Tribhuvan University Journal
Vol. 35, No. 2: 34-46, December, 2020
Research Directorate, Tribhuvan University,
Kathmandu, Nepal
DOI: https://doi.org/10.3126/tuj.v35i2.36187

IMPACT OF COVID-19 ON UNIVERSITY EDUCATION, NEPAL: REVIEW PAPER

Tulza K.C.

Lecturer, Department of Adult Nursing, Maharajgunj Nursing Campus, Maharajgunj, TU.
Corresponding author: tulza.kc@mnc.tu.edu.np

ABSTRACT

The corona virus disease 2019 (COVID-19) has now become a pandemic and major health threat. Almost countries of the world including Nepal have suspended their academic activities by closing schools and colleges. Some attempts are being made to overcome this gap by providing virtual classes to the students. But such efforts are also being proven inaccessible and challenging especially for the poor students residing in remote parts of the countries. Regarding the practical courses where acquisition of psychomotor skill by the students is mandatory together with other cognitive and affective skill, virtual online classes remain ineffective. The date and time of opening of schools and colleges has become unpredictable. In this review, the author has highlighted the potential impacts of this outbreak in education, academic institutions, and students.

Keywords: COVID-19 - pandemic - university education.

INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic, first reported and confirmed in China (Zhao *et al.* 2020), is now a major global health threat (Walker *et al.* 2020). Due to an initial exponential growth of confirmed cases in China and the rapid increase of positively diagnosed cases in many countries worldwide raised concern on an international scale (Maier & Brockmann 2020). The World Health Organization (WHO) therefore announced the COVID-19 outbreak as a pandemic on 11 March, 2020 (WHO 2020). The first case of COVID-19 was confirmed in Nepal on 23 January 2020 on a 31-year-old college student returned from Wuhan, China (Bastola *et al.* 2020).

To respond to COVID-19, many countries are using a combination of containment and mitigation activities such as contact tracing and self-isolation or quarantine; promotion of public health measures, including hand-washing, and social distancing; preparation and strengthening of health systems for a surge of severely ill patients; and cancellation of large-scale public gatherings (Bedford *et al.* 2020). Since COVID-19 pandemic has hit hardest in many of the global centers of university education (Bassett & Arnold 2020, Sahu 2020), most countries have stopped face-to-face teaching. According to UNESCO, the pandemic has disrupted learning for 9 out of 10 students around the world (87%), keeping thousands of students away from their schools and colleges (UNESCO, 2020).

The majority of campuses had already closed, particularly those of large public and private universities had closed weeks before the government's intervention (UNESCO, 2020). The restrictions caused by mitigation strategies have not only impacted education at all levels, but will continue to do so for at least several months making learners and teachers unable to physically meet in the schools and universities (Reimers & Schleicher 2020). In the most affected areas, universities face the prospect of losing an entire semester or more. In Japan, a proposal to move the Japanese academic year from its usual April start to September has been given renewed impetus (Lau 2020). In Spain and Italy, the decision was announced not to resume face to face classes for the rest of the academic course which normally ends in June (UNESCO 2020). In Nepal, the deadly coronavirus has incited nationwide lockdown, restriction of public gatherings, and nationwide closure of educational institutions has affected 2,84,453 higher secondary students, enrolled only in Tribhuvan University (Nepali Sansar 2020, MOE 2018).

With the current COVID-19 pandemic, a growing number of universities across the world have either postponed or canceled all campus events with a rapid switch to various courses and programs from face-to-face to online delivery mode (Sahu 2020, Neil 2020). In a situation where the students are not allowed to go to school or universities, the alternative is to move from traditional to online education. In this case the essential parts are the internet coverage, availability of computers or smart phones in the population (Basilaia & Kvavadze 2020). Students are worried of academic

sessions and credit, employees - from faculty to facilities staff - are worried about their future. Universities still have many decisions to make, and to communicate (Illanes *et al.* 2020). Online libraries, TV broadcasts, guidelines, resources, video lectures, online channels are introduced in at least 96 countries (Basilaia & Kvavadze 2020). Results of different studies show that the virtual teaching environments can be successfully used in case of having appropriate technical environment and support (Basilaia & Kvavadze 2020). However, despite the rapid growth in learning technology in recent years, instructors in rural and/or developing areas may have access to only the most basic or earlier generations of technology. This lack of access to technology has been identified as a major challenge to the implementation of technology-enhanced teaching in developing countries (Al-Shorbaji *et al.* 2020; UNESCO, 2020). Nevertheless, the landscape of higher education could be fundamentally changed, and possibly for the better, in some ways at least.

In Nepal too, because of the compulsory closure of universities for a considerable period of time, the education system has changed dramatically, with the distinctive rise of e-learning whereby teaching and learning is undertaken remotely and on digital platforms.

METHODS

Quantitative studies were sought to empirically evaluate the effects of COVID 19 on university and/or college closure during corona virus outbreaks. Search was designed to be inclusive of any studies providing data on university, or college. I searched various electronic databases with English language. Directory of open access journals, Pubmed, Google Scholar were accessed using the keywords "university education", "pandemic", "corona virus infection", "COVID-19", "higher education", "online education", "college". WHO and UNESCO Global Research Database on COVID-19 using the term "COVID-19"and "education" were also accessed.

RESULTS AND DISCUSSION

Impact on education

The global higher education landscape has dramatically changed due to the spread of COVID-19 in the past few months (DePietro 2020).

Influenza outbreaks on university campuses typically have high attack rates (44%–73%) and cause substantial morbidity. For example, during the 2009 H1N1 pandemic, influenza spread rapidly through a university campus within 2 weeks (Qualls *et al.* 2017). Mitigation strategies could reduce the epidemic burden by half, but the health systems in all countries will be quickly overwhelmed even in this scenario. This effect is likely to be most severe in lower income settings where capacity is lowest (Walker *et al.* 2020). The impact of the COVID-19 is likely to reverberate across global higher education long after the outbreak is eventually brought under control, experts have warned (Lau & Ross 2020).

The immediate actions were roughly the same at world-class universities, and technical colleges: shut down campuses; send students home; deliver instruction remotely, where possible and accept a lost academic term where remote delivery is not possible (Bassett & Arnold, 2020). Every form of national to international education is currently affected by the COVID-19 crisis (Basilaia *et al.* 2020). From study abroad schemes to staff exchanges and internships to transnational collaborative programs and capacity-building projects in developing countries are affected. Every international conference in higher education has been cancelled or turned into a series of webinars (Burquel & Busch 2020). In Nepalese university and college, the biggest challenge is how to move from traditional education to e-learning and how to overcome the problem of practical courses (Koirala 2020).

The most immediate impact has obviously been that the temporary cessation of classroom activity has left students, particularly undergraduates without a clear idea of how long the impact will last, the immediate effect it will have on their daily life, costs and other financial burdens and, naturally, on the continuation of their studies (UNESCO 2020). Though many teachers and students have been excited to teach and learn via the online delivery mode, yet, there is always a chance that some faculty who are not techno-savvy will not be able to cope up with this mode (Lim 2020). Also, many universities do not have enough infrastructure or resources to facilitate online teaching with immediate effect (Dill *et al.* 2020). Moreover, differences among students in getting educational opportunities directly at home, differences in their resilience, motivation and skills to

learn independently and online, are likely to exacerbate already existing opportunity gaps (Reimers & Schleicher 2020). The digital divide exposes the socioeconomic inequity of distance learning (Bassett & Arnold 2020). Those students who do not have access to laptops and internet facilities at home and/ or the courses like practicals and labs, music and art courses are hardly possible to teach online. Therefore, the quality of online education is a critical issue to give attention (Sahu 2020).

Researchers have documented that extended interruption of one's studies causes not only a suspension of learning time, but causes a loss of knowledge and skills gained. The loss is also greater for lower income students (Reimers & Schleicher 2020). In South Korea, students whose face-to-face classes have been suspended have requested to return their tuition fees for an academic year 2019-2020 (UNESCO 2020). A recent survey shows that 43% of MBA students from the 20 most prestigious business schools in the US have requested, with the change to online classes, to get back at least a third of their paid fees (UNESCO 2020).

Amongst the range of effects that COVID-19 will have on higher education this year, examinations and evaluation arrangements for students involving both schools and higher education are the biggest challenge (Timmis *et al.* 2015). In England, the A Level examination, for which over 300,000 students have already received predicted grades, will not apparently be happening this summer and will be replaced by a combination of teacher assessments and predicted grades (Atherton 2020). In Nepal, the Government declared suspension of all classes and postponement of all academic examinations including the Secondary Education Examination (Rising Nepal, 2020). For online assessments, relying on teacher evaluation places huge pressures on teachers and requires clear, transparent standards that may be challenging to construct in a short period of time (Kearns 2012, Atherton 2020).

Online education is not accessible to all across Nepal. A feasibility survey on online teaching-learning conducted by a Indrawati Rural Municipality in Sindhupalchok has found that the area does not have the kind of internet access and coverage to start remote classes. The study found that less than 10% of the students had internet access at their homes. Even those with high bandwidth internet have found that service is getting interrupted or

slowing down due to high collective consumption as more people are using the internet to work, socialize and entertain themselves under lockdown. While data packages on mobile networks are relatively faster they are far more expensive for students to regularly afford (Ghimire 2020). In Nepal, it is estimated that only 56% of people have access to internet (Pandit 2020) and 8% families have access both to internet and digital devices. Indeed, getting access to internet or technology is very costly for many parents, schools and/or colleges (Sharma 2020). Nevertheless, some attempts have been made by Nepal Telecom the national telecommunication service provider of Nepal. It has initiated the e-Shiksha Package to help people conduct online classes of schools and universities (Dahal 2020).

The worldwide rapid increase of COVID-19 cases has created a sense of uncertainty, anxiety, and stress among the students. This stress may lead to unfavorable effects on the learning and psychological health of students (Kafka 2020). The isolation associated with confinement will have effects in terms of socio-emotional balance, particularly on those students with pre-existing problems of this nature. A survey conducted during the last week of March, 2020 among higher education students in the United States shows that 75% have said that they have experienced anxiety and depression as a result of the crisis (UNESCO 2020).

The over dependence on technology is a major drawback to distance learning. In case of any software or hardware malfunction, the class session will come to a standstill, something that can interrupt the learning process. Moreover, the complicated nature of the technology used in distance learning only limits online education to students who are computer and tech savvy (Basilaia *et al.* 2020). As a result, absent an effective education response, the pandemic is likely to generate the greatest disruption in educational opportunity worldwide that will ultimately impact the livelihoods of individuals, and the prospects of their communities (Reimers & Schleicher 2020).

RECOMMENDATION

In the wake of COVID-19, universities need to keep communication open with the students and give them adequate advice and reassurance during this difficult time. They have a duty to share important scientific information with faculty and students, who in turn can inform their families.

Additionally, universities should set up at 24-hour helpline for students (Quacquarelli Symonds 2020). In response to COVID-19 crisis, many universities and colleges created epidemic plans, including continuity of instruction policies such as online education and digital tools (Carlton, 2020; Basilaia et al., 2020). There is a great opportunity to develop new forms of personalized education and to innovate in student assessment (including online) beyond the more traditional assessment currently still predominant, in particular for large student cohorts (Burquel & Busch 2020).

Instead of just accepting social distancing and self-isolation as a reality of COVID-19, educators have the opportunity to utilize these as tools for engaging in authentic discussions and promoting a more engaged and inclusive student body (Neil 2020). The demand for personalized courses or learning paths and customized learning experiences is also increasing significantly. Perhaps COVID-19 may also be a business opportunity for universities to develop new models which to date are not provided on a broad scale (Burquel & Busch 2020).

Globally, the majority of colleges are attempting to continue classes remotely ensuring the highest degree possible of inclusion and equity (UNESCO 2020). They should re-prioritize curriculum goals given the reality that the mechanisms of delivery are disruptive (Reimers & Schleicher 2020). As online learning provides the greatest versatility and opportunity for interaction, we should shift our mindset to see COVID-19 as an opportunity to improve learning and student engagement long term (Neil 2020, Himal Khabar 2020). If an online education strategy is not feasible, develop alternative means of delivery, they could include TV programs, if a partnership with television stations is feasible, podcasts, radio broadcasts, and learning packages either in digital form or on paper. Explore partnerships with community organizations and the private sector to deliver those devices and connectivity (Reimers & Schleicher 2020).

As the coronavirus crisis continues, the higher education institutions should continually review and improve their crisis management strategies and initiatives to adapt well to changing crisis conditions in the coming months (Quacquarelli Symonds 2020). Assuming that safe, in-person instruction will not be possible soon, the online learning gives the opportunities to improve teaching, learning and students' progression rates

(Dennis 2020). No university is alone in coping with COVID-19. This represents a unique opportunity to learn from each other in real time, and to collaborate. Finally, it is important to remember the role of the university in the broader community, helping local governments and healthcare workers (Illanes *et al.* 2020).

In Nepal, it is vital that teachers should be provided with training opportunities for online teaching as almost all of them have not done the job before. A few organizations such as Tribhuvan University, and Kathmandu University, Nepal have started to conduct training to teachers. Furthermore, University officials need to ensure that each student gets access to technology and internet (Dawadi *et al.* 2020).

It is imperative that education leaders take immediate steps to develop and implement strategies which mitigate the educational impact of the pandemic. Cooperation can assist education leaders in devising effective education responses, and that the first and simplest form of cooperation is to exchange knowledge about what schools, communities and countries are currently doing to protect educational opportunities during the pandemic (Reimers & Schleicher 2020).Online teaching, thus, in the face of campus closures, is now a necessity instead of an option.

CONCLUSIONS

With majority of world's student population out of colleges and university due to COVID-19 mitigation measures, the pandemic has resulted in a rapid shift to online education. While these are uncertain times, universities can continuously strive to deliver high quality teaching and consistent communication to students. To do so, it's imperative that institutions listen to students' needs and concerns and leverage the latest technological tools. Online learning is the big winner from this- across all education levels; so proving equity and quality now is at center stage. Policy-makers and those who deal with education in practice should therefore look at e-Learning as an instrument of partnership. Thus, active involvement and collaboration of all stakeholders is important to minimize the potential adverse effect of the shift from traditional learning to e-Learning.

REFERENCES

Al-Shorbaji, N., Atun, R., Car, J., Majeed, A., & Wheeler., E. (2015). E-learning for undergraduate health professional education. WHO. https://www.who.int/hrh/documents/14126-eLearningReport.pdf, Accessed: 02.05.2020.

Amour, M. St. (2020). Community colleges likeliest to stay virtual. Inside Higher Education. https://www.insidehighered.com/users/madeline-st-amour, Accessed: 29.05.2020.

Atherton, G. (2020). Admissions and equity challenges for HE post COVID-19. University World News. https://www.universityworldnews.com/post.php?story=20200403132321996, Accessed: 08.04.2020.

Basilaia, G.,& Kvavadze, D.(2020).Transition to online education in schools during aSARS-CoV-2 coronavirus (COVID 19) pandemic in Georgia. *Pedagogical Research*, **5**(4): em0060. https://doi.org/10.29333/pr/7937

Bastola, A., Sah, R., Rodriguez-Morales, A. J., Lal, B. K., Jha, R., Ojha, H. C., Shrestha, B et al. D. (2020). The first 2019 novel coronavirus case in Nepal. *The Lancet Infectious Disease,* **20**(3). https://doi:10.1016/s1473-3099(20)30067-0

Bassett, R.M., & Arnold, N. (2020). COVID-19's immense impact on equity in tertiary education. https://blogs.worldbank.org/education/covid-19s-immense-impact-equity-tertiary-education, Accessed: 02.05.2020.

Bedford, J., Enria, D., Giesecke, J., Heymann, D., Ihekweazu, C., Kobinger, G., Lane, H., Memish, Z., Oh, M., Sall, A.A., Schuchat, A., Ungchusak, K., & Wieler, L. (2020). COVID-19: towards controlling of a pandemic. *Lancet,* **395**(10229). https://doi.org/10.1016/S0140-6736(20)30673-5

Brown, C., & Salmi, J. (2020). Putting fairness at the heart of higher education. University World News. https://www.universityworldnews.com/post.php?story=20200417094523729

Burquel, N., & Busch, A. (2020). Lessons for international higher education post COVID-19. University World News. https://www.

universityworldnews.com/post.php?story=20200424085018 36, Accessed: 02.05.2020.

Dahal, F. (2020). Nepal Telecom introduces "e-shikshya" data package to facilitate the teaching-learning experience. Tech Sathi. https://techsathi.com/nepal-telecom-eshikshya-package, Accessed: 05.05.2020.

Dawadi, S., Giri, R., & Simkhada, P. (2020). Impact of COVID-19 on the education sector in Nepal-challenges and coping strategies. *Sage Submission*. Preprint. https://doi.org/10.31124/advance.12344336.v1

Dennis, M. (2020). Higher education opportunities after COVID-19. https://www.universityworldnews.com/post.php?story=20200507152524762, Accessed: 15.05.2020.

DePietro, A. (2020). Corona virus (COVID-19) on colleges and universities in the U.S. Forbes. https://www.forbes.com/sites/andrewdepietro/2020/04/30/impact-coronavirus-covid-19-colleges-universities/#7dd8636f61a6.

Dill, E., Fischer, K., McMurtrie, B., & Supiano, B. (2020). As corona virus spreads, the decision to move classes online is the first step. What comes next? The chronicle of higher education. https://www.chronicle.com/article/As-Coronavirus-aSpreads-the/248200

Ghimire, B. (2020 May 28). Digital divide too wide for online classes to succeed in Nepal. The Kathmandu Post. https://kathmandupost.com/national/2020/05/28/, Accessed: 29.05.2020.

Illanes, P., Law, J., Mendy, A., Sanghvi, S. & Sarakatsannis, J. (2020). Coronavirus and the campus: How can US higher education organize to respond?https://www.mckinsey.com/industries/public-sector/our-insights/coronavirus-and-the-campus-how-can-us-higher-education-organize-to-respond.

Kafka, A.C. (2020). Shock, fear, and fatalism: As corona virus prompts colleges to lose, students grapple with uncertainty. The Chronicle of Higher Education. https://www.chronicle.com/article/Shock-FearFatalism-As/248240, Accessed: 11.05.2020.

Kearns, L.R. (2012). Student assessment in online learning: Challenges and effective practices. *MERLOT Journal of Online Learning and Teaching*, **8**(3). https://jolt.merlot.org/vol8no3/kearns_0912.pdf

Koirala, V.N. (2020, May 26). Online shiksha ma rok. Himal Khabar. https://www.himalkhabar.com/news/114439, Accessed: 29.05.2020.

Lau, J. (2020, May 22). Academic calendar in Japan: Some see rationale to change start of academic year from April to September. Times Higher Education. https://www.insidehighered.com/news/2020/05/22/coronavirus-renews-debate-academic-calendar-japan, Accessed: 29.05.2020.

Lau, R., & Ross, J. (2020, February 17). Universities brace for lasting impact of corona virus outbreak. Times Higher Education. https://www.timeshighereducation.com/news/universities-brace-lasting-impact-coronavirus-outbreak, Accessed: 02.05.2020.

Lim, M. (2020). Educating despite the COVID-19 outbreak: Lessons from Singapore. Times Higher Education. https://www.timeshighereducation.com/blog/educating-despite-covid-19-outbreak-lessons-singapore

Maier, B. F., & Brockmann, D. (2020). Effective containment explains subexponential growth in recent confirmed COVID-19 cases in China. *Science,* **368**(6492):742-746. https://doi.10.1126/science.abb4557

MOE. (2018). Education in figures 2017. Kathmandu: Ministry of Education. https://moe.gov.np/assets/uploads/files/Education_in_Figures_2017.pdf, Accessed: 20.05.2020.

Neil, K. (2020, May, 9). Using social distance to strengthen university communities, University World News. https://www.universityworldnews.com/post.php?story=20200504082923788, Accessed: 12.05.2020.

Pandit, S. (2020, May 7). Sankatma nirantar sikai. Gorkhaparta. https://gorkhapatraonline.com/education/2020-05-06-13805, Accessed: 20.05.2020.

Quacquarelli Symonds. (2020). The impact of the corona virus on global higher education. Quacquarelli Symonds. http://info.qs.com/

rs/335-VIN-535/images/The-Impact-of-the-Coronavirus-on-Global-Higher-Education.pdf, Accessed: 06.05.2020.

Qualls, N., Levitt, A., Kanade, N.,Wright-Jegede, N., Dopson, S.,Biggerstaff,M., Reed, C., & Uzicanin, A. (2017). Community mitigation guidelines to prevent pandemic influenza — United States. Morbidity & Mortality Weekly report, **66**(1):1-34. http://dx.doi.org/10.15585/mmwr.rr6601a1external icon.

Reimers., F. M., & Schleicher, A. (2020). A framework to guide an education response to the COVID-19 pandemic of 2020. https://read.oecd-ilibrary.org/view/?ref=126_126988-t63lxosohs&title=A-framework-to-guide-an-education-response-to-the-Covid-19-Pandemic-of-2020, Accessed: 06.05.2020.

Sahu, P. (2020). Closure of universities due to corona virus disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cureus,* **12**(4): e7541. http://.doi.org/ 10.7759/cureus.7541

Sharma, L. (2020, May 9). Online shikshale asamaanata badhaauchha. Jhan Naya Patrika. https://jhannaya.nayapatrikadaily.com/news-details/970/2020-05, Accessed: 12.05.2020.

Timmis, S., Broadfoot, P., Sutherland, R., & Oldfield, A. (2015). Rethinking assessment in a digital age: Opportunities, challenges and risks. *British Educational Research Journal*, **42**(3): 454-476. https://doi.org/10.1002/berj.3215

UNESCO. (2020). COVID-19 education disruption and response. https://en.unesco.org/covid19/educationresponse, Accessed: 12.05.2020.

Walker, P.GT., Whittaker, C., Watson, O., Baguelin, M., Ainslie, K.E.C., Bhatia, S., *et al.* (2020). Report 12: The globaI impact of COVID-19 and strategies for mitigation and suppression. Imperial College London, 1-18. https://spiral.imperial.ac.uk/bitstream/10044/1/77735/10/2020-03-26-COVID19-Report-12.pdf

WHO. (2020). Novel coronavirus (2019-nCoV) situation report-11. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports, Accessed: 04.05.2020.

WHO.(2020). Report of the WHO-China joint mission on corona virus disease 2019 (COVID-19). https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf, Accessed: 04.05.2020.

Zhao, S., Lin, Q., Ran, J., Musa, S. S., Yang, G., Wang, W., Lou, Y., Gao, D., Yang, L., He, D., & Wang, M. H. (2020). Preliminary estimation of the basic reproduction number of novel coronavirus (2019-nCoV) in China, from 2019 to 2020: A data-driven analysis in the early phase of the outbreak. *International Journal of Infectious Diseases,* **92**:214-217. http://.doi:10.1016/j.ijid.2020.01.050.