



Pre and Present COVID-19 Situation: A Framework of Educational Transformation in South Asia Region

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Abstract

This study is designed to support the development of strategies to recover from the disrupted impact of COVID-19 on HE institutes of the South Asian Region (SAR), as the nations in this region are severely cursed by poverty and unemployment. During the unusual phase of the COVID-19 pandemic, the face-to-face learning method is no longer appropriate, and the crisis leads to force on distance learning instead of physical learning. Like all other educational institutions, HE institutions are also in big trouble. Changes in educational structure change the pattern of academic work, which may have an inverse impact on acquiring knowledge and improving skills. Not only students but also a greater number of teachers at the HE institutions required to continue their service through online during this closure period. However, well digital infrastructure and digital contents appear to be the prime requirements for this educational transmission, which are extensively accessible in SAR countries. By following a mixed-methods strategy, the study specifically examines the impact of the pandemic on higher education in the South Asian Region, with an emphasis on the impact on learners, educators, and institutions, and to identify the measures that have been taken by these countries to survive and continue the education system with all the obstacles of the crisis. It concludes with some vital suggestions that may be applied to mitigate the crisis moment and assist in moving forward with more technological advancements for a new future.

Keywords:

COVID-19;
E-Learning; Online;
Remote Learning; Digital;
Perceptions; Pedagogy;
South Asia Region (SAR).

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1- Introduction

An immense education system has been observed in South Asia Region (SAR). Compared to other regions, it is the second largest in terms of enrollment and accounts for 18 percent of all tertiary education students globally [1]. However, with the predestined rise of the COVID-19 pandemic, the global education system is going through an inconceivable state of affairs. Globally, students of all levels are facing difficulties to resume regular studies with their respective educational institutions due to government regulations concerning the health crisis caused by the pandemic. Like any other region, all SAR governments have also declared the HEIs closed.

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According to the report of the World Bank education group [2], due to COVID-19, in higher education, all educational, administrative and research functions have come to a halt. As of April 2020, about 175 universities had been closed around the world and over 220 million students' studies stopped or significantly disrupted. Higher educational institutes seek for new techniques to adopt in this crisis moment. According to government's the mandate (restriction on movement), the higher education institutions of Bangladesh, India, Bhutan, Pakistan, Maldives, Sri Lanka, Nepal etc., have to establish an alternative path to endure their services. By ignoring any gathering and direct interaction, these organizations have integrated new and innovative strategies to continue their regular activities such as teaching, research, administrative services, employment generations etc. Educators, learners, and administrative or other employees all have to shift their work format to work from home rather than work from the organization. Consequently, teaching techniques, teaching materials, syllabus, and course outlines have to be revised and structure in form of remote teaching-learning fashion. In this phenomenon, access to electronic devices, access to the internet, LMS (learning management system), and adequate power supply are also essential for educators, learners and others. Moodle, Google Meet, Zoom, Google classroom, Jam board, Google hangout, BLC (blended learning system), Skype, e-mail, Facebook, Twitter, WhatsApp, Telegram etc. appeared as required applications and platforms. However, limited access to the internet, limited access to devices (desktop, laptop, smartphone, etc.), inadequate power supply in rural areas, inefficiency of using digital equipment, lack of technological skill and knowledge create constraints for both teachers and students. In contrast, remote learning has no longer been sustainable due to the poor and least developed socio-economic status of the students. Considering this situation, some universities have to decide to discontinue their online activities. Moreover, the pandemic creates uncertainty which has a worse impact on both teachers and student's psychology. In this regard, some institutions have to suspend their distance learning initiatives instantly.

The closure of HE institutions mostly affects youth students who are aged between 18 to 26 and performing their studies. Changes in educational structure change the pattern of academic and research work which may lead negative impact on acquiring knowledge and improving skills. Students from financial better-off families get more benefits than those from financial worse-off families as urban students rather than rural students. Disruption creates disparity among the students for having better internet access, proper devices, and digital equipment, a sound study environment etc. Consequently, greater learning losses may occur for them. Due to continuity in lockdown, students suffered a loss of nearly 3 months of the full academic year of 2020-21 which is going to further deteriorate the situation of continuity in education and the as students would face much difficulty in resuming schooling again after a huge gap [3].

A greater number of teachers are involved with the HE system in the South Asian region and most of the HE institutions require to continue their service through remote or online or alternative ways during this closure period. However, well digital infrastructure and digital contents are the prime requirements for this educational transmission which are extensively accessible in SAR countries. It is quite difficult or sometimes incompetent to reach such students who have limited internet and device shortage. There is also limited guidance for teachers on how to systematically deal with teaching-learning during a crisis. Besides limited access to broadband internet connectivity and the availability of digital content, lack of training in the use of digital pedagogy, student assessments, and ways of supporting students remotely constrain teacher responses during the crisis. It was not thoroughly adopted tools for e-learning to use learning management systems before COVID-19, where all academic resources are organized in a digital manner. As the university remained closed for three months continuously due to lockdown enforced by the government, it was forced to turn to online learning (e-learning) using various online platforms like Zoom, Microsoft Teams, Google Meet, and so on to ensure that students completed their courses on time [4].

Based on the above background, the study mainly focused on the impact of COVID-19 in higher education as well as impact on students, educators and institutions in the South Asia region. Furthermore, it tries to compare with before and during COVID-19 educational situations and to identify some new methods/techniques of educational system emerging for this pandemic. It also emphasizes post-COVID-19 trends in higher education and suggests some measurements to adopt with this transformation.

2- Literature Review

The COVID-19 pandemic has disrupted rapidly with its severe effect on human life. All aspects of human life, such as economy, health, education, business etc., have been drastically interrupted by this crisis. It has forced the educational institutions to close within a very short period and affected more than 90 % of the students of the world population. During this unusual phase of the COVID-19 pandemic, distance-learning takes the place of physical learning and the face-to-face learning method is no longer appropriate, the crisis leads to force immersion of learners into learning instead of offline or classroom learning.

An unfortunate educational disruption has occurred due to the outbreak of COVID-19. Owing to the restriction and lockdown, all educational institutions had gone through unusual and unexpected inconsistencies and disturbances. A report on UNESCO [5] states that the closure of educational institutions has affected about 1.5 billion students and youth globally. According to UNICEF [6], over 90% of the nations shifted to distance learning and about 463 million students have dropped out or disconnected from formal education. The higher education ecosystem has changed drastically and rapidly for this pandemic [7]. In Bangladesh, all kinds of offline academic activities were closed till September 2020 [6] and the closure was extended to June 2021 [8, 9]. The government of Sri Lanka adopted a new strategy called Work

from home which forced the academic employee, both teachers and staff, to serve their service from their respective residences [10]. Though India is trying to adapt the digital learning, however, it's quite difficult to ensure access to the internet for all of its vast population [11]. Too concerned about public health and maintaining social distance, the pandemic led to the shutdown of higher education institutions over the world [12]. COVID-19 has connected students virtually but disconnected physically. Students exposed their emotions, interactions, challenges & coping strategies as well [13]. Mahwish Zeeshan et al. [14] brought up the problems that university faculties in Pakistan were having because they were not ready for the COVID-19 crisis.

To ensure effective online learning in this drastic period, all the higher education institutions in developing nations adopt online platforms like LMS [15]. Lack of sufficient resources and LMS, many developing nations have postponed their academic activities through online. However, few high-ranked and well-established universities can continue the online method actively and effectively [16]. An important fact arises for the educational institutions to improve their curriculum as well as new learning techniques to adjust to remote or online learning [17]. Higher educational institutions are considered the center of social interaction. Moreover, this is the utmost platform for interaction and communication between students and teachers and to explore learning activities. Ensuring quality education is another constraint through the online method, where online response requires time [18]. Sharing of knowledge, skills, information and ideas is partially missing from online learning [19]. Digitally and technologically advanced nations can implement it effectively and get more benefits from online education [20]. Due to technological dis-advancement in many developing countries like India, Bangladesh, Pakistan, and Sri Lanka, many academic and administrative activities are ineffective [21]. In Pakistan, internet access is an obstacle for rural areas. Lack of proper devices, the majority of the students cannot continue the online learning [22-27]. The restriction of the pandemic on academic functioning creates significant educational disruptions and students experience inversely [28, 29]. Since the closure of tertiary-level educational institutions suspended face-to-face teaching-learning sessions, it interrupted the regular flow of academic programs [30-32]. The mental state and the educational growth of the students have been negatively affected by the closure the institutions for an uncertain period [33]. The long-time closure of the institutions lowers the students' mental stress which may cause students' disturbance and declining academic and work performance as well [31, 34, 35]. Postponed and canceled many assessments: public or internal have affected students' learning with major interruptions [36]. To reduce the instant disruption on higher education, many institutions have transformed their academic method from traditional to virtual or online, but students are not comfortable with this shifting and create stress on them [37, 38]. Students face different obstacles for this transformation of education. Online lectures, digital assessment methods, interaction with teachers, adopting new techniques and technology and many more online issues related to learning come forward with major challenges for lack of proper electronic devices, unavailable inter access, internet expense etc. [39]. Some researchers studied the perception of the consequences of COVID-19 pandemic lockdown and portrayed the evolution of online education globally. They highlighted the satisfaction of the students due to the assistance and support offered by their teachers and universities. Inadequate technological skills and a relatively new learning environment are hindering their understanding capabilities to stimulate concern for future education and career [40-42].

Research on COVID-19 is an ongoing process. Several studies tried to identify the COVID-19 impact on educational sectors. Most of cases, experts emphasized on particular country or system or organization. However, South Asia is one of the densities (1.85 billion) regions in the world and overpopulation is a major feature in this region. Consequently, the human resources of this area become restricted by the curse of unemployment and poverty. In these circumstances, the higher education sector contributes to building a skilled and knowledge-based workforce which is very crucial. There is no specific study which highlighted the COVID-19 impact on SAR in all countries combinedly as these countries have almost the same appearances. To address this gap, the present study tries to find out the impact of COVID-19 in higher education as well as learners, education and institutions in the South Asia region and to identify the measures which have been taking by these countries to survive and continue the education system with all obstacles of the crisis.

3- Materials and Methods

3-1-Methodology

The COVID-19 pandemic has disrupted rapidly with its severe effect on all aspects of human life and reshaped the manner of imparting higher education across the world. Therefore, the higher education institutes started an untested mode of teaching and learning. Though there is no alternative but online sources, the present study has been accomplished based on secondary data and followed by qualitative manner. The literature revealed that online learning is not a new concept but undoubtedly; exposed greatly in this pandemic and inherits its strengths and weaknesses. Based upon the literature, the study carried out three major specific aspects in education system where the pandemic impacts mostly, i.e., the learner aspect, the educator aspect and the organizational aspect and by a qualitative analysis, the study designed to establish this through flowchart where students psychological issue, internet accessibility and costing, teaching plan and materials redesign, remote interaction etc. from teachers' percepts are highlighted. Different authentic national and international reports, different popular websites, various national and international journals, newspaper, UN (United Nations) reports, WHO (World Health Organization) reports, online articles, electronic media in different nations are the main sources of this study. Due to international movement restrictions and maintenance of social distancing for the current epidemic of COVID-19, the study reflects to follow the secondary data based on empirical research to prepare to collect the relevant information needed to evaluate their impact.

3-2-Data Analysis

This study has carried out an empirical investigation addressing the digital transformation of education caused by the COVID-19 pandemic in the context of higher education in South Asian countries. Owing to the wide-ranging impact of COVID-19, all educational institutions were closed for an uncertain period. In consequences, the closures create troublesome for the completion of the academic year, course curriculum, board examination, graduation and post-graduation examination from HE, admission procedures for entry into HE. Each Government of every country, like Bangladesh, India, Pakistan, Bhutan, Sri Lanka, Nepal etc., has taken rapid initiatives to handle the issue for respective country's perspectives and abilities.

In the pre-pandemic, it was a comparatively unusual issue to practice the digital version in education. According to UNESCO, only 20% of nations had a digital version of education before the pandemic. The following table explains the comparative framework of pre and present COVID-19 learning situation, where a vast shifting of learning system is being signified.

Based on some empirical evidence, the study depicted a contrast through a comparative method between before and during the pandemic educational transformation. The following table indicates the educational transformation between before and after the COVID-19 situation where the virtual method takes place on primitive methods with contemporary tools and techniques. The transformation of the educational system from traditional to online-based, or in this case, physical classes to online virtual classes, saw the initiation on a larger scale during a pandemic event [41, 42]. The pandemic forced us to take an extraordinary digital leap in the basic education of students [43]. According to the UN policy report on education during COVID-19 and behind [5, 6], during the closure of educational institutions, it was a challenge for governments all over the world to maintain the continuity of the education system. Consequently, ICT based method has occupied in this regard where educators require to shift their traditional lessons to online-based lectures and lessons [44-47]. Aditya & Jha, and Jensen et al. [48, 49] stated that organizations which initiated the online application for learning required to ensure compatible with smartphones. The study found 82% responded use mobile data packs for their online classes, while 62% of respondents of this study thought WhatsApp was the best way to communicate class updates. The modular format is exhibited in online learning where normal structure of face-to-face learning remain invisible [50].

Table 1 indicates the educational transformation between before and after the COVID-19 situation where the virtual method takes place on primitive methods with contemporary tools and techniques. Internet saturation is also a moderate range among these countries. Before the pandemic, students used classrooms, textbooks etc., for their learning, whereas teachers used boards, markers etc., for their teaching, and teachers-students had a large platform for learning interaction and communication. However, sound technology requires access to internet and available devices create the online learning more effective. From the above table the term "Pre" designates before pandemic situation where students were used to face-to-face learning in traditional manner. However, the disruption of Covid-19 has changed it into a digital manner. Though there is limited access, the government of these countries are trying to provide their highest effort to continue the education system. All nations in South Asia have taken emergency strategies to adapt with this immediate transformation in education.

Table 1. Comparison of Pre and Present COVID-19 Learning Situation

Criteria	Pre COVID-19 Circumstances	Present COVID-19 Circumstances
Place of Learning	Institutions	Home
Source of Learning	Analog	Digital
Range of Learning	Narrow	Wide
Mode of Learning	Face to Face (Direct)	Distance / E-learning
Method of Learning	Traditional	Virtual
Tools of Learning	Black/White Board, Marker, Chalk, Duster, etc.	Device, Apps, Head Phone/Ear Phone, Speaker etc.
Technological Efficiency	Less advanced	Advanced

4-2-1- Bangladesh

In the preliminary phase (March 8, 2020), while universities have declared to be closed due to COVID-19, lack of digital/ICT knowledge and basic MIS (management information system) have appeared as main shot comings to the educators and apprentices. It was a great challenge for us as a less advanced and overpopulated country. The University Grant Commission (UGC) of Bangladesh has revised their policies to emphasize on ICT and introduced a digital education system for learning and teaching. Within four months, digitization was mainstreamed. An average of around 3,800 classes are held online daily with more than 220,000 students in attendance. Thus far, a total of around 203,200 classes have been conducted to more than 9.2 million attendees by 10, 200 faculty members*.

* Source: The Financial Express Published: 2020/8/17.

4-2-2- Bhutan

The education ministry of Bhutan has taken several steps to handle the situation and engage students and teachers in various digital ways to continue education efficiently. They introduced a new technique, namely Self Instruction Materials (SIM), to engage their student through online. SIM is a printed version of tele-education that works on without any access of the internet and television, and it has been introduced by the Government of Bhutan since the earlier stage of COVID-19, March 27, 2020.

4-2-3- India

The University Grant Commission of India has changed their existing policies immediately and introduced a COVID-19-based education policy since March-April, 2020 when the lockdown started. The UGC of India has announced their new educational policy where new academic calendar and examinations issues such as new admission, enrolment, new session, and running session examination have been highlighted. UGC has also prepared a complete calendar for the academic session 2020-2021 with new dates keeping in view of the lockdown. The Ministry of Human Resource Development (MHRD) and the University Grants Commission (UGC) of India have jointly initiated some measures for continuing educational activity properly during this lockdown situation. In this regard, many virtual platforms, e-library, e-books, virtual teaching and learning resources have been launched. Television, Radio also introduced educational channels to continue the learning activity of the mass students.

Students have to habituate to different online platforms and tools like Zoom, Facebook, Google meet, YouTube live, Telegram, and WhatsApp during lockdown to connect with remote learning. ICT introduced a unique platform, namely MHRD (e-Boucher: <https://mhrd.gov.in/ictinitiatives>), that accumulates all advanced education and research-based international journals to support e-learning [11].

4-2-4- Maldives

The Government of Maldives (GOM) also announced several measures to tackle this pandemic situation. Since the middle of March 2020 GOM declared closure to all educational institutions including HEIs and like all others countries, Maldives has shifted their educational activities to online or virtual learning. Recently the Gov't has been declared to reopen the educational institutions gradually.

4-2-5- Nepal

According to WHO, Nepal has been declared the most vulnerable country due to its poor economic and health structure. All educational activities have remained suspended from 23 March, 2020. The Government of Nepal has changed their learning methods and educational policies with some new arrangements to keep pace with the crisis. At the beginning, it was a big challenge for learners and educators to cope up with the online system due to a lack of technical knowledge and poor internet connectivity, but a few weeks later they were able to overcome the issues.

4-2-6- Pakistan

To meet up the universal appeal, transformation of the education system during COVID-19, the Government of Pakistan has shifted their learning system to online from March 13, 2020. But, the lack of well-technical equipment of most universities and the lower accessible rate of the internet, made the decision very challenging. Among the 220 million population, the internet penetration rate is 32.4 % indicates only 76.3 million people get the access to the internet. In this regard, The Higher Education Commission (HEC) of Pakistan decided to exclude all grant schemes for the newly developed universities due to lack of funds.

4-2-7- Sri Lanka

The education ministry of Sri Lanka was the first to take action in order to protect the students from harm due to this pandemic situation. According to the government's calculation, educational institutions in Sri Lanka were closed on March 13.

The Sri Lankan Gov't initiated a few steps to decrease the remote learning cost. There are several costs incurred for involving in online education from both teachers' and students' aspects. In this regard, universities used their own LMS (learning management system) or Moodle and the government facilitated the continuation of academic activities using the Zoom app through the Lanka Education and Research Network (LEARN). Some web companies provide diffident online access and services without charge. Currently, remote learning is regarded as a substantial portion of education in Sri Lankan universities.

4- Results and Discussions

A study on Pakistan education during COVID-19 found that disengagement from education for a long period may create unskilled human capital in future. Moreover, it enhances dropouts' mental stress of students which will impact on the growth of the economy in Pakistan [51]. Another study of Bangladesh identified various obstacles such as devices, internet cost and availability, and lack of soft skills in remote learning. It emphasized to upgradation of the internet

system and to arrange technical training on online education to tertiary-level students in Bangladesh [52]. A research on Bhutan education during the crisis also highlighted the cost of internet which is beyond the ability of both students and teachers. It recommends the ministry of education of Bhutan provide a workshop for teachers to enhance their digital knowledge and to reduce the cost of the internet as much as possible [53].

Based on several literature, the study comes to short out some common but important issues for all countries. Inadequate internet facilities, interaction gap between students and teachers and lack of technological inefficiency appeared as major obstacles among the higher education students of Pakistan. Students face entirely different learning experiences while shifting from traditional learning to online learning. Most students do not have access to high-speed or reliable internet services and are thus struggling with online learning [54]. The unexpected change to online learning became a measure of organizational agility [55] with several academic institutions primarily focused on the transfer of educational content to the digital world and not specifically on online teaching and delivery methods. Nonetheless, it was a reminder of the lack of resources in academic institutions and the social marginalization of students, where insufficient access and availability of the internet and the lack of the latest technology affected organizational responsiveness and students' capacity to participate in digital learning [18].

The current situation is considered as a learning crisis, and it's a unique circumstance [16]. It's essential for academic institutions to restructured and improve the curriculum with new instructional methods and strategies [17]. Not only COVID-19 but also academic transmission created a lot of stress on students. They felt very anxious about many new factors, such as adaption of new technology, poor internet connection, internet expense, proper device and so on, which made them scattered and less motivated in present learning [56]. Faculties who are habituated with traditional teaching like classroom-based teaching, sheet or note-based in-person lecture delivery, interaction with students etc., have changed themselves in the previous 10 to 15 years [7, 57].

The emergence of digital education not only promoted improving skills through the use of e-resources but also facilitated the engagement of students to develop complex thinking abilities [58-60]. Teaching and learning both processes are smarter and more updated through online; students can now re-visit the study materials anytime [61-63]. Moreover, multiple sources are available to assess the information; consequently, knowledge sharing increase with various platform which may have a greater impact on society. Based on empirical evidence, the study pointed out three major specific aspects in education system where the pandemic impacts mostly, i.e., the learner aspect, the educator aspect and the organizational aspect (Figure 1).

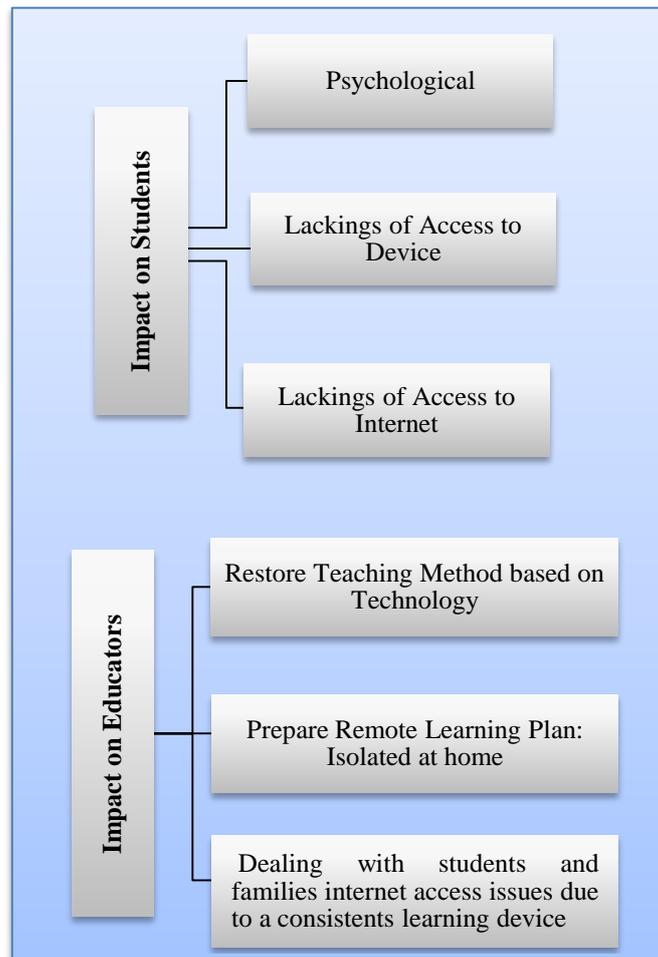


Figure 1. Impact of COVID-19 on Learner & Educator

From the learner's aspect the pandemic influences them psychologically (Figure 2). While lockdown started for an ambiguous period, their regular activities, studies, scheduled classes, and friends' hangout etc., all have been changed to an indeterminate situation. The uncertainty makes them traumatize. They have experienced mental stress, solitude, anxiety, depression and other emotional attachments which may be woeful with short-term and long-term effects on their mental and physical health. Problems like insomnia, food abhorrence, loneliness, engagement in games and Facebook addictive behaviours may arise in a short-term basis which may covert serious psychological problem in the long-term. Rumours, misleading information, and distortion regarding COVID-19 also may create negative attitudes and thoughts among the students and their families, which will impact inversely on their studies and career in future. Considering the health, finance and career objectives, most people have experienced major psychological destruction caused by COVID-19. So, the online education system must be a "Learning with Fun". To premise this procedure, teachers should be concerned with the learning content, class duration and academic schedules. And personal interaction between teacher and student should also be increased. Unlike the physical classroom, it is quite hard to find a solitary place for the students and teachers, especially with families having a large number of members. So, the family members have to be supportive in this regard to minimize the phonetic destruction during the classes.

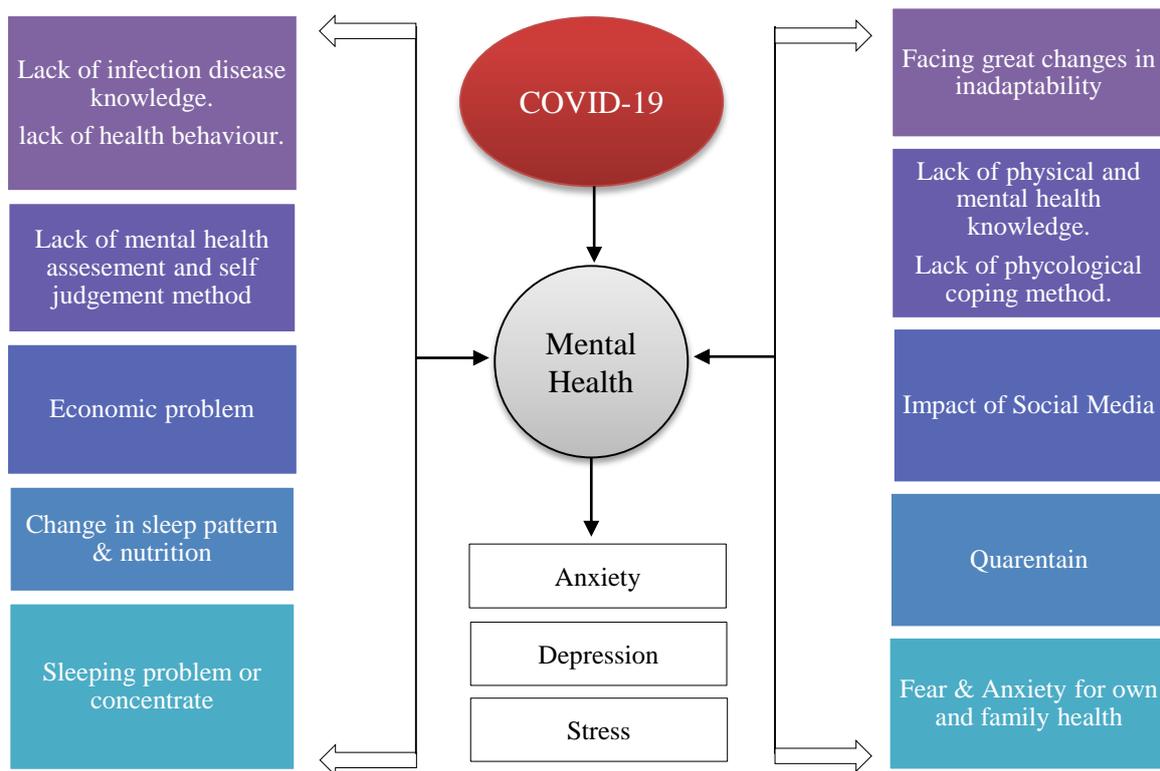


Figure 2. Psychological Impact of COVID-19 on Learner

Lacking an appreciative device is another major problem from a learner aspect. Financial inequality creates obstacles for remote learning. Students in rural areas with poor financial background having lack access to appropriate devices. As a consequence, these students are unable to access distance learning through astute devices like laptops, desktops, smartphones etc., which are expensive and beyond to their financial abilities. Moreover, it's quite difficult for a family having the maximum members are students to access remote learning. Technological accessories such as laptop/desktop, smartphone, earphone etc. are so much essential tools for online learning. Having access of these devices with higher quality costs higher prices too. The price of internet packages is not cheap in countries with tenuous economies like Pakistan and Nepal. So, it is very much challenging for some families to bear these costs. Some families might have multiple members continuing home learning. The HEIs can provide some subsidies on academic fees and less restrictions on instalment procedures which can be a convenient measure for those students to carry on.

Inadequate internet connection and poor internet speed are also appeared as barriers for the learners. As statistics indicate an upward trend of internet penetration each year, many people in the South Asia still cannot afford unlimited and stable internet connection [64]. A study of UNICEF found that in Bangladesh 63% of students have no access to the internet [64]. Regional inequalities increase the gap between urban and rural, and therefore, unban students' get more benefits for learning over their rural counterparts. Internet accessibility is a challenging issue for e-learning as most of the people in the SA countries live in the rural areas. So, the overall internet infrastructure of these countries has to be developed which will include the speed, area covered and stability of the internet.

A moderate internet dispersion has been found among the countries in South Asia, where Sri Lanka and Pakistan have a lower penetration rate (below 50%) (Table 2 and Figure 3). In this crisis moment, one of the major conditions of remote learning is access to the internet. Even though the world has become hyper-connected and internet penetration continues to increase every year, in the South Asia, like in many other developing regions, a large segment of the population doesn't have access to the internet and electronic devices [64-66]. Though there is limited access, the government of these countries are trying to provide their highest effort to continue the education system. All nations in the South Asia have adopted emergency strategies to adapt to this immediate transformation in education.

Table 2. Internet Penetration rate in SA, 2020

Country	Penetration % Population
Bangladesh	58.40%
Bhutan	51.50%
India	40.60%
Maldives	68.40%
Pakistan	32.40%
Nepal	55.60%
Sri Lanka	33.50%

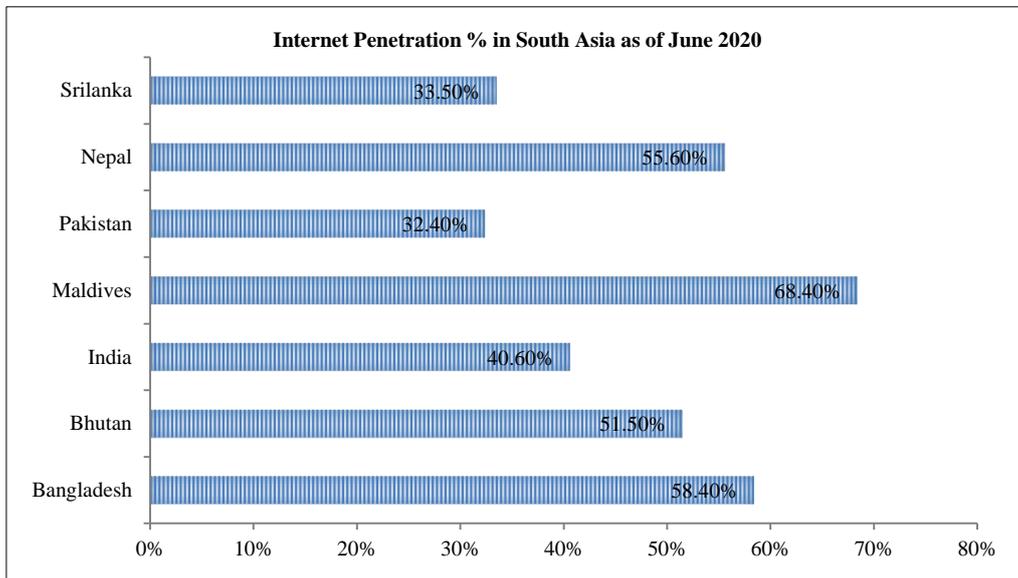


Figure 3. Internet Penetration rate in South Asia, 2020

Educators or teachers are experiencing barriers with their usual teaching techniques. Most of the cases, they have to convert their whole teaching methodology from a manual to a digital version with appropriate technological skills and efficiencies and restore their resources. Lacking of technological knowledge, skills and acquaintances and experiences appear as excessive challenges for smooth and proper teaching delivery. Adaption with the unusual environment, cape page with authorities' instant decision, rapidly and frequently changes the teaching format for administration requirement, dealing with students and their families, work documentation, attending numerous meetings make their life stressful and challenging. Therefore, the closure of educational institutions workloads of teachers. Gewertz [67], teachers worried about their students' basic needs and felt unable to address them.

Though the teachers have tried their level best to act and adapt to this transmission, however, poor internet access, shortage of devices, etc. create difficulties for executing remote learning properly. Furthermore, it's become uncertain to keep a balance between teaching-learning goals with students' well-being as some students and their families are infected by COVID-19. In the context of educational inequity, they become intensely anxious and worried [14, 68-72]. Poverty, disparity, disease etc. generate a vulnerable situation for both teachers and students' aspect. Taken together, it is unsurprising that teachers reported experiencing emotional distress, mirroring national findings [72]. Training appears as an essential tool for adapting totally a new system of learning, the sufficient knowledge regarding the uses of the internet and cyber securities is much more needed. So, the technological authorities of HEIs can launch training programs on the skill development and the use of various learning management tools for both the teachers and students to continue academic activities smoothly.

However, most of the cases, teachers' efficiency changes at an increasing rate. The pandemic turns obstacles into an opportunity as the educators become technology friendly and improve their skill and efficiency with the integration of technology and explore and utilize their knowledge successfully to assist with this transformation.

Educational Institutions, particularly private institutions, extremely depend on tuition fees. Therefore, an economic recession may arise due to the long-term closure of educational institutions. The pandemic disrupts the enrolment or admission process and owing to various challenges, remote learning institutions get less enrolment that turns into lower revenue generation. Moreover, many families earning sources remain close or lower for an uncertain period which is also responsible for less admission. Consequently, organizations face greater economic losses.

Institutions become financially unstable for losses of revenue which may lead to less budgetary allocations. These reductions may cut-off contractual and non-teaching staffs and create unemployment within the group. Higher educational institutions also rely on international students where mobility restrictions across the countries create ambiguity for international students and their admissions (Figure 4).

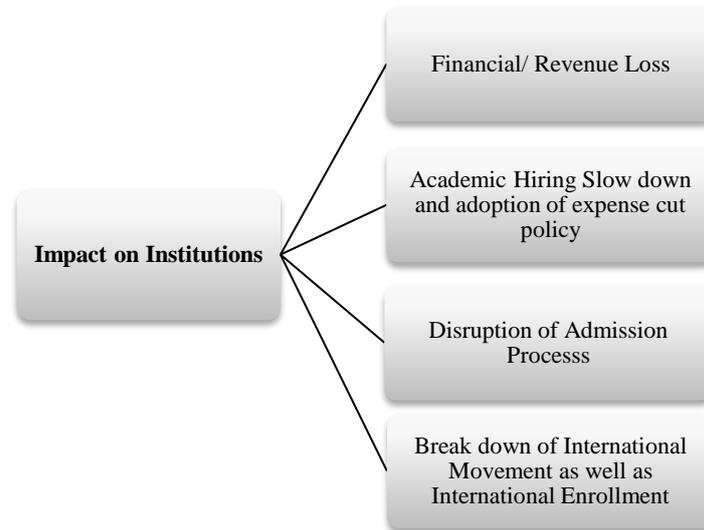


Figure 4. Impact of COVID-19 on Institutions

4-1- Post Pandemic Situation

COVID-19 opens the new window of digital transformation. Traditional approaches may replace with certain changes which may lead the generation to a new advancement globe. Educational resources like class content, outline, assessment technique, admission, enrolment, everything will form and adjust with the new digital structure. By ensuring available internet access and devices for all, this new approach may appear as a blessing for this region. The new trends will allow the education sector to imagine new ways of teaching learning and some trends may be pointed as Figure 5.

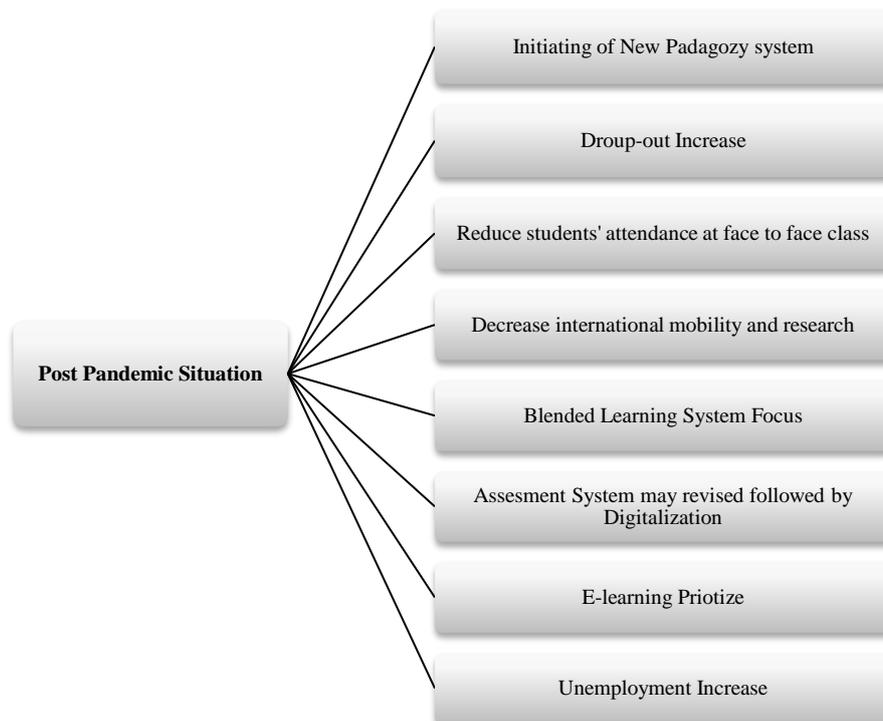


Figure 5. Impact of Post COVID-19 on Institutions-Source: Authors' Compiling

In contrast, after the pandemic, many students may drop out for unable to bear internet expenses and smart devices. Losses of income and poor economic situation turn several students to discontinue their studies. Early marriage also increases, especially for women. In SA region, private universities adapted with this transformation more swiftly than public. Therefore, private universities educational expenses with online educational expenses make the whole educational expenses to burden beyond their capacities for a few families

5- Conclusions and Recommendations

The pandemic has brought completely a new atmosphere to an education system which was never experienced before. However, the students, the teachers and the institutions must be adaptive in order to adapt to the new changes. Leading academicians may invent new methods for making universal education available to all students. Though the study does not provide a large-scale statistical study of COVID-19's effect on SAR's institutional education system, however, the study attempted to gather as much information as possible, despite the fact that obtaining a significant volume of data during this outbreak.

Now, all countries are moving towards reopening phase. The education budgets in South Asia do not appear well-positioned to respond to the unfolding crisis. Across South Asia, the amounts committed in central government budgets for education have fallen by 2.4 percent in real terms from 2019 to 2021 [73]. A huge amount of investment needs for well-educated, healthy and productive human capital in future. A significant portion has been suffering from learning losses during this pandemic. Access to learning materials and its effectiveness can mitigate the losses.

During this COVID-19 outbreak, the disparity of students' access to the internet and technological accessories is a depletory impact in most of the South Asian countries. This paper has outlined the impact of COVID-19 in the education system of all the SA countries by analysing the empirical data and originated that during the pandemic, mainly students, educators and institutions were inversely affected by different shortcomings like psychological impact, financial crisis, break down the study, students drop out, restructure academic curriculum, assessment problems and specifically lack of digital skills and knowledge, access and availability of internet. South Asia is the most densely populated region in the world which is constrained by the curse of poverty and unemployment. While these nations have been immensely occupied to achieve SDGs and fighting to get rid of the vicious circle of poverty, COVID-19 has turned them again the dark hole [74].

The study suggested to implement hybrid method of education where online and traditional both modes are continued for further teaching -learning advancement. A well-developed infrastructure facility with smooth and accessible internet availability should be ensured for both students and teachers in this new normal system. The capacity of servers of moodle based learning management system could be upgraded, or a separate server could be placed for each faculty of the university and network coverage issues can be sorted at the faculty level. The Government and assigned authority should be emphasized regarding the issue [75]. The outcomes of the study tremendously contribute and support to the policy makers of each nation to restructure and regime their existing strategies and assist to adopting new mode of education for surviving and contend with any severe crisis in future.

6- Declarations

6-1- Author Contributions

Conceptualization, S.K., and N.M.Z.; methodology, N.M.Z., S.D., and V.N.; software, S.K., and N.M.Z.; validation, N.M.Z. and S.D.; formal analysis, N.M.Z., V.N. and K.M.A.I.; investigation, S.K., K.M.A.I., and V.N.; resources, S.K., K.M.A.I., and M.A.H.; data curation, S.D., and M.A.H.; writing—original draft preparation, S.K., S.D., and M.A.H.; writing—review and editing, N.M.Z., V.N., K.M.A.I., and O.D.; visualization, S.D. and O.D.; supervision, V.N., and O.D. All authors have read and agreed to the published version of the manuscript.

6-2-Data Availability Statement

The data presented in this study are available in the article.

6-3-Funding

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6-4-Institutional Review Board Statement

Not applicable.

6-5-Informed Consent Statement

Not applicable.

6-6- Conflicts of Interest

The authors declare that there is no conflict of interests regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

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