GLOBAL TRANSTION TO ONLINE LEARNING WITH THE COVID-19 PANDEMIC AND ACADEMIC STRESS AMONG UNDERGRADUATE STUDENTS IN SRI LANKA

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Abstract

COVID-19 made a significant impact on the entire world, including Sri Lanka as well. This affected the world's economy, and the need for a public health sector was crucial to control the pandemic. Strict measures were taken to control the spread of infection, such as social distancing, wearing masks, frequent hand washing, etc. Sri Lanka was severely hit by the pandemic. Besides strict infection control measures, the government decided to shut schools and higher education institutes and implement travel restrictions, facing a challenge to teachers and students to continue teaching-learning activities. That opened a new path towards online education in the Sri Lankan education system. Various online tools emerged, such as Moodle, Zoom, Google Classroom, YouTube, etc, to facilitate online learning. A number of benefits were seen, but despite the benefits, a few challenges were also there. Connectivity issues, initial technological difficulties and dissatisfaction among some students and teachers were the common negative points encountered. However, as time passed, both schools and universities adapted to online learning during the pandemic, and it continued after that. Academic stress is a frequent issue among university students, and there has been a rise in it due to the rapid shift from physical to online learning. So coping strategies should be practised, such as taking breaks, practising self-care, connecting with friends and family through social media, and joining online communities. Although COVID-19 affected global education massively, online learning is a near-perfect alternative to the continuing education system. Academic stress is one challenge faced during online education, and appropriate coping strategies will be necessary to overcome them.

Keywords: COVID-19, Online Education, Academic Stress, Coping Strategies

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Introduction

COVID-19 Pandemic

Coronavirus disease, known as COVID-19, is a new respiratory tract infecting RNA virus, revealed and recorded first in Wuhan City of Hubei province, China from to an unusual outbreak in China that happened in December 2019 (Chakraborty & Maity, 2020). Later, this causative agent was detected as a novel coronavirus through whole genome sequencing. The novel β -CoV class was named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) by the International Virus Classification Commission, while in February 2020, the World Health Organization gave an official term Coronavirus 2019 (COVID-19)(Liu et al., 2020) (Huang et al., 2020).

The governments of many countries imposed global responses to this global threat. Many actions were taken to control and limit mass gatherings, international travel, and tourism while updating the current condition with exact information for the public. Many more countries followed a complete lockdown to prevent further disease transmission. Many transportation activities were also temporally held, including international flights, business transports, local level railway services, bus transportation, and vehicle transportation, but with extraordinary relief to health service staff and essential commodities. Policies were also added to commercial, sports, industrial, spiritual, and entire educational institutes while banning public free movement outside their premises (Chakraborty & Maity, 2020).

Until proper prevention and treatment methods are communalised, such as vaccination programmes managing the affected ones with corticosteroids, antibiotics and breathing supports, the best method to control the disease is by controlling the viral transmission or viral spread. Measures such as keeping a one-meter distance between others, wearing masks, hand washing or sanitising hands are advice given by WHO to the public to follow strictly in order to minimise the rapid spread of the circulating virus (Cucinotta & Vanelli, 2020).

Besides the illness, the spread of coronavirus also exerts a significant burden and suffering on people due to economic decline in many countries. So, the pandemic creates serious public health concerns and has a devastating impact on the economy and the politics of countries (Chakraborty & Maity, 2020).

COVID-19 outbreak in Sri Lanka

The first case was reported from Sri Lanka in January 2020 from a Chinese tourist nation who came for a tour for two weeks, tested positive and was hospitalised at the National Institute of Infectious Disease for treatment (Wickramaarachchi et al., 2020).

The Sri Lankan government followed immediate health measures and policies for the public. Some of these measures are the closure of schools island-wide, travel restrictions, banning mass gatherings, shutting down of international airports for all flights reaching the country and imposing curfew island-wide (Wickramaarachchi et al., 2020).

COVID-19 and its impact on education

Lockdown restriction that was followed to promote social distancing led to the closure of working places while enabling work-from-home options for some workers to continue with their jobs and the closure of educational institutes including primary, secondary and tertiary level educational sectors. This affected teaching-learning activities as well as assessments in education. Authorities were looking for a low-cost and effective way of continuing education. In this situation, the government brought up the concept of online learning to continue the delivery of educational services. Even though online learning is the best solution to overcome the issue, groups of students and teachers face enormous

challenges due to widened inequalities in accessing online education, specifically in rural parts of the country. (Chandasiri, 2020)

Online learning

Online learning is a method that converts the traditional learning system into a new technological form in which the physical method of education has been transformed into the virtual method. Online learning does not necessarily need to be always in real-time, as recorded sessions could be made available through a learning management platform for the students to access at another time after the class (Nafrees et al., 2020).

Online learning could be delivered by different available tools through which classes can be efficiently continued online or offline. Such tools include Moodle, Zoom, Google Classroom, and YouTube. Online content could be downloaded and later referred to even when offline with platforms like Moodle and YouTube. Also, some new tools or systems are available and used in World Bank collaborations, like Educ.ar and Eduthek, which are also in use in many countries for online learning (Nafrees et al., 2020)

A virtual classroom is an alternative method of teaching and learning that is well suited to the current situation of the COVID-19 pandemic. Virtual classrooms could be implemented using online platforms (Mojibur, 2020) to assist learners in continuing home education. The inability to function as usual led to an academic gap. Therefore, educational institutes had to cover the academic gap and manage the academic crisis with the help of virtual classrooms (Fawaz & Samaha, 2021).

Online learning is a method of learning or education where students use internet-accessible devices (smartphones, laptops, computers, tablets) to study while staying away from academic institutions (Mojibur, 2020). Online learning was adopted internationally while forcing educational institutes to use online learning platforms in order to continue with academic work as the governments temporarily ceased face-to-face or physical lectures and restricted students' attendance at schools, colleges and universities. All the educational institutes including private as well as public institutes had to shift the academic work into virtual classrooms (UNESCO, 2020b). Virtual classrooms provide the ability for the students and the instructor (teacher or lecturer) to interact and fulfil the learning outcome of the curriculum remotely from home. Educational institutes have planned online learning to fulfil curricular demands so that proper learning methods can be accomplished by providing assignments, presentations, reports, and exams through an online platform (Akpınar, 2021). Online learning, therefore, builds up positive perceptions in students because of the availability of technological information, the convenience of distance learning, and online assessment methods (Nafrees et al., 2020).

Even though online learning provides many advantages to students in the current situation, students may also feel a certain amount of dissatisfaction with online learning procedures. Dissatisfaction can be due to technology difficulties. A few reasons for the dissatisfaction with online learning due to technology difficulties were insufficient access and availability of the internet, lack of the latest technology, telecommunication infrastructure and frequent disconnection during the class, which caused the students to leave and rejoin the session, loss of data and power cuts. These can even put students in a condition where they cannot catch up with the class or even the online exams (Fawaz & Samaha, 2021)(Ullah et al., 2021)

Dissatisfaction could be due to defects in educational institutes because of heavy workloads, loads of email, lack of resources in academic institutes, and lack of proper interaction with lecturers. Some educational institutes rushed to complete academic work. This ends up providing the students with

many assignments and requirements to cover syllabuses, making students stressed and unable to cope with a heavy workload (Fawaz & Samaha, 2021).

A study in Pakistan reported five main reasons for the challenges students and teachers face during online learning. They have stated the first reason as sudden adaptational difficulties faced by the students due to the trend of shifting from the traditional classroom to the virtual classroom, as it was their first experience with online learning. The second reason is network connection issues they face due to fewer internet connecting facilities found in some parts of the county (mainly rural areas); the students who use mobile internet receive poor internet signal, face connecting difficulties and the expense of the internet packages. The third reason is technological issues such as poor knowledge of smartphones, computers and laptops and a lack of experience using e-learning apps (zoom, Google Chat). The fourth reason was difficulty in time management as some e-learning apps (e.g., zoom) have limited meeting time, causing the students to have a hard time responding to the class due to some interruptions when students join in the middle of the class; they have the chance to understand a little. The fifth reason is teaching difficulty due to the inability to manage feedback from every student and letting students engage in the lecture materials (Ullah et al., 2021). Therefore, this causes negative perceptions in students, mainly with internet connectivity issues, device compatibility, unadopted nature of technological tools, lack of immediate response from the lecturers or instructors, poor technical knowledge, poor planning of online lectures and the expense of the internet.(Nafrees et al., 2020)

Although lockdowns and social distancing helped control the virus's spread, it had adverse effects on education. According to the data provided by UNESCO to illustrate COVID-19's impact on the educational system, a total school closure in Mongolia affected 883,005 students in early 2020. By May 2020, data indicated 738,740,599 students were affected in 148 countries due to country-wide closure from preprimary level to upper secondary levels of education. (UNESCO, 2021).

According to updated data of February 2022 in 6 countries, 43,518,726 students were affected due to island-wide closure (Nepal, Uzbekistan, Philippines, etc). Amidst COVID-19, schools in major countries have been opened despite the spread of the omicron variant by adhering to health precautions and vaccination programmes (UNESCO, 2022).

Methodology

A literature search was done using Google Scholar and Pubmed. Articles were searched using keywords such as "COVID-19, Online Learning, Academic Stress, Stress coping strategies, Sri Lanka." Articles were searched from 2019 to 2023. Grey literature was also considered for this study.

Results and Discussion

The current educational system followed by Sri Lanka universities

Sri Lanka is a country that has been following a free education system that provides free education to the citizens from primary level to university level for several decades (with the establishment of free education in 1943). Free education is mainly supplied by state educational institutes (public schools, universities and campuses). However, the Sri Lankan education system combines state and non-state (private) educational institutes that could be selected according to personal choice (Haththotuwa & Rupasinghe, 2021).

In Sri Lankan, data related to student participation in tertiary level education supplied through UNESCO indicates a gross enrolment ratio of 21.1% before the pandemic (2019) while 21.6% in 2020 (UNESCO, 2020a)

Sri Lanka is a country that has been conducting higher education mainly through traditional methods for many years until the emergence of the COVID-19 pandemic. Online learning is, therefore, a new experience for undergraduates and university staff members, as they practised mainly face-to-face delivery of instruction with limited online learning opportunities   (Haththotuwa & Rupasinghe, 2021).

Sri Lankan university had the basic ICT (information communication technology) assistance for the daily university work even before the pandemic. University announcements, lecture materials, additional notes and student assignments have been shared using popular platforms like University LMS, Google platform (Google Drive, Google Classroom, Gmail), WhatsApp, Viber, and Messenger. However, incorporating a fixed proportion of online instruction was not a feature in the university system in the pre-COVID era(Haththotuwa & Rupasinghe, 2021).

On a positive note, it can be reported that Sri Lankan educational institutes responded to the challenge and adapted well to the online mode of instruction delivery within a short period. University system adaptation to online learning could be proved with research conducted in Sri Lanka during the pandemic. A study in Sri Lanka covering 46 state and ten non-state higher educational institutes indicated that more than 90% of the state and non-state institutions carried out distance learning primarily through online platforms during the pandemic (Hayashi et al., 2020). Another recent study conducted in Sri Lanka covering 909 university students in both private and public universities indicates that 71% of university students used online learning during the COVID-19 pandemic through learning platforms, 69.4% through university LMS and 63.8% through Zoom (Haththotuwa & Rupasinghe, 2021).

In another study conducted on 1376 undergraduates in three public universities in Sri Lanka (University of Sri Jayewardenepura, University of Ruhuna and Rajarata University), 90% of respondents were satisfied with online learning (Hettiarachchi et al., 2021).

Academic stress
Stress found in university students arises from factors of academic and nonacademic basis (like socio-cultural, environmental and psychological attitudes) (Bedewy & Gabriel, 2015). Stress levels enhanced in some students together with anxiety symptoms, which could be seen prominently during the examination period. University students mainly experience stress due to academic factors, together with physical, social, and emotional stress (Bedewy & Gabriel, 2015).

Academic stress is termed bodily responses against academic-related demands that exceed students' capability of adapting. Academic stress, as the word implies, is the stress students face during their academic careers (Alsulami et al., 2018). Students might face academic stress due to certain factors such as scholarship requirements, family-related pressure, competition in the class and course-related stress and financial burdens (Misra & Castillo, 2004)(Chandra, 2021).

The perception of academic stress could impact the students in different ways, such as difficulty in sleeping, well-being issues, psychosomatic complaints, worrying about, difficulty choosing a career option decision, comorbid conditions (anxiety and depression), inability to manage coursework in some situations affecting on students (Izzati et al., 2020).

Studies have been done to evaluate the academic stress experienced by university students while conducting their academic activities through online platforms during the COVID-19 pandemic. (Al-kumaim et al., 2021; Chandra, 2021). In Malaysia, a study shows that 69.5% of university students feel overloaded during course follow-up, and 71.4% responded that having too many online tasks is the primary source of feeling overloaded. This study also indicated that 67% of students felt stressed during

the COVID-19 pandemic, while 62% reported pressure from having too many online tasks to complete (Al-kumaim et al., 2021). In India, a study conducted on 94 students pursuing undergraduate and postgraduate education from two cities, Ahmedabad and Mumbai, shows that 58.5% of students showed dissatisfaction towards current online learning. This study's perception of academic stress indicated a mean of 58.2, a median of 57.0 and a standard deviation of 6.88 (Chandra, 2021). To combat stress due to online learning, coping strategies are reported in the literature.

Coping strategies associated with Academic Stress in Undergraduate Education

Depending on which coping behaviours a person chooses, there can always be a crucial impact on his or her stress (Besse et al., 2022). A study done where students engage in what is called a sad passivity coping style (Van Buskirk & Duke, 1991) involves binge eating, crying, oversleeping, or even simply doing nothing at all. These types of coping strategies are not surprising since individuals who feel stressed are much more prone to several negative cognitive biases in regard to a person's abilities and skills (Besse et al., 2022)

Take breaks from watching, listening to, and reading the news since it can sometimes be upsetting and worrying. Taking care of your well-being and body by eating healthy, getting the amount of sleep required, getting breaks whenever you feel stressed out during online learning, meditation, and breathing exercises are also great ways to deal with stress, avoid the consumption of drugs and alcohol since these can not only cause more problems but also increase the stress a person is already feeling (CDL, 2021)

To thrive in isolation when feeling stressed is by finding different ways to relax and connect with family and friends with the help of using social platforms, like making it a routine to check up on others since it would make it easier to socialise and reach out whenever feeling down, find unique things that you might enjoy because occupying your time will stop you from focusing on the feelings of loneliness such as excising at home, meditation, listening to audiobooks, podcast, and so forth. The traditional telephone is another option to maintain social relations while keeping physical distance.

Moreover, you can even join an online community to vent how you are feeling or contact other support and helpline groups where you will be offered advice and cover other mental issues.

Conclusions and Recommendations

COVID-19 has hit worldwide, including Sri Lanka, and has affected undergraduate education. Since no face-to-face teaching-learning methods are possible, a rapid shift was seen towards online education. Due to the rapid move towards online education, academic stress was seen among students due to technological difficulties and adaptation to online learning. So, coping strategies are needed to reduce academic stress and continue education.

Very few studies on academic stress and online learning were available. Since mental health is essential to continuing education, more studies are recommended to study academic stress and find new teaching-learning methods to continue education relatively stress-free.

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