

Impact of Covid-19 on Higher Education – A Review Article

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Abstract

Aim: this review analyzes the effects of COVID-19 on the learning performance of students in higher education.

Materials and Methods: Google scholar database is searched using “Impact of COVID-19 on education, “Impact of COVID-19 on higher education”, and “Impact of COVID-19 on medical education and Crises in education”.

Results: There is a positive effect of COVID-19 on students learning performance.

Conclusion: COVID-19 faces every student throughout their careers and for the rest of their lives. Students and the faculties must adopt during this pandemic with the changes introduced during higher education, personal health and safety.

Keywords: COVID-19; Higher education; Impact of COVID-19; Crises in education.

Introduction

The COVID-19 pandemic is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)[1].

The disease was first discovered in December 2019 in

Wuhan, China [2]. The disease was declared a Public Health Emergency of International Concern in January 2020 and a pandemic in March 2020[3]. Coronavirus disease 2019 (COVID-19) is a respiratory and vascular disease that is contagious [4,5,6]. COVID-19 has affected people no matter their nationality, level of education, income, or gender. The crises has lead to scarcity in the education systems from the availability of broadband and computers needed for online education, and supportive environments needed to focus on learning up to misalignment between resources and needs. COVID-19 has affected schooling and nationwide school closure. As a result, students rely more on internet, television, or radio [7]. Teachers had to adjust to pedagogical concepts and different modes of teaching. Learners who don't have access to digital learning resources or lack the flexibility to learn on their own are at risk of falling behind [8]. Learning loss can lead to loss of skills [9].

Impact of Covid-19 on Higher Education

COVID-19 had a major impact on higher education as universities closed their premises. Countries shut borders due to lockdown measures. Higher education has changed in-person lectures with online learning, which affected learning and examinations as well as the safety of the international students in host countries [10]. Reopening schools and universities will bring benefits to students and also bring economic benefits to families by enabling the parents to return to work. Those benefits must be carefully weighed against health risks. Several steps can be taken to reduce risks, including physical distancing measures, establishing hygiene protocols, revising personnel and attendance policies, and investing in staff training on appropriate measures to protect against the viruses [11]. Spending on education may be affected in the coming years. Public funds are directed to health and social welfare, long term stimulus packages in some countries. Private funding will be reduced as the economy weakens and unemployment. At the tertiary level, the reduction in mobility of international students following restrictions to traveling is already reducing funds available in countries where foreign students pay higher fees. Lockdown has worsened inequality among workers [12].

Crises In Education

The spread of COVID-19 sent shockwaves across the globe. The pandemic may affect expenditure on education as funds are diverted into health sector and the economy. 11% of public expenditure was devoted to education before the pandemic. Some countries have introduced short-term support measures: supplying digital learning devices, financial support to students and schools, funding for safety, and cleaning equipment [13]. It is time that educationalist and regulatory authorities work out strategies on the education system to be pursued. And

spell out rules and regulations to be followed in the future [14].

Impact on Practical Learning

During the lockdown period in science, medicine, and technology students are missing the workshops and laboratory practice. Many suggest that the loss of practical classes can be requited by training through simulation. But employers and society do not agree with it. In these areas, modern education requires skills and a knowledge base in advanced technologies through both simulation and hands-on practice. Students in science and engineering education must soil their hands in workshops and laboratories. Universities would be required to change the infrastructure, both physical and intellectual as the present infrastructure may be inadequate in the current pandemic and even in the post-pandemic world. The universities have to provide more classrooms and better facilities in workshops and laboratories to avoid crowding [14]. Medical students can go through interactive sessions to discuss specific case studies, engineering aspirants could indulge in the depths of environmental engineering and city planning along with mentors playing videos and direct online moot sessions for law enthusiasts [15].

A Switch from Traditional Learning To Online Education

Online education ensures that students suffer no loss of studies and their progress is being assessed simultaneously. It would be the first time for India to experiment with the education system and make a shift to the virtual world, combining classrooms with online teaching. Universities are engaging students to learn by choice and not by their physical presence in a classroom. Providing AI-enabled learning by universities that offer diverse courses in association with other collaborations is only making the country visualize a new tomorrow based on educational reforms. Some universities provide courses

related to the fourth industrial revolution. This helps improve the minds of the students and inspires them to make changes in their respective fields. Online education is gaining popularity worldwide and is nourishing a lot of students [15]. One of the opportunities to focus on is virtual internships. This allows students to go beyond their curriculum and learn about the practicality of their profession. Universities are also encouraging them to observe the current scenario and understand the need to automate. This will allow them to digitalize the near future along with preparing them for any such situations. This practice will instill confidence amongst the students [15].

Impact on Students In Rural Areas

Only 45 crore people of the total population in India have access to the internet and thus to e-learning. The people living in rural areas are still in need of the latest advancements in technologies and therefore hampering the cause of online learning. Virtual classrooms are not only dependant on e-learning but also require access to e-content and online study material, practice sheets, etc. as well. India is not fully furnished to make education reach the entire nation via digital platforms or online classrooms. The students who are not privileged enough will be held back due to the current resort. Universities and the government of India are trying to come up with a solution to resolve this problem [15][16][17].

Procedures To Continue Learning During Institution Closure

Countries have used a variety of resources to support students learning while they are not able to come to school including instructional packages (textbooks, worksheets, and printouts), radio education, educational television, and online instructional resources. Several tools have been used to reach the largest proportion of students possible [18]. Online platforms have been all over the world. They include educational contents that students could explore at

their own discretion and formalized learning programs conducted at their own pace to real-time lessons led by teachers using virtual meeting platforms [19]. Another learning facility in many countries was television broadcasts providing educational content to enhance student's knowledge. There are TV programs for students who had difficulty using online learning platforms or conducting self-directed learning. They are also a way to get to students who do not have adequate resources for online instruction. Despite these advantages, broadcasts can be cover only a few subjects due to the short amount of time devoted to these TV programs [20]. Another measure used to help students learn at home is setting up a new support system for students and parents for home schooling [21].

Impact of Covid-19 On Medical Education

COVID-19 has affected routines in hospitals, medical schools, and beyond. One of the immediate changes introduced has been cancelling in-person medical classes, replaced by recorded lectures or live-streams. The cancellation of classes will be challenging to re-engage students in the spirit of medical schools once the restrictions have been removed. Small group case-based learning and team-based learning can continue during the COVID-19 pandemic through webinars and teleconferences [22]. Many medical institutes have cancelled clinical clerkships [23]. COVID-19 has also affected medical education by cancelling medical conferences. Medical students feel they are missing out on the opportunities that the in-person conferences and presentations provide, there is a growing demand for organizing online conferences [24]. Introducing technology into medical education will allow students to develop collaborative skills and improve adaptability. Navigating challenges associated with remote collaboration with their peers set up a practice to what

interprofessional corporation and telemedicine could look like in our future[25].

Effects on Research

Research has been affected in a negative way. One-to-one correspondence, with face to face discussion, has no replacement. The students cannot visit the sources like the institution itself, offices, and libraries for the secondary data, because not all data are available online. Primary data collection has also stopped since visiting sources is prohibited, and hence research is hindered. Mentorship improves only when there is face-to-face communication. In the lab-based subjects, research is being affected.

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