

Spatial Diffusion Of Covid - 19 In India And Its Impact On Higher Education

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Abstract:

Spatial diffusion of Covid-19 (Corona virus) spread quickly far and wide in most of the countries of the world. As per the estimate of United Nations Educational, Scientific and Cultural Organization about 138 countries of the world have closed schools and colleges nation-wide and several other countries implemented regional or local closures. Such closures of higher educational Institutions have badly affected the education of students related to higher education. Fast dangerous virus transmission has strictly closed the door of each and every house not only in India but also in the world. World-wide covid-19 pandemic continues to spread across the globe and forced the government to shut down the schools and colleges and other institutions related to higher education.

Key words: Spatial, Diffusion, Covid-19, Novel Corona virus, Education, dangerous, transmission

Introduction:

The World Health Organization (WHO) declared corona virus 2019 (Covid - 19) a pandemic. (WHO, Directors General opening remark, 11.3.2020) A novel corona virus (Covid - 19) was at first identified in 2019 in Wuhan province of China. A pandemic is defined as occurring over a wide geographic area and affecting an exceptionally high proportion of the population. (Marriam Webster Dictionary, 2020).

A large family of novel Corona virus is the only cause of corona illness ranging from the common cold to more severe disease such as middle east respiratory syndrome and severe acute respiratory syndrome.

▪ Causes of spatial diffusion or Corona transmission:

The speed of spatial diffusion of corona virus becomes so fast that pose an acute danger to the people. Following ways of diffusion or transmission are highly responsible for high speed of corona spreading:

- **Respiratory transmission:** From the very beginning, the Centres of disease control and prevention have stated that it is a respiratory virus and is mainly transmitted between people through 'respiratory droplets' when symptomatic people sneeze or cough. Large droplets of virus-laden mucus are the primary mode of viral transmission. Hence, guide lines are issued to maintain a distance of at least 2 metres.

If one remains interacting directly with such person who is corona infected positively, there also becomes some risks of infection.

- **Aerosol transmission:** When a corona infected person sneezes or coughs, a large number of drops remain suspended in air for long enough to infect any other passersby. Another factor of its transmission is that people emit virus particles in a range of sizes and some are small enough to be considered aerols or fine particles that can stay suspended in the air for hours and can smoothly travel with wind following its direction of flow. A study published in March, 17, 2020, in the New England Journal of Medicine found that virus particles which were aerosolized could remain viable for up to 3 hours. But there is no definite evidence of transmission where aerosol was the only possible route.
- **Contact transmission:** Contact transmission also play an important role in the spread of COVID-19. In a situation, viral particles emitted from the respiratory tract of an infected individual land on a surface. Then, another person touches that object, then touches his or her nose, mouth or eyes. The virus then sneaks into the body via the mucous membranes, infecting the second person. This is very common mode of virus transmission.
- **Food transmission:** Though, there appears no evidence that the virus is transmitted via food because the virus will not live long in food proper and while it is possible that food packaging from groceries or take out could contain small concentrations of virus particles. It is easy to mitigate this risk by washing our hands after handling groceries or takeout.

Besides, several other types of virus transmission are being reported. If the person is shedding virus into the air, the longer you stand near them, the greater will be the chance you have to be exposed to the virus.

Corona virus update:

The total number of confirmed corona positive cases in India reaches 1, 30,677 while the number to death stands at 3858 as of May 23, 2020. The spread of novel corona virus in India has quickened in the past few days with new cases of corona virus and Covid -19 deaths being reported every day. After the first confirmed positive case was reported on January 30, 2020 in Kerala, the epidemic has expanded its footprints in the country affecting more

than 1.24 lakh people. The following table represents the spatial diffusion of covid-19 among the states of India:

Table : 01 Spatial Diffusion of Covid-19 among Indian states

S.N.	States / Uts	Positive Cases	Deaths
1	Maharastra	47190	1517
2	Tamilnadu	15512	103
3	Gujrat	13669	829
4	Delhi	12910	231
5	Rajasthan	6742	160
6	Madhya Pradesh	6371	281
7	W. Bengal	3322	265
8	Andhra Pradesh	2709	56
9	Bihar	2177	11
10	Punjab	2029	39
11	Karnatka	1959	44
12	Telangana	1761	49
13	Orissa	1269	7
14	Haryana	1067	16
15	Others	11990	250
16	Total	130677	3858

Source : Data is a record from internet record dated 23 May, 2020

The above mentioned table shows that Maharashtra state has the maximum number of corona positive cases and in context to deaths, Maharashtra experienced maximum deaths. Tamilnadu stands second in context to corona positive cases but recovery process in Tamilnadu appears to be more active and stands on eighth position among Indian states. In corona positive cases, Gujarat, Delhi, Rajasthan, Madhya Pradesh, Bengal, Andhra Pradesh stands after Maharashtra and Gujarat. But In context to deaths due to corona, states from maximum to minimum are -Maharashtra, Gujarat, Madhya Pradesh, W. Bengal, Delhi, Rajasthan, Tamilnadu, Andhra Pradesh, Telangana, Karnataka, Punjab, Haryana, Bihar and Orissa

Impact of Covid - 19 spreading on Higher Education in India:

The rate at which Corona virus spread to different states or regions in India has forced the central as well as state governments to immediate shut down the educational institutions. The crucial impact of covid -19 pandemic spreading in India on higher education may be identified as its cent per cent closure of colleges, University Departments, IIT Institutions, other engineering institutions, Medical Institutions etc. Lock down announcement in India by its Hon'ble Prime Minister as well as the concerned Chief Minister of the state forced each and every institutions related to higher education to shut down as a precautionary measure resulting in the disruption of higher studies. Teaching faculties as well as students remain closed in their respective home. Most of the students became completely detached from their study.

The careers of Graduates and post-graduate students in the present year has severely affected by the covid-19 pandemic. Students got major teaching interruptions in their final part of their study. In semester system, students experienced vital interruptions in their assessments and finally, they will obtain their degree at the beginning of a major global recession. Evidence suggests that poor market conditions at labour market entry cause workers to accept lower paid jobs and that this has permanent effects for the careers of majority of the students. Some of the Graduates or post-Graduates with high predicted earnings can compensate for their poor starting pay point and they will bear it in their whole life.

The conventional Indian education system follows face to face physical teaching or eye contact teaching system even though, the trend of audio-visual aids in classrooms was introduced a decade ago. Renowned universities in India such as central universities are offering online classes to its students already. But many higher education institutes in India are not equipped with such facilities. In the event of such a gap, some students might face the brunt brutally; which might affect their entire academic year. Unless we adopt from countries where the standard of education is far more advanced & flexible compared to ours.

In higher education, many of the universities and colleges are replacing tradition teaching as well as traditional exams with online assessment tools. Online system of teaching as well as conducting examinations will at first pose difficulties for the institutions but later on the new system of online working may change the fate and work-culture of the institutions. The increase in noise if the applicants signals will therefore potentially reduce the matching efficiency for new graduates or post - graduates on the labour market who might experience slower earning growth and higher job separation rates.

Conclusion:

The global lockdown of higher educational institutions particularly due to covid - 19 posed a major jolt or interruption in the life of the students. Interruptions in student's learning, disruptions in internal assessments and cancellations in public assessments for qualifications or their replacement by an inferior alternative are the major impacts of covid-19. No clear cut solutions appear at present. What can be done to mitigate these negative impacts? Institutions related to higher education need human resources to rebuild once again.

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