economic system not only in villages but in cities also. Lockdown collapse this chain. When a government and economic system try to maintain both the sectors (Villages and Urban) with the help of especial financial package causes financial deficit to the national economy which also happened with the Indian economy during the Covid-19 spread. According to Reserve Bank of India in nearby future instability can be seen in socio-economic activities and in livelihood. Reserve Bank of India estimated a 10.5 % positive growth rate, while International Monetary Fund (IMF) estimated a 12.5% positive growth rate before the second wave in India. But as second corona waves destroy the socio-economic structure around the world, there is a 1% to 1.5% of declining trend seen in the economy.

The impact of Covid and lockdown has not just merely affected society in terms of economy, medicine and employment but also every household across the globe and, as Priyanka Chauhan says in "Gendering COVID-19: Impact of the Pandemic on Women's Burden of Unpaid Work in India" (2020), "owing to the sexual division of labour, and gendered roles and social norms of performing domestic and care work in a household, the burden of unpaid work falls disproportionately on women" (Chauhan). But the pandemic has proven that men can perform the household work with equal diligence and care. Men have realized that what women do at home is hard work indeed. Forced to stay at home, men across the world had to participate in chores and many of them enjoyed it too. Mumbai based businessman Hitesh Patel shares similar experience in Namrata Singh's article "Housework can be done by Men, Shows Pandemic" (2021) when he says that he enjoyed cooking and continues to cook breakfast for his family even post lockdown.

Findings:

It is clear that 100% vaccination is the only remedy of Covid-19 with some preventive measures such as; cleanliness, using masks, keeping distances, and quarantine etc. In India first term of vaccination started from 16 January, 2021 and its aims to vaccinate 30 crore people till July, 2021, while a fully cover up shall give to all till December, 2021 to protect the peoples by another upcoming waves, which can be possible after a few weeks as some health agencies warns. By 27th June, 2021 almost 21% of Indian people vaccinate with first dose while 4.5% of Indian population have vaccinate with two dose of Covid-19 vaccine. On that day Corona positivity rate found only 2.9%, while recovery rate gone to the 96.6% in India. Approximate 40.2 crore test have been completed till 27th June, 2021, highest 5.7 crore test have been completed in Uttar Pradesh till that day. One another thing is noted during covid-19 spread that In 18 states of India approximate five thousands of Covid-19 patients affected with another

disease named Mucormycosis (Black Fungal Infection) especially in Gujarat, Maharashtra, in which 55% of patient are diabetic. Death rate in Black Fungal Infection found more (15%) in comparison of Corona.

Some says next waves will be dangerous for the children, while Dr. Randeep Guleria, Director, AIIMS, New Delhi neglect it, because according to medical sciences by which receptor system this Novel Corona Virus attached to human body that is not found in the children. As far as domestic activities, caregiving and tending was concerned, while in most of the cases in the initial months of lockdown, these duties were imposed on the women but later this matter did stir social attention. In many households, men also started participating in house duties and caregiving. This has restructured domestic relationships and have narrowed the gap of inequality, even if to a little extent, promising a lasting change in the gender norms.

Conclusions:

So on the behalf of the above study, published reports, guidelines issued by the official and experts opinion it can be understood that lockdown is not the only remedy of Novel Corona Virus spread. However, it is helpful to break the chain of infection but it impacts our livelihood and socio-economic structure. Many other tools can be adopted such as physical distancing, quarantine, containment zonebuilding, wearing masks, self-sanitization, use of medicine on time, use of Ayurveda's, maintain the immunity system, yoga, implement rotation system in economic activities like in markets and in industries, limit the crowd gathering in transports and in cultural programs like in marriages and functions, opening the restaurants and cinemas with some strict legal restrictions, to regulate online system in education and in service sectors, to update the health infrastructure and self-awareness during pandemic etc., also contribute in Covid-19 defeat. Another major remedy is to vaccinate all the people around the earth, then 80% to 90% of infection possibility will decrease automatically. So 3T+V (Testing, Tracking, Treatment + Vaccine) process should be adopted. Oxygen plants should establish. Beds and proper medicine will be available to the hospitals. Medical staff and medical equipment's such as oxygen cylinders and ambulance facilities also provided to the health machineries. Health advisory and guidelines should be issue by time to time and information related to corona update issued by the officials on time to prevent the pandemic situation in the country. Self-awareness programs such as fight against corona virus should start among the society. Coordination committee between government officials and public can be formulating. All these programs and steps protect us to any kind of epidemics. As we become irresponsible as we will in next wave which can be harmful to human beings and to human civilization. By the history we defeated many epidemics

like Plague, Black Death, Cholera, Smallpox, Ebola, Spanish Flu, Swine Flu, Bird Flu etc. and now we defeat the Novel Corona Virus also.

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THE IMPACT OF COVID-19 ON ECONOMY OF INDIA

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Abstract:

The modern pandemic disaster is having a terrible impact on Indian business. The impact of the corona virus pandemic COVID-19 on domestic demand could cause a downturn. This will cause a loss of buying electricity because of activity losses or salary cutbacks, and the deferred demand effect will have a longer-term impact on many sectors, particularly if demand is discretionary. During the fourth quarter of 2019-20, India's real GDP fell to its lowest level in over six years. India's growth is expected to range between 5.3 percent and 5.7 percent in 2020-21. The COVID-19 pandemic, additionally called the coronavirus, has uncovered many flaws within the international system. Despite our years of crisis management training, this virus has managed to isolate us all in our houses. The Indian economy has been severely impacted by COVID-19. The present corona virus pandemic could result in a four-percentage-point irreversible reduction in real Indian GDP. For 2020-21, India's Gross Domestic Product (GDP) growth rate is expected to be 1.9 percent. This will be the lowest growth rate since India's 1.1% growth rate in 1991-92. This epidemic is not only wreaking havoc on health-care systems and people's lives; it is also having an impact on global economics, resulting in job losses, business disruptions, and ushering in one of the worst periods in human history. To determine the impact of the Corona Virus on the Indian economy, statistical data from reputable and trustworthy information sources was gathered.

Introduction:

The COVID 19 has wreaked havoc at the Indian economy. The country's GDP growth is being harmed by the coronavirus-induced lockdown, which is causing major disruption across multiple sectors. A highly automated production infrastructure will save energy and improve quality while lowering production costs. The ensuing reduction in human working hours will improve our health and allow businesses to continue operating uninterrupted in the event of another crisis (Kishore Kumar Das, n.d.). Coronavirus infection first appeared in China in late

2019. However, it began to spread to other parts of the planet in early 2021. The outbreak of the Covid-19 pandemic has hit India's economy like a tonne of bricks. The economy was in bad shape at the time before Covid-19 struck. If the Indian economy were a person, its income in 2020-2021 and 2021-2022 would be lower than it was in 2019-2020, according to the most current World Bank estimates (Sidhu *et al.*, 2020).

The SARS-CoV-2 virus has had a significant impact on the globalized world's economy, ecology, health, and social structure. The costs of containing and treating this dangerous disease are exorbitant, making even the wealthiest and most developed countries struggle to keep up. The COVID-19 pandemic has had a significant impact on the bitumen, stock market, gold, and materials markets, as well as nearly every other sector of the international market. COVID-19 has now developed right into a international danger (Garg *et al.*, 2021). COVID-19 has been linked to more than 11.5 million illnesses and 5.4 lakh deaths worldwide as of this date (06-07-2020). Because no vaccine has been produced to cure the virus, the governments of the majority of countries have already implemented a number of measures to prevent the sickness from spreading. Social separation and complete lockdown are among the measures used to prevent individuals from gathering. During the lockdown, all educational institutions, gyms, shopping malls, airports, restaurants, trains, and public transportation were completely shut down. Except for police, healthcare personnel, dairy employees, and other emergency service workers, citizens are not permitted to leave their homes. The COVID-19 has negative consequences for society, such as overburdening the hospital system, economic downturn, starving of the poor, stock market slowdown, retail sector losses, and tourism industry decline.(Kanupriya, 2021)

Objectives of study:

The following are the goals that are being pursued:

To investigate India's GDP as a result of COVID 19.

The demand side impact, i.e., private consumption, will be investigated.

To investigate the short- and long-term effects on various industries.

To investigate the short- and long-term recommendations for various industries (Singh & Neog, 2020).

Consumer behavior is shifting away from traditional ways due to increased faith in technology, technical performance, and online payment sectors. This encourages us to adapt to new trends, such as working from home, and progress toward a future where brick-and-mortar offices are no longer the norm. Due to the advent of video-conferencing equipment, there will be a long-term drop in business travel, with High-Net-Worth Individuals preferring to travel by private jet rather than first-class air travel. More tech start-ups with revolutionary programs will

emerge. Central banks have pumped massive quantities of money into financial institutions and provided hitherto unheard-of exemptions.(KAUR, 2020)

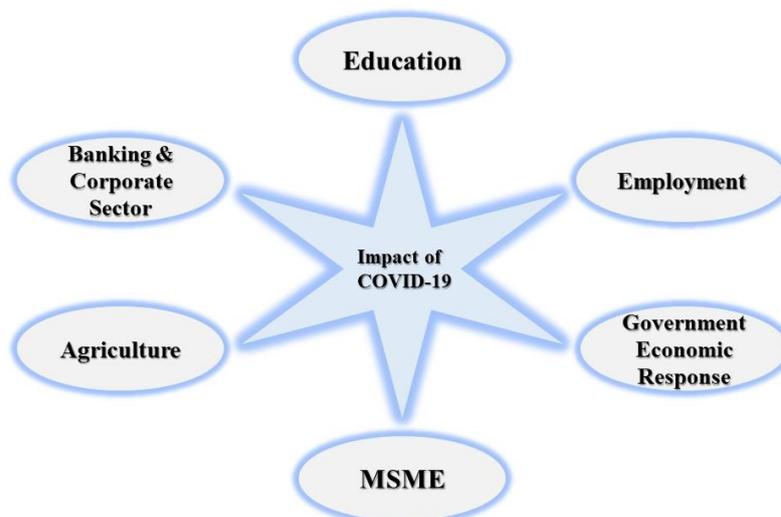


Figure 1: Major sectors impacted by covid-19

Indian economy before Covid 19:

After 1947, India's economy grew at an annual rate of around 3%. Only by the 1980s had the economy risen above this average annual growth rate; in the 1980s, the economy grew at a pace of 5.6 percent per year on average. India began liberalising its economy in 1991. The economy grew at a pace of 6.1 percent in the first decade of economic reforms, between 1992-1993 and 2002-2003, which was only slightly higher than the rate of growth in the 1980s. After 2011-2012, the Indian economy began to slow gradually, and then slowed even more rapidly after 2016-2017. As a result, when the pandemic began, the Indian economy had already been in vulnerable state. Throughout 2011-2012 and 2018-2019, the federal government's expenditure to GDP ratio decreased. Throughout the whole time, the government remained committed to the fiscal consolidation ideology.(Ramakumar & Kanitkar, 2020) From the above graph India's real GDP has been steadily declining, and the spread of the epidemic will exacerbate this trend. The government has taken steps to stem the spread of the virus, including a 45-day nationwide ban and a state-by-state shutdown.

During the fiscal year 2015-16, GDP was 7.5 percent in Q1, 7.3 percent in Q3, and 7.9 percent in Q4, before rising to 7.9 percent in Q4. India's GDP has slowed to 5.00 percent in the first quarter of fiscal year 2019-20, the lowest level in five years. Furthermore, in the second quarter of the fiscal year 2019-20, GDP fell to 4.5 percent. To combat the situation, the Indian government has announced a slew of revival packages, including increased financing for healthcare, food security, sector-specific rewards, and tax breaks. On the 27th of March, the RBI announced a series of actions that would make US\$52 billion (374,000 crore) available to the country's banking sector.(Kishore Kumar Das, n.d.)

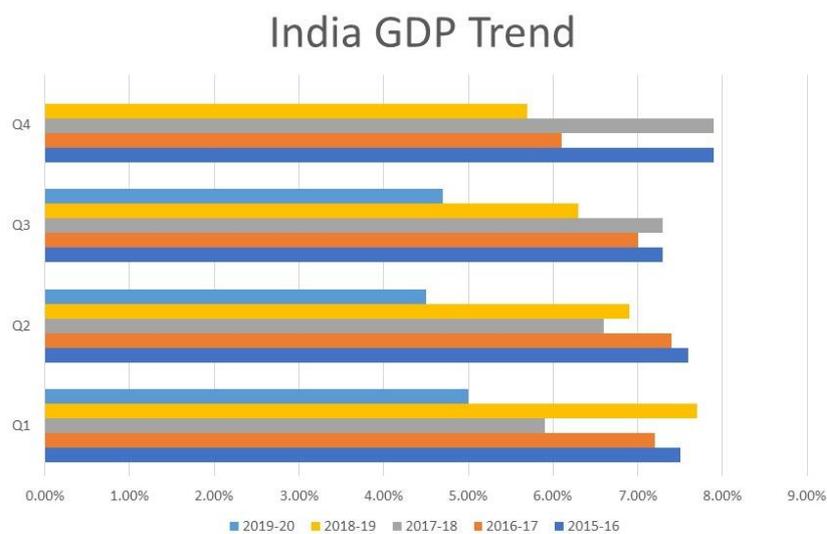


Figure 2: India GDP Trend

According to PIB 2020, In the 2018–2019 fiscal year, the industry directly and indirectly employed over 105 million people, contributing around 12%–13% to total industrial production, 12%–13% to total exports, and 2%–2.5% to the nation's gross domestic product (GDP). In fact, behind agriculture, it is the second largest source of employment. A substantial portion of the country's output is exported to the United States, the European Union, and the Middle East. So this was the simple statistics could be used to determine the sector's importance.(Kanupriya, 2021)

Impact of Covid 19 in different sectors:

The banking and corporate sectors

COVID-19's spread has caused an unexpected worldwide shock, with both the disease and mitigation measures such as social distancing and partial and countrywide lockdown measures—having a considerable economic impact. In the fallout, the banking system was expected to play a key role in absorbing the impact by providing critical loans to businesses and individuals.(Demirgüç-Kunt *et al.*, 2021) but, India has faced significant challenges such as the high levels of non-performing assets (NPAs),Twin Balance Sheet (TBS), and an undercapitalized banking system. Firms are also financially unstable and over-leveraged in the private sector. More issues like IL&FS crisis, 90 percent drop in commercial lending in the first half of FY2020, and the near-demise of a well-known and reputable private bank—Yes Bank, among others.(Aneja & Ahuja, 2021)

The lack of expansion in corporate credit supply is one direct result of the banking system's increased risk aversion. Banks, particularly public sector banks (PSBs), which account for about 90% of NPAs, have drastically reduced lending to the private corporate sector. Net bank credit was expanding at 2.69 percent per year in FY2017, the lowest rate in a decade. PSBs

were primarily lending to NBFCs by FY2018, whereas private sector banks were primarily lending to retail clients. Credit to industry has dropped considerably, with personal loans accounting for the largest chunk of credit off-take. (Mahendra Dev & Sengupta, 2020)

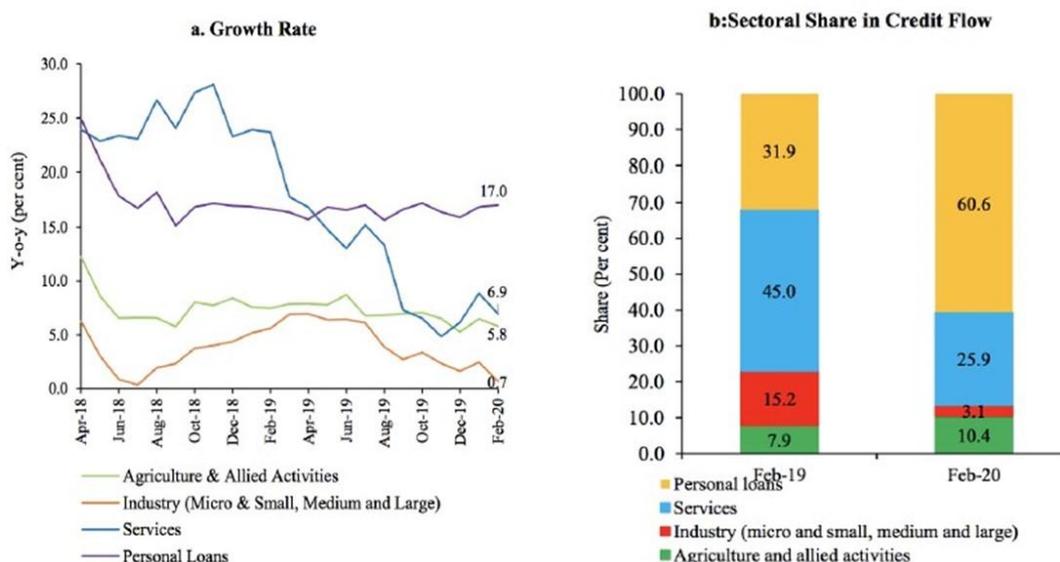


Figure 3: Impact on banking and corporate sectors (Source: RBI, 2020)

India's apex body is the Reserve Bank of India. The Reserve Bank of India (RBI) sets monetary policy and provides guidance to all private and public sector banks. RBI issues bank notes and maintains reserves in order to maintain monetary and financial stability in India and to run the country's currency and credit system. The RBI maintains price stability while maintaining the country's growth. All commercial banks (including Small Finance Banks, Regional Rural Banks, and Local Area Banks), all primary (urban) cooperative banks/state cooperative banks/, all all-India financial institutions, district central cooperative banks and all non-banking financial companies are covered by the Reserve Bank of India's COVID 19 Regulatory Package (including Housing Finance Companies). The Reserve Bank of India cut the REPO rate by 90 bps. RBI lowered the REPO rate by another 2% to 3% to nearly zero . Operation of Long-Term Repo (LTRO). The Reserve Bank of India is injecting more domestic money via the dollar SWAPS LTRO. (Dr. Priyanka Bobade, n.d.; Ramasamy, n.d.)

Education

Closure of schools has an impact on not just students, teachers, and families, but also on many people's social and economic position. Today, online education is being provided in all

educational institutions; whether it is a nursery school student or a final year student pursuing a bachelor's degree, everyone is learning online. (<https://www.tribuneindia.com>)

India's education sector has seen tremendous growth, and it was ranked 35th on the Worldwide Future Educating Index (WFEI) in 2019 with a total score of 53, according to Economist Intelligence. The WFEI is based on three essential categories: policy environment, teaching environment, and overall socio-economic environment. Not only will classroom teachings be influenced by this epidemic, but multiple other factors such as organizational practices, employment rates, placement rates at various educational institutions, and other factors also affected. As the impact of Covid 19 spreads across various sectors, parents who work in these fields and may lose their jobs will quickly run out of resources to provide their children with a suitable education. Either the parent will be burdened by a lack of funding and wind up in excessive debt in order to meet the demand, or the children would be removed out from school, especially in rural India. (Dhanalakshmi *et al.*, 2021)

According to the survey, the Annual Status of Education Report (ASER) 2021, which evaluated the impact of the outbreak on the education field in rural regions, children (ages 6-14 years) who are "not officially enrolled in schools" climbed from 2.5 percent in 2018 to 4.6 percent in 2021. During the pandemic, enrolment in the 15-to-16-year-old age group gradually improved, with the number of "not enrolled" students falling from 12.1% in 2018 to 6.6 percent in 2021. Even during crisis, however, the percentage of children (ages 6-14) "not actively enrolled in primary school" climbed from 2.5 percent in 2018 to 4.6 percent in 2021, according to the ASER report. (<https://www.tribuneindia.com/news/nation/education-how-the-pandemic-affected-indias-education-system-365868>, n.d.)

The Ministry of Education has finalised safety guidelines for school re-opening, which were proposed by the National Council of Educational Research and Training (NCERT) . With an emphasis on promoting regular proper hand washing and safe good hygiene of students, teachers, and other school staff, as well as sanitization of schools, with adequate facilities and physical distancing strategies, according to the statement. (<https://www.thehindu.com>) The government has developed a number of television stations to provide free education to pupils. Even though the Indian government is putting a strong emphasis on student education, there are still many challenges, such as backward regions and rural regions at which communication facilities are missing, and some students who either do not have a smartphone or do not have the financial means to purchase one, and every single student is required to use a mobile phone for 4 to 5 hours, which has adverse effects on their eyes and overall body health. (Kaur, 2020)

In comparison to other East and South Asian countries, India has a poor literacy rate. India is ranked 19th among Asian nations in terms of education level, as can be shown.

According to the World Bank's Learning Poverty Index, 55% of 10-year-old Indian children are unable to read a basic phrase, compared to 15% in China and other countries. Despite Bangladesh and Nepal historically lagged behind, Bangladesh, Nepal, and India have now nearly equaled their female literacy rates at 85 percent. However, several institutions throughout India have finally been able to reopen in the beginning of September 2021, after being closed for 18 months. Many cautious precautions have been implemented for this reopening, including "stay-at-home-when-sick" recommendations, "50% occupancy in each classroom, required thermal inspection, staggered lunch time, wider accommodations, and no visitor visits.(<https://www.isas.nus.edu>.)

Employment

As per the Centre for Monitoring Indian Economy, the unemployment rate will rise to 23.8 percent in the first week of April 2020, with the labour participation rate falling to 39 percent and the employment levels at 30 percent.(<https://www.businesstoday.in>) After a period of lockdown, the unemployment rate has risen to 19 percent, with overall unemployment at 26 percent on April 24th in India. As a result, the lockdown has wreaked havoc on the country's small, medium, and large businesses, resulting in job losses and an economic crisis.(Sharma & Mahendru, 2020)

In March, India's rate of unemployment was 6.7 percent, but by the end of May, it had risen to 27.11 percent. This rate reflects the extent to which India's unemployment has spread, and it is a crucial factor affecting the economic growth. As to one estimation, nearly 14000 crore individuals have lost their jobs, which include daily wage labourers.(Kaur, 2020) Besides from COVID-19 wreaking havoc on the economy, technological developments including artificial intelligence that result in digitization are likely to have a negative effect on employment. Although COVID-19 would have an immediate and short-term negative impact on employment, the impact of automation would be long-term, affecting private demand on a more persistent basis than during the pandemic(Anil Gumber & Smruti Bulsari, 2020). COVID-19 is having a terrible influence on India, and as a result of the combined terror and lockdown scenario, the majority of Indians will be unemployed, leading to starvation, poverty, and mental disease. Even while it is yet unclear whether the coronavirus or hunger are the most dangerous threats to which Indians are exposed on a daily basis. COVID-19 has had a mixed impact on the country so far, including the commerce, lifestyles, and ecology.(Ghosh *et al.*, 2020) A increasing unemployment rate indicates less distribution of income and purchasing power, leading to negative savings and lower consumption expenditure. The resulting lack of demand could cause a big problem, which would have a long-term impact on the Indian economy(Joshi *et al.*, 2020).

The Indian tourism sector is destined to lose Rs. 1.25 trillion in revenue in 2020 as a result of hotel closures and in-flight work suspensions following in the Covid-19 pandemic. The

Indian tourist industry is expected to lose Rs. 69,400 crore in April-June, representing a 30 percent year-on-year decline. India's travel and tourism business has been a significant contributor to the country's GDP. The division even generates a large number of jobs.(Sidhu *et al.*, 2020) The informal sector, as much as the formal sector, had an impact on employment. In 2019-2020, India's overall number of salaried positions number was 86.1 million. This number declined to 68.4 million in April 2020. It has climbed to 73.8 million by August 2020, yet that was still 12.7 million below than in February 2020. Ultimately, young job applicants, notably those aged 15 to 39, were the hardest hurt. Only 9% of the overall workforce was between the ages of 20 and 24, but they accounted for 35 percent of the total job losses. Although the young generation of 25-29 years accounted for only 11% of total employment, they were responsible for 46% of all job losses.(Ramakumar & Kanitkar, 2020)

Governments all throughout the world are assisting employers and workers. The United States appears to have provided substantial incentives to its population, with each adult receiving \$1200. The UK government has outlined steps to help self-employed people weather the storm, but financial assistance will also not be accessible until mid-June. Many employees in Europe get paid in full when they are sick. Short-term or freelance workers may receive partial payments that are less than their regular income.(Kishore Kumar Das, n.d.)

The Indian government has adopted a variety of actions. Like distribution of 12% employer and 12% employee contributions into EPF accounts for the income months of March, April, and May 2020 was paid earlier under the Pradhan Mantri Garib Kalyan Package (PMGKP). This assistance will be extended for a further three months to the salary months of June, July, and August 2020.(Prasad & Mondal, n.d.) Additionally, the government should give start-ups with funding, resources, and tax breaks that will result in the creation of jobs and economic growth. The current epidemic has prompted service-based organisations to urge employees to perform work from home, as well as academic institutions to adopt a mixed approach, which includes both traditional and digital based learning(Debata *et al.*, 2020).

Government also Extended Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to migrant labourers and some organised workers, for a total cost of Rs. 922 billion.(Mahendra Dev & Sengupta, 2020)

The probable restoration rate is a key aspect in determining rate of unemployment forecasts for the following five years. Strong, moderate, and weak recovery are three such situations that have equal odds. An approximate fall rate of 2% per year can be estimated for a strong recovery(Barbate *et al.*, 2021).

Government Economic Response

After the covid outbreak, even during the pandemic waves also the Indian government taking consistently initiatives to pull out citizens from such situation. By launching several policies and packages to the common people is somewhat helpful to reconnects lifestyle in normal way. Reimbursement for economic losses to farmers, packages to pay firms upwards to 80% of wages, direct cash bonuses to workers, liquidity injections, zero-interest loans or credit without collateral, free food or food stamps, and bank recapitalization are examples.

Some positive responses from the Indian government are as follows, this and more than that approaches by government either state or central in various sectors was implemented.

- Providing of food, cooking gas and cash transfers to low-income households; covering of healthcare professionals with insurance; wage assistance and employment opportunities for low-paid workers.
- Increase number of hospital beds, ventilators, intensive care facilities and quarantine centres.
- To assist enterprises and to increase credit availability to various sectors of the economy and segments of the people.(Ramakumar & Kanitkar, 2020)
- On March 26, 2020, the Minister Of finance presented a Rs. 1.7 lakh crore proposal intended primarily at offering a safety net for those most harmed by the Covid-19 pandemic, namely informal sector workers, particularly daily wage labourers, as well as the urban and rural poor.
- The Ministry Of finance launched a comprehensive economic relief plan named the "Atmanirbhar package" also called as self-sufficient package on May 2nd, which included of three parts. Which includes monetary actions, fiscal actions, and economic reforms.
- The "Atmanirbhar package" also contained the RBI's previous monetary policy moves. For example, the RBI announced a number of important efforts to fight the situation on March 27, 2020. (Mahendra Dev & Sengupta, 2020)
- The deadline for filing income tax returns for the current financial year has been extended by the Indian government.
- here's also a grace period for paying renewal rates on life insurance policies. If customers request it, insurers have been instructed to extend the buffer period by an extra 30 days

In the case of healthcare insurance, insurers may tolerate a 30-day delay in renewal without considering it a policy break. However, insurers are urged to alert customers far ahead of time to avoid coverage interruptions.(<https://www.Mondaq.Com>)

MSME:

MSME comprises of micro-enterprises with less than Rs.5 crore worth of turnover yearly, small-enterprises that incur yearly turnover of Rs.5 crore and Rs. 75 crore and Medium enterprises with annual revenues of less than Rs. 250 crore.(Roy & Patnaik |ipseeta Satpathy, 2020) The MSME sector is a critical pillar of the Indian economy, and it has grown as one of the most dynamic segments of the Indian manufacturing sector. MSMEs are the backbone of the Indian economy, serving as auxiliary units to large corporations. There are around 6.33 crore MSMEs in the nation, employing over 11.10 crore people in non-agricultural activities. Every job established in the MSME or manufacturing sectors has a multiplier impact, resulting in the creation of an additional 2-3 jobs. Despite difficulties, MSMEs have made major contributions to the country's exports and economic growth, and have established as one of the country's key economic drivers over the last five decades.(Anukarsh Singh, n.d.)

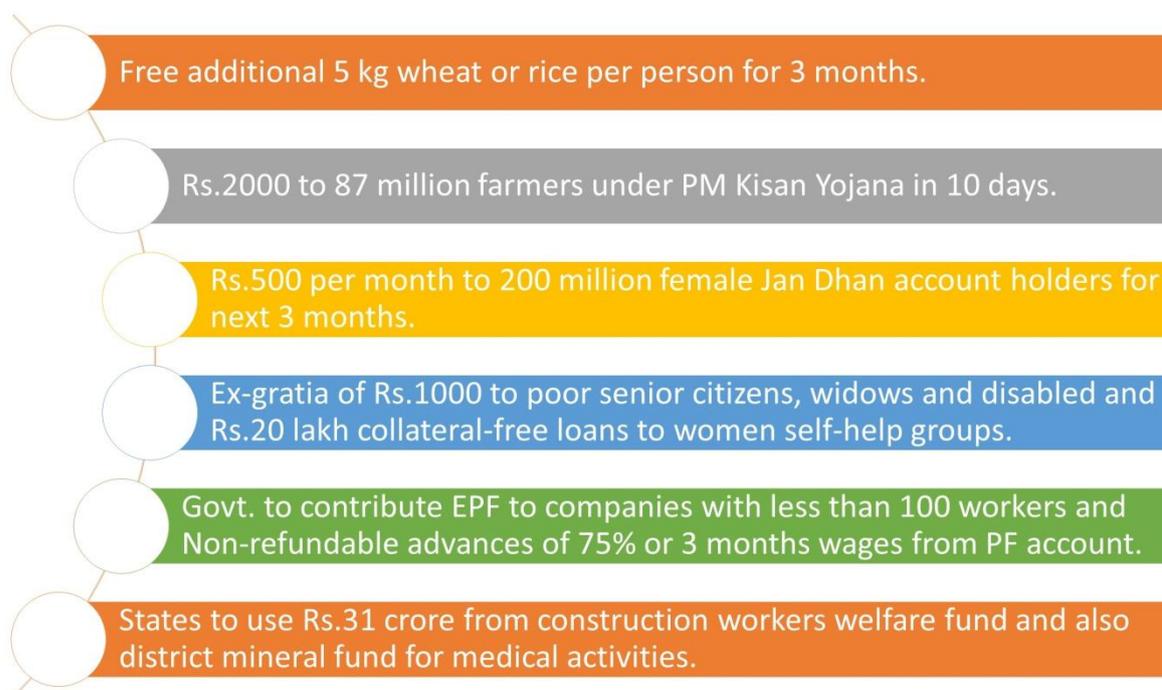


Figure 4: Some Initiatives by Indian Government

Impact of lockdown on the MSME sector in India

This sector was severely affected by the complete lockdown imposed In India. The economy has been thrown into disarray as a result of the unprecedented restriction. A country's lockdown in reaction to a pandemic drastically restricts demand and supply. Millions of migrant labourers are stranded in impenetrable cities, unable to find work or earn an income. Millions of people's livelihoods and companies are on the risk as the economy comes to a standstill. Due to the abrupt closure of national and state borders, global and domestic supply chains have completely collapsed, with no movement of raw materials or finished products. The economy is

also suffering from a demand shock, as spending is restricted to necessities. Covid-19 will have a crushing effect on both MSMEs and larger businesses, but the impact will be worse on the most vulnerable MSMEs.(Kaur, 2020),(Anukarsh Singh, n.d.)

Even before the advent of covid-19, the auto auxiliary industries experienced a slowdown, and the industry was destroyed with the advent of covid-19, with output volumes estimated to have decreased by 20 percent of the overall to 50 percent. Similarly, the All India Gem and Jewellery Domestic Council (GJC) has estimated that the industry's loss due to the Covid-19 outbreak might be rise up to Rs. 75000 crores.The Covid-19 epidemic, which has grabbed world markets, has cost loss of \$1.5 billion of India's leather sector in exports.(Tripathy & Kumar Bisoyi, n.d.)

According to a study, due to a negative growth rate of net sales, small firms in India witnessed a significant contraction in business. In the first quarter of FY 2020-21, there were 747 small businesses which saw their net sales growth rate drop by -66.7 percent. The situation is getting worse when the government of India announced complete lockdown amid COVID-19 pandemic. According to the study, businesses with an early turnover of Rs. 25 crore or less suffered a -25.3 percent reduction in net sales growth rate in Q1 of FY 2020-21.(Roy & Patnaik lipseeta Satpathy, 2020) According to a recent survey conducted by the All India Manufacturers Organisation 35 percent of MSMEs and 43 percent of self-employed people believe their enterprises have almost no hope of recovery and have begun shutting down operations.(Mahendra Dev & Sengupta, 2020)

Agriculture

Agriculture is crucial since it employs a significant number of people and serves to the entire country's population.(Mahendra Dev & Sengupta, 2020) The agricultural market in India has suffered a huge financial loss as a result of the COVID-19 pandemic. The complete lockdown has jeopardised the agriculture sector's future prospects.(Rakshit & Basistha, 2020) The lockdown began as India's second crop yield season (rabi) began to harvest. Farmers hoped to make a profit from the selling of their crops. Meanwhile, the collapse of domestic and global food supply systems, as well as declining farm-gate prices, disappointed farmers.(Ramakumar & Kanitkar, 2020)The crops that had already been grown and were ready to be harvested due to a lack of logistics, transportation, packing, and manpower, it is expected that a large amount of the crops may decay on the field itself. Similarly, the production of tea and coffee has come to a halt.(Kumar Poddar & Singh Yadav, 2020)

The initial lockdown, however, had an impact on agricultural activities and supply chains through a variety of channels, including input distribution, procurement, harvesting, transportation bottlenecks, processing and marketing, Restaurant closures, transport blockage, and other factors lowered demand for fresh fruit, poultry, and fisheries products, impacting

growers and suppliers.(Mahendra Dev & Sengupta, 2020) and the suspension of foreign trade reduced demand for Indian agricultural products around the world. As a result, farm product prices have dropped by 15–20 percent during this period of uncertainty in exports.[(Rakshit & Basistha, 2020)

Conclusion and Findings:

The corona virus outbreak has thrown the entire planet into disarray. The current crisis is a radical departure from the recessions we experienced in 2008 and 2009. This has a variety of implications, including shifting people's mindsets, posing a challenge to the business, and upending the global economic order. Everyone is attempting to quantify the pandemic. It is undeniable that we are adapting to the changes in our lives in a permanent manner.

Most businesses have improved their ability to operate remotely and allow employees to work from home. While many of these safeguards were already in place, they will soon become the new normal. As a result, it is critical that we increase our capabilities in order to mitigate the effects of unforeseen events. We must swiftly recover business profit and return to the original situation, which was obliterated by the risk. One little virus has wreaked havoc on the earth in ways that humanity could never have imagined. The most essential lesson we've learned thus far is the importance of total cost control in business and living on the bare minimum.

The global economic impact of the COVID-19 pandemic is unthinkable, and it will continue to destroy the global economy until a preventative vaccine is available and delivered to at least half of the population. Millions of jobs are lost across all industries as a result of the pandemic, which has a considerably larger impact than the recession of 2008. Hotels, travel, transportation, energy, entertainment, real estate, construction, and advertising are the worst-affected industries. Based on current COVID-19 growth, the hotel industry in the United States is expected to lose \$3.5 billion a week and 6.5 million jobs out of 8.3 million total hotel employees. As a result, the future foretold that we would be heading for one of the worst recessions in history.

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COVID-19 AND DIGITAL TRANSACTIONS IN INDIA

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Abstract:

There is tremendous increased in the digital transactions during the pandemic Covid-19. Now the digital payment system plays an inseparable part in our day to day life for making purchases and sales. Transparent, secured and reduced transactions costs are the main advantages which attract the majority of the population towards the digital payment system above the benefit of social distancing. Real Time Gross Settlement (RTGS), Internet banking, National Electronic Fund Transfer (NEFT), CCIL operated systems, Electronic Clearing Services (ECS), etc. are some of the modes of digital payments utilized in India. The present paper will analyze about the growth and prosperity of the digital payment system in India. Moreover, services delivered by the digital payment system to individuals, government and society will also study.

Keywords: Digital payment system, digital transaction, transparent and social distancing.

Introduction:

Transparency, security and reduced transaction costs in the payment system is possible through development and modernization in the payment system. In this current pandemic situation, the majority of the population adopted digital payment systems in order to maintain social distance to get freed from the virus. The digital payment system plays an inseparable role in the day to day living of the population in this pandemic of Covid-19. The digital payment system brings in faceless, paperless and cashless in the society. This cashless payment system is well adopted by the public due to the following benefits above the advantage of social distancing:

- Freed from long queue
- Time flexibility
- Time saving as paid online
- Relax from fines and penalties

Before the pandemic, people have the knowledge of the benefits of digital payment system; but they resist making payment through online due to insecurity developed in their mind. During the pandemic, by considering the compulsory situation of social distancing majority of the population applied the digital payment system and many of them feel secured with the advantages. There is no doubt that people will continue using the digital payment system with its numerous benefits after the post pandemic also.

Recently, Indian economy develop numerous modes of e- payments, includes the following:

- Real Time Gross Settlement
- CCIL operated systems
- Electronic Clearing Services
- Unified Payment Interface
- National Automated Clearing House
- National Electronic Fund Transfer
- Internet banking
- Card payments
- Mobile Wallet
- Immediate Payment Service
- Mobile banking

Prosperity of digital payment system:

Digital payment modes provide the given below services to the business, society and government:

- Transferring money from individual to individual
- Individuals to business, namely kirana stores, petrol pumps, mobile recharge
- Business to business, namely retailer to supplier
- Business to individuals in the form of salaries, reimbursement, remuneration etc.

Digitalization of the banking sector makes satisfied prediction of the public through the utilization of smart phones. Digitalization decreased human error and also enterprises & individuals enjoy flexibility in the online banking transactions. Online transactions do not have time bounds; payment of online purchases can be made at odd hours and even banking transactions in odd hours. Individuals could repay loans and interest of loans at any time online; no need to visit the banks and other institutions from where individuals took loans. Working

parents purchase necessary household items and other essential items of their kids at odd hours and make payment online instantly.

Digital Payment Transaction on state wise, Payment Mode of BHIM *99#, Rupay Card on POS only was shown in table 1.

States	Digital Transaction (based on Per Capita Basis)
Chhattisgarh	38.481
Andhra Pradesh	17.683
Haryana	12.42
Uttar Pradesh	7.731
Maharashtra	6.948
Karnataka	6.538
Goa	5.886
Manipur	0.8
Meghalaya	0.765
Nagaland	0.584
Mizoram	0.548
Tripura	1.114
Arunachal Pradesh	1.041
Assam	1.764
Odisha	5.275
Uttarakhand	3.911
Tamilnadu	3.437
West Bengal	3.162
Kerala	2.909
Himachal Pradesh	2.834
Telangana	2.571
Gujarat	2.389
Rajasthan	2.377
Madhya Pradesh	2.184
Sikkim	2.139
Punjab	2.041
Jharkhand	1.81
Bihar	1.361

Conclusion:

The growth of digital payment services in India can be seen very clearly during the Covid-19 pandemic. Government could collect taxes and also buyers to pay to suppliers through the digital payment system. It enables payment of utility bills, insurance premiums, etc..

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A BRIEF REVIEW OF DRUGS TARGETED AGAINST COVID-19

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Abstract:

The Coronavirus disease (COVID 19) is manifested with a wide range of symptoms, from asymptomatic cases to acute respiratory distress requiring ventilatory support. Several drugs act on the SARS-CoV-2 virus in several ways, like limiting the entry into the cells, targeting viral protein synthesis, and/or interfering with mRNA synthesis, etc. Several vaccines, antivirals, antibacterial, antiparasitic drugs have been used till date. Along with these, steroids, intravenous immunoglobulins, antibiotics, and immunomodulators are used in combination to reduce mortality. One of the major challenges in COVID-19 treatment is the ability of viruses to mutate and confer resistance. Therefore, it has created a new urgency to invest in the research to develop new antivirals and repurpose existing antiviral drugs.

Introduction:

COVID 19, caused by the SARS-CoV-2 virus, has created a new urgency to invest in the research to develop new antivirals and repurpose existing antiviral drugs. The disease is manifested with a wide range of symptoms, from asymptomatic cases to acute respiratory distress requiring ventilatory support. Older patients (above 60 years), those with comorbidities, or the involvement of pulmonary distress warrants hospitalization or/and antiviral therapy in addition to clinic-laboratory monitoring. Several antivirals as sole drugs or combinations were studied *in vitro* and used in clinical trials for their efficacy against the SARS-CoV-2 virus. Many combinations studied yielded better patient outcomes and were used with other drugs to reduce mortality. In addition, several *in silico* studies were conducted to evaluate the antiviral efficacy of herbal compounds against various protein/targets in the SARS-CoV-2 virus structure.

Antiviral drugs can act on the SARS-CoV-2 virus in several ways, like limiting the entry into the cells, targeting viral protein synthesis, and /or interfering with mRNA synthesis. Along with the available antiviral drugs, other drugs belonging to diverse categories, like ivermectin, hydroxychloroquine, azithromycin, etc., were repurposed for their antiviral action in the COVID 19 pandemic. Other than antiviral drugs, steroids, intravenous immunoglobulins, antibiotics, and

immunomodulators are used in combination to reduce mortality. However, despite the wide use of antiviral drugs, a WHO-funded trial found that the antivirals- remdesivir, lopinavir, hydroxychloroquine, and interferon treatment did not have a significant effect on hospitalized patients, as indicated by the initiation of ventilation, overall mortality, and the duration of hospital stay (WHO, 2021).

Antiviral drugs:

Darunavir

Darunavir is a second-generation non-peptide protease inhibitor. It inhibits HIV protease dimerization and protease enzymatic activity. It selectively inhibits Gag-Pol polyprotein cleavage leading to immature and non-infectious viral particles. The main action for SARS-COV-2 is its protease inhibition. Its distinct chemical structure makes it more potent than the other protease inhibitors. It was identified as one of the promising hits for inhibiting chymotrypsin-like protease of SARS CoV2. It is rapidly absorbed after oral administration and has a terminal elimination half-life of 15 h. Approximately 95% of the drug is plasma protein-bound and metabolized exclusively by CYP3A4. Therefore, co-administration of small doses of CYP3A4 inhibitors like ritonavir increases the bioavailability of darunavir. It may be used cautiously in patients with underlying cardiac diseases. (Singh *et al.*, 2020; Tarighi *et al.*, 2021)

Oseltamivir

It acts by inhibiting the neuraminidase enzyme. It is a prodrug, which is converted in the liver to its active form, the free carboxylate of oseltamivir. It is used mainly against the influenza virus. Certain reports suggest that the combination of oseltamivir with Lopinavir/Ritonavir improved the conditions of several patients infected by SARS-COV-2. Also, the synergistic effects of these three drugs *in silico* showed that their combination is highly effective against SARS-CoV-2 protease. However, later, reports from *in-silico* and *in-vitro* studies, and clinical case analysis demonstrated that oseltamivir is not helpful for patients suffering from covid-19 (Tarighi *et al.*, 2021).

Umifenovir (Arbidol)

Umifenovir, also known as arbidol, is an indole-derivative. It is an anti-influenza drug which is also been patented for its medicinal use against SARS-CoV since 2004. It inhibits COVID-19 infection by interfering the release of SARS-CoV-2 from intracellular vesicles. It targets viral glycoproteins by interacting with their aromatic residues. The amine in position 4 and the hydroxyl moiety in position 5 is essential for the antiviral action of arbidol. It also interfere with clathrin-mediated exocytosis through the plasma membrane interaction or directly

intercalates into membrane lipids, through hemagglutinin inhibition. Treatment with the combination of umifenovir with lopinavir/ritonavir delayed the development of lung lesions in COVID-19. The half-life of arbidol is between 17 and 21 h. It also has potential action against herpes viruses, ebola virus, arenaviruses, poliovirus, and Hepatitis B viruses (Singh *et al.*, 2020; Tarighi *et al.*, 2021; Zheng *et al.*, 2020)

Favipiravir (T-705)

Favipiravir (marketed as AVIGAN) is an anti-RNA viral drug introduced in Japan (Toyama Chemical Co., Ltd) for influenza viruses in 2014. It is a pyrazinecarboxamide derivative and a prodrug of the purine nucleotide that gets converted into an active phosphoribosylated form by the host enzyme. It acts by inhibiting RNA-dependent RNA polymerase, thus halting viral replication. The RNA-dependent RNA polymerase lies in the core of coronavirus replication machinery, nsp12 protein, which has an important role in the viral life cycle, the lack of host homologs, and a high sequence and structural conservation make it a target for therapeutic interventions. This antiviral drug got approval against the SARS-CoV2 in China on 15th February 2020. The drug can promote viral clearance within 7 days and clinical improvement within 14 days, especially in patients with mild-to-moderate COVID-19. It can also target other RNA viruses such as influenza, bunya, and filoviruses since the catalytic domain of RNA-dependent RNA polymerase is conserved among various types of RNA viruses. Its oral bioavailability is close to 100% and has a half-life of 2–5.5 h (Joshi *et al.*, 2021; Manabe *et al.*, 2021; Sharma *et al.*, 2021).

Remdesivir (GS-5734)

Remdesivir is a small-molecule monophosphoramidate prodrug and an adenosine analog that blocks the RNA-dependent RNA-polymerase. It gets phosphorylated to yield its active triphosphate form, which resembles adenosine triphosphate. By inhibiting RNA-dependent RNA-polymerase, premature termination of viral RNA transcription and subsequent RNA synthesis inhibition occurs. It was initially developed against ebolavirus infection. Various studies showed that remdesivir could inhibit the SARS-CoV replication and reduces viral lung load associated with lung pathologies. FDA provided an Emergency Use Authorization (EUA) for remdesivir to treat hospitalized COVID-19 patients on May 1, 2020. The drug is parenterally administered through an intravenous route (Zheng *et al.*, 2020).

Ribavirin

Ribavirin is a purine nucleoside analog with a modified base and D-ribose sugar. It resembles structurally to guanosine and inosine. In its monophosphate form, it inhibits the host inosine monophosphate dehydrogenase enzyme. It prevents RNA and DNA virus replication and

inhibits RNA capping, leading to RNA degradation. Ribavirin triphosphate binds to the nucleotide-binding site of the mRNA polymerase enzyme and results in defective viral replication. It can also act as a mutagen in some viruses. It is active against hepatitis C virus, respiratory syncytial virus, SARS-CoV, and MERS-CoV. The oral bioavailability of ribavirin is 52%. The estimated half-life is 3.7 h. It has a low margin of safety. Ribavirin-induced hemolytic anemia is a most commonly reported adverse effect. It is reported to be highly cytotoxic (Tarighi *et al.*, 2021).

Nafamostat and Camostat

They belong to synthetic serine protease inhibitors. Transmembrane serine protease-2 (TMPRSS-2) is present in host epithelium cells of various tissues. It is involved in the pathogenesis of SARS-CoV-2 through cleavage of spike protein and facilitates virus entry into the host cells. It blocks the S-protein mediated membrane fusion by reducing the release of cathepsin B. In addition, it acts as an anticoagulant. Camostatmesilate was initially developed in the 1980s in Japan. In Japan, camostat is certified for patients with chronic pancreatitis and postoperative reflux esophagitis (Singh *et al.*, 2020; Tarighi *et al.*, 2021).

Lopinavir/Ritonavir

Lopinavir and ritonavir are protease inhibitors that are approved against human immunodeficiency virus 1. Ritonavir is also a cytochrome P450 3A inhibitor. Lopinavir is usually administered in combination with Ritonavir so that the plasma half-life of lopinavir will get extended. Lopinavir can also inhibit SARS-CoV main protease, which is critical for replication and is highly conserved in SARS-CoV-2. It has *in vitro* inhibitory activity against SARS-CoV, SARS-CoV-2, and Middle East respiratory syndrome (MERS) coronavirus (Horby *et al.*, 2020)

Nelfinavir

Nelfinavir is a viral protease inhibitor, approved as an HIV-1 protease inhibitor by the FDA in 1997. HIV protease activity is essential for the cleavage of viral polyproteins leading to subsequent assembly of immature virus proteins into infectious virions. The main protease or chymotrypsin-like protease of COVID-19 has been suggested as a potential drug target. Researchers showed that nelfinavir is a potent inhibitor of cell membrane fusion resulting from covid-19 spike glycoprotein based on an *in-vitro* study (Tarighi *et al.*, 2021).

Nirmatrelvir (PF-07321332)

Nirmatrelvir is an orally administered antiviral agent targeting the 3-chymotrypsin-like cysteine protease enzyme (M^{Pro}) of SARS-CoV-2. M^{Pro} is essential for processing viral

polyproteins into functional units, which shows its role in viral replication. *In vitro* studies showed potent inhibition of M^{Pro} activity and virus replication by nirmatrelvir across a wide spectrum of coronaviruses. It is metabolized in the body mainly by CYP3A4. Ritonavir is an inhibitor of cytochrome P450 3A and CYP2D6, thus can increase the half-life of nirmatrelvir by decreasing its metabolism. Paxlovid is a therapeutic combination consisting of two compounds: nirmatrelvir and ritonavir. Both are inhibitors of HIV-1 and HIV-2 protease (Drożdżal *et al.*, 2021; Hammond *et al.*, 2022).

Molnupiravir

Molnupiravir is a small-molecule ribonucleoside prodrug of N-hydroxycytidine (NHC). It is converted into a synthetic cytidine nucleoside in the body. It gets phosphorylated intracellularly to NHC triphosphate. NHC triphosphate is incorporated into viral RNA by viral RNA polymerase and subsequently misdirects the viral polymerase to incorporate either guanosine or adenosine during viral replication. Thus, it introduces errors into the genetic material of the viral RNA as it replicates, which leads to defective viral elements formation. It is an oral, small-molecule antiviral prodrug that is active against SARS-CoV-2. There are reports of molnupiravir reducing the risk of hospitalization or death in at-risk, unvaccinated adults with Covid-19 (Jayk Bernal *et al.*, 2022).

Amantadine

Amantadine, formerly called 1-adamantylamine or 1-aminoadamantine, is a synthetic tricyclic amine derivative of adamantane with a structure unrelated to any of the antiviral drugs. It is known since the 1960s for the treatment of influenza A. It acts at two stages of viral replication within the host cell. In the first stage, it inhibits the uncoating of viral nucleic acid inside the host cells and also interferes with viral penetration into the cells. It works by blocking M2 ion channels, inhibiting viral entry into cells, and inhibiting viral replication. An endosome is formed when the viral particle enters the cell. It has an acid pH of 5. The proton channel formed by the M2 protein carries protons into the interior of the virion. Amantadine by its lipophilic nature, is able to cross the endosome membrane and interrupt the release of the virion into the cell. Also, amantadine may enter the E-channel of the coronavirus, which prevents the release of the viral nucleus into the cell. It also has anti-parkinsonian effect, where it acts by release of dopamine and norepinephrine from nerve endings. It is also a weak NMDA receptor antagonist as well as an anticholinergic. In veterinary medicine, it is primarily used in treating pain in dogs and cats. It is well absorbed when administered orally and has a half-life between 10 and 14 h (Araújo *et al.*, 2020).

Antibacterial drugs:

Azithromycin

Azithromycin, a macrolide antibiotic derived from erythromycin A is known for its extensive and prolonged tissue distribution. This property of prolonged half-life facilitates once-daily dosing of the drug for 3 or 5 days. Several studies demonstrated that azithromycin has antiviral action against many viruses like Zika, Ebola, respiratory syncytial virus, enterovirus, influenza H1N1 virus, rhinovirus, and SARS-CoV-2 virus. The mechanisms involved in the antiviral effect include a decrease in the virus's entry into cells, enhancement in the immune responses like up-regulation of the genes involved in virus recognition, and interferon production. Azithromycin was rapidly adopted/repurposed for treating SARS-CoV-2 virus infection even before the availability of significant research data regarding its efficacy due to its excellent safety profile and wide availability (Bleyzac *et al.*, 2020). Azithromycin has significant *in vitro* efficacy against the SARS-CoV-2 virus. The immunomodulatory properties of azithromycin are beneficial in mitigating inflammation and enhancing tissue repair, especially in the lungs. Azithromycin is used to potentially treat or prevent co-infection or secondary bacterial infection in SARS-CoV-2 viral disease (Oldenburg and Doan, 2020).

Antiparasitic drugs:

Chloroquine and hydroxychloroquine

Chloroquine and hydroxychloroquine are antimalarial drugs that inhibit lysosomes' vital functions by increasing pH, which results in blocking endosome-mediated entry. They are weak diprotic bases. They concentrate in the endosomes and disturb the acidic pH of the endosomal fluid, which is normally required for the optimal activity of viral enzymes for proteolysis and post-translational modification. They can also interfere with nucleic acid replication, viral protein glycosylation, virus assembly, and release. Additionally, Chloroquine has an immunomodulatory activity, which may enhance its antiviral effects. Hydroxychloroquine is a derivative of Chloroquine, which has been demonstrated to be much less toxic than chloroquine. Chloroquine causes cardiac and respiratory arrest. Both are used in treating many inflammatory diseases such as rheumatoid arthritis and lupus by inhibiting cytokine generation, phospholipase A2 and matrix metalloproteinases, and modulating B and T cell function. Chloroquine showed *in vitro* efficacy against SARS-CoV by interfering with the glycosylation of viral cellular receptors. Due to certain contradictory reports, FDA defined that Hydroxychloroquine and Chloroquine were not beneficial for the treatment of covid-19 in June 2020 (Singh *et al.*, 2020).

Ivermectin

Ivermectin is a broad-spectrum antiparasitic drug. It is a macrolide endectocide derived from *Streptomyces avermitilis*. It is a potent anthelmintic agent. It has antiviral activity against many viruses. Certain reports suggest that it may act by creating an acidic environment and blocking the importin IMP2/ β 1 mediated viral intranuclear import (Wagstaff *et al.*, 2012).

Monoclonal antibodies

Bamlanivimab is a neutralizing IgG1 monoclonal antibody against the receptor-binding domain of SARS-CoV-2 spike protein. It prevents viral attachment and entry of SARS-CoV-2 to the host cells and viral replication. In November 2020, FDA provided authorization for emergency use of Bamlanivimab therapy for mild-to-moderate COVID-19. Bevacizumab acts against Vascular Endothelial Growth Factor (VEGF) and is indicated for cancer therapy to inhibit neovascularization. There were some pieces of evidence of high VEGF COVID-19 patients. Sarilumab is a humanized monoclonal antibody, and it inhibits the interleukin-6 receptor. Tocilizumab is an FDA-approved immunosuppressive drug effective against Rheumatoid arthritis, systemic juvenile idiopathic arthritis, and chimeric antigen receptor (CAR)-cell-induced cytokine release syndrome (CRS). It is a monoclonal antibody against the cytokine Interleukin 6 receptor. Interleukin 6 plays a crucial role in inflammation and immune responses, and its overexpression has pathological effects on chronic inflammation and autoimmunity (Tarighi *et al.*, 2021).

Other drugs:

Icatibant

Icatibant is a bradykinin B₂ receptor blocker. Bradykinin promotes inflammation by inducing vasodilation and pulmonary edema after binding to the B₂ receptor on lung capillaries. To reach inside the pulmonary cells, SARS-CoV2 binds to the ACE2 receptor. The virus blocks the ACE2 receptor, which is responsible for the breakdown of bradykinin, resulting in higher bradykinin levels and worsening lung injury in Covid-19 patients. Icatibant's blockage of the B₂ receptor enhanced oxygenation status in patients with no side effects, according to several preliminary trials. Clinical trials are currently underway to determine the efficacy of icatibant in the treatment of Covid-19 infection (van de Veerdonk *et al.*, 2020).

Heparin

Heparin is a glycosaminoglycan that suppresses fibrin clot formation by inhibiting the activation of the fibrin stabilization factor and hence, acts as an anticoagulant. Patients with severe COVID-19 may benefit from anticoagulants, particularly heparin. Because these individuals have significant hypercoagulability, early anticoagulation medication may help to

limit coagulopathy and the risk of organ damage. Several studies describing heparin's pleiotropic activity have determined its influence in COVID-19 (Tarighi *et al.*, 2021).

Statins

Statins block the enzyme hydroxymethylglutaryl-coenzyme A (HMG-CoA) reductase, which prevents the endogenous synthesis of cholesterol. These medications are primarily used to treat hyperlipidemia, although they also have pleiotropic effects (i.e., anti-thrombotic, anti-inflammatory, and atherosclerotic plaque stabilization) independent of HMG-CoA reductase inhibition. According to some research, the COVID-19 virus binds to toll-like receptors on the cell surface and activates MYD88 and NF-KB. *In vitro*, statins have been demonstrated to inhibit TLR-MYD88-Nf-KB activation, resulting in anti-inflammatory effects. According to some preliminary data, statin therapy may reduce mortality COVID-19 patients, and hence, their prescription in the patients should not be stopped (Singh *et al.*, 2020).

Corticosteroids

Corticosteroids alter gene transcription after binding to intracellular receptors and exhibit immunosuppressive and anti-inflammatory effects. Therefore, they are expected to be helpful in COVID-19 infections where systemic inflammation is a big part of the picture. A clinical trial found that giving COVID-19 patients methylprednisolone intravenously improved their clinical state. On the other hand, other findings have demonstrated a worsening of the illness with the worst outcome following corticosteroid administration in non-severe COVID-19 pneumonia. As a result, the utility of corticosteroids in the treatment of covid infection is still debatable (Singh *et al.*, 2020).

Losartan

Losartan is an AT1 receptor blocker that may be effective in the angiotensin II-induced pulmonary inflammation in COVID-19 infection. After the internalization of the virus-ACE2 complex by endocytosis, ACE2 is effectively sequestered and prevented from initiating the breakdown of angiotensin II to angiotensin 1-7. The homeostatic balance of the renin-angiotensin system is shifted in favour of the angiotensin II-AT1 receptor axis when ACE2 function is reduced or lost entirely in alveolar cells. According to some reports, in extreme situations of lung damage, early and prolonged administration of an angiotensin receptor blocker can be more effective against COVID-19 than late use.

Conclusion:

Along with existing antiviral drugs, there is an urgent need to discover new drugs and repurpose other drugs with antiviral properties to fight the COVID 19 pandemic and other emerging viral diseases. In addition, the ability of viruses to mutate and confer resistance also points to the importance of the discriminate use of antiviral drugs (Puskarichet *al.*, 2021).

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THE IMPACT OF ONLINE LEARNING ON THE ACADEMIC PERFORMANCE OF STUDENTS DURING COVID-19: AN INTERPRETATIVE PHENOMENOLOGICAL ANALYSIS

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Abstract:

The COVID-19 pandemic led to a sudden shutdown of schools in 2020, affecting billion of students in the country. The shutdown required teachers, students and parents to rapidly adapt to a new homeschooling situation. As the classroom teaching still suspended due to the coronavirus pandemic and focused is on strengthening of online teaching and learning. Student interaction is critical to online social cohesion and collaborative learning. However, online learners need to adjust to the computer mediated communication (CMC) medium of the online environment. The current study was carried out to analyze the impact of online learning on the academic performance of students during COVID -19. It explores online learners' experiences by using an interpretative phenomenological analysis of interviews with eight online students. The analysis revealed that the constraints of written communication and lack of human interaction causes difficulties in adjusting and coping with the online learning environment. Major themes that were identified: academic performance of students might be affect by racial, economic and resource differences as well as the bad internet connections, the inability to express one's self fully; difficulties establishing relationships; comparing one's self to others and the written word as an ineffective learning medium. The study's findings highlight a need for better student and tutor collaboration to facilitate a safe and interactive environment. Effective academic and social support can enhance online learning, improve student satisfaction and encourage students to persist with their learning.

Keywords: Covid -19, online learning, challenges, interpretative phenomenological analysis (IPA).

Introduction:

The coronavirus pandemic, is an ongoing global pandemic of coronavirus disease 2019 caused by severe acute respiratory diseases coronavirus 2 (SARS-CoV-2). At the very first, the virus identified from an outbreak in the Chinese city of Wuhan in December 2019, allowing it to spread across the globe. During the initial outbreak in Wuhan, the virus and disease were

commonly referred to as "coronavirus", "Wuhan coronavirus", "and the coronavirus outbreak" and the "Wuhan coronavirus outbreak" with the disease sometimes called "Wuhan pneumonia". WHO finalized the official names COVID-19 and SARS-CoV-2 on 11 February 2020. Tedros Adhanom explained: CO for *corona*, VI for *virus*, D for *disease* and 19 for when the outbreak was first identified (31 December 2019). WHO additionally uses "the COVID-19 virus" and "the virus responsible for COVID-19" in public communications. The World Health Organization (WHO) declared a Public Health Emergency of International Concern on 30 January 2020 and a pandemic on 11 March 2020.

As of 15 January 2022, the pandemic had caused more than 323 million cases and 5.53 million deaths, making it one of the deadliest in history. Now there is another one variant of virus which is known as OMICRON COVID. This emergency condition can increase alertness, fear, anxiety, and even depression (Turabian, 2020). With this COVID-19 emergency, everyone is trying to protect themselves from the threat of the virus in various ways, starting from increasing the body's immunity by consuming various vitamins, maintaining distance, wearing masks, not leaving the house or crowding in crowds, and other ways that are considered effective, so the chain of the coronavirus can be broken. Peoples shows suspicious attitude about each other, assuming that other people can carry the virus. Therefore, there is a need for education about the coronavirus. The education sector is one of the lines participating in the listing of physical distancing social distancing as the virus get transmitted through direct contact or droplets from talking, sneezing, coughing, or tears to the nose, nose, and other human eyes, and requires self-isolation strategies at home or referred to as fecal-oral transmission (Singhal, 2020; Yeo *et al.*, 2020). UT of JK set up a strategy to suppress the spread of pandemic diseases COVID-19 or corona. The government implements social distancing or physical distancing, but this strategy's success depends on community compliance for its implementation. The application of social distancing or physical distancing has consequences for humans' well-being and mental health, especially students in schools who apply to study or study online because not all children have access to technology that enables remote connectivity (Galea *et al.*, 2020).

The impact of COVID-19 in the world of education is the learning process through online lectures. Many universities are implementing online learning to integrate big data or the internet through the media of tablets, smartphones, and laptops in the era of the industrial revolution 4.0 (Huda *et al.*, 2018). The fact is that not all students have access to technology and the limited cost of using technology amid the pandemic COVID-19, one of which is decreasing parental income. This condition causes disasters for students, academic staff, non-academic staff, faculty, and relations outside the University (Hodges *et al.*, 2020).

Online learning in the world of education is the primary strategy for the continuity of the maximum learning process during the pandemic of COVID-19. Online learning occurs in all parts of the UT, from regions, cities, or districts, to the provinces.

Information technology can indeed replace education in the future, but it cannot replace educators' part. Learning involvement requires two essential aspects, namely student behavior and interaction with students, to detect learning difficulties experienced by students in real time (Zhang, Wang, *et al.*, 2020). The conclusion is that not all technology can replace the role in the education process. Educators have a pedagogical approach to realizing the potential value of online learning programs (Aitken, 2020).

Online learning as a complementary tool to encourage and empower independent learning and innovative teaching becomes an integral part of education in the 21st century. Then, the assignment of learning tasks to meet teachers' needs and pay attention to instilling students' self-efficacy beliefs, thereby increasing learning involvement during online learning (Zhang & Liu, 2019). Background studies related to the urgency of online learning perceptions during the 19th pandemic focused on students of UT (JK).

Objectives:

Background studies related to the urgency of online learning perceptions during the 19th pandemic focused on students of UT (JK).

- The first purpose is to determine students' perceptions of the cognitive aspects or students' thoughts about the online learning process during the pandemic COVID-19.
- The second objective is to determine students' feelings about the online learning process during the COVID-19 pandemic.

Literature review:

Online learning is a significant trend in education globally. Demographic conditions and differences in readiness between students are challenges of online learning. At a higher level of education, usually, online learning applies the blended learning method (Auster, 2016; Dziuban *et al.*, 2018). The factor that influences online learning success is the acceptance of student learning during the process. The service quality and confidence are two variables that affect online learning process (Lee *et al.*, 2009). Service quality includes teacher characteristics, instructional materials, and learning content. On the other hand, social presence is important factor in the satisfaction of implementing online learning. Social presence is the level of awareness of a person in interaction with the online learning community. This shows that people consciously take part in online learning by paying attention to social context, online communication, and interactivity (Tu & McIsaac, 2002). Other research shows that collaborative online learning with computers can affect communication quality in the early days of grub and

work experience in online learning (Liu *et al.*, 2018). In student perception, online learning needs to pay attention to course design, learner motivation, time management, and convenience with online technology (Song *et al.*, 2004). Online learning during a pandemic can use synchronous and asynchronous (Moorhouse, 2020). In asynchronous method teacher using PowerPoint media accompanied by voice notes. Form of synchronous instruction using video conferencing software (VCS). The things that can improve understanding of online learning are giving individual assignments, making group discussions, preliminary explanations related to the material, and structured tasks. On the other hand, implementing online learning that is so fast and lacking preparation also has an impact on the perception of teaching staff in the transfer of knowledge.

Methodology:

Research Goal

This study uses a qualitative approach to the type of phenomenology. In connection with this research, phenomenology aims to describe students' perception in UT (JK) towards the implementation of online learning during the COVID-19 pandemic. The focus of this phenomenological concern is the phenomenon of online learning during the pandemic and the perception of students as first-hand experiences.

Sample and Data Collection

This study uses a purposive sampling to determine respondents, where the respondents in this study were students who knew the phenomenon of online learning during the COVID-19 pandemic. Participants were eight students from three college of Jammu, namely Govt. MAM P G College, Govt. P G College of Women Nagar, Govt. Degree College Doda. The student experienced the impact of the COVID-19 pandemic and had to do home learning activities through online learning. Characteristics of students involved in this study are students undergoing online learning due to the pandemic, specifically for students who just have experience in online learning activities. Online learning can be synchronous and asynchronous. Data collection in this study used in-depth interviews via online synchronous. The information obtained about the experience of students doing online learning and knows things hidden deep within the subject of research. This study uses interview guidelines that accurately identify students' perceptions of online learning during the COVID-19 pandemic. However, the interview guide can be developed according to research needs. Researchers conducted interviews with participants informally, interactively, and using open-ended questions. Although there are interview guidelines, the interview process runs according to the participant's wholeness and condition.

Analyzing of Data

The type of data in this study is primary data from students in the mentioned colleges of Jammu. Primary data in this study are the results of in-depth interviews with students. Data analysis activities include analyzing data, organizing data, discovering what is meaningful, and reporting systematically. Specifically, the data analysis in this study used the procedures of eidetic reduction, transcendental reduction, and phenomenological reduction. Credibility and trustworthiness consider several ways. The researcher triangulates with one research assistant and uses notes made during the interview to confirm the statement's truth during the discussion. The reliability of this study uses data triangulation by comparing and checking back the degree of confidence of information through different informants.

Findings:

Students Perception and Experiences about Online Learning from Cognitive and Feeling Aspect: The results of the study described that students' perceptions of online learning during the COVID-19 pandemic were (1) ineffective learning activities; (2) unpleasant learning activities; (3) limit self-actualization in education; (4) helping to become an independent person in learning; and (5) fun learning activities.

Perception of first student (A'A) was that the online learning activities are not practical because students are not familiar with the online learning model. So, they need to work hard to adapt to the existing situation, which requires them to study online.

“Online lectures are very ineffective because not all students listen well to what lecturers convey, Lecturers do not provide more detailed explanations when online learning is carried out, unlike face to-face learning” (A'A)’

It reflects the lack of students' understanding of the material provided by lecturers. Students experience failure in covering material that comes from the teacher. Students lack good self-regulation in learning independently during the COVID-19 pandemic situation even though students need to demand themselves to survive in learning online amid the COVID-19 pandemic. One reason students have the perception that online learning is an ineffective learning activity is minimal internet network support. Student limitations on internet access have encouraged lecturers to reduce the duration of the meeting further. Thus, lecturers cannot explain the material in detail and maximally. This condition certainly requires students to learn to be more independent in understanding the material from the lecturers.

“The experience is when it is difficult to find signals to do assignments and not understand the lecturers' material”(B'B)

Students have not received adequate internet support because many students have a place to live in an area that lacks internet support. Students who do not have access to internet signals must try harder to make online learning smooth. This condition arises because not all regions in Indonesia have smooth internet access, especially in remote areas.

The signal is not good because the residence is less strategic and somewhat complicated in carrying out assignments”(C’C)

Besides, this first perception of students arises because students do not get adequate internet support from universities. Students' perceptions about internet access difficulty encourage students to deteriorate their motivation and interest in trying to survive following the online learning process. In fact, among students, there was also an expectation that lecturers would be willing to tolerate the learning process that was not optimal.

Second, students' perceptions of online learning: Considers online learning an unpleasant learning activity. Moreover, online learning implementation seems sudden, and lecturers are obliged to implement it due to COVID-19. Students yearn for face-to-face learning situations that are dynamic and full of challenges and new things.

“I feel upset, tired, sad, and so on. Besides, sometimes it makes me frustrated. It was not fun, and the task made me depressed”(D’D).

This condition arises because students feel online learning activities are not like regular learning. They are free to express themselves, and dynamics in learning activities are also dynamic. Unlike online learning, everything is limited, so the humor in education is also minimal. These limitations in online learning make students feel bored with online learning activities. Errors in implementing online learning in Indonesia cause unpleasant perceptions of students towards online learning.

I felt burdened by tasks for which the collection time is only given a deadline of a few hours. Online learning, but the reality is online assignments (E’E)

This implementation error led to the emergence of wrong perceptions of the implementation of online learning itself. Students get a load of assignments in which deadlines also don't make sense. Lecturers also do not provide detailed explanations before giving homework to students. As a result, students have a terrible perception of online learning, which decreases their motivation and enthusiasm for learning. Unpleasant feelings of students when attending online learning will encourage them to learn not seriously. Their motivation in conducting the learning process through online learning also declined. They realize that his behavior will cost him many opportunities for achievement. However, they also have feelings of

frustration with new habits in the learning process, namely online learning. It turns out that distance learning through online learning is not as fun as what they imagine.

Third, students' perceptions: Considers online learning as an activity that limits self-actualization in education. Students lack freedom in learning material from lecturers. Responsible space is one of the human needs. Students' freedom of interaction with other students and lecturers encourages the decline in student self-actualization in learning in class.

“I am not free to respond and get responses from friends because time and opportunities are also limited. I have difficulty asking, I am less effective in communicating with lecturers when online learning. I feel worried about my understanding of the material I get from online learning activities; I need high concentration to understand the material” (E'E).

Students want the freedom of learning as much as they get it when face-to-face learning. The dynamics that arise in face-to-face education make students gain knowledge from lecturer material. Limited communication causes students to not actualize themselves optimally in online learning. Students want a convenient interface when they study. Ineffective communication between students and lecturers causes students to worry about their understanding of the material from lecturers. Ineffective communication has the opportunity for misperceptions between lecturers and students to the material presented. Of course, this condition is not desired by students, considering the lecturers' material is a valuable provision for students when going into society to apply their knowledge. Thus, students need to have a high concentration when the learning process takes place. Students need high concentration when participating in online learning activities. Students need a higher level because they want to comprehend material from lecturers comprehensively. Thus, students do not get low grades when examinations. Students realize that they have to make more effort to survive during the COVID-19 pandemic. Students want to learn to return to everything as soon as possible.

The fourth student's perception: Considering online learning as an activity that helps become an independent person in education. Students need to demand themselves to learn independently behind the limitations of lecturers in providing dynamic and meaningful learning. Therefore, students can still achieve their learning goals.

During this online lecture process, I became more independent to study independently and made me more diligent in reading books, I am grateful to be able to study even though online. This lecture is better than nothing. We must also condition each of us to absorb the material properly”(F' F).

Students demonstrate this because students have an awareness of their current position. They are in a COVID-19 emergency. However, on the other hand, they still have to fulfill the

responsibility, which is learning. This responsibility effort arises because students feel they need materials in lecture activities, which will have benefits when they enter the world of work. Without an awareness of this responsibility, students find it difficult to organize themselves in online learning activities. Students also think of alternatives to addressing the COVID-19 emergency.

These statements reveal that students still have a sense of gratitude and optimism that there must be a convenience in the future behind the difficulties in the present. Gratitude and confidence are what drive students to remain disciplined and independent in learning. Students have the belief that with a separate study, they can survive the COVID-19 pandemic situation. They also believe that there will be many lessons behind the COVID-19 pandemic when they can still demonstrate independent learning.

Fifth, students' perceptions: This considered online learning as a fun activity. Students have new experiences about implementing online learning during the COVID-19 pandemic. They also learn many new things through online learning. So that students have more motivation in learning activities.

I am happy to be able to study online because I don't need to go to campus. I don't need to go to campus because I can learn from home. I don't need to spend a lot of money to travel, At first online learning was difficult, but if it can work around this, online learning is fun learning (G'G).

Not many students think that online learning is a fun learning activity. Feelings of joy arise in students because students realize that they can do learning activities from home do not have to come to campus. This situation indeed became one of the unique and exciting experiences that they had never experienced before. Also, students consider online learning as a new challenge. . Online learning activities are a new experience for students. Therefore, they feel natural if at first, they experience many obstacles and difficulties. However, they also believe that over time they can adapt and manipulate the problems that arise due to implementing online learning. They realized that they needed to pump up their enthusiasm to stay behind the difficulties of learning situations during the COVID-19 pandemic.

The meaning of perception of online learning from cognitive and feeling aspects:

The study results found that self-regulated learning and students' learning independence in online learning isn't optimal compared to face-to-face learning. This condition is influenced by internet access in certain areas in Jammu and parents' income. The declining income of parents to buy internet quota affects students' access to learning. That is the condition of the cognitive aspects of students regarding the perspective of online learning. In addition to cognitive aspects,

there are differences in aspects of students' feelings about online learning. Some students find online learning fun, and some students find it unpleasant. Some students feel that online learning isn't fun because the online learning process lacks two-way communication and can't express it, so they can't concentrate.

Research results facts vs general conditions of online learning during the covid-19 pandemic

In general, students' perceptions of online learning aren't pleasant in the process. First, the main support for online learning is internet access or network, while not all regions in jammu have good internet access or network or 4G. The second is parents' income because they are depressed due to the COVID-19 pandemic, or parents of students who are fired greatly affect student funding for studies or facilitating online learning. These two conditions have a major impact on research results on the perspective of online learning on cognitive and emotional aspects. The perspective of students in online learning on the cognitive aspect concludes that students must be able to adapt, increase self-regulated online learning, and learn independence online. Learning is fun learning if students can actualize themselves. These two inhibiting factors for online learning have an impact on students' feelings about online learning. Students feel that online learning isn't fun because they can't express themselves and lack two-way communication between lecturers and students. The impact of not or lack of ability for students to express themselves is self-actualization, limited by online space. Online learning is the right solution to prevent and effectively spread the COVID-19 Virus. Still, it can't maximize it due to infrastructure that is not fully prepared and difficulties in adapting.

Discussion:

The institution applies online learning to support the government in breaking the chain of COVID-19. Thus, from the result of the study, the implementation of online learning has led to a variety of different perceptions. Student perceptions of online learning are (1) ineffective learning activities; (2) unpleasant learning activities; (3) limit self-actualization in education; (4) helping to become an independent person in learning; and (5) fun learning activities. The first perception, students consider online learning during the COVID-19 pandemic as an ineffective activity. Not all students have the ability to access online learning smoothly. Thus, the migration of face-to-face learning towards online learning can be disastrous for students because they have difficulty adjusting to technology. (Hodges *et al.*, 2020). Technology can support the success of an educational endeavor, but it cannot replace the role of an educator. The results of research show that online learning is projects that tend to be new, and student participation tends to be small. Various parties must make more serious efforts to increase the effectiveness of the use of

online learning to support learning activities in tertiary institutions. Online learning activities need a more in-depth study so that the events become more attractive. Thus, online learning can have a significant impact on students. Educators are not ready to adjust to the challenges of the tutoring era to contribute to the ineffectiveness of online learning. They are used to the old mindset formed from the traditional education system. This situation makes teaching staff in higher education tend to make many mistakes in implementing online learning. Indicators of online learning success can be seen from three aspects, namely student involvement, self-regulation practices, and student satisfaction. First, student involvement is essential as one aspect that supports the effectiveness of online learning practices. Without student involvement, lecturers are less able to maximize online learning practices. Second, students who have good self-management tend to be more successful in understanding material than students who lack good self-management. Student self-management is the key to the effectiveness of online learning practices. Third, student satisfaction also determines the success of online learning practices. If the lecturer can do unusual online learning practices, then students tend to have high satisfaction. The other perception, students consider online learning during the COVID-19 pandemic as an unpleasant activity. This perception is in contrast to various theories that state that online learning must raise a fun theme. Students who take online learning classes feel less of a lower-level social presence compared to students who take face-to-face classes (Zhan & Mei, 2013). They do not feel the humor like in the classroom learning face to face. The unpleasant perception of students towards online learning also has to do with the difficulty of lecturers in implementing online learning. Lecturers as educators have various challenges in implementing online learning, so that it raises the involvement and low academic performance in students. The problem that often arises is that lecturers provide online assignments, not online learning activities. This condition gives rise to unpleasant feelings towards students towards online learning. Not all students are ready to do online learning. Various literature states that online learning is a new learning model that is believed to support the academic success of students.

However, online learning is an activity that hinders students' academic development. Students have economic limitations, especially the cost of internet access. Online learning activities become something expensive for them because it is difficult to access them. Student's displeasure towards online learning did not have a significant impact on improving academic achievement. The results of the study showed that there was no significant difference between the learning outcomes of students taking online learning classes and traditional classes. Online learning results in worse learning outcomes compared to conventional learning. The third perception, students consider online learning during the COVID-19 pandemic as an activity that

limits self-actualization in education. Students have limitations in being able to engage in online learning activities. Online learning also defines the time students and lecturers interact with each other properly in face-to-face lectures. Social presence from peers can support meaningful learning for students. Students do not get the ideal desire, which is getting more in-depth material (Holzweiss *et al.*, 2014). Lecturers are not able to plan meaningful online learning activities and encourage student self-actualization in learning. Students become objects of education and not as subjects of education. The mutual interaction between lecturers and students should be able to motivate students to actualize themselves in learning and achieve optimal academic achievement (Fedynich *et al.*, 2015). The fourth perception, students consider online learning during the COVID-19 pandemic as an activity that helps become an independent person in education. Students have an intrinsic motivation to follow online learning (Hartnett *et al.*, 2011). Evidenced by the results of research that shows that students who take online learning classes have higher academic performance than students who take classes face to face. Lecturers facilitate students to be able to study independently and supervised. Therefore, students feel comfortable with the learning styles applied by the lecturer. Lecturers conduct online learning with student-centered strategies and maximize student self-regulation (De Gagne & Walters, 2010). Each individual has different self-regulation abilities. Many experts call this method as a self-regulated learning strategy. The self-regulated learning strategy in online learning in tertiary institutions has proven to be effective in increasing academic achievement. This strategy builds students' perception that online learning activities during the COVID-19 pandemic can encourage students to become independent individuals in learning. Students approve the online learning model because they believe that online learning is a learning activity that can support academic achievement. Online learning does have constraints such as technical problems, students' adverse perceptions of online learning, and time constraints. However, these various obstacles do not diminish the benefits of online learning when students use it well and optimally. The fifth perception, students consider online learning during the COVID-19 pandemic as a fun activity. This perception arises because students have satisfaction with the implementation of online learning, both done asynchronously and synchronously. Lecturers facilitate online learning activities with fun and challenging methods. So, students can get out of boredom and fatigue with the COVID-19 pandemic situation (Somenarain *et al.*, 2010). Lecturers who can plan an excellent online learning strategy can encourage the emergence of feelings of pleasure for students in following it. This strategy can be done with a variety of innovative approaches, for example, with virtual games (Louis, 2013), streaming video strategy (Tantrarungroj & Lai, 2011), and self-regulated learning strategy (Broadbent & Poon, 2015). These creative methods can increase student involvement in online learning practices and increase student academic

achievement. The online learning method is one of the most influential factors on students' perceptions of online learning during the COVID-19 pandemic in Indonesia. The lecturers' creativity determines whether students can accept or not practice online learning (Jahnke, 2011; Turvey, 2006). Lecturers need to sort out the most appropriate and possible online learning strategies and online learning media for students. Moreover, students in Indonesia have diverse social, cultural, and economic backgrounds. Lecturers must be able to determine policies appropriately so that students are also able to learn effectively through online learning (Mace, 2015). Thus, students can achieve optimal academic achievement during the pandemic.

Conclusion:

Pandemic changes the paradigm of the education sector to implement online learning. This condition is far different from face-to-face learning, where lecturers and students can express themselves in learning activities to the full. In online learning, lecturers and students must adjust to various limitations, such as time, dynamics of education, to the interaction between students and lecturers. Students have diverse perceptions of the implementation of online learning during the COVID-19 pandemic in Indonesia. Students who have positive thoughts consider online learning as a fun activity and can make individuals more independent in learning. While students who think negatively view online learning as an ineffective, unpleasant activity, and even limit students to actualize themselves.

Recommendations:

This finding should encourage educational institutions to develop standard operating procedures for implementing online learning that is of interest to students. Thus, lecturers and students can achieve achievements following the provisions. This study also recommends that further researchers conduct research and develop a product in the form of a system with a technology and informatics base that can help lecturers and students carry out more systematic and fun online learning activities. This product aims to facilitate students to increase their motivation and learning achievement.

Limitations:

This research has limitations, namely that it only involves respondents from three colleges of Jammu, namely Govt. MAM P G College, Govt. P G College of Women Nagar, Govt. Degree College Doda. Thus, the research results may not be able to reach a broader range of respondents in UT (JK). Besides, this study has a limitation that only use data triangulation, in which data is obtained through an interview process with several respondents.

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IMPACT OF COVID – 19 ON STUDENTS

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Introduction:

Impact on Student Education:

This virus spreads from people to alternative people (through bit, saliva, etc.), so many countries around the world at the same time raise their folks to use social distance, even physical distance to inhibit the expansion of COVID-19. This has conjointly suppressed academic activities that exist throughout the globe. Not solely were the activities of academic establishments even to the globe of business, the globe of business enterprise, and health affected. Most governments around the world have briefly closed academic establishments in a shot to curb the unfold of the COVID-19 pandemic.

This national closure has control over ninety-one of the world's student population. Many alternative countries have enforced native closures that have an impact on several further students (Billy, 2020). UNESCO supports countries in their efforts to reduce the direct impact of college closures, particularly for the additional vulnerable and underprivileged communities, and to facilitate the continuation of education at some stage in distance learning (UNESCO, 2020). In the U.S., the country with the best confirmed COVID-19 infection, the nationalthe social long-distance protocol has been enforced by the President. For the primary time during ahundred years since the 1918 respiratory disorder pandemic, the U.S. population was mandated to measure in their households and avoids public contact. As a result, the bulk of public places and services have ceased operations. Following the closing of the University of Washington on March seven, further than a thousand schools and universities within the U.S. had canceled category and field activities directly, which wedged several students (Billy, 2020).

Since the eruption of a virulent disease caused by the Coronavirus in the land, many ways are taken by the government to stop its unfolding. One among them is thru a circular of the Ministry of Education and Culture (Kemendikbud) of the board of directors of upper Education No. 1 of 2020 about preventing the unfold of Corona Virus malady (Covid-19) in tertiary establishments. Through this circular, the Ministry of Education and Culture

gave directions to universities to conduct distance learning and suggested students be told from their various homes. There are a minimum of 65 universities on land that give learning from home to stop the unfolding of Covid-19 (CNN land, 2020). In an attempt to stop the unfolding of Covid-19, the United Nations agency recommends stopping activities that have the potential to cause mass crowds. For this reason, typical learning that gathers several students in one area has to be reviewed for implementation. Learning should be disbursed with situations that are able to minimize physical contact between students and different students, or between students and lecturers. One various type of learning that may be disbursed throughout the Covid-19 emergency is online learning. In keeping with Moore, Dickson-Deane, and Galyen (2011) on-line learning is learning that uses net networks with accessibility, property, flexibility, and therefore the ability to state numerous sorts of learning interactions (Rahman, 2020). In an attempt to uphold the scholar Learning Activity (SLA) within the thick of the COVID-19 Pandemic, the Ministry of Education and Culture has organized policies through Circular Letter No. four of 2020 Ministry of Education within which four matters are mentioned.

The first is on learning, each interactively and non-interactively. This has to be done albeit not all children will try this thanks to infrastructure. In this case the foremost necessary issue is learning must occur even reception. While not lecturers the target should be that the course of study should be achieved. Not move the college reception, however opt for essential materials that kids ought to do at home. Then second, the teaching workers or teacher should give education to kids regarding life skills, particularly education that's discourse in accordance with the conditions of every home, especially the understanding of COVID-19, relating to the characteristics, a way to avoid it and how to stop somebody from catching. What is more, the third, learning reception should be adjusted to the interests and conditions of every kid? The fourth is for lecturers or lecturers, the tasks given to students don't have to be compelled to be assessed as was common at school, however rather qualitative assessments that are motivating to kids. There are many learning teams command at colleges during the COVID-19 pandemic, particularly colleges that conduct distance learning fully and utilize variety of on-line education platforms, colleges that are still implementing semi daring, where are sent via message application and there's no direct interaction, and the World Health Organization doesn't have net access, electricity.

Impact on Students:

COVID-19 is respiratory illness that arose on the day, 2019 in city, China, so swept wing the world continue to unfold of the epidemic, strict isolation measures and delays in beginning schools, colleges, and universities through country aren't rarer expected to have an effect on the psychological state of students. There are reports of the psychological impact of the epidemic on the overall lpublic, patients, medical workers, children, and older adults (Cao *et al.*, 2020; Duong *et al.*, 2020; Huyang *et al.*, 2020; Zhong *et al.*, 2020). About 24.9% of scholars have fully-fledged anxiety thanks to this COVID-19 occurrence. Living in urban areas, living with folks, having a stable family financial gain are protecting factors for students against the anxiety fully-fledged throughout the COVID-19 occurrence. However, having a relative or acquaintance World Health Organization is infected with COVID-19 is an associate degree freelance risk issue for anxiety experienced. COVID-19 stressors particularly economic stressors, effects on everyday life, and tutorial Delaware are completely associated with anxiety levels of Chinese students throughout epidemics, whereas social support is negatively correlative with their anxiety [10]. Students' psychological state is greatly affected once visage with a public health emergency, and they need attention, assistance, and support from the community, family, and tertiary establishments. It is recommended that the government and colleges ought to collaborate to resolve this down to as to provide crisis-oriented psychological services that are of prime quality and timely dangerous character to students [11].

People begin a brand new life in quarantine to be safe. Quarantine life is in the middle of psychological, social and economic consequences, and its implementation needs the support, management and compliance of the country's medical employees. Analysis conducted to postgraduate students with natural expertise of living in quarantine. The analysis knowledge reached theoretical saturation with 15 interviews. All knowledge is recorded and written and analyzed mistreatment the "Van Mane Phenomenology" approach. Knowledge analysis includes four main themes, "developing negative emotions, confusion and pessimism", "Developing neurotic behavior regarding thebody and washing", "concerns regarding family health", "economic and social care, concern tomorrow will get eliminate the virus". Students living in quarantine are terribly distinctive understanding the complexity of their experiences, beliefs, and attitudes regarding living in quarantine will give comprehensive plans for call manufacturers, health care professionals, and mental state professionals.

Impact on Student mental state issues:

The COVID-19 pandemic may be a non-natural disaster that may have an impression on the mental state and psychosocial conditions of everybody. Per WHO (2020), the emergence of a pandemic caused stress to numerous levels of society. Though to this point there has not been a systematic review of the results of COVID-19 on mental state, variety of studies associated with pandemics (including bird contagion and SARS) have shown a negative impact on the mental state of sufferers (Cao *et al.*, 2020; Duong *et al.*, 2020). Research conducted in PRC aims to explore the knowledge, mental state, anxiety and depression level of scholars throughout the 2019 coronavirus epidemic (COVID-19), so as to perceive the psychological dynamics of scholars. 509 students were collected with an associated degree internet form. The Self-Assessment Anxiety Scale and also the Depression Scale Epidemiological studies are wont to price every anxiety and depression symptom. Findings during the COVID-19 epidemic, the bulk of scholars powerfully united to scale back going out and gathering. There have been applied mathematics variations between the various sexes of scholars in anxiety and panic risk exposure. Moreover, his anxiety and depression levels of scholar's in China throughout the COVID-19 epidemic were on top of the amount of the national Norm. In addition, supply multivariate analysis shows that the panic scenario is epidemic. During the COVID-19 epidemic, student anxiety and depression levels exaggerated considerably, which was also associated with several factors. Therefore, it's vital to conduct psychological interventions that are required on students (Cao *et al.*, 2020). Student header methods because of the fast unfold of COVID-19, sturdy transmission, death in severe cases, and non specific medication, it poses a serious threat to human life and health, and additionally encompasses a massive impact on the mental health of the final public, inflicting individuals with completely different levels of issues emotional. So we {will|we are able to} predict that the occurrence of COVID-19 will cause public psychological reactions such as tension, anxiety, and concern that may cause psychological disorders like acute stress disorder, post-traumatic stress disorder, depression and suicide (Zhong *et al.*, 2020). COVID-19 may be a major threat to the lives and health of nurses and encompasses a massive impact on their emotional responses and header methods. The study conducted an internet form survey from Gregorian calendar month one to nine, 2020 to analyze this state of emotional responses and techniques to upset nurses and nursing students in Anhui Province. This study uses the COPE transient modification technique (Carver, 1997) and emotional response scale. The results found that girls showed a lot of anxiety and concern than men. Participants

from town showed a lot of anxiety and concern than participants from the country; however rural participants showed a lot of disappointment than the urban participants. The nearer COVID-19 is to the participants, the stronger anxiety and anger. Compared with nursing students, nurses have stronger emotional responses and square measure additional willing to use cope that focuses on issues. Folks could have a cycle of "the additional concern, the more focus on the problem" and other people may "The angrier, the additional cope that focuses on emotions", "the cope that's additional centered on the matter, the additional anxious, angrier, and more sadness." COVID-19 may be a supply of pressure with nice influence, each for people and for public social teams. Completely different people and teams could expertise varied degrees of psychological crisis, and also the nurses UN agency square measure the core of the incident square measure affected. The hospital must specialize in providing psychological support to nurses and providing psychological help and timely coaching in cope methods improve the nurse's ability to manage emotions and effective cope methods, providing robust guarantees to firmly win the battle against epidemic prevention and management (Huang *et al.*, 2020).

Impact on information:

In the interior of a scenario that creates folks uneasy and unhappy, hoax news circulates regarding the Corona virus on social media. Supported the results of analysis conducted terminated that in January-March 2020, hoax news has been unfold regarding Corona virus 50 times with the subject of contracting Corona Virus, treatment and interference of Corona viral infection, and social behavior in coping with the virus, web site <https://www.kominfo.go.id/>, is that the web site that gives the most warning to the general public regarding the Corona Virus hoax, whereas DKI Djakarta is that the most mentioned space in hoax coverage, and also the most generally disseminated hoax news on March twenty four, 2020 is ten times. Students tend to focus their discussions on topics terribly near to their neighborhood, such as school closing and native news. Though the positive proportion of COVID-19 tweets was terribly low for each demographics, faculty students proved to be considerably additional negative. In addition, positive microscopic examinations and negative tweets reveal their terribly problematic feelings within the interior of the unfold of COVID-19, further as adverse reactions to disturbances in their lives like aggression charged by racism. Additionally, we tend to found a amendment within the target of racism throughout COVID-19 towards the East Asian community, that most students and also the general public opposed. Analysis on fine-grained linguistic info, like emotions, hate

speech, and racism detection may be distributed to achieve additional insight into additional specific COVID-19 connected issues elaborated in our study.

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