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FACTORS AFFECTING THE LEVEL OF STRESS AMONG UNDERGRADUATES IN SRI LANKA WITH SPECIAL REFERENCE TO COVID-19

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ABSTRACT

To combat the rapid spread of COVID-19 infections universities and higher educational institutes in Sri Lanka had to suspend all on campus activities and had to transfer into online learning. This resulted in a swift change in undergraduates' life style and they had to face many new challenges in their academics which created severe mental pressure. Therefore, the objective of the research is 'to assess the factors influencing the level of stress among undergraduates in Sri Lanka'. The study looks into this mental pressure in terms of the stress levels of undergraduates which is considered to be the dependent variable whereas their online learning experience and university workload are the independent variables. The study takes a quantitative research approach as its primary data is collected through an online questionnaire created from Google Forms and answered by 384 undergraduates. The questionnaire provided data on the online experience and university workload variables and it included the DASS-21 scale (Depression Anxiety and Stress Scale) which measured the stress level of the undergraduates. Descriptive statistics was conducted on the data through the Microsoft Excel. Based on the data analysis, it was found that the stress levels of undergraduates were; 3% normal, 20% mild, 36% moderate, 21% severe and 20% extremely severe. Therefore, it could be said that 41% of undergraduates faced high stress levels that were beyond what is regular and it negatively affected to the way how they could face challenges and carry out their day to day lives. It should be noted that undergraduates appeared to have much higher stress levels as a result of the pandemic.

Key Words: COVID-19, Online learning facilities, Undergraduates, University workload, Stress

1. Introduction

The novel coronavirus (COVID-19) outbreak has rapidly evolved since it was first detected in Wuhan, China, in December 2019. The COVID-19 pandemic has hit hard on communities and economies all over the world. Globally, around 214 million confirmed cases including 4.5 million deaths were reported as of 26 August 2021. With mutations of the virus emerging as waves that are highly contagious, the high hospitalization and death rates too have surged, and travel restrictions and lockdowns were imposed from time to time in Sri Lanka. As a result, universities and higher education institutes had to temporarily suspend campus activities specially education delivery and thereby transitioning from physical classroom-based education to virtual learning.

Due to these circumstances, the undergraduates faced many new challenges and had to suddenly adapt to new ways, thus step out of their comfort zones and regular lifestyle. These included heavy workload, difficulty in comprehending subject matters due to loss of face-to-face teacher-student interactions, worrying about semester grades, laptop breakdowns, unstable internet connections, having to share devices with others, electricity interruptions, and the high costs of using devices and internet. All in all, this situation posed additional burdens on students, significantly increasing their stress levels. These challenges faced by the students in online education during the COVID-19 pandemic have a strong and negative influence on mental health issues among the students.

One commonly experienced mental health issue by university students is stress, which is mostly due to worrying of students about loss of grades and the fear of failure (AlKandari, 2020). Fear of lower performance and delay in completion of studies are also reasons to create further stress among students during the pandemic. Emerging problems during the COVID-19 outbreak, such as conflicting family schedules, changes in eating and sleeping habits, separation from friends and loneliness, lack of social life and fellowship among students, having to cope with 'everything by themselves' due to social distancing may have adverse effects on university students mental wellbeing, affecting their academic achievements as well.

The World Health Organization (WHO) (2021) defines stress as "the reaction people may have when presented with demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope." Stress is intense and goes on for some time, and it can lead to mental and physical ill health (Deakin University, 2019). Stress is a common sentiment experienced by all individuals, however its levels and ways in which they are affected varies based on aspects such as age and social & cultural background. Moreover, to a certain extent, stress can create a positive impact in stimulating human minds, their activities and in enhancing their potential. Recent studies have also found that perceived stress was associated with low quality of life and premature death. With the expansion of globalization and intensifying competition, specially with new normal conditions like online learning, work from home etc., stress has become an increasingly important occupational health problem. Hence, it could be said that students in schools, undergraduates and employees have to manage the stress at various levels based on their environment.

The widespread outbreak of COVID-19 virus has brought not only the risk of death but also major psychological pressure with long term effects. Despite its mental health

impacts, no detailed study on the psychological impacts of university students facing the pandemic has been conducted (Aylie et al., 2020). Hence, a research gap exists in this regard in the local context. As noted previously, the factors which lead to stress among undergraduates such as online learning facilities and university workload badly affected the mental wellbeing of students due to the COVID-19.

Therefore, the research problem of the present study was to investigate the factors affecting stress levels of undergraduates who are severely affected from the COVID-19. Based on this the research question was “what are the factors affecting the level of stress among undergraduates due to COVID-19?”.

As such, the aim of the study is to determine the factors effect on students’ level of stress due to the COVID-19. The purpose of this study is to identify the factors, which influence the stress among undergraduates.

Accordingly, the research objective was to identify the factors affecting the level of stress among undergraduates in Sri Lanka. Therefore, the scope of this research focused the undergraduates of state and non-state universities and higher educational institutes in the country. The study examined the factors influencing the stress levels of undergraduates as the dependent variable; and online learning facilities and university workload were considered as independent variables. The undergraduates considered for the sample were those enrolled in these universities in the year 2020.

2. Literature Review

The novel Corona Virus Disease (COVID-19) was first identified in Wuhan, China in December 2019 and preceded to spread to all the continents in the world, and to over 221 countries and territories within the year 2020. On the 11th of March 2020 the World Health Organization declared COVID-19 as a pandemic reflecting the critical situation (UNICEF, 2020). Infectious disease outbreaks that are novel can result in a unique crisis due to the high level of uncertainty about the disease. This will understandably affect individuals’ emotional and mental health and wellbeing even among those who have not been directly exposed to the disease. Reactions to a crisis can appear very different from person to person and can occur at any time (North western University, 2021).

Campbell (2006, as cited in Bataineh, 2013) defined stress as an adverse reaction that individuals manifest when they encounter excessive pressure or other types of demands placed on them. Chandra (2020) states, as students experience a high level of stress arising from unprecedented academic pressure, most of them report experiencing low self-esteem, a poor concentration that has its impact on their academic performance. The perception of academic stress is creating a very negative impact on their well-being, their decision to choose career options, sleeping difficulties, psychosomatic complaints, worrying about future, comorbid conditions like anxiety and depression, inability to manage course workload etc. A study conducted by Son et al., (2020) in the United States found more than half of the participants (54%) indicated their academic workload has increased as a result of COVID-19, and nearly half (48%) thought it would be necessary to increase their own efforts to catch up with online classes and class projects given the lack of in-person support from instructors or teaching assistants. Further, about one-third of the participants (31%) thought that assignments had increased or became harder to do during this time.

Based on a survey conducted by Asian Development Bank (2020), it was noted that out of the students from higher educational institutes in Sri Lanka only 83% of lowest income quintile (family monthly income < LKR 29,000) had access to online learning as opposed to 97% of students who belonged to the highest income quintile (family monthly income > LKR 100,000) (Hayashi et al., 2020). All internet service providers in Sri Lanka provided free access to university web servers during COVID-19 until 17 August 2020, boosting online education. But most students still had concerns over affordability and stability of internet access. Mobile broadband was used by 78% of students in state, and 69% in non-state institutions. Almost half of surveyed students responded that mobile data plans were not affordable, or somewhat affordable. Poor internet connection was the top challenge faculty and students faced during online learning (Hayashi et al., 2020).

An upward tendency of stress prevalence from the first year to the final year was seen. It was found that, heavy academic workload, large number of contents to be learnt, examinations, lack of time to review what have been learnt, getting poor marks, assignments, lack of time for family concerns and having difficulty of understanding contents were the major stressors ranked by university undergraduates (Weerasinghe et al., 2012).

3. Methodology

3.1 Conceptual Framework

This section consists with brief discussion on the conceptual framework developed for the study with the operationalization of selected variables.

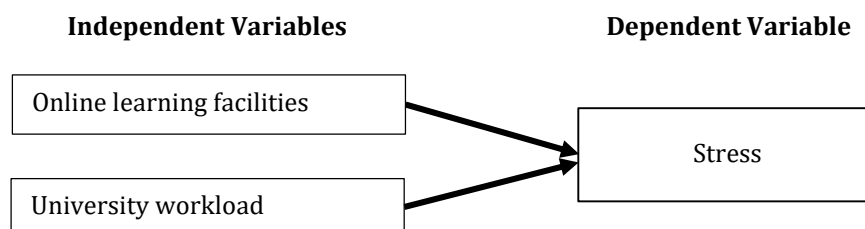


Figure 1: Conceptual Framework

Source: (Author's compilation)

3.2 Research Design

This study adopts a quantitative research approach as it takes into consideration values that are numerical and quantitative in nature. Primary data was obtained through an online questionnaire that was created through Google Forms and was distributed to the sample. The questionnaire provided information on the two independent variables online learning facilities and university workload. The DASS-21 scale (Depression Anxiety and Stress Scale) which is a standardized measure was used to determine the stress level of undergraduates based on the dependent variable. The data was analysed through the Microsoft Excel and the data analysis method was Descriptive statistics.

In terms of time horizon of the research, this is a cross-sectional study as the data was collected based on a specific period in time, which was the year 2020. Thus, the respondents were instructed to answer the questionnaire based on their experiences

within January to December 2020 which was when they had to initially begin getting affected by the COVID-19 pandemic and having to adapt to the new normal.

Further the unit of analysis of this study were the individual undergraduates. The population was considered to be undergraduates of all universities and higher educational institutions in Sri Lanka who were enrolled during 2020, since the aim of the research is to determine the effect on students' level of stress due to COVID-19. Undergraduates of all years, that is, first year to fourth year are part of the population. As per the University Grants Commission (2020) Sri Lanka had around 130,000 undergraduates however a reliable number for 2020 that considers all universities and higher educational institutes could not be found. Therefore, as a definite population size could not be found the Morgan's table was referred to in order to determine the sample size which was 384 undergraduates. The selection criteria followed for undergraduates was that they had to be enrolled in in state and non-state universities or higher educational institutions in Sri Lanka in the year 2020. Further, the convenience sampling was used to select the 384 individual undergraduates who would be participating for the online questionnaire.

4. Analysis and Discussion

Data was collected through a questionnaire given to 384 undergraduates from both state and non-state universities, in order to gain an understanding on the online learning experience and university workload variables. In addition, the DASS-21 scale was included in this questionnaire to determine the stress levels of the sample. Analysis was conducted on the data gathered and the results are given below.

Table 1: Stress Level of Sample

Stress Level	Count	Percentage
Normal	12	3%
Mild	77	20%
Moderate	139	36%
Severe	80	21%
Extremely Severe	76	20%
Grand Total	384	100%

Source: Authors Compilation

This table shows the stress levels of the sample as normal, mild, moderate, severe and extremely severe. Therefore, it was found that 3% (12) were normal, 20% (77) were mild, 36% (139) were moderate, 21% (80) were severe and 20% (76) were extremely severe. Accordingly, 41% of undergraduates had some severe level of stress that could hinder their day to day lives and they would face difficulties in managing their challenges including academic activities.

Table 2: University Workload and Online Learning Experience of all Undergraduates

University workload of all undergraduates				
Question	Agree	Neutral	Disagree	
1. I am spending a lot of time thinking about how this semester's grades could negatively affect my educational and career goals	69%	22%	9%	
2. I am worrying a great deal about the effect this semester's grades will have on my future	67%	26%	8%	
3. I find myself very concerned about the grades I am likely to receive this semester	70%	26%	4%	
4. I had increased workload compared to previous days	75%	20%	5%	
5. I had more difficulties in understanding subject matters	66%	28%	6%	
Online learning experience of all undergraduates				
Question	Agree	Neutral	Disagree	
1. I had to share my device with family members	53%	21%	27%	
2. I had unstable network connections	71%	23%	6%	
3. I had high cost for using devices and internet	67%	28%	5%	
4. I had troubles with using computers (slow, getting stuck)	64%	26%	10%	
5. I had inadequate skills in using IT software and hardware	50%	30%	20%	
6. I had issues with uninterrupted electricity	74%	18%	8%	

Source: Authors Compilation

Based on the table above, 69% of undergraduates stated they spend a lot of time thinking about how this semester's grades could negatively affect their educational and career goals whereas only 9% disagreed with this statement. Similarly, when asked about whether they were worrying a great deal about the effect this semester's grades will have on their future 67% agreed to this while only 8% of the sample felt differently.

Further, a majority of students at 70% found themselves be very concerned about the grades they are likely to receive this semester. However, 26% were neutral on this aspect and 4% did not have a similar experience. Many undergraduates (75%) stated they had increased workload compared to previous days when they did not have online lectures and would take part in academic activities. On the other hand, 5% had reduced workload and 20% found that there was not much of a change in their workload during 2020. Due to the sudden changes in the medium of learning and with less student-teacher interactions 66% of undergraduates had more difficulty in understanding subject matters, while 28% felt neutral on this and 6% felt differently. Based on the above table, 53% of undergraduates had to share devices with their family members whereas only 27% disagreed with this statement. Similarly, when asked about whether they had unstable network connections 71% agreed to this while only 6% of the sample disagreed with this. 67% of the participants had to bear on high cost for using devices and internet whereas only 5% disagreed with this statement. Similarly, 64% of undergraduates stated that they had troubles with using computers and very few (10%) had no troubles with using computers. Further, half of the students (50%) stated that they had inadequate

skills in using IT software and hardware. However, 30% were neutral on this and only 10% did not have adequate skills on using IT software and hardware. Many undergraduates (74%) stated that they had issues with uninterrupted electricity whereas a few of them (8%) had no issues with uninterrupted electricity.

5. Conclusions and Implications

With the transition onto virtual learning as a result of various restrictions imposed that caused the universities to close down, a major increase in stress was seen among the undergraduates. The aim of the study was to determine the factors effect on students' level of stress due to the COVID-19. When it comes to online learning experience and university workload it was found that many undergraduates had faced more challenges in terms of IT capabilities and infrastructure (50%), increased workload (75%) and they were more worried about their semester grades and how the grades would affect their future. It was also found that undergraduates appeared to have 41% of severe and 36% of moderate stress levels as a result of the pandemic. Finally, a comparison between state and non-state university undergraduates were not conducted, and only considered online learning experience and workload were considered. Therefore, future researches can focus on these areas.

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