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Prevalent Psychological Impact and Emerging Challenges amid Covid-19 with Reference to Higher Education in Pakistan

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ABSTRACT

The COVID-19 pandemic forced the shutdown of schools and universities around the world, jeopardizing the studies of millions of students. E-learning became a popular alternative in these times, but its implementation in Pakistan has been plagued with myriad issues. This report aims to identify the issues that beleaguer higher education students and their parents with regards to their studies, and the psychological effects that the pandemic and these issues have had on them. The problems faced by universities and academics in effectively carrying out their work are also discussed. The academics have to shoulder the burden of carrying out their research and teaching work from their homes, deprived of access to their labs and offices. Several alternatives such as oral examinations and continuous assessment have been put forward, though it is largely dependent on the course content being tested and the resources available. This is further compounded by having to juggle their responsibilities with housework and childcare.

In order to tackle the scarcity of digital resources in impoverished areas, an alternative to the currently used solution of merit-based provision of laptops and internet dongles was suggested. The authors suggested the construction and use of specialized buildings that would serve as internet cafes, bypassing the issue of providing access to internet and electricity to multiple homes across difficult terrain. It was also suggested to use Singapore as an example on how to learn from the pandemic to prepare for any similar future incidences. Universities should develop a framework that could be used to rapidly disseminate and test their students on any similar future events.

Keywords

Psychological Impact, Emerging Challenges, Covid-19, Higher Education

Introduction

The rapid spread of the novel coronavirus (COVID-19) which emerged from Wuhan, China and spread to the rest of the world has, in less than a year, claimed over half a million lives and ground the world economy to a halt. In an attempt to curb the spread of the disease, many nations have bid their citizens to stay indoors, close down non-essential businesses, and practice social distancing. These actions have forced people to make considerable changes to their lifestyles, and many companies, both big and small, have been forced to lay-off hundreds of employees and declare bankruptcy. Many people are under severe financial duress as a result, and find themselves unable to pay for the services that they routinely depend on.

Schools and universities have also been forced to shut down to safeguard the health of their students, staff and faculty, throwing the academic futures of millions into disarray. In an attempt to prevent this irreparable damage from destroying the lives and career prospects of students, academic institutions worldwide have attempted to switch to e-learning, though this has had only mixed results at best. In countries like Pakistan, this issue is further compounded by the lack of high-speed internet access to much of the population, frequent electricity outages, and low levels of computer literacy. This adds not only to the psychological pressures of the students and their parents, but also burdens instructors and the management of schools and universities as they have to find ways to solve these issues and deliver high quality content. Failure to accomplish this

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has resulted in people questioning the value they are getting in exchange for high academic cost.

Background of the Study

There have been many studies on the prevalence of psychiatric disorders in the wake of the SARS outbreak in China (Mak, Chu, Pan, Yiu, & Chan, 2009) (Wu, Chan, & Ma, 2005), with both former patients and those involved in treating them developing psychiatric issues over time. It is likely that the current pandemic will have similar repercussions, though on a much larger scale. There has been some debate over the effectiveness of school and university closures during pandemics. Most of the evidence regarding this particular strategy has come from past studies of influenza outbreaks.

Although there is a lot of information on the pros and cons of e-learning, and the psychological burdens faced by students in primary and secondary education, there is relatively very little quantitative information available about how students in higher education are adapting in Covid-19. Information for this sector is usually more qualitative in nature, and much more research will need to be carried out to acquire practical statistical information. This is especially true in Pakistan, where much of the effort and attention has been directed towards younger students, and only a few scant policies have been directed towards universities. The purpose of this paper is to identify the practical and psychological issues faced by college and university students and their parents in Pakistan in the wake of the closure of all the educational institutions and the rise of e-learning.

Statement of the Problem

Although these are certainly positive steps, these actions have not come without a large set of flaws. The tele-school channel does not cater to those in higher education at all, and their content is often of a mixed quality. Meanwhile, there are many people in the country who are unable to avail the benefits of e-learning due to the myriad of problems plaguing the country. Foremost of these problems is the lack of access to high-speed internet for many in the country. According to government figures, only 36% of the country's households have access to broadband internet (George, 2020). Additionally, many people in the country, especially those from poorer households, are lacking in digital literacy skills. In their annual 'Inclusive Internet Index', the Economist Intelligence Unit ranked Pakistan at 76 out of 100 countries, and noted low levels of digital literacy and poor network quality as major obstacles (Economist Intelligence Unit, 2020). For students who came from rural and impoverished areas and were boarding at their campuses, many were forced to return home when the universities closed. Access to computers and high-speed internet is usually rare in these areas, making it difficult, if not impossible, for them to continue their studies (Khan, Niazi, & Saif, 2020). Several students in tribal areas have no choice, but to scale mountains just to get a strong internet connection, and some students were even arrested for protesting the lack of appropriate internet facilities hampering them from attending online classes (Ahmed, 2020).

Literature on Psychological Issues

The first patients of the virus in Pakistan were confirmed on 26 February, 2020, and a lockdown of the entire nation, including the closure of all schools, colleges, and universities was officially initiated from the beginning of April, 2020. Even with the lockdown lifted, academic institutions remain closed for the foreseeable future. In order to ensure that students could continue getting their education in some form during this period, the Higher Education Commission of Pakistan (HEC) put together several plans to facilitate distance learning. The first of these was to instruct teachers and universities to conduct lessons online. The HEC introduced an online learning management system for use in over 70 classes, and promised to help institutions install the necessary technical systems within two weeks (The News International, 2020). The second step taken by the HEC was to launch an educational tele-school channel with content aimed at students from kindergarten to high school, with one hour allotted to each grade (George, 2020).

This has become such a major issue that an online petition calling for the online classes to be cancelled and university fees to be refunded gained 16000 signatures (Hassaan, 2020). The HEC has taken notice of the issue and moved to stop several online classes that failed to meet their

standards, while also assisting universities by providing them with information through a guidance paper on the resources needed to set-up their e-learning systems (ProPakistani, 2020).

A recent study by the Aga Khan University found that almost 75% of adults in Pakistan have moderate to high levels of stress, while around 33% suffered from higher than normal levels of anxiety (The News International, 2020). Considering all of the above-mentioned issues that students are facing alongside the omnipresent threat of COVID-19, it is no surprise that they also have high levels of anxiety and stress. An online study of 500 university students from Rawalpindi and Islamabad utilized the Beck Depression Scale and Beck Anxiety Inventory to assess the students' levels of depression and anxiety respectively. It was found that 56.8% of the surveyed students had higher than normal levels of anxiety, with 22.7% of the students showing severe anxiety. With regards to depression, the numbers were lower, with only 34.1% being classified as depressed and 15.9% suffering from severe depression. The survey also found that higher levels of anxiety disorder predicted higher levels of depression (Aqeel, Shuja, Abbas, Rehna, & Ziapour, 2020).

It is interesting to note that the former study, by Aqeel, et al., took place between late March 2020 to April 2020, while the latter study took place during April 2020 to May 2020. Between the two of them, the former noted higher levels of anxiety over depression, while the latter was vice versa. Although the differences in locale and sample size may have played a role in this, it seems to imply that as time went on, the initial anxiety that students felt over their uncertain futures shifted to depression as the new routines and problems of the current reality set in. This shift may also have been aided by over-exposure to the media coverage of the pandemic. It has been found that being exposed to more than 3 hours of media information on the pandemic is actually harmful for people (McGuire, Rowe, Cole, & Herr, 2020). A study on Chinese citizens also found that higher level of media exposure was significantly associated with higher level of anxiety and depression (Yao, 2020). Both the WHO (World Health Organization, 2020) and CDC (Centers for Disease Control and Prevention, 2020) have also advised to limit exposure to news about the pandemic.

An interesting point of note that Salman, et al. found in their research was that females had much higher scores on both anxiety and depression than males (Salman, et al., in press). This is undoubtedly due to the cultural realities of Pakistan. Girls are much more likely than boys to drop out of primary and secondary school, leading to fewer women in higher education (Mehmood, Chong, & Hussain, 2018). This is also substantiated by a government report, which added that with school closures, girls would be saddled with additional household responsibilities, and when combined with the widespread poverty already prevalent in the country and further exacerbated by the pandemic, as well as the culture in Pakistan, especially in rural areas, that a girl's education is not important, would mean that fewer girls would be returning to schools when they eventually re-open. This was unsurprising though, as not enough time had passed from the university closures to significantly affect the student's memory of their subject matter. Finally, 56.2% of the students felt that their personal study time had decreased since the lockdown began (Meo, Abukhalaf, Alomar, Sattar, & Klonoff, 2020).

Challenges for Higher Education Institutions

There is no doubt that the current crisis has changed the course of higher education significantly for the foreseeable future. The issues facing universities do not just relate to the problems with e-learning mentioned earlier, though those do take precedence. Other sectors like student recruitment and retention, grading and assessments, and research funding will all be affected, and it is up to the universities and the government to work together to find adequate solutions to these matters. Although the challenges facing them are severe, if they can plan strategically and properly implement workable solutions, then the quality of education in the Pakistan could be improved significantly in both the short and long terms.

With the Fall 2020 semester coming up, universities around the world are getting ready to admit their next batch of students. However, there are many questions being raised about the admission process and screening procedures that

will be used, since many board examinations have been temporarily cancelled. As such, several universities in Pakistan, such as IBA University (IBA Karachi, 2020) and NED University (Rizvi, 2020), have already amended their admissions procedures. While many universities around the world have similarly amended their admissions procedures, they mostly intend to keep it as rigorous (67%) and on-time (68%) as possible. There's also concern over the number of students who will chose to pursue higher education in the coming year, both domestically and internationally. According to the survey by Times Higher Education, 78% of the university leaders surveyed in South Asia (India, Pakistan and Sri Lanka) expect international student recruitment to decline, although only ≈ 38% of them expect this to have a significant negative impact on their institution's finances. Conversely, 60% are concerned about the financial ramifications of lower domestic student recruitment. This makes sense for a country like Pakistan, where the majority of admissions are from domestic students. Interestingly, this could work in the country's favor if, according to the predictions of some of the region's university leaders, the pandemic forces students who would have otherwise gone abroad to reconsider and study at local universities instead (Times Higher Education, 2020).

Almost half of the respondents from the Times Higher Education survey said that they would not be giving any discounts to students for the disruption they have faced due to the shift to e-learning (Times Higher Education, 2020). Students of leading business schools like Insead and Stanford have demanded a reduction in tuition fees, but have only been offered extensions on their payment deadlines at best (Moules, 2020). In Pakistan, a university student was expelled for protesting online classes on social media (Franklin, 2020). In U.S.A, several students have even sued multiple universities for failing to provide the value they promised, and for not refunding fees for unused services like health and meal plans (Anderson, Students Turn to Courts for Refunds, 2020). Ultimately, this pandemic has pitted universities and their students against each other in a fight that will have no winners.

Another challenge that universities have to tackle is that of assessing the students. While these were commonly carried out via paper-based exams prior to COVID-19, the dangers of infection make this method difficult to implement these days. Although one university has chosen to continue with such exams, they have done so by only allowing groups of a maximum of three students in a classroom at a time, with social distancing and sterilization procedures being implemented between each group (Times Higher Education, 2020). However, this method is not practical for examining large groups of students. The other method that is being widely used in the current environment is through online assessment, but this method is also flawed as it is difficult to effectively proctor the students. One report from Pakistan had instructors expressing irritation at students being able to easily look up information during exams (Mukhtar, Javed, Arooj, & Sethi, 2020).

While the lockdowns around the world have adversely affected students, they have had repercussions for professors and researchers as well. As discussed earlier, the quality of teaching has dropped since the shift to distance learning. For the instructors, this is largely the result of the suddenness of the shift catching them off-guard. In a country like Pakistan, most lecturers and professors are used to the traditional methods of teaching and lack familiarity with the technology used in e-learning. According to a study by Times Higher Education, many academics around the world (76%) believe that preparing and adapting course content for online learning was more time-consuming, and 40% reported the same for carrying out online assessments. They also have to carry out their work at home, where many will have to contend with a lack of a dedicated working space, children, and household responsibilities interfering with their work. The brunt of this falls on female academics, as they are expected to juggle housework and childcare along with their teaching and research responsibilities (Walker, Brewster, Fontinha, & Haak-Saheem, 2020).

The lockdown has also affected the ability of researchers to carry out their work, as they are also forced to work from home and encounter the same issues discussed above. Those who are

involved in teaching as well cannot dedicate more time or energy to research, not to mention that many are separated from their equipment, files and data, specialized software, etc. due to being stuck at home and separated from their office and labs. This also has obvious implications on any research requiring fieldwork, and early-career researchers on fixed term contracts and those completing degree work are most likely to be hit by the stagnation of their projects. Researchers have also had to grapple with reduced funding, as sponsors have shifted focus to funding research related to COVID-19. For academics, this usually means getting involved in such research, or having their work put on hold. 40% of the surveyed academics lacked confidence in applying for research grants for non-COVID-19 related work (Walker, Brewster, Fontinha, & Haak-Saheem, 2020). Interestingly, those academics who were in the writing-up phase of their projects have often found the lockdown to be beneficial, as it frees up time from administrative duties (Eaton, 2020).

Finally, university management is tasked with finding effective methods of assessing students, as the old paper-based assessment is not practical in the current lockdown climate. Some of the alternatives being discussed include oral exams and continuous assessment through assignments and projects, but there is no one right answer, as it depends on the course content being assessed. For academics who have to work from home, they face the challenge of balancing housework, limited office space and internet, and children with their teaching and research work, most of which has been put on hold due to the limitations on fieldwork, separation from their offices and labs, and limited funding.

Recommendations

Although the scale of the current pandemic is greater than anything seen since the 1918 Spanish Influenza, there have been smaller epidemics that have sprung up in recent times. Most notable was the SARS epidemic that lasted from 2002-2004, and spread from China to 28 other territories. Amongst them was Singapore, where a total of 238 cases with 33 fatalities were reported. Since that outbreak, Singapore used the event as a learning opportunity to prepare for any similar future incidents, which ultimately served them well in the current pandemic. Some of the steps taken by university management included giving out personal thermometers to staff and providing mandatory training, with periodic retesting, to staff on conducting classes online through e-learning systems. It should be noted that these steps were taken before the COVID-19 outbreak. As a result, professors in Singapore were able to shift classes online when the time came. Furthermore, the issuance of the thermometers may have seemed unnecessary initially, but it had the psychological effect of maintaining an air of vigilance, which helped prevent uncertainty and bolstered trust between the management and the employees when the pandemic hit. Some of the steps they have taken in the present, like contact tracing of employs' facial recognition technology and attendance records to identify where people visit, would be difficult to implement in Pakistan due to the lack of available technology and privacy concerns (Smith, 2020). However, we could stand to learn from Singapore on how to learn from the past to prepare for the future.

One of the major problems plaguing e-learning is the lack of familiarity and training that both students and instructors have with the online systems they have to use. Training should be implemented for both parties on these systems not just for now, but also for the future, similar to what was done in Singapore. This will ensure that studies will not have to be interrupted if a similar incident forces another shutdown of educational institutions. It will also allow for professors to easily and quickly move lessons online if they are unable to physically attend classes due to personal or research-related obligations.

Another important step is preparing mandatory training for students and staff on this pandemic. During the SARS outbreak in Singapore, a team of experts from the National University of Singapore put together a six-lesson module with some basic assessment on the disease, prevention and testing measures etc. and made its completion a necessary requirement to graduate. They disseminated the lessons through the internet, and 96% of the student population had completed the module within nine months of its release (Wong, et al., 2005). While it would now be somewhat redundant for universities here in Pakistan to put

together something similar for COVID-19, it would still be useful for future events, since the basic framework would be already present and the contents could be easily adapted as necessary. One university in Pakistan has already introduced a course that deals with COVID-19 for medical students (Aga Khan University, 2020). One more step that should be taken is the codification of a rapid response strategy in case of future similar events. Most institutions should have some rules to be followed in case of emergency events like a fire or terrorist attack, in order to prevent panic and chaos. Similarly, there should now be rules in the case of an incident that not only requires mid-to-long-term evacuation, but also the rapid transference of physical data to an online format.

It is also necessary to tackle the issues that are endemic to Pakistan, chief amongst which is the lack of access to computer and broadband internet for many students, excluding them from e-learning programs. The simple solution would be to furnish the students with a laptop and an internet access device, as has been done in the past through the Prime Minister's Youth Program. However, this approach entails a number of problems. First, the laptops are given on a merit basis. Although this seems like a good approach, it makes no provisions for the economic conditions of the student. This means that a rich student, who is good in studies because they have had access to better resources and attended better schools, would get the laptop before an average, but poor, student. Furthermore, there have been reports about such laptops being put up for sale online, making it necessary for the government to take strict measures to prevent such acts (Talal, 2014). With regards to the current climate, the author proposes an alternative plan to provide students from impoverished and internet deprived areas with access to technology; internet cafes.

Pakistan's government earlier partnered with the digital platform to provide students with online courses on various topics like computer science, languages, etc. These courses can teach participants vital skills that will help them in the job market (Abbasi, 2017). The fees for these courses are usually low, and several platforms allow students to audit classes for free, and only pay for verified certificates. In the current situation, many students are stuck at home with plenty of free time. Universities and the government can partner with such digital platforms again to offer courses to such students for a discounted price, if not free. This would be beneficial not only to the students, who would receive high quality lessons unlike the ones they are currently receiving, but also to the universities as well, as they could cut back on the costs of maintaining an extensive online learning system. This would only be applicable to basic courses, so advanced courses would still be taught by the university's own academic staff, along with any supplementary lessons, i.e. lessons that add to the content that the student would learn from the online course, or help answer their questions.

This incident should be used in the future as a teaching moment. The importance of proper hygiene, the results and consequences of the pandemic and lockdown, etc. should be taught in universities so that future generations will be better prepared to face such a situation if it should occur again. Medical schools should also use this incident as motivation to train the future generation of doctors and nurses to be able to work efficiently during pandemic crises. This would ideally include some form of resilience training so healthcare practitioners can manage their own psychological conditions during such extreme times (Haider, Tiwana, & Tahir, 2020). They should also include training on the importance of psychological assessments and treatments, as physical and psychological morbidities are closely linked, and effective management of one can ease the treatment of the other. Business schools can also use this time to illustrate the importance of e-commerce, and encourage future entrepreneurs to adopt modern technologies and think innovatively to preserve the economy in case of similar future events.

Finally, higher educational institutes should cater to the psychological well-being of their students and staff members by having a psychologist on hand to provide free counselling to those who want it through tele-conferencing. In most developed countries, schools and universities have a psychologist to help students with any academics-related psychological issues they may have. Due to the pandemic, students at higher education institutions are undoubtedly under a lot of stress. However, it should be noted that in the

culture of Pakistan, most people are reluctant to see psychologists since they are considered as doctors for insane people. As such, it would be better to follow the example of a pilot project several years ago. In this project, the medical branch of Karachi Relief Trust set up tele-medicine facilities, specifically video-conferencing systems, in the rural village of Charun Oveer. The village had been devastated by floods in March 2015, followed by a 7.5 magnitude earthquake in October of the same year, which destroyed over 60% of the village. Two community sessions were initially held, during which the awareness of mental health issues was raised amongst the village community. With the help of translators, the communities were taught therapeutic activities like breathing exercises. 500 village members were assessed, and 57 of them were diagnosed with PTSD or depression. They were provided with additional, hour-long sessions at least once a week for the next ten months (Qadir, Fatima, Usmani, & Hussain, 2016). Although the results of this project were not published, it is hoped that the therapy increased the villagers' quality of life after their traumatic experiences.

For higher education institutes, a psychologist could hold a session that would be mandatory for students to attend, wherein basic awareness of common issues and some basic exercises can be taught, and additional one-on-one sessions would be available for those who want it. If tele-conferencing software is used, then the anonymity of the students can be assured, which may help them overcome their reservations about talking to a psychologist.

This facility would be free-to-use, with allotted times for different segments of the population. During their allotted time, students could access their course content and work on their assignments. This would avoid the issue of inequitable distribution of resources like laptops and internet connection devices, and would provide an easier solution than providing stable electricity and high-speed internet to multiple households. The universities, for their part, should partner with digital learning platforms to provide courses to students in lockdown. This would provide the student with inexpensive, high-quality lectures, while easing the burden of providing the same for universities. They could also call on alumni to utilize their practical knowledge to provide guidance to current students that may be struggling with a difficult topic.

Additionally, they should use the pandemic and the response to it as an opportunity to teach students about pandemics, hygiene, mental resilience required during such events, etc. Finally, universities should provide free psychological counselling to their students and staff to help them deal with the psychological pressure that the lockdown has imposed on them. In order to overcome cultural reservations, a mandatory webinar discussing common issues, de-stigmatizing psychological issues and encouraging some basic therapeutic activities and exercises should first be used. Following this, one-on-one, anonymous sessions could be offered.

Conclusion

With the advent of the COVID-19 pandemic, governments around the world have had to resort to emergency measures to stop the spread of the virus and reduce the loss of lives. These measures included the closure of non-essential businesses and educational institutions. This process has had severe economic repercussions, and there has been some debate over the effectiveness and the need of school closures. In order to prevent damage to the academics of students worldwide, most institutions switched to e-learning systems. However, e-learning is still largely in its infancy and its sudden and rapid implementation across the globe has opened a Pandora's Box of issues.

In Pakistan, the shift to online learning has not gone smoothly for a number of reasons, chief amongst which is the lack of proper infrastructure and lack of training and familiarity with online learning systems. This has disproportionately affected those students from impoverished and rural areas where stable electricity supply and internet connectivity are seen as pipe dreams. In addition to that, many professors and instructors lack the necessary training to effectively use the e-learning systems, solve technical issues faced by their students, and create, store, and disseminate content online. As such, there has been an inevitable rise in psychological morbidities across the student population of Pakistan, with anxiety and depression becoming dishearteningly

common. It seemed that in the earlier stages of the lockdown, anxiety was more prevalent, but depression took center-stage as time went on, likely aided by over-exposure to the constant stream of media reports about the pandemic.

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