



Impact of COVID-19 and Coping Policies Implemented by Higher Education Institutions in South-Asian Countries: Systematic Review



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Abstract *COVID-19 has disrupted not only human lives but also the quality of education especially in developing countries of the South- Asian region. This study elaborates the impact of COVID-19 on education sector and also illustrate the strategies followed by the management of Higher Education Institutions (HEIs). The systematic review of 23 most relevant research studies shows that the Pandemic has affected students' learning, mental, physical, social and economical conditions badly. Particularly, students who do not afford the use of technological appliances are suffering more. HEIs need to have a smart online syllabus for various subjects. Furthermore, HEIs need to review their communication channel and technical assistance. The strategies implemented by HEIs during COVID-19 are useful and should be continued to keep offering quality education during upcoming academic sessions.*

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Introduction

The ongoing spread of infectious disease (Pandemic COVID-19) all over the world has various consequences economically, psychosocially and socially. In Pakistan, first two cases of Covid-19 were diagnosed on 26 February 2020 ([Saqlain, Munir, Ahmed, Tahir, & Kamran, 2020](#)). As per federal government orders, Higher Education Commission of Pakistan(HEC) has issued notifications to higher education institutions in Pakistan to start online classes by distance learning mode, rescheduled the exams (N. Ali, 2020). The situation goes on an increasing trend and

the government had a complete lockdown on 23 March 2020. It was converted to smart lockdown on 9 May 2020. All educational institutes were also being closed in this situation as per government directions and SOPs ([Salman et al., 2020](#)).

According to [Crawford \(2020\)](#), 4 phases of pandemic response were: “rapid adaptation, improvement, consolidation and restoration”. The ongoing spread of Pandemic, frustration, boredom, social distancing, social lockdown with colleagues, class fellows, friends and teachers, economic and financial crises are

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significant factors that influence the quality of online education in higher education institutes in developing countries. HEIs had been confronted with an immediate and sudden shift to virtual teaching to continue teaching and learning activities. This will not only motivate students but also allowing them to follow SOPs of social distancing. This transition is decomposed into various inter-related dimensions that impact the quality of online learning, i.e. “a. Technical infrastructure & accessibility b. Distance learning competencies & pedagogies c. The field of study” ([Marinoni, Van’t Land, & Jensen, 2020](#)).

Technical Infrastructure and Accessibility

Online access and infrastructure are mandatory prerequisites while shifting physical classes to virtual classes. Two factors were reported in this aspect. First, HEIs were unable to move their physical classes to online because students do not have access to the internet at their homes in low and middle-income countries. While in case of lockdown and social distancing it would be difficult for students to complete their studies in the current academic year. On the other hand, HEIs having good internet access did not achieve optimize online learning due to lack of technical infrastructure. Even in the same institution, there was a possibility that many students have access to the internet while others are lacking it. So, in this situation, it would be difficult to complete the academic session. Few of institutes fully interrupt their educational activities in the lockdown era as they were unable to provide online teaching to all the students enrolled. One of the solutions to this problem was to provide technical assistance and material (tablets / phones) to students so as to minimize cause of disruption.

Distance Learning Competencies & Pedagogies

Different pedagogies should be followed while having online classes as it is a challenge for faculty and students as well. The quality of online learning was not good as compared to face-to-face education yet it is better than providing no education at all. HEIs reported that management should develop teaching and technical capacities to their staff while shifting towards online learning.

The Field of Study

The use of technical equipments differs from one field to another. This is another limitations towards online learning in fields of study for example practical cannot be replaced in case of online teaching in various disciplines like medicine, veterinary, dentist, creative arts study, music, design, etc.

The objective of this study is to elaborate the potential of impact of COVID-19 Pandemic on quality of education and e learning of students in higher education institutions by incorporating existing literature and to elaborate the challenges and obstacles of online quality education in HEIs of developing countries in COVID-19 Pandemic lockdown. Literature showed the closure of educational institutes as a strategy to control transmission of pandemic and curing health of students as well. No doubt it has severe adverse impact on students’ academics, assessment, learning etc. COVID-19 pandemic has not only social life, financial conditions, losing part time jobs, social distancing frustration, anxiety as well. ([Brooks et al., 2020](#)). Delay in reopening of educational institutes caused negative impact on mental health and academics of students ([Cao et al., 2020](#)). Long quarantine period for students has disabled them mentally

and performance of learning activities and task. This study is an extension of the work of [Basilaia and Kvavadze \(2020\)](#) who recommended further study to investigate the quality of online learning in HEIs.

Literature Review

COVID-19 pandemic is cause of creating significant global challenges and opportunities for higher education institutions([Crawford et al., 2020](#)). COVID-19 has adversely impacted the traditional learning of HEIs. HEIs management opted for online classes as an alternative ay for providing quality education. As the online classes is protecting the health of students as well as faculty from spreading of COVID-19 Pandemic. Online learning is not an effective learning way as compared to traditional learning. In the case of developing countries like Pakistan; online learning is not an effective way to produce desired results. Reasons behind the lack of quality education in COVID-19 are lack of proper internet access, smartphone gadgets, and monetary issues. On-campus learning is an effective learning mode to maintain the quality of education. Lack of motivation is one of the obstacles in maintaining online quality education. Students participate actively in the face to face classes, projects, assignments, etc. Students in traditional classes are more motivated as compared to online classes. In the initial period of lockdown, due to the limited resources of several HEIs in Pakistan, management was not able to manage effective online classes ([Adnan & Anwar, 2020](#)). Students belonging from underdeveloped areas in developing countries are deprived of internet facility, smartphone gadgets, etc. The international association of universities reported that a greater percentage of students' mobility was cancelled in first

half of April 2020 ([Marinoni, Van't Land, & Jensen, 2020](#)).

The main factors responsible for online quality education are internet access, expensive data package, signals strength issues to have a video conference online classes, awareness of using various online educational tools, platform, and comfortable electronic communication. [Almanthari, Maulina, and Bruce \(2020\)](#) explored the challenges and opportunities linked with online learning and the quality of education in COVID-19 Pandemic era. Various researches have been carried out and mentioned the advantages and challenges associated with online learning activities and initiatives taken by various stakeholders of HEIs. However, according to [Almanthari et al. \(2020\)](#) students' perception is most important in the Pandemic COVID-19 era. Various research studies on online learning in HEIs of Pakistan have been conducted that explored challenges and opportunities associated with online learning in HEIs of Pakistan ([Ali & Ahmad, 2011](#); [Bukhsh, 2007](#); [Farid et al., 2015](#); [Yousuf, 2007](#)). It was concluded by the above studies that online learning was considered not essential for learning. According to [Ali \(2020\)](#) the interaction of teacher-student, on-campus learning, suitable and up to date curriculum are key components of traditional learning which are lacking in the case of online learning.

Spread of the COVID-19 pandemic leads HEIs to adopt various online teaching and learning methodologies. 85% of international students surveyed reported that face to face classes are replaced by online, totally or partially. 12% of HEIs suspended their classes completely and were developing strategies and methodologies for online teaching and learning and self-study means ([Marinoni, Van't Land, & Jensen, 2020](#)). According to

the international association of universities survey, HEIs having the infrastructure to communicate with students does not reveal any effectiveness ([Marinoni, Van't Land, & Jensen, 2020](#)). One of the advantages of online classes is to involve an external expert who can provide more knowledge and information as well ([Ferdig, Baumgartner, Hartshorne, Kaplan-Rakowski, & Mouza, 2020](#)). In the present condition of Pandemic COVID-19, all HEIs should have to implement online learning regardless of their limited resources. According to [Abbas, Ahmed, Khalid, and Yasmeen \(2017\)](#), the adoption of ICT in HEIs cannot be ignored even due to a lack of limited resources. No separate funds are allocated for HEIs in Pakistan ([Kayani, 2005](#)).

South Asia is one of the oldest civilization in world and it occupies central predominant position economically, socially and politically. They are developing countries and their common objective is to promote economic growth, education, health, cultural development, social progress and prosperity globally. Bangladesh has diagnosed its first case of COVID-19 on 8 March, 2020 ([Monjur & Hassan, 2020](#)). Bangladesh has 4 million students in five thousand higher education institutions both public and private sector. While considering the health of students, universities have opted strategy to temporarily close educational institutes ([Ahmed, Ahmed, Alim, Khan, & Jobe, 2020](#)). Majority of Indian students enrolled in international universities are leaving such countries as the situation is going to be worse day after day ([Jena, 2020](#)). India is adapting new age of learning but still there are obstacles on the way to online learning as only 45 crore of total population have an access to internet ([Jena, 2020](#)). Nepal is situated at

foothills of Himalayas, encountered its first pandemic case due to arrival of foreigners ([Mohyudin, 2020](#)). Government of Nepal has a slow steps regarding precautionary measures in controlling spread of pandemic COVID-19. First case in Nepal which was tested positive was reported on 25 January, 2020 and it was due to arrival of a Nepali student from city of China, Wuhan

In India, the first case of COVID-19 was tested positive on January 30, 2020 in state of Kerala and its origin was travelling of the affected person from Wuhan, China. First death was reported on 12 March, 2020 and on that day Janta Curfew was observed for 14 hours so as to control the spread of pandemic COVID-19. Proper lockdown was announced on March 25, 2020 by Indian prime minister. More than 32 crore students India were affected adversely by the spread of pandemic and lockdown. India has adapted latest e-learning tools and techniques but even then 45 crore of its total population has an access to internet or e-learning rest of the population is either living in remote areas or are deprived of internet access and technical assistance and ICT facilities.

In Pakistan, the first case was tested positive in Karachi on February 26, 2020. Pakistan is one of the developing countries in South Asian context and is unable to run effectively the virtual education approaches like that are followed by other developed countries China, USA, EU etc. COVID-19 has poorly affected the education of students belonging to remote areas ([Zahra, Gul, Iqbal, Ghaffoor, & Ambreen, 2020](#)).

First confirmed case of pandemic COVID-19 in Sri Lanka was tested positive on January 27, 2020. He was a Chinese tourist. Due to the closure of educational institutes in Sri Lanka, online techniques of education was considered as an

alternative solution so as to continue education. online teaching and learning has become an integral part in srilanka higher education institutions. But various challenges and obstacles were there that hindered the quality of e learning ([Rameez, Fowsar, & Lumna, 2020](#)).

The COVID-19 pandemic has quickly led to closure of Higher education institutions around the world with anticipation that public health could be restored by following SOPs of social distancing ([Murphy, 2020](#)). In this era of the spread of pandemic COVID-19 students who are connected virtually but separated physically in international universities. Students exposed their emotions, benefits, challenges & coping strategies as well ([Peters et al., 2020](#)). In the lockdown era, all the HEIs in developing countries that are recognized by HEC used online LMS, to ensure effective online learning ([Ali, 2020](#)). Many of HEIs in developing countries suspend their online classes due to lack of resources and LMS. Only very few highly ranked private sector HEIs in developing countries carried on their online classes immediately and effectively. In the current situation of the rapid spread of Pandemic COVID-19, researchers have mentioned it as crisis learning ([Pace, Pettit, & Barker, 2020](#)). Academic institutes need to update their curriculum as smart syllabus, new learning methods, and strategies ([Toquero, 2020](#)).

HEIs are the hub of social interaction as student teachers communicate and interact at this platform and perform their learning activities as well as educational learning. In the case of online learning, response time is another obstacle in quality education in developing countries

in the pandemic Era. Often online class material is discussed via email which requires response time ([Zhong, 2020](#)). Sharing of knowledge, skills, information and ideas is partially missing from online learning ([Britt, 2006](#)). Online learning is implemented and effective only in digitally advanced countries ([Basilaia & Kvavadze, 2020](#)). While in the case of developing countries like India, Nepal, Srilanka, Pakistan and Bangladesh many learning, teaching and administrative duties are ineffective ([Salam, Jianqiu, Pathan, & Lei, 2017](#)). Affordable reliable strong internet package again is creating an obstacle in online learning in rural areas of Pakistan ([Wains & Mahmood, 2008](#)). The majority of students have no laptops they are using smartphones. Many online class contents cannot be assessed by using smartphones.

Methodology

This research is based on a systematic review of available literature on COVID-19 and online learning during pandemic COVID-19. The systematic review ensures the use of maximum information and metadata. Social science research journals, SSRN, educational management journals, journals of distance education, research papers presented in international conferences on quality education issues due to the spread of pandemic COVID-19. Those Studies were selected which were related to issues in the evaluation of quality education in higher education institutions due to the spread of pandemic COVID-19. Out of 220 articles screened, 23 articles were included in this study. These 23 studies evaluated the impact of COVID-19 on quality of education in case of higher education institutions.

Table 1. Inclusion & Exclusion Criteria

| Inclusion Criteria | Exclusion Criteria |
|---|--|
| Reviews, editorials, conference proceedings, international reports, etc. Research studies elaborating same research problem, obstacles, challenges Higher education institutions(any discipline) Only students perspective of learning | All studies published before 2020 Duplicate articles from the same institution, the same author Elementary ,Primary institutions |
| Systematic review articles Qualitative outcomes Only English language research papers. | Various stakeholders, faculty, government, parents. Observational data Quantitative outcomes Other than English language research papers. |

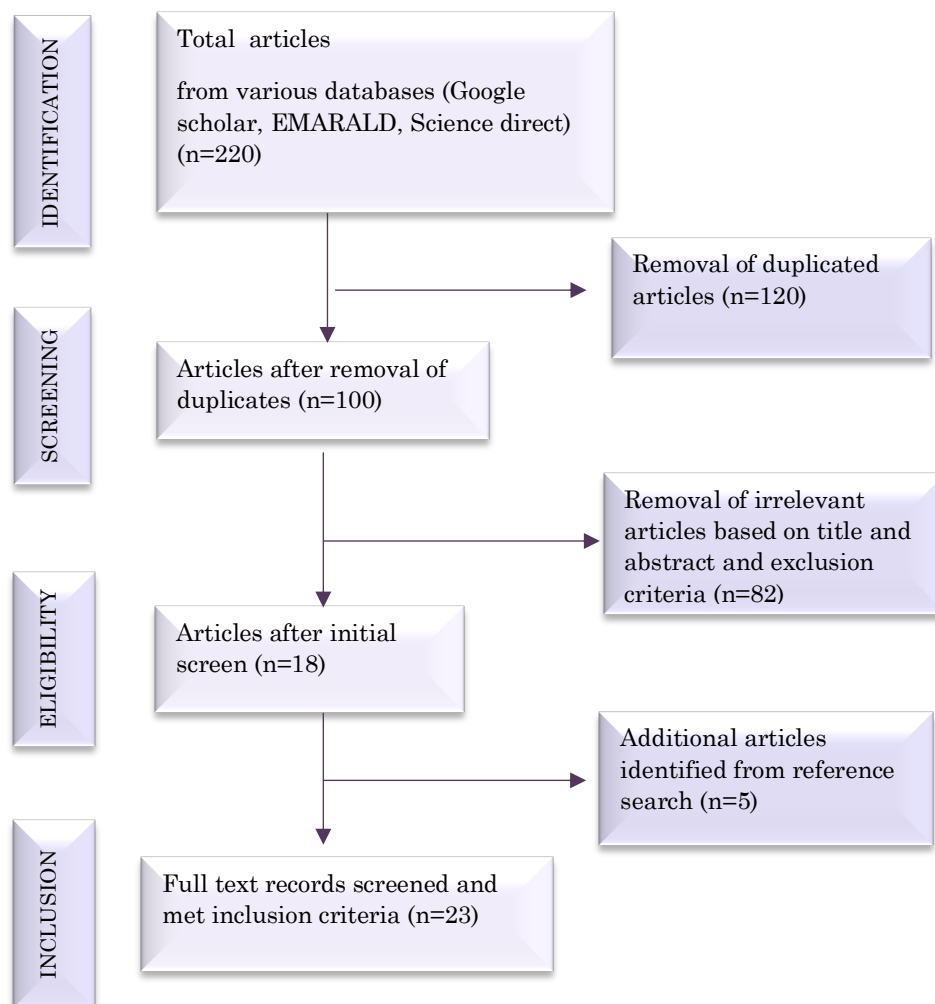


Figure 1: Flow Chart of Research Articles for Systematic Review

Table 2. Systematic Review of COVID-19 Studies on HEIs in South- Asian Countries

| Research problem | Authors | Year | Country | Findings | Recommendations/Coping strategies |
|--|----------------------------------|------|---------|--|---|
| Alarming spread of virus covid-19 and temporary closure of educational institutions. | (Dawadi, Giri, & Simkhada, 2020) | 2020 | Nepal | Challenges faced in the advent of COVID 19 were due to false implementation of strategies and inability to implement such policies. | <ol style="list-style-type: none"> 1. Putting strategies in action so as to ensure that students return to universities as they got reopen. 2. To Introduce evidence-base interventions so as to recover the lost of learning. 3. Understanding students' family background and providing appropriate counseling & support for pupils and parents. 4. Using local volunteers and locally trained facilitators to support learning. 5. Engage with parents 6. Support online and offline methods 7. Partnering with international organizations. 8. Training teachers to run online classes and consider students' access to technology. 9. Using new approaches to assessment. 10. Moving to digital infrastructure 11. It can encourage personalized learning. 12. Higher Education institutions can run with alternate shifts per day 13. Teaching- and learning can be run with use of technology. 14. Assessment system can be changed to new one. 15. The demand for an open and distance learning technique (ODL) and online learning may grow. 16. Blended learning may take the leading role. |
| Closure of educational institutions and teaching-learning has moved online. | Jena, 2020) | 2020 | India | <ol style="list-style-type: none"> 1. Students' attendance slows down. 2. National and international student mobility for the higher study was reduced. 3. Learning with social distancing discontinued. 4. Raised the gap between privileged and unprivileged students. 5. Student debt crisis rised. 6. Unemployment rate increased. | |

| Research problem | Authors | Year | Country | Findings | Recommendations/Coping strategies |
|---|---|------|------------|--|---|
| Unprecedented disruptions in students' learning, decrease in motivation and study hours, various physical, mental and economic problems regarding academic studies while spread of pandemic covid-19. | (Dutta & Smita, 2020) | 2020 | Bangladesh | <ol style="list-style-type: none"> 1. University temporary closure. 2. Disruptions in learning. 3. Loss of social interaction. 4. Physical health problems 5. Shifting to online education. 6. The financial crisis and parental involvement. | <ol style="list-style-type: none"> 1. Support from family, friends, & government is needed to minimize social, physical, mental & educational disruption of students. 2. Urgent steps must be there to provide technical resources and improved internet connection/data package to ensure uninterrupted online education in COVID-19 pandemic. |
| The norms of education are changing according to the slogan of social distancing. Learning has changed from face-to-face to virtual. | (Dhahri et al., 2020; Shahzad et al., 2020; Zahra et al., 2020) | 2020 | Pakistan | <ol style="list-style-type: none"> 1. Virtual teaching brings positive change in students' attitudes. Students are committed and motivated towards their studies. Students seem excited about online learning. 2. Teachers can be easily accessible online. They can ask questions by voice or text messages and teachers replied on the spot in an online class. 3. The moderating role of HEC policy during COVID-19 4. The role of digital media education. Positive impact of digital media on 5. quality of education. The negative impact of digital media on education | <ol style="list-style-type: none"> 1. Govt. with HEC and other stakeholders should make comprehensive plans to implement virtual teaching not in higher education but also on the higher secondary, secondary and elementary and primary levels. 2. Virtual teaching should be used objectively on a priority basis. 3. Universities, colleges and schools should be provided with the internet and the latest technology used in virtual teaching. 4. Teachers, as well as students, should be provided necessary training regarding virtual teaching. 5. Students should be facilitated with computers and related resources. 6. Effective strategies should be promoted to ensure e-learning. 7. Govt. should provide funds. 8. Webinars should be conducted to create awareness among students as well as teachers. 9. Means of providing education to rural area students should be replaced. 10. Radio is used as an effective accessible mode of communication in education. |

| Research problem | Authors | Year | Country | Findings | Recommendations/Coping strategies |
|---|-------------------------------------|------|----------|--|---|
| Digital poverty is major obstacle to efficacy of e learning. inadequate teacher and peer interaction had much stress. | (Sandarenu, 2021) | 2020 | Srilanka | Universities need to undertake proactive action urgently to modify the virtual training methods, addressing the issues of digital poverty is likely to significantly enhance the efficacy of virtual learning. | <ul style="list-style-type: none"> • Conduct only virtual small group discussions. • Limiting the sessions to 45 minutes. • Make lectures more interactive. • Be flexible and lecturers punctual. • Good condition microphones and training for lecturers. • Classes must be live that allow students to clarify queries. • Lecturers must record the lectures and upload them to google classroom. • Must upgrade technical as well as internet usage/package issues and must reduce data package charges. Encourage students to put their cameras on for classes. |

Conclusion and Recommendations

This study after a systematic review of the literature, concluded that Pandemic Covid-19 has a significant adverse impact on the social, mental, and economic health of students of HEIs in South Asian countries (Pakistan, Nepal, Bangladesh, Srilanka and India). It elaborated not only adverse impact of covid-19 on higher education institutions but also suggests few recommendations on basis of literature review. COVID-19 pandemic is the cause of creating educational disturbance while government of south Asian countries has no firm control over its spread. Online learning can never be a good alternate to face to face learning. The spread of pandemic COVID-19 has created good opportunities for developing technicians, human resources, IT infrastructure in higher education

institutions. Some sort of short term measures should be implemented immediately in education sector otherwise it will be collapsed. Both the HEIs and students are facing some sort of problems caused by the pandemic and definitely, this will help them out to search most suitable solution. HEIs reacted smartly in handling discrepancies caused by COVID-19 and such smart steps proved successful. Students faced a lot of problems like mental health, anxiety, and isolation. Measures should be taken to support and prevent such problems. In addition to all this, students were the victim of racism also. HEIs need to have careful planning for handling such cases at an international level. HEIs and governments administration need to collaborate in a close manner to provide better and affordable learning opportunities. Various

coping strategies are adopted not only by universities' management but also by students, parents but in a limited sphere. Factors responsible for the poor quality of education in Pandemic Covid-19 are no face-to-face interaction of students with the teachers, lack of socialization and internet access issues, etc. The administration of HEIs needs to be aware of the determinants and policy formulation to ensure quality education during the spread of pandemic COVID-19. Solutions implemented by HEIs during COVID-19 were useful and should be continued to keep offering quality education for the upcoming academic session. The reopening of university campuses will generate contrast between face-to-face and online learning, physical mobility and virtual exchange. After a systematic review of literature, it is recommended that:

- Higher education institutes should coordinate with government agencies and World Health Organization to improve the quality of education by following SOPs.
- HEIs of developing countries need to have a smart online syllabus for various subjects.
- Students need computer and technological skills to manage online educational platforms.
- HEIs mostly need to follow coping strategies in form of educational continuity like the use of innovative technology: digital and mobile technology along with traditional technology i.e. radio and TV.
- There is a need to support students at the academic level. Lack of

contingency plans in institutions, their host universities, and foreign partner institutions are almost one quarter and harm students' support.

- HEIs need to review their communication channel, the effectiveness of information delivered, use of language and technical assistance.
- To ensure implementation of strategies when students return on reopening of universities.
- Put strategies to recover lost e-learning .
- Understanding students' family financial issues and supporting accordingly.
- Get assistance from local trained volunteers who will assist in e-learning.
- Interaction with parents both online and offline.
- Following SOPs provided by international universities.
- Train faculty as well as students to have access on technology usage.
- After lockdown educational institutions can be open on alternate days.
- Assessment of online teaching and learning should be different from face to face teaching and learning.
- Conduct small group discussions online.
- Online lecturers should be upto 45 minutes maximum.
- Make online lectures more interactive and solving students queries as well.
- Ensure faculty punctuality while taking online classes.

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